

## Halley E. Froehlich

Vice Chair of the Interdepartmental Graduate Program in Marine Science  
Environmental Studies Program  
Department Ecology, Evolution, and Marine Biology  
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### WEBSITES

<https://froehlichlab.eemb.ucsb.edu/>

### RESEARCH EXPERTISE & INTEREST

Leading ocean sustainability and synthesis research scientist studying aquaculture, fisheries, and climate change. Nearly 20 years of education and experience developing and implementing applied research projects across multiple disciplines and countries around the world. Exceptional science communication skills and dedicated to diversity, equity, and inclusion in the sciences and beyond.

### SKILLS

- Lead researcher, advisor, and project creator/manager
- Interdisciplinary sustainability science
- Complex data synthesis and analysis at multiple scales
- Research and communication development
- Expert in R programming and Excel

### WORK HISTORY

**2019 – Present**    **Associate Professor – Ecology, Evolution, & Marine Biology/Environmental Studies, University of California, Santa Barbara.**

- Created the Froehlich Lab and oversaw cutting edge sustainability research on aquatic food systems (aquaculture and wild capture fisheries) and climate change.
- Led and participated in multiple, large collaborative domestic and international projects around food sustainability and climate change, including as a contributing author on the 2022 Intergovernmental Panel on Climate Change (IPCC) Report and upcoming US National Climate Repot.
- Collaborated with national and state government, native, NGO, and industry experts.
- Trained and mentored multiple Masters, PhD, and Postdoctoral researchers on ecological and food system theory, statistics, and data science methodologies.
- Created and taught several courses focused on sustainable resource management of aquatic food systems to 50-200 student classes.
- Published 60 scientific articles and several globally recognized reports, including IPCC.
- Involved in significant science communication, including podcasts and television (e.g., Bill Nye Saves the World) and giving over 50 scientific talks, many as an invited or keynote speaker.
- Co-chaired the Diversity, Equity and Inclusion department committee responsible for facilitating discussion, data collection, and implementation of new directives.

**2015 – 2019    Postdoctoral Scholar – *National Center for Ecological Analysis and Synthesis, University of California, Santa Barbara, Ben Halpern, PhD Laboratory.***

- Lead researcher studying the sustainability of offshore aquaculture.
- Responsible for data collection, analysis, writing, and reporting of all research.
- Coordinated working groups composed of government, NGOs, and industry experts.
- Mentored several Masters, PhD and undergraduate students.
- Published numerous scientific articles and reports.

**2010 – 2015    Ph.D. Candidate – School of Aquatic & Fishery Sciences, University of Washington, Timothy E. Essington, PhD Laboratory**

- Primary researcher studying physiological, ecological, and management responses of wild capture species in the Pacific Northwest under climate threats.
- Responsible for data collection, analysis, writing, and reporting of all research.
- Mentored several undergraduate students.
- Published all four chapters of dissertation

**2008 – 2010    Research technician & specialist –Wildlife, Fish, & Conservation Biology Department, Center for Aquatic Biology & Aquaculture, University of California, Davis, Joseph J. Cech, PhD, Nann Fanguie, PhD, and Lisa Thompson, PhD Laboratories**

- Junior technician and research studying the thermal response of white and green sturgeon (farmed and wild).
- Responsible for rearing spawned sturgeon in captivity in an inland flowthrough system.

## **EDUCATION**

**2015 Ph.D. (Marine Ecology and Fishery Sciences) – *University of Washington, Seattle WA***

**2009 B.S. (Animal Biology) – *University of California, Davis, Davis CA***

**2007 A.A. (Liberal Arts) – *West Valley College, Saratoga, CA***

## **LEADERSHIP & TEACHING**

**2024-present** Vice Chair/Grad Advisor of Interdepartmental Graduate Program in Marine Science

**2024-present** Environmental Studies Manley Lecture Organizer

**2024-present** International Council for the Exploration of the Seas (ICES) Working Group on Offshore Aquaculture

**2024-present** Editorial Board of *Fish and Fisheries*

**2023-present** Editorial Board of *Reviews in Aquaculture*

**2023-present** Scientific advisor for Actea

**2023-present** Instructor for EEMB/IGPMS 595: Contentious Topics in Fisheries and Aquaculture

**2020-present** Instructor for ENVS/EEMB 130C: Aquatic Food and Resource Management

**2020-present** Co-instructor for EEMB/ENVS 142C and 142L: Conservation, Resource Management, and Food Production of Marine Systems

**2019-present** Science communication - Podcasts ([Aquademia](#), [The Intertidal Podcast](#), [Real Assets](#)), shows (Netflix Bill Nye Saves the World Ep. 3, PBS Hope on the Water Ep. 2 & 3) and popular magazines ([Scientific American](#), [World Aquaculture Magazine](#), [Time Magazine](#))

**2021-2024** Contributing author to the 5th US National Climate Assessment, Southwest Chapter

**2020-2024** Co-chair of EEMB Diversity, Equity, and Inclusion Ad hoc Committee/Working Group

**2019-2021** AR6 Intergovernmental Panel on Climate Change (IPCC) – North America Ch 14 contributing author

**2019** Expert participant in TNC Conservation Aquaculture in California planning group

**2019** Expert request and submission of formal letter for US Senate briefing on AQUAA Act bill

**2019-2022** Aquaculture Stewardship Council (ASC) Scientific Advisory Board

**2018-2021** International Council for the Exploration of the Seas (ICES) Working Group on Scenario Planning on Aquaculture

**2018** Future Aquaculture Network – WWF and Global Salmon Initiative working group

**2018** Aquaculture Expert – Sea Legacy Green Aquaculture Initiative

**2017-2022** Scientific expert – Collaborations with the Aquarium of the Pacific

**2017** Seafood Summit Expert – science contributor for 2018 Planning Committee

**2017-present** Co-founded CART – Conservation Aquaculture Research Team (CART) at NCEAS, UCSB

**2016-2018** Undergrad Mentor – UCLA and UW undergraduate interns.

**2016-2017** External Advisor – Bren School of Environmental Science & Management, UCSB

**2015-2017** MSc and PhD Latin American Fisheries Fellow’s Mentor – NCEAS, UCSB

**2015** Organized & led modeling workshop – Washington Department of Fish & Wildlife

**2014-2015** 1<sup>st</sup> Year Grad Peer Mentor – School of Aquatic Fishery Sciences, UW

**2014** Created & Instructed ‘Advance Marine Ecology’ grad course – School of Aquatic Fishery Sciences, UW

**2014** NSF Mentor – School of Aquatic Fishery Sciences, UW

### AWARDS & FUNDING

Received 15 scientific awards over career totaling over \$6 million in funding.

### COMPUTATIONAL EXPERTISE

R programming; ArcGIS; Microsoft Office

### PROFESSIONAL SOCIETIES

American Fisheries Society

World Aquaculture Society (U.S. Chapter)