

Lauren N. Dykman

Ph.D. Candidate in Biological Oceanography
Massachusetts Institute of Technology & Woods Hole Oceanographic Institution
ldykman@mit.edu
(508) 289-3759

RESEARCH INTERESTS

Benthic community ecology, disturbance and succession, parasite ecology, larval dispersal and connectivity, ecological resilience, metacommunities, restoration ecology.

EDUCATION

2016 **B.S., Biological Sciences**
University of California, Santa Barbara
Advisors: Armand Kuris and Kevin Lafferty
GPA: 3.9/4.0. Honors Program: Highest Honors

RELEVANT COURSE WORK

Biological Oceanography, Aquatic Communities, Deep Sea Biology, Larval Biology of Marine Invertebrates, Parasitology, Introduction to Mathematical Ecology, Resilience of Living Systems to Environmental Change, Computational Ecology, Functional Trait Ecology, Tropical Community Ecology, Introduction to Computation and Programming Using Python, Marine Chemistry, Observational Physical Oceanography, Applied Statistics, Calculus A-B, Linear Algebra, Differential Equations.

RESEARCH AND WORK EXPERIENCE

2019-2022 **Vent Parasite Project**
Compared the diversity and ecology of parasites at a frequently disturbed hydrothermal vent field to other marine ecosystems; biodiversity analyses, dissections, DNA extraction, PCR, gel electrophoresis, species descriptions, scientific illustration.

2017-2021 **Functional Traits at Deep-Sea Hydrothermal Vents**
Functional trait analysis of a successional vent invertebrate community; sorted colonists from settlement panels, microscopy, identified larvae, video analysis of swimming larvae, Python, R.

2016-2017 **Cheadle Center for Biodiversity and Ecological Restoration**
Managed 40 acres of restored open space at UCSB; directed volunteers and interns, instructed field courses, wrote progress reports, eradicated invasive plants, collected and propagated seeds, monitored community diversity.

- 2014-2017 **Parasite Ecology Group, Kelp Forest Food Web Project**
Assisted with the assembly of a kelp forest food web including parasites; collected specimens using SCUBA, dissected fish and invertebrates, analyzed the densities and parasite infection rates of small gastropods.
- 2014-2016 **AAUS Scientific Diver**
Logged 48 scientific dives for UCSB, collected fish and invertebrates, replaced wave sensors for the USGS, conducted transect surveys.
- 2014-2015 **Coal Oil Point Reserve, University of California Reserve System**
Education and outreach for conservation of endangered snowy plovers, restoration of native coastal shrub habitat.
- 2014 **Santa Barbara Coastal Long Term Ecological Research**
Sorted kelp forest invertebrate samples from the Channel Islands, California.

PUBLICATIONS

- 2021 **Dykman, L.N.**, Beaulieu, S.E., Solow, A.R., Mills, S.W., and Mullineaux, L.S. (2021) Functional traits provide new insight into recovery and succession at deep-sea hydrothermal vents. *Ecology* e03418 <https://doi.org/10.1002/ecy.3418>
- Morton, D.N.**, Antonino, C.Y., Broughton, F.J., Dykman, L.N., Kuris, A.M., and Lafferty, K.D. (2021) A food web including parasites for kelp forests of the Santa Barbara Channel, California. *Sci Data* 8:99 <https://doi.org/10.1038/s41597-021-00880-4>
- 2020 **Mullineaux, L.S.**, Mills, S.W., LeBris, N., Beaulieu, S.E., Sievert, S.M., and Dykman, L.N. (2020) Prolonged recovery time after eruptive disturbance of a deep-sea hydrothermal vent community *Proc. R. Soc. B.* 287:20202070 <http://doi.org/10.1098/rspb.2020.2070>

PRESENTATIONS

- 2021 Discovering the Complex Life Cycles of Deep-Sea Hydrothermal Vent Parasites. Deep Sea Biology Symposium, Brest, FR (Talk)
Slurpin' for Fish: A High-capacity Suction Sampler for ROV *Jason*. WHOI AVAST Tech Talks (Talk)
- 2020 The Diversity and Ecology of Parasites at Deep-Sea Hydrothermal Vents. World Conference on Marine Biodiversity, Auckland, NZ (Poster)
Unique Colonization Time Series Reveals Long-Term Successional Changes in the Functional Traits of a Deep-Sea Hydrothermal Vent Invertebrate Community. Ocean Sciences Meeting, San Diego, CA (Poster)
- 2019 Functional Traits Provide New Insight into the Succession and Resilience of a Hydrothermal Vent Invertebrate Community. Benthic Ecology Meeting, St. John's, NL (Talk)
- 2016 Small Kelp Forest Gastropods and their Role in Parasite Life Cycles. Undergraduate Research and Creative Activities Colloquium, UC Santa Barbara (Poster)
- 2015 The Forest at a Snail's Pace: A Survey of Monteverde's Terrestrial Gastropods. UC Education Abroad Research Symposium, Monteverde, Costa Rica (Talk)

CRUISE EXPERIENCE

- 2021 R/V *Roger Revelle*, East Pacific Rise, ROV *Jason*
- 2019 R/V *Atlantis*, East Pacific Rise, dove in HOV *Alvin*

GRANTS AND SCHOLARSHIPS

- 2021 WHOI Ocean Ventures Fund (\$2,500)
- 2020 WHOI Grassle Fund (\$7,000)
- 2019 WHOI Hill Funds (\$1,000)
- 2014 The Green Initiative Fund (\$11,000)

TEACHING AND MENTORSHIP

- 2020 Teaching Assistant, Applied Statistics (7.410), WHOI/MIT
Undergraduate Research Mentor, WHOI Summer Student Fellow (SSF) Program
- 2019 Undergraduate Research Mentor, Semester at WHOI (SAW) Program
- 2016 Course Instructor, Ecological Restoration Field Skills (ENVS 95), UCSB
- 2015 Teaching Assistant, Parasitology Lab (EEMB 111), UCSB

OUTREACH AND VOLUNTEER POSITIONS

- 2021 WHOI Sustainability Taskforce
- 2019 Zephyr Education Foundation, Outreach Volunteer
Wellfleet Bay Wildlife Sanctuary, Sea Turtle Necropsies
- 2014 Coal Oil Point Reserve, Snowy Plover Docent
- 2008 SPCA for Monterey County Wildlife Center, Volunteer

CERTIFICATIONS AND APPOINTMENTS

SCUBA Certifications: AAUS, Open Water, Rescue Diver
MIT-WHOI Joint Program Student Representative
MIT Resource for Easing Friction and Stress (REFS)
Justice Through Equity and Diversity Through Inclusion (JEDI) Representative
CPR, First Aid, AED