Heidi R. Waite

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EDUCATION

2018-Present	PhD candidate, Ecology and Evolutionary Biology, University of California Irvine (UCI)
2021	MS Biology, Sorte Lab, University of California Irvine
2018	MSc Biodiversity, Conservation, and Management, University of Oxford, Oxford, UK
2017	BS Biology, University of Central Florida (UCF), Orlando, FL, Burnett Honors College

PUBLICATIONS

Peer-reviewed

- 3. **Waite, H.R.,** and C.J.B. Sorte. 2022. Negative carry-over effects on larval thermal tolerances across a natural thermal gradient, *Ecology* 103, e03565.
- 2. **Waite, H.R.,** M.J. Donnelly, and L.J. Walters. 2018. Quantity and types of microplastics in the organic tissues of the eastern oyster *Crassostrea virginica* and Atlantic mud crab *Panopeus herbstii* from a Florida estuary. *Marine Pollution Bulletin* 129:179-185.
- 1. **Waite, H.R.,** K.G. Sanchez, and R.B. Forward, Jr. 2016. Entrainment of the circadian rhythm in larval release of the crab *Dyspanopeus sayi* by temperature cycles. *Marine and Freshwater Behaviour and Physiology* 1:41-54.

Book Chapters *all authors contributed equally

1. *Sorte, C.J.B., Beshai, R.A., Henry, A.K., Mahanes, S.A., Rangel, R.E., **Waite, H.R**. 2021. Interactions between climate change and species invasions in the marine realm. *Invasive Species and Global Climate Change*.

White Papers

1. Ambrose, R.F., [and 19 others, including **H.R. Waite**]. Impacts of climate change on rocky intertidal communities: research needs. Hosted by Southwest Climate Adaptation Science Center, in prep.

GRANTS

2021	\$3,000	A blast from the past: carry-over effects from early life stage experiences on juveniles and beyond. <i>Mildred E. Mathias Graduate Student Research Grant</i> .
2019	\$1,800	Preparing the next generation for climate change: are parental effects on larval thermal tolerance adaptive or maladaptive? Conchologists of America Grants to Malacology
2019	\$2,000	Preparing the next generation for climate change: are parental effects on larval thermal tolerance adaptive or maladaptive? <i>International Women's Fishing Association Research Scholarship</i>
2016	\$500	Investigating the quantity and types of microplastics in Florida oysters and crabs. <i>UCF Office</i> of Undergraduate Research Grants
2016	\$1,000	Investigating the quantity and types of microplastics in Florida oysters and crabs. <i>College of Sciences Honors in the Major Research Grant</i>

HONORS & AWARDS (selected)

2022	American Institute of Biological Sciences' Emerging Public Policy Leadership Award
2022	American Geophysical Union Voices for Science Advocate
2022	Ecological Society of America's Katherine S. McCarter Graduate Student Policy Award
2021	Presidential Graduate Opportunities for Leadership Development (GOLD) Fellowship
2020	Ford Foundation Predoctoral Fellowship (\$81,000)
2020-22	The Loh Down on Science Fellowship (\$500/term)
2018-20	UCI, Ecology & Evolutionary Biology Distinguished Scholar Fellowship (\$30,000 x 3 years)
2017-18	Frost Scholarship, University of Oxford (£14,553)
2018	Founders Day Honors in the Major Outstanding Thesis Award, UCF (\$500)
2017	Distinguished Undergraduate Researcher Award, UCF (\$200)
2017	T-Minus Research Presentation Competition 1st Place (\$50)

RESEARCH

Present University of California Irvine: Investigating how species with complex life cycles build their environmental tolerances under climate change conditions

(Current, Adviser: Dr. Cascade Sorte)

- o Investigating how intertidal invertebrates with complex life cycles build up their environmental tolerances, allowing them to cope with climate change
- o Chp 1: evaluated the role of parental effects in determining larval thermal tolerances for the intertidal mussel, *Mytilus californianus*
- o Chp 2: tested the effects of critical time windows on transgenerational plasticity
- Chp. 3: investigated reproductive output of two range shifting marine whelk species
 Mexacanthina lugubris and Acanthinucella spirata
- 2018 University of Oxford: Effects of Logging and Altitude on Vegetation Composition in the Atlantic Forest (Masters Research, Adviser: Dr. Imma Olivieras)
 - Analyzed the effect of past logging events in the Atlantic Brazilian Forest on vegetation structure, diversity, and community composition
 - Used census data collected by the BIOTA-FAPESP program over ~10 years in R using time-series analyses
- 2016-17 University of Central Florida: Quantity and Types of Microplastics in Florida Oysters and Crabs (Honors in the Major Undergraduate Thesis, Adviser: Dr. Linda Walters)
 - Analyzed and compared the abundance and diversity of microplastics in the organic tissues of eastern oysters and Atlantic mud crabs in the Indian River Lagoon
 - Presented and published my study; interviewed with local reports about my research (see Press section)
- 2016 **Duke University Marine Laboratory: Circadian Rhythms in the Larval Release of a Subtidal Crab** (Research Experience for Undergraduates Student Researcher, Adviser: Dr. Richard Forward)
 - Conducted independent research on the larval release circadian rhythm of the subtidal crab
 Dyspanopeus sayi. Investigated whether the circadian rhythm responsible for larval release could
 be entrained by a diel light cycle
- 2015-17 University of Central Florida: Oyster Reef Restoration and Conservation in the Indian River Lagoon (CEE Lab Research Assistant)
 - Assisted with oyster and spat monitoring in the field; counted oyster spat on collected mats to analyze the recruitment success of the different reef locations; made oyster mats for oyster reef restoration
 - Led and assisted with outreach programs for middle school students about coastal environment, oyster mat making, and coastal conservation

PRESENTATIONS (~talk, †poster presentation, *received awards)

- Oct 2022 *†Waite, H.R., and C.J.B. Sorte. A blast from the past: effects of early life stage experiences in a range shifting intertidal snail. SACNAS National Diversity Conference, San Juan, Puerto Rico.
- Sep 2022 ~Waite, H.R., and C.J.B. Sorte. Preparing the next generation for climate change: parental effects on larval thermal tolerance in the California mussel (*Mytilus californianus*). OCMPAC Symposium.
- Jul 2021 ~Waite, H.R., and C.J.B. Sorte. Too hot to handle? Climate change & conserving California's coastal ecosystems. UC Center Sacramento Wednesday Speaker Series, virtual, joint talk. Link to recording.
- Nov 2020 ~Waite, H.R., and C.J.B. Sorte. Preparing the next generation for climate change: parental effects on larval thermal tolerance in the California mussel (*Mytilus californianus*). WSN Conference, virtual.
- Oct 2020 †Waite, H.R., and C.J.B. Sorte. Preparing the next generation for climate change: parental effects on larval thermal tolerance in the California mussel (*Mytilus californianus*). SACNAS National Diversity Conference, virtual.

- Oct 2020 †Waite, H.R., and C.J.B. Sorte. Preparing the next generation for climate change: parental effects on larval thermal tolerance in the California mussel (*Mytilus californianus*). Ford Foundation Conference, virtual.
- Nov 2019 †Waite, H.R., and C.J.B. Sorte. Does the apple not fall from the tree? Parental effects on larval thermal tolerance in the mussel, *Mytilus trossulus*. Environmental Research Symposium, UCI, Irvine, CA.
- Oct 2019 †Waite, H.R., and C.J.B. Sorte. Does the apple not fall from the tree? Parental effects on larval thermal tolerance in the mussel, *Mytilus trossulus*. Western Society of Naturalists, Ensenada, MX.

TEACHING EXPERIENCE

Teaching Assistant

Fall 2022 Quantitative Methods (master's level), EE207

Spring 2022 Marine Biology, BIO SCI E120

Fall 2021 Quantitative Methods (master's level), EE207

Guest Lecturer

Spring 2022 Review and Synthesis, BIO SCI E120

Fall 2021, 2022 Owl Limpets and Field Survey Techniques, EE207
Spring 2021 Population and Community Ecology Lab, E185L

2019-20 English as a Second Language (ESL) (Tutor, Irvine, CA)

 Created, plan, and execute weekly 2-hr lessons on English grammar, vocabulary, and idioms for Level 3 (intermediate) ESL students using games and activities.

2018 **Varsity Education, Oxbridge Summer Program** (Biological Science Instructor, Cambridge, UK)

- Developed and taught original lectures about ecology and conservation to students (ages 15-18); led small group tutorials on subject matter. Marked and gave feedback on written work; facilitated Oxbridge college application activities and workshops (e.g., personal statements, interviewing).
- 2013 University of Central Florida: Summer Research Academy (Teaching Assistant, Orlando, FL)
 - Planned icebreakers, led small group activities and discussions, served as a guide and mentor for undergraduate students interested in getting involved in research at UCF.
 Marked and gave feedback on practice emails, personal statements, and resume/CVs.
 Assisted in activities and workshops (e.g., personal statements, lab visits, preparing for graduate school).

MENTORING

Undergraduate Research Mentoring (*academic credit, "received research grants, †poster presentation)

- 2021 present: Caitlyn Cortes*"† Summer Undergraduate Research program fellowship (\$2,000),
 Undergraduate Research Opportunities grant (\$360)
- o 2021 present: Abigail Gonzalez* Undergraduate Research Opportunities grant (\$1,125 & \$425)
- 2019 2020: Jolene Viramontes**- Undergraduate Research Opportunities grant (\$400)
- o 2019: Joseph Connor Basile**† Undergraduate Research Opportunities grant (\$350), Summer Undergraduate Research program fellowship (\$1,200)

SCIENCE POLICY

Oct 2022 Speaking Up for Science and Policy in Your Community – Session Co-lead

- Collaborated with Union of Concerned Scientists to organize a panel for a session at the 2022 SACNAS National Diversity Conference in San Juan, Puerto Rico
- o Created and led the activity on getting scientists involved on a local level

Apr 2022 – 23 American Geophysical Union (AGU) Voices for Science – Awardee/Advocate

- o Trained in science communication and outreach
- Collaborated with AGU staff to conduct monthly outreach activities (e.g., meeting with local representative office, organizing guest policy speakers) for twelve months

Mar 2022 **Ecological Society of America's Graduate Student Policy Award** – Awardee

o Trained in science and policy communication, congressional culture and federal budgets

Engaged policymakers and led Hill visits

2022 – 23 American Institute of Biological Sciences' (AIBS) Emerging Public Policy Leadership Award –

٩wardee

 Lead Hill visits with congressional delegations, communication and policy training, and paid trip to Washington DC to meet with policy makers

Jun-Aug 2021 Ocean Science Trust – Intern

 As UC Center Sacramento's summer Presidential Graduate Opportunities for Leadership Development (GOLD) fellow, I assisted Ocean Science Trust on several policy projects.

SCIENCE COMMUNICATION

Editor: Nov 202 – Oct 2022 The I

The Loh Down on Science

Writer: Mar 2019 – Oct 2021

- Wrote 180-word, radio-ready scripts that transform complex science papers into easy listening for the public.
- Founding member of the Loh Down on Science: Pandemic Edition in Spanish; translated and recorded radio scripts on subjects related to the pandemic.

Apr 2021

Guest speaker:

Dec 2020

o *Skype a Scientist*— led and engaged students (3rd & high school) in active learning about the intertidal habitat and animal adaptations

Nov 2020 – May 2021

Transcriber: NOAA Voices Oral History Archives

 Received training on transcription guidelines and transcribe interviews from the archive.

2018 - 20

UCI: CLEAN Education

 Lead lectures, games, and hands-on activities about climate science topics (e.g., greenhouse gases, biodiversity) in high minority-serving middle schools in Orange county.

Feb 2020

Girls in Ocean Science Conference, Ocean Institute

 Organized and led a mini 40 min lesson on mussel ecology for middle school girls.

April 2019

CLEAN Education Earth Science Day at Vista Verde

o Co-organized the "Ocean" room portion of this event. Created several stations (tide pool touch tank, ocean plastic pollution game, ocean acidification simulation, and water sampling techniques) that K-8 students could engage with and learn about the ocean.

SERVICE

Jun 2019 – Jun 2022

SACNAS at UCI – Board Member: President, Secretary, VP

Assisted with logistical organization of general meetings and events to benefit
the graduate and undergraduate underrepresented groups at UCI; collaborated
with Social Chair on marketing; organized and led an informational session and
panel on REU programs for undergraduate students.

Sep 2020 - Dec 2021

Fellowship Mentor

 Provided one-on-one consultations and peer reviews to graduate student applicants for the Ford and NSF fellowships; hosted within the UCI Graduate Division.

Panelist

Oct 2021 Oct 2021 Jan 2021

May 2020

o Women's Network Chapter UCSB – Women in STEM research and careers

o E107 Seminar – Why Graduate School?

 LearnServe Student Action Summit – STEM careers and social chance and climate (Zoom)

o EarthTeam, Arroy High School, CA – Undergraduate research and careers (Zoom)

Mar 2019 – Sep 2021

Graduate InterConnect Mentor

Mentored and assisted incoming international graduate students transition to graduate studies at UCI and to the American culture; provided resources and organize social events; hosted within the UCI Graduate Division.

Jan 2020 – May 2021

CSLA Mentor

 Mentored 1st year Latinx undergraduate students through the Chican@/Latin@ Staff Association (CSLA); met with mentee regularly, provide university resources for success, career advice, and overall support.

Sept 2019 – Apr 2021

DECADE Student Representative

o Served as a liaison between academic departments, the Office of Inclusive Excellence, and Graduate Division; collaborate with DECADE faculty mentors to plan and organize events that bring graduate students and faculty together; attended monthly meetings and participate in discussions that inform initiatives and programming that aim to improve retention of underrepresented minorities in graduate programs; Coordinator/Manager of the Social Media DECADE Team; organized and delegate tasks to team members.

Mar 2020

Guest speaker: EarthTeam, Skyline High School Oakland, CA

o Gave a short lecture on my career path and current research to high school students via Zoom

Jun 2020 – Aug 2020

Competitive Edge Mentor

 Supported incoming doctoral students in the Competitive Edge Program (summer program for incoming doctoral students that aims to integrate graduate students into campus). As a peer mentor, I helped incoming graduate students acclimate to campus and their programs. I supported mentees in professional development, communication, and health and wellness.

Apr 2020

What to do with my PhD? Symposium, Committee Member

 Organized a symposium for graduate students to explore possible careers after graduating. As a committee member, I helped organize the event by: inviting guest speakers, making flyers, and facilitating the panel.

PRESS

2017 Microplastics plague the lagoon

https://theguardiansofmartincounty.com/microplastics-plague-the-lagoon/

SKILLS AND CO	DURSES
Software	 Statistical programming in GIS experience (ArcMap) Adobe Photoshop Adobe Illustrator Adobe InDesign
Field	 Oyster spat identification Logging thermometer deployment (Omega HH506RA, Maxim Integrated iButtons)
Lab	 Vacuum filtration Aquarium husbandry experience (e.g., filters, feeding, tank cleaning) Experience in Aquaengineering recirculating seawater system
Certifications	PADI Scuba Open Diver Certification
Languages	Spanish

Graduate Courses: TidyR (Spring 2020), GIS for Environmental Science (2020, audited), Larval Biology of Marine Invertebrates (Friday Harbor Laboratories, 2019), Physiology (2019), Statistics and R Studio (2018), Ecology (2018), Analytical Skills in GIS (2017) Seminars: Anti-blackness in the United States: Change the Culture through Personal, Professional, and Institutional Accountability (2021), Outreach Education (2019), Science Communication Skills (2019)

Certification Programs: Inclusive Excellence (2021), Management Beyond the Classroom (2020), Mentoring Excellence (2019) Symposiums attended: Science Policy Symposium (Mar 2019)