

Lauren Wynkoop Ashlock

EDUCATION

Ph.D., Biology, University of Vermont, 2022, Advisor: Melissa Pespeni

Title: “Copepods as a model system for exploring the impacts of climate change on marine ectotherms.”

Committee: Stephen Keller (chair), Hans Dam, Jason Stockwell, Brent Lockwood

Bachelor of Science, Marine Biology, University of California, Santa Cruz, 2012

PUBLICATIONS

Ashlock L, Darwin C, Crooker J, deMayo J, Dam HG, Pespeni M. Developmental temperature, more than long-term evolution, defines thermal tolerance in an estuarine copepod. *Ecology and Evolution*. 2024 Feb;14(2):e10995.

Jurgens LJ, **Ashlock LW**, Gaylord B. Facilitation alters climate change risk on rocky shores. *Ecology*. 2022 Feb;103(2):e03596.

Ashlock L, García-Reyes M, Gentemann C, Batten S, Sydeman W. Temperature and Patterns of Occurrence and Abundance of Key Copepod Taxa in the Northeast Pacific. *Frontiers in Marine Science*. 2021:1271.

Vater, A, Byrne, B, Marshman, B, **Ashlock, L**, Moore, J. 2018. Differing responses of red abalone (*Haliotis rufescens*) and white abalone (*H. sorenseni*) to infection with phage-associated *Candidatus Xenohaliotis californiensis*. *PeerJ*. 6, e5104.

Rogers-Bennett, L, Aquilino, K, Catton, C, Kawana, S, Walker, B, **Ashlock, L**, Marshman, B, Moore, J, Taniguchi, I, Gilardi, K, Cherr, G. 2016. Implementing a restoration program for the endangered white abalone (*Haliotis sorenseni*) in California. *Journal of Shellfish Research*, 35, 611-618.

PRESENTATIONS

Ashlock, L, Dixit, L, Frank, N, Barney, B, Hadjes, E, Hood, N, German, D, Frederick, A. 2023. Physiological and Cryopreservation Research as a Path to Enhancing White Abalone Captive Production. Contributed talk, Western Society of Naturalists Annual Meeting.

Ashlock, L, Darwin, C, Crooker, J, deMayo, J, Dam, H, Pespeni, M. 2021. Importance of Plasticity in the Copepod Climate Response. Contributed talk, Western Society of Naturalists Annual Meeting.

Ashlock, L, Darwin, C, Crooker, J, Pespeni, M. 2021. Plasticity and Adaptation in the Copepod Climate Response. Contributed talk, Evolution Annual Meeting.

Ashlock, L, Aristizabal, N, Verrico, B, Boudreau, M. 2021. QuEST Interest Group Network Supports Mental Health in STEM Graduate Education. Contributed poster, NSF Research Traineeship Annual Meeting.

Ashlock, L, Pespeni, M. 2019. Differential thermal tolerance across latitude and developmental stages in the estuarine copepod, *Acartia tonsa*. Contributed poster, The Society for Integrative & Comparative Biology Annual Meeting, Tampa, FL

WORK EXPERIENCE

White Abalone Assistant Project Scientist: UC Davis, Bodega Marine Lab, 2023- present

- Develops and leads research to enhance production of critically endangered species
- Mentors staff and interns in research projects
- Coordinates sperm cryopreservation efforts during white abalone spawning events

White Abalone Postdoctoral Scholar: UC Davis, Bodega Marine Lab, 2022- 2023

- Conducted research to optimize reproductive conditioning and spawning
- Developed methods for white abalone sperm cryopreservation

NSF-Funded QuEST Graduate Student Intern: Farallon Institute, Summer 2019

- Investigated the relationship between copepods and sea surface temperature in the Northeast Pacific

Teaching Assistant: University of Vermont, 2016-2022

- Managed classrooms of +30 college students while maintaining a safe and inclusive environment
- Presented lectures for undergraduate students, breaking down complex topics for beginner biologists

Lead Technician: UC Davis, Bodega Marine Laboratory, 2014-2016

- Led care, culture, and spawning of federal ESA listed species, white abalone
- Cultured macro and microalgae for abalone feed
- Communicated with diverse stakeholders about culture updates

Technician: California Department of Fish and Wildlife, 2014-2016

- Cultured abalone while following guidelines to prevent introduction of disease to animals
- Conducted research regarding health of wild and captive shellfish populations

Student Intern: UC Davis & UC Santa Cruz, 2012-2014

- Conducted intertidal fieldwork along the Sonoma and Mendocino County coastline
- Conducted subtidal fieldwork in Monterey Bay and the Mediterranean Sea

FELLOWSHIPS & HONORS

NSF Research Trainee, Quantitative & Evolutionary STEM Traineeship (QuEST), 2018-2022

NSF-GRFP Honorable Mention, National Science Foundation, 2016

Deans Honors, University of California, Santa Cruz, Fall 2012

Deans Honors, Santa Rosa Junior College, Spring 2009

Deans Highest Honors, Santa Rosa Junior College, Fall 2007, Spring 2008

Doyle Scholarship, Santa Rosa Junior College, 2007-2008

RESEARCH AWARDS

Innovative Development Award (\$17,855), Academic Federation, 2024

BioFabLab Graduate Project Award (\$1000), University of Vermont, 2017

John Wheeler Graduate Student Research Award (\$1500), University of Vermont, 2017

RELEVANT COURSEWORK & WORKSHOPS

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| • Quantitative Thinking in the Life Sciences | • Mental Health First Aid |
| • Computational Biology | • Step Up to Bias 101 |
| • Ecological Genomics | • Environmental Policy, Problem Solving & Leadership |
| • Introduction to Statistical Learning | • Advancing Marine Science |
| • Marine Ecology | • Mentoring Practices: Enhancing skills toward inclusive mentorship and facilitator training |
| • Improvisation for Science Communication | • Optimizing Inclusive & Culturally Responsive Mentoring Practices |
| • Communication and Leadership Skills in a Hot and Dangerous World | |

TEACHING EXPERIENCE

Teaching Assistant: University of Vermont

- Principles of Biology (Spring 2022)
- Ecological Genomics (Spring 2020, Fall 2021)
- Accelerated Biology (Fall 2019)
- Genetics (Spring 2017, Spring 2018)
- Introduction to Cellular and Molecular Biology (Fall 2016, Fall 2017)

Instructor: University of Vermont

- Graduate Student Wellness (Fall 2020)

MENTORSHIP

Direct Mentorship of Independent Research

Emily Kaloudis, Undergraduate Student, University of Vermont, 2021- 2022

*“Characterizing the thermal environment of copepod, *Acartia tonsa*”*

Emily Shore, Masters Student, University of Vermont, 2018-2020

*“Implications of microplastics consumption on the physiology of *Acartia tonsa*”*

Chelsea Darwin, Undergraduate Student, University of Vermont, 2018-2020

*“Transgenerational impacts of warming on thermal tolerance of *Acartia tonsa*”*

Jessica Crooker, Undergraduate Student, University of Vermont, 2019-2020

*“Life history stage specific salinity tolerance of *Acartia tonsa*”*

Santa Rosa Junior College Interns

Stephanie Arriaza, 2024
Alina Santamaria, 2024
Gabe Larson, 2024
Emma Weiland, 2024
Ry Ulmer Strack, 2023

Undergraduate Assistants

Anya Steinhart, University of Vermont, 2019-2021
Hannah Edmonds, University of Vermont, 2018
Erika Petterson, University of Vermont, 2017-2019
Maria Cayia, University of Vermont, 2017-2018
Franklin Dean Keck, Santa Rosa Junior College, 2016

COMMUNITY ENGAGEMENT & SERVICE

Community Science Talks

- Queered Science Lecture Series, Brew Coffee and Beer House, 2025
- “Gonad or Go Home”, Science Uncorked, 2024

White Abalone Culture Lab Tours

- UC Davis Career Discovery Program, 2025
- Dr. Shannon Lee’s Sonoma State University Invertebrate Zoology Class, 2023-2024
- CMSI Pre-College Program, 2023

K-12 Science Education

- Brought interactive touch tank of marine invertebrates to students
 - Harmony Elementary School, Occidental, CA, 2024
- Hosted students in molecular and wet lab. Led lessons on marine invertebrate biodiversity, microscopy, copepod identification, and molecular methods.
 - Schoolhouse Learning Center, South Burlington, VT, 2017
 - Vermont Commons, South Burlington, VT, 2017
- Developed and led interactive in-classroom lessons on ecology and conservation
 - Saint Albans Town Educational Center, Saint Albans, VT, 2017
 - Korematsu Discovery Academy, Oakland, CA, 2013-2016
 - Wilson Elementary, Petaluma, CA, 2013

Mental Health

- Organized Bodega Marine Lab Mental Health Training Series, 2023
 - Psychological First Aid Training for Faculty and Staff
 - Mental Health Academic Accommodations Training for Faculty and PIs
 - Mental Health Kahoot for Students
- Co-founder of QuEST Mental Health Interest Group, 2019-2022
 - UVM graduate student group dedicated to reducing mental health stigma, building community, and increasing accessibility to wellness resources

- Instructor of Graduate Student Wellness, 2020

Lab Safety Officer

- Developed Standard Operating Procedures for using and disposing of hazardous chemicals, 2019-2022
- Created Standard Operating Procedures for Covid-19 safety for lab personnel, 2019-2022
- Managed experimental safety and oversaw lab safety audits, 2019-2022

REFERENCES

Dr. Melissa Pespeni, *Ph.D. advisor*

Associate Professor, University of Vermont
mpespeni@uvm.edu

Dr. Alyssa Frederick, *Postdoctoral advisor*

Director, White Abalone Captive Breeding Program, University of California, Davis,
Bodega Marine Lab
abrac@ucdavis.edu

Dr. Elise Fairbairn, *Mentor*

Academic Administrator, Coastal and Marine Sciences Institute, University of California,
Davis, Bodega Marine Lab
efairbairn@ucdavis.edu

Dr. Kristin Aquilino, *Former supervisor*

Associate Director, Bodega Marine Lab
kmaquilino@ucdavis.edu