

Lauren N. Rice

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Education:

- 2018 – 2024 **Ph.D., Biology**
Oregon Institute of Marine Biology (OIMB), University of Oregon
Advisor: Dr. Craig Young
Dissertation: Life Attached: Examining the Implications of Epibiosis on a North Pacific Cirripede and a Gulf of Mexico Seep Sabellid
- 2013 – 2017 **B.S., Marine Science** (Emphasis: Marine Biology; Minor: Earth Science)
University of Maine
Summa cum laude

Research Appointments:

- 2025 – present **Postdoctoral Researcher.** Florida State University. PI: Dr. Sandra Brooke
- 2019 – 2024 **Research Assistant.** University of Oregon. PI: Dr. Craig Young
- 2017 – 2018 **Research Technician.** University of Maine. PI: Dr. Rhian Waller
- 2014 – 2018 **Research Technician.** Resource Access International, LLC.
- 2014 – 2017 **Undergraduate Researcher.** University of Maine. PI: Dr. Paul Rawson

Leadership Experience:

- 2021 – 2022 **Co-director.** Oregon Marine Students Association, University of Oregon

Peer – Reviewed Publications:

- R.A. Beinart, S.M. Arellano, M. Chaknova, J. Meagher, A.J. Davies, J. Lopresti, E.J. Cowell, M. Betters, T.A. Ladd, C.Q. Plowman, **L.N. Rice**, D. Davis, M. Heffernan, V. Jimenez, T. Beaver, J. Becker, S. Bergen, L. Brunner, A. Calhoun, M. Hauer, A. Taradash, T. Giachetti, C.M. Young (2024). Deep seafloor hydrothermal vent communities buried by volcanic ash from the 2022 Hunga eruption. *Communications Earth and Environment* 5: 254. doi: 10.1038/s43247-024-01411-w.
- S. Rist, **L.N. Rice**, C.Q. Plowman, C.T. Fountain, A.E. Calhoun, C. Ellison, C.M. Young (2022). Reproductive biology of the bathyal asteroid *Ctenodiscus crispatus* in the NE Pacific. *Invertebrate Biology*. doi: 10.1111/ivb.12384.

- R.G. Waller, R.P. Stone, **L.N. Rice**, J. Johnstone, A.M. Rossin, E. Hartill, K. Feehan, C.L. Morrison (2019). Phenotypic plasticity or a reproductive dead end? *Primnoa pacifica* (Cnidaria: Alcyonacea) in the Southeastern Alaska Region. *Frontiers in Marine Science* 6(709). doi: 10.3389/fmars.2019.00709.
- L.N. Rice**, P.D. Rawson, S.M. Lindsay (2018). Genetic homogeneity among geographically distant populations of the blister worm *Polydora websteri*. *Aquaculture Environment Interactions* 10: 437-446. doi:10.3354/aei00281.

Publications Currently In Review:

- L.N. Rice**, M.A. Tovar-Hernandez, C.E. Ellison, C.M. Young. A new genus and species of feather duster worm (Annelida, Sabellida) from shallow hydrocarbon seeps in the Gulf of Mexico. *Biodiversity Data Journal*.

Selected Publications Currently In-prep:

- L.N. Rice**, C.M. Young. Patterns of distribution and reproduction in the epizooic barnacle *Solidobalanus hesperius* and their correlation with the life histories of their hosts.
- L.N. Rice**, S. Louca, E.E. Cordes, C.M. Young. Trophic niches and the associated microbial community for a newly described methane seep sabellid.
- L.N. Rice**, C.M. Young. Impacts of epibiosis on the reproductive patterns of a sabellid polychaete from Gulf of Mexico methane seeps.
- C.M. Young, **L.N. Rice**, C.Q. Plowman, A.E Calhoun, M. DePaolis, L. Basch, C.M. Young. Is reproductive seasonality in the deep sea driven by larval food availability? An experimental test with the bathyal echinoid *Strongylocentrotus fragilis*.
- C.Q. Plowman, **L.N. Rice**, C.T. Fountain, M.A. Janes, C.M. Young. Reproductive biology of *Pyrosoma atlanticum* colonies off the Oregon Coast.

Research Expeditions:

- 2022 R/V *Atlantis*: 3 weeks in the Gulf of Mexico and Western Atlantic Margin. **1 Alvin dive as chief observer.**
- 2022 R/V *Thomas G. Thompson*: 7 weeks in the Lau back-arc basin. **Jason watch lead. Led larval sorting efforts.**
- 2021 R/V *Oceanus*: 3 days on the Oregon continental shelf.
- 2021 R/V *Thomas G. Thompson*: 3 weeks in the Gulf of Mexico and Western Atlantic Margin.
- 2020 R/V *Endeavor*: 3 weeks in the Gulf of Mexico and Western Atlantic Margin.
- 2020 R/V *Atlantis*: 3 weeks in the Gulf of Mexico and Western Atlantic Margin. **1 Alvin dive as chief observer.**
- 2019 R/V *Oceanus*: 3 days on the Oregon continental shelf. **Co-chief scientist.**

2017 R/V *Alca I*: 2 weeks in the Gulf of Maine. **Research diver.**

Conference Contributions:

*Presenting author

- 2023 *Talk.* S.M. Arellano*, R.A. Beinart, M. Chaknova, D. Davis, V. Jimenez, I. Yueh¹, M. Heffernan, C.Q. Plowman, A.E. Calhoun, T. Beaver, J.S. Becker, S. Bergen, M. Betters, L. Brunner, E.J. Cowell, M. Hauer, T. Ladd, **L.N. Rice**, A.C. Taradash, LoPresti, A.J. Davies, Giachetti, C.M. Young. Deep-Sea Pompeii: Hydrothermal Vent Communities Buried by Ash from The Hunga Tonga-Hunga Ha'apai Volcanic Eruption. 7th International Symposium on Chemosynthesis-Based Ecosystems. São Paulo, Brazil.
- Poster.* **L.N. Rice***, S. Louca, C.M. Young. Microbial associations and nutritional resources for an epibiotic sabellid found at Gulf of Mexico methane seeps. 7th International Symposium on Chemosynthesis-Based Ecosystems. São Paulo, Brazil.
- Poster.* M.M. McCartha*, A. Van Gaest, C.Q. Plowman, **L.N. Rice**, R.A. Beinart, C.M. Young, S.M. Arellano. Investigating symbiont acquisition in deep-sea snails using fluorescence in situ hybridization. 7th International Symposium on Chemosynthesis-Based Ecosystems. São Paulo, Brazil.
- Poster.* M. Heffernan, Y. Enriquez, C.Q. Plowman, **L.N. Rice**, A.E. Calhoun, C.M. Young, S.M. Arellano*. Understanding a Unique Larval Form: A Study of the Warén's Larva. 7th International Symposium on Chemosynthesis-Based Ecosystems. São Paulo, Brazil.
- Poster.* L. Bonnet*, T. Thompson*, F. Gorman, **L.N. Rice**, C.Q. Plowman, C.M. Young. Reproductive ultrastructure in deep-sea abyssochrysoid gastropods from the Lau Basin. 7th International Symposium on Chemosynthesis-Based Ecosystems. São Paulo, Brazil.
- Poster.* C.T. Fountain, **L.N. Rice***, R.G. Waller, A. Simpson, C.M. Young. Methods for estimating the reproductive capacity of morphologically complex cold-water corals. 8th International Symposium for Deep-Sea Corals. Edinburgh, Scotland.
- 2021 *Poster.* A.E. Calhoun*, **L.N. Rice**, C.Q. Plowman, M. DePaolis, C. Sanchez-Reddick, L. Basch, C.M. Young. Does larval food availability explain the retention of seasonal breeding in bathyal echinoids? An experimental test of Crisp's Rule. 16th Deep Sea Biology Symposium. Brest, France.
- Poster.* **L.N. Rice*** and C.M. Young. Preliminary comparisons of reproductive output and isotopic signatures in a facultative hyper-epibiotic sabellid from methane seeps in the Gulf of Mexico. 16th Deep Sea Biology Symposium. Brest, France.
- 2017 *Poster.* P.D. Rawson*, **L.N. Rice**, S.M. Lindsay. Molecular and morphological analysis

of bivalve shell borers in the genus *Polydora* from the Eastern U.S. Society for Integrative and Comparative Biology.

Poster. **L.N. Rice***, P.D. Rawson, S.M. Lindsay. Genetic variation among U.S. Atlantic and Gulf Coast populations of the oyster blister worm, *Polydora websteri*. 10th Annual School of Marine Sciences Capstone Poster Conference. ***Awarded Best Overall Poster.***

Invited Seminars:

- 2023 Investigating how a feather duster worm uses a file clam as a host. **L.N. Rice.** Oregon Society of Conchology. Woodburn, OR.
- 2022 Adventures at Sea: Tales from a recent expedition to hydrothermal vents in the South Pacific. **L.N. Rice, C.Q. Plowman.** Oregon Institute of Marine Biology Seminar Series. Charleston, OR.

Grants and Scholarships:

- 2023 Donald E. Wimber Fund Award (\$2000)
- 2022 Oregon Society of Conchologists Scholarship (\$500)
- 2020 William R. Sistrom Memorial Scholarship (\$1000)
- 2018 University of Oregon First Year Merit Award (\$3000)
- 2013 – 2017 Captain Charles H. Wade Marine Sciences Fund (\$300)
- 2017 John H. and Bethel B. Dearborn Marine Sciences Fund (\$500)
- 2015 Marine Sea Grant Scholarship (\$1000)

Teaching Experience:

Courses Taught:

- 2022 Marine Biology: BI 357, University of Oregon; Co-instructor and lab lead

Teaching Assistantships:

- 2023 Ocean Planet: BI 150, University of Oregon; Instructor: Dr. Michelle Wood
- 2019 Estuarine Ecology: BI 454/554, OIMB; Instructor: Dr. Richard Emlet
- 2019 Marine Ecology: BI 474/574, OIMB; Instructor: Dr. Lisa Munger
- 2019 Marine Biology: BI 357, University of Oregon; Instructor: Dr. Lisa Munger
- 2018 Marine Conservation Biology: BI 457/557, OIMB; Instructor: Dr. Aaron Galloway
- 2017 Invertebrates of the Maine Coast: SMS 480, Darling Marine Center, University of Maine; Instructor: Dr. Rhian Waller

Invited Guest Lectures:

- 2023 Marine Symbiotic Relationships. BI 474/554 Marine Ecology; OIMB; Instructor: Caitlin Plowman

- 2021 Oases in the Dark: chemically driven habitats in the deep-sea. HC41H Unusual Oceanographic Events; University of Oregon; Instructor: Dr. Lisa Munger
- 2018 Mineral Extraction and the Deep-Sea. BI 457/557 Marine Conservation Biology; OIMB; Instructor: Dr. Aaron Galloway

In the News:

- 2022 *KVAL 13*: Students To Dedicate Microscope to Raymond Thiess.
- 2021 *Around the O Newsletter*: Research ship with OIMB staff and students rescues fisherman.
- 2018 *Cruising World*: Science and Sailing.

Professional Memberships:

- 2017 – present Phi Beta Kappa
- 2018 – present Deep-Sea Biology Society

Outreach:

- 2019 – 2023 **Grad School Q&A Panel.** Participated in question-and-answer panel about graduate school and post-graduation planning for REU interns. OIMB, University of Oregon
- 2021 **Display Case Design.** Organized and designed display case signs in Deep Sea Exhibit Room. Charleston Marine Life Center. Charleston, OR.
Pub Science Talk. Seeps in the Deep. C.Q. Plowman, **L.N. Rice**, A.E. Calhoun. Science pub talk at 7 Devil’s Brewery in Coos Bay, OR.
- 2019 **Pub Science Talk.** The Weird and Wonderful Homes of the Deep Sea. C.Q. Plowman, **L.N. Rice**. Science pub talk at 7 Devil’s Brewery in Coos Bay, OR.
- 2015 **Volunteer.** Helped set up, run, and introduce high school students to National Ocean Sciences Nor’Easter Bowl Competition hosted at the University of Maine.
- 2013 – 2015 **Marine Science Educator.** Introduced patients from Children’s Miracle Network Hospitals to local marine invertebrates at annual Black BearTHON hosted at the University of Maine.

Students Mentored:

- 2024 Honors Students: Parker Jung
Undergraduate Students: Ellie Mackey, Sarah Haugh, Elizabeth Wells, Adam Lambright, Gavin Wade, Christine Pearson, Matthew Thompson, Emmi Morton, Norlan West, Loïe Bonnet
- 2023 REU Intern: Tara Thompson

- Undergraduate Students: Marty McCamant, Loïe Bonnet, Emmet Gonzales, Katie Hurley, Jenna Young
- 2022 REU Interns: Flynn Gorman and Ytxzae Enriquez
- Undergraduate Students: Nadia Stoker, Anneliese Bishop-Perdue, Sarah Eldon, Jenna Young
- 2021 Honors Students: Gianna Paden
- Undergraduate Students: Emma Burke, Chase Kazzee, Jordyn Major, and Alexandra Urrutia
- 2020 Honors Students: Carmen Sanchez-Reddick and Jackson Hoeke
- Undergraduate Students: Lizzie Nelson-Harrington, Taylor Herman, and Kelsey Nelson
- 2019 REU Interns: Matthew Mullins and Kaylee Wilkinson
- Undergraduate Students: Serena McCoard, Kandace Wheeler, Tralee Chapman, Natalie Contreras, Mitchell Hebner, and Yiyi Li

Additional Skills:

Laboratory and Bench: Light microscopy, histology, ultramicrotomy, stable isotope sample prep and analysis, molecular work (extraction, PCR, gel electrophoresis), larval rearing, culturing, and identification, Electron Microscopy (Scanning, Transmission), invertebrate dissections, microbiome sampling and analysis

Software: Microsoft Office Suite, RStudio, ImageJ, Adobe Acrobat and Photoshop, CloudCompare photogrammetry analysis and visualization

At-sea and Field Work: Knot tying and line management, experience with HOV *Alvin*, ROV *Jason*, and AUV *Sentry*, SyPRID (Sentry Precision Robotic Impeller Driven) autonomous plankton sampler operation, CTD deployment, operation of moorings, dredges, and trawls, plankton tows, MOCNESS set up and deployment, inter- and subtidal transect surveys, CPR/First Aid (PADI), PADI Rescue Diver, AAUS Research Diver