Lauren Wynkoop Ashlock

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EDUCATION

Ph.D. Candidate, Biology, University of Vermont, 2016-present, Advisor: Melissa Pespeni Title: "Integrating experimental and environmental data to understand and model patterns of thermal tolerance and resilience in copepods."

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

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

FELLOWSHIPS & HONORS

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

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

BioFabLab Graduate Project Award (\$1000), University of Vermont, 2017 **John Wheeler Graduate Student Research Award** (\$1500), University of Vermont, 2017

RESEARCH EXPERIENCE

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

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

Junior Specialist: University of California, Davis, Bodega Marine Laboratory, 2014-2016

- Conducted research on how to best culture federal ESA listed species, white abalone
- Collaborated with partner institutions, facilitating white abalone conservation

Scientific Aide: California Department of Fish and Wildlife, 2014-2016

- Conducted research regarding health of wild and captive shellfish populations
- Communicated and worked with aquaculture staff and community members

Volunteer Research Assistant: Bodega Marine Laboratory, 2013

- Monitored the recovery of benthic marine invertebrate populations along the California coast following a mass mortality event
- Examined the role of mussel beds in mitigating the desiccation of intertidal invertebrates

Student Researcher: STARESO Research Station, Corsica, France, 2012

• Investigated extent of niche overlap between native and invasive labrid fishes

TEACHING EXPERIENCE

Teaching Assistant: University of Vermont

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

Instructor: University of Vermont

• Graduate Student Wellness (Fall 2020)

MENTORSHIP

Direct Mentorship of Independent Research

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

"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"

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

PUBLICATIONS

Jurgens LJ, **Ashlock LW**, Gaylord B. Facilitation alters climate change risk on rocky shores. Ecology.: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

- * Please note Last name changed from Wynkoop to Ashlock in 2015 *
- **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**, Aristízibal, 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
- **Wynkoop, L**, Aquilino, K, Rogers-Bennett, L, Neuman, M, Cherr, G, Moore, J. 2014. Advancing towards successful white abalone recovery. Contributed talk, Western Society of Naturalists Annual Meeting, Tacoma, WA.
- **Wynkoop**, **L**, Jurgens, L, Gaylord, B. 2013. Impact of mussel bed structure on desiccation of two intertidal invertebrates. Contributed poster, Western Society of Naturalists Annual Meeting, Oxnard, CA.
- **Wynkoop, L**, Shannonhouse-Wilde, D, Berryman, G, Rodriguez, K. 2013. Mediterranean invasions: a comparison of resource use between two ecologically similar wrasses. Contributed poster, Western Society of Naturalists Annual Meeting, Oxnard, CA.

OUTREACH & SERVICE

Graduate Student Wellness

- Co-founder of blog, The Mindful Scientists, themindfulscientists.com, 2021-present
- Co-founder of QuEST Mental Health Interest Group, 2019-present
 - UVM graduate student group dedicated to reducing mental health stigma, building community, and increasing accessibility to wellness resources
- Instructor of course on graduate student wellness, 2020

Lab Safety Officer

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

K-12 Science Education

- Hosted students in molecular and wet lab. Led lessons on marine invertebrate biodiversity, microscopy, copepod identification, and molecular methods.
 - o Schoolhouse Learning Center, South Burlington, VT, 2017
 - o Vermont Commons, South Burlington, VT, 2017

- Developed and led interactive in-classroom lessons on ecology and conservation
 - o Saint Albans Town Educational Center, Saint Albans, VT, 2017
 - o Korematsu Discovery Academy, Oakland, CA, 2013-2016
 - o Wilson Elementary, Petaluma, CA, 2013

RELEVANT COURSEWORK & WORKSHOPS

- Marine Ecology
- Marine Geology
- Freshwater Ecology
- Biological Oceanography
- Ichthyology
- Invertebrate Zoology
- Marine Botany
- Population Genetics
- Evolution
- Molecular Adaptation
- Quantitative Thinking in the Life Sciences

- Computational Biology
- Ecological Genomics
- Introduction to Statistical Learning
- Improvisation for Science Communication
- Communication and Leadership Skills in a Hot and Dangerous World
- Mental Health First Aid
- Step Up to Bias 101
- Environmental Policy, Prob Solving & Leadership
- Optimizing Inclusive & Culturally Responsive Mentoring Practices

REFERENCES

Dr. Melissa Pespeni

Associate Professor, University of Vermont mpespeni@uvm.edu

Dr. Marisol García-Reyes

Principal Scientist, Farallon Institute marisolgr@faralloninstitute.org

Dr. Kristin Aquilino

Lead Scientist, University of California, Davis, Bodega Marine Lab kmaquilino@ucdavis.edu