

Zoë Zilz

Ecology, Evolution, and Marine Biology • University of California Santa Barbara

Education

University of California Santa Barbara - Ecology, Evolution, and Marine Biology Department

PhD Candidate- 4th Year

Western Washington University - College of Science and Engineering

Department of Biology

Master's of Science in Biology

University of California, Santa Barbara - College of Creative Studies

Bachelor of Arts in Biology

Research Experience

PhD Dissertation Research, 2018-present

Development of a food web representing species interactions, including parasitism, concomitant predation, and cross-ecosystem processes for the California rocky intertidal.

Master's of Science Thesis Research, 2015-2018

Parasitism by the sperm-feeding ciliate, *Orchitophyra stellarum*, in ochre stars (*Pisaster ochraceus*), and its consequences for the recovery of sea star populations from sea star wasting disease.

Master's of Science Supplemental Project, Fall 2016-2018

Does induced autotomy of arms increase the incidence of sea star wasting symptoms in *Pisaster ochraceus* adults?

PISCO Lab Ongoing Research, 2009-2015

Participated in field and lab work pertaining to the study of recruitment ability of larval invertebrates off the coast of Santa Barbara County, CA.

Smithsonian Tropical Research Institute Intern, Summer 2014

Assisted with field work for research on off-host tick ecology and climate change across the isthmus of Panama.

College of Creative Studies Summer Undergraduate Research Fellowship, Summer 2012

Seasonal Variation in the Trematode Parasite, Euhaplorchis californiensis, in the California Killifish in the Carpinteria Salt Marsh, CA. Poster.

UCEAP Tropical Biology Independent Project, Fall 2011

Parasite Load and Diversity of Wild versus Captive Red Snapper (Lutjanus peru): A Comparative Study.

Undergraduate Research, 2010-2011

Studied the competitive interactions between the trematode parasites of *Fundulus parvipinnis*.

Relevant Employment

Coastal Ranches Conservancy, Environmental Consultant, 2020 – 2022

Prepared a series of reports for the Coastal Ranches Conservancy assessing the current status of resource subsidy use on the Gaviota Coast and the impact of increased human access on connectivity between land and sea.

University of California Santa Barbara Head Teaching Assistant, 2020 – present

Coordinated the Invertebrate Zoology and Parasitology series, including managing a staff of 5-7 teaching assistants and 2-3 Lab Culturists. Overhauled curriculum for online learning during the COVID-19 pandemic.

University of California Santa Barbara Teaching Assistant, 2018 – present

Instructed the lab sections for Invertebrate Zoology, Parasitology and assisted with lecture for Ecology and Evolution of Vertebrates and Introduction to Ecology.

Hollister Ranch Tide Pool School Docent, 2013-present

Instructed students from kindergarten-12th grade on the species and ecology of intertidal ecosystems by allowing them to explore Hollister Ranch's pristine tide pools.

UCSB Research Mentorship Programs Graduate Student Mentor, Summer 2019
 Mentored two female high school students as they developed, undertook, and presented independent research projects in marine science.

Western Washington University Teaching Assistant, 2015-2018
 Instructed undergraduate students in the lab sections for Introduction to Ecology, Evolution, and Biodiversity, Invertebrate Zoology, Human Physiology, and Ecology.

Northwest Straits Foundation Project Manager, Summer 2017
 Coordinated research efforts related to the Summer 2017 Bull Kelp Monitoring Project field season. Coordinated efforts concerning nearshore restoration projects and outreach.

Santa Barbara Museum of Natural History Naturalist, 2014-2015
 Developed exhibits and educated the public about biology, geology, and anthropology relevant to the Santa Barbara area.

Smithsonian Tropical Research Institute Research Intern, Summer 2014
 Assisted a PhD student with fieldwork pertaining to the study of off-host tick ecology across the isthmus of Panama and its response to climate change.

Pacific Marine Research Marine Science Afloat Instructor, Spring 2014
 Taught hands on lessons in marine biology, oceanography, and conservation to field-trip groups of K-12 students aboard the Marine Science Afloat boat.

Kuris Lab Technician, 2012-2013
 Contributed data to the Ecology of Infectious Diseases project as a paid laboratory technician in the Kuris Lab at the University of California Santa Barbara.

Awards/Achievements

- UCSB Ecology, Evolution, and Marine Biology Block Grant, Spring 2019 and Spring 2022
- Coastal Fund Major Grant, 2021
- Worster Fellowship Recipient, Summer 2019 and Summer 2021
- Western Washington University - Enhancement of Graduate Research Award, 2016 and 2017
- North Cascades Audubon Society Graduate Research Fellowship Recipient, 2016

Publications/Presentations

- Zilz, Zoe; Orli, Jaden; Morris, Jade (2022). *A novel copepod egg predator infesting commercially important rock crabs in Santa Barbara, CA*. UCSB EEMB Graduate Student Symposium.
- Orr, Devyn, Zilz, Zoe; Duge, Emma; Copeland, Stephanie; Bui, An; Motta, Carina; Swei, Andrea; Young, Hillary. *Climate-dependent effects of wildlife and cattle on tick survivorship in California*. In prep for Journal of Applied Ecology.
- Orr, D.A., Zilz, Z. L., Duge, E., Copeland, S., Bui, A., Motta, C. Swei, A., Young, H. *Throwing shade: large mammalian herbivores alter survival of arthropod disease vectors through changes in understory vegetation, but effects are density and climate dependent*. Ecological Society of America Annual Meeting: Effects of Multiple Global Changes on Communities and Ecosystems.
- Zilz, Z. L. (2018). *The sperm-feeding ciliate, Orchitophyra stellarum, in Ochre star populations on the west coast of the United States*. Society for Integrative and Comparative Biology Meeting in San Francisco, CA.
- Zilz, Z. L. (2017). *Has the relationship between a sperm-eating ciliate and its sea star host changed post Sea Star Wasting Disease?* Poster presented at the meeting of the Ecology and Evolution of Infectious Diseases conference in Santa Barbara, CA.
- Zilz, Z. L., A. M. Kuris, & R. Hechinger, (2016). *Monthly variation in metacercariae abundance and density in a behavior-manipulating trematode in the California killifish, Fundulus parvipinnis, in Carpinteria Salt Marsh*. American Society of Parasitologists Meeting in Edmonton, Alberta, Canada.