

M. Kelsey Lane

A scientist and educator dedicated to ocean research, pursuing a career in marine science.

EDUCATION

Oregon State University Corvallis, OR	Ph.D. Ocean Ecology & Biogeochemistry Minor: Graduate Certificate in College & Undergraduate Teaching	2024
	M.S. Marine Resource Management Research areas: Planktic Foraminifera, Culturing Foraminifera, Microbial Ecology GPA: 3.96	2018- 2020
Sea Education Association Woods Hole, MA	SEA Semester on Sustainability in Polynesian Islands, Cultures and Ecosystems	Spring 2011
Brown University Providence, RI	B.A. Geology-Biology GPA: 3.6	2010

TEACHING EXPERIENCE

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| Oregon State University Teaching Assistant | 2021 – 2022 |
| <ul style="list-style-type: none">• eOC103: Exploring the Deep/Geography of the World Oceans (e-campus)• eOC201: Oceanography (e-campus) | |
| Terra.do Climate School, Palo Alto, CA | 2020 – 2022 |
| <ul style="list-style-type: none">• Climate Instructor: Online instructor for three cohorts of Learning for Action, ~25 adult learners looking to transition into the climate sector. Lead weekly climate labs and mentored individuals. Taught climate science sessions for the larger cohort ~150 fellows. | |
| Sea Education Association, Woods Hole, MA | Summer 2021 |
| <ul style="list-style-type: none">• Chief Scientist/Oceanography Faculty: Instructor for two 300-level and one 200-level, 4-credit courses in oceanographic research and ocean science for the 2021 summer semester with 17 undergraduate students. Planned cruise track, science plan and mentored student projects over 6-week cruise into the North Pacific Gyre. Supervised three Asst. Scientists. | |
| Sea Education Association, Woods Hole, MA | 2013 – 2018 |
| <ul style="list-style-type: none">• Assistant Scientist: Taught oceanography, sailing, watch operations to undergraduates during six-week sea semester programs aboard the <i>SSV Robert C. Seamans & Corwith Cramer</i>. Taught semester programs Ocean Exploration, Oceans & Climate, Sustainability in Polynesian Islands and Ecosystems, Colonization to Conservation in the Caribbean, Global Oceans, Phoenix Islands Protected Area Expedition.• Teaching Assistant: Assisted in Marine Biodiversity and Conservation program, including lecturing and advising. Provisioned and ran the molecular lab – DNA extractions, PCR, gels, nanodrops, budgeting. | |

Camp Orkila Teen Leadership Program, Orcas Island, WA Summer 2013

- **Sailing Instructor:** Led 5–10-day teen sailing expeditions focused on leadership development.

Salish Sea Expeditions, Bainbridge Island, WA Sept 2012 – Jun 2013

- **Program Coordinator:** Managed and delivered a ship and classroom-based watershed science curriculum in ten local schools culminating in a regional science symposium.

Sound Experience aboard the *Schooner Adventuress*, Puget Sound, WA Mar – Jul 2012

- **Deckhand/Educator:** Taught environmental science and sailing during 3-6 day trips.
- **Relief Program Coordinator:** Facilitated the educational program 6-8 days a month.

RESEARCH EXPERIENCE

Oregon State University Research Assistant Sept 2018 – present

- **Graduate Fellow:** Studied modern planktic foraminifera microbiome associations and community assemblages using geochemical and molecular techniques.
- **Mentoring:** Mentored and supervise 2-3 undergrad research assistants.
- **Fieldwork:** Participated and conducted independent research on multiple 5–12-day research cruises and during two month-long field seasons: one in Taiwan and one on Catalina Island, CA.

Sea Education Association, Woods Hole, MA 2013 – 2018

- **Assistant Scientist:** Managed and facilitated oceanographic deployments, processing, lab operations and maintenance. Supervised lab operations and training of new scientists, working with Chief Scientist.
- **Interim Science Coordinator:** Managed the science staff and scheduling. Responsible for research clearances and reporting. Coordinated oceanographic equipment maintenance.

NOAA *Okeanos Explorer* Explorer-in-Training Internship Aug, Nov 2017

- **Intern:** Operated and processed data from sonar systems: multibeam, EK60 and sub-bottom profilers.
- **Watch stander:** Participated in two cruises; one via telepresence and one on the ship.

The SAPPHIRE Project, Kona, HI Spring 2011

- **Research Assistant:** Boat-based surveys, focal follows, acoustic logs and analysis of spinner dolphin populations studying impacts of tourism industry.

NOAA Rocky Intertidal Biodiversity Survey, Homer, AK Summer 2009

- **Hollings Intern:** Conducted biodiversity surveys of intertidal algal and invertebrate biodiversity. Presented conclusions to the research reserve and NOAA Science Symposium.

Dr. Mark Bertness Lab, Brown University. Summer 2008

- **Research Assistant:** Studied herbivory-driven marsh die-offs; extensive fieldwork.

PUBLICATIONS & PRESENTATIONS

- Lane, M.K.**, Fehrenbacher, J.S., Fisher, J.L., Fewings, M.R., Crump, B.C., Risien, C.M., Meyer, G.M.L., Schell, F. (in prep.) Marine heatwaves reshape the planktic foraminifera community.
- Lane, M.K.**, Fehrenbacher, J.S., Fisher, J.L., Fewings, M.R., Crump, B.C. “A new record of planktic foraminifera community response to marine heatwaves in the Northeast Pacific.” Poster. Geological Society of America. Virtual. 28 October 2020.
- Lane, M.K.**, Fehrenbacher, J.S., Fisher, J.L. “A Tropical Tale: Influence of the Warm Blob on the Planktic Foraminifera Community off the Oregon Coast.” OB53A-05A. Oral presentation. Ocean Sciences Meeting. San Diego, CA. 16-21 February 2020.
- Lane, M.K.**, Fehrenbacher, J.S., Fisher, J.L. “The return of the marine heatwave and the impacts on the plankton community off the Oregon Coast.” Poster. State of the Coast. Salishan, OR. 9 November 2019.
- Lane, M.K.** “Telepresence Mapping: A model for training and outreach in ocean mapping.” 308749. Poster. Ocean Sciences Meeting. Portland, OR. 11-16 February 2018.
- Lane, M.K.** (2017), Final report for SEA Cruise C270D. Sea Education Association, Woods Hole, MA. Available at www.sea.edu.

AWARDS AND HONORS

- Loeblich and Tappan Student Research Grant, Cushman Foundation 2022
- Oregon Sea Grant Science Communication Fellowship 2021-2022
- The Kenneth and Adrienne Sexton Graduate Student Support Scholarship 2020
- ARCS Foundation Scholar 2019 - 2022
- National Science Foundation Graduate Research Fellowship 2018 - 2023
- Oregon State University Provost’s Distinguished Fellowship 2018 - 2019
- Sea Education Association Presidential Scholarship 2011
- 1st place Presentation, NOAA Summer Science Symposium 2009
- NOAA Ernest F. Hollings Scholar 2008 - 2010

SERVICE AND OUTREACH

- DEI Committee Member, CEOAS Association of Graduate Students 2022 – present
- Scientist, Oregon Marine Scientist and Educator Alliance, STEM Hub 2021 – 2022
- Co-Founder and Organizer, CEOAS Chronicles Blog 2020 – 2022
- Keynote Speaker, OSU Salmon Bowl National Ocean Science Bowl 2022
- Outreach Chair, CEOAS Association of Graduate Students 2020 – 2021
- Co-President, Womxn in Science, Oregon State University 2019 – 2021
- Participant in the NSF URGE (Unlearning Racism in the GEosciences) Initiative 2021
- Outreach Chair, CEOAS Association of Graduate Students 2020 – 2021
- National Ocean Science Bowl Volunteer Game Official 2018 – 2021
- MRM Discipline Representative, CEOAS Association of Graduate Students 2019 – 2020
- Newsletter Co-Editor, Womxn in Science, Oregon State University 2018 – 2019

LEADERSHIP

- **Mentorship:** Mentored and managed three undergraduate researchers in the lab and in the field, including them as co-authors on publications, writing recommendation letters, and sharing research opportunities.

- **Program Management:** Managed lab operations, reporting, troubleshooting, training. Supervised 3-5 employees and 15-24 undergraduate students. Instructor on record for three semester long courses.
- **Expedition Leadership:** Led outdoor, experiential education programs ranging from sailing in the San Juan Islands, WA to backpacking in the White Mountains, NH. Over 1000 days at sea: mostly oceanographic research cruises on research vessels, tall ships & sail boats in the Atlantic, Pacific, and Mediterranean Ocean. Participated in marine field seasons in Catalina Island, CA, Green Island, Taiwan, Cape Cod, MA, Kachemak Bay, AK, and Florida Keys, FL involving culturing plankton, driving skiffs, water sampling, plankton sampling, intertidal surveys, and marine mammal observations.
- **Medical Officer:** Primary caregiver and designated medical person-in-charge for 10-30 person crews in backcountry and offshore. Coordinated with contracted medical services to administer prescription medicines, antibiotics, and other advanced care under the direction of remote physicians.

RELEVANT SKILLS

USCG Merchant Mariner Credential Reference # 3610383: 100-Ton Inland Master, 200-Ton Near Coastal Mate, Able Seaman, Sail Endorsement, STCW. Capable at coastal navigation, rules of the road, watch standing, boat handling and sail handling.

Technical: Certified: AAUS Scientific Diver (certified 2021), PADI Rescue Diver, PADI Advanced & Open Water SCUBA, Wilderness First Responder (WFR, expired but maintained from 2010-2020), *Leave No Trace* Instructor, Swiftwater Rescue, Basic Safety Training, Leadership and Managerial Skills.

Computer: Proficient with: R Studio, Primer-e +PERMANOVA, Ocean Data View, Seabird SBE Data Processing, Adobe Photoshop, Adobe Illustrator, Zotero, Microsoft Office Suite. Some experience with: Python, GitHub, Geneious Prime, GIS ArcMap, QGIS, WinADCP, VmDas, Fledermaus, Qimera, Knudsen Software, Scientific Computer System (SCS) software.