Jessica Weidenfeld

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About

Aquatic environmental professional with extensive experience in fieldwork, data analysis, meeting facilitation and project coordination. Expertise in coastal and freshwater ecosystems, ecological monitoring, and environmental data analysis using R and other tools. Proven ability to manage multiple projects and collaborate across interdisciplinary teams to achieve environmental and research goals.

Education

M.Sc. Marine ecology **Oct 2020 - March 2024**

San Diego State University

Thesis: The Effects of a Sea Urchin's Diet on its Commensal Polychaete.

B.S. Wildlife and Fisheries Biology **Sept 2016 - May 2018**

University of California Davis

Concentration: Fisheries

Professional Experience

California Sea Grant State Policy Fellow **April 2024 – Present**

Delta Stewardship Council: Science Communication and Synthesis Unit

- Coordinate monthly reports that are presented to the Delta Stewardship Council by the lead scientist
- Created science communication materials for a state hosted website as well as improved the user interface
- Automated a data pipeline from Excel to R, streamlined calculations and transitioned monthly reporting to a dynamic web-based platform, improving efficiency and communication
- Presented and co-created a webinar promoting science communication to multiple state and agency partners
- Facilitated discussions and created materials for an equitable grant making working group w/ HI & CA Sea Grant
- Managed art submissions for a state sponsored conference (2024 Bay Delta Science Conference)

Laboratory Technician **May 2021 – Jan 2024**

Southern California Coastal Water Research Project

- Conducted California Rapid Assessment Method (CRAM) for various watersheds (Episodic and Ephemeral)
- Developed R-based data pipelines and visualizations for hydrologic and biological data
- Assisted in storm water analysis and sewage pipe integrity monitoring

Laboratory Technician **May 2022 – Aug 2023**

Sunken Seaweed LLC

- Prepared and analyzed macroalgal samples using Mass Spectrometry for carbon, nitrogen and phosphorus
- Coordinated laboratory volunteer efforts and ensured accuracy in nutrient analysis

Junior Specialist **July 2018 – Dec 2020**

UC Davis: Grosholz lab: Suisun Marsh Salinity Study

- Led all field and lab operations in Suisun Marsh, CA
- Conducted chlorophyll, zooplankton and clam sampling for ecosystem monitoring and research objectives
- Deployed and maintained water quality monitoring equipment in Suisun Marsh for over a year
- Managed and analyzed 3 years of project data independently, ensuring accurate and timely reporting.
- Co-developed experimental designs and research protocols creating novel research approaches

- Collaborated with multiple labs and agencies to streamline research and data sharing efforts

Student Assistant **May 2021 – Jan 2024**

UC Davis: Hobbs lab: Biogeochemical and Fish Ecology Lab

- Assisted with boat-based fieldwork in various SF Bay tributaries, deploying SLS, otter, and 20mm trawls.
- Processed and Identified contents of trawl samples for Myside shrimp, invertebrates and larval fish species
- Entered and managed data for a multi-year study Long Fin Smelt study

Student Assistant **May 2021 – Jan 2024**

UC Davis: Teh Lab: Aquatic Toxicology Laboratory

- Conducted reference toxicity testing and prepared water standards for experimental protocols.
- Cultured algae and handled fish euthanasia using MS222 in accordance with lab standards.
- Performed hardness, alkalinity, and ammonia analysis to assess water quality.
- Applied sterilization techniques and handled concentrated herbicides for lab experiments.

Other Research Experience

Juvenile Chinook Tagging **Jan 2019 - Feb 2020**
UC Davis: Ryple lab

Suisun Marsh Fish Study **Jan 2015 - Sept 2020**
UC Davis: Moyle/Durand lab

Native Tule Restoration **Sept 2018**
Department of Water Resources

Tomales Bay Invertebrate Community Composition **June 2018 - 2020**
UC Davis: Ben Rubinoff

Putah Creek Rotary Screw trap **March 2017 - June 2017**
UC Davis: Moyle lab

Skills & Abilities

- Meeting facilitation
- Technical scientific reporting and writing
- Science communication
- Algal Identification
- Mass spectrometry sample prep, analysis & maintenance
- CA wetland plant identification
- Image J
- R studio: Data Visualization and Data Pipelines
- ESRI story map
- Soil analysis
- Fish, polychaete and mollusk husbandry
- Handling chemicals: acids, bases, and herbicides

Certifications & Trainings

CA Tribal Affairs 101 Training **2024**
Meeting Facilitation Training: ***California Sea Grant*** **2024**
Summer Science Mentorship Training Program: ***California Sea Grant*** **2023**
Center for Teaching and Learning Graduate Teaching Certificate: ***San Diego State University*** **2022**
Implicit Bias and Microaggression Workshop: ***CSU COAST*** **2021**
Active Bystander Intervention Workshop: ***CSU COAST*** **2021**
Motorboat Operator Training Course: ***UC Davis Bodega Marine Lab*** **2018**

Awards

Elliot Family Fund Scholarship ($5,000): ***San Diego State University*** **2023**
Dr. Kenneth H. Coale Graduate Scholar Award ($4,000): ***CSU COAST*** **2023**

Environmental Data Science Innovation & Inclusion Lab Summit Travel award ($1,000): ***NSF*** **2023**
Sustainable Oceans National Science Foundation Scholars Program ($1,000): ***UC Davis*** **2022**
Harold & June Grant Memorial Scholarship ($2,500): ***San Diego State University*** **2021**
University Grant ($9,000): ***San Diego State University*** **2021**
Biology Scholarship ($1,164): ***San Diego State University*** **2020**
Citation for Outstanding Undergraduate Achievement : ***UC Davis*** **2018**

Outreach

Pride Committee Speaker Series: ***California Natural Resource Agency*** **2024**

- Coordinated disability pride month secretary speaker series, contacted and organized speakers

Marine Science Day Donation Coordinator: ***San Diego State University*** **2023 - 2024**

- Contacted over 50 local companies for donations that were raffled for Marine Science Day where we had over 1200 attendees

Marine Science Career and Research Presentation: ***Be-Wise Girls San Diego*** **2023**

- Co-created a presentation and tour for 7th-12th grade girls interested in marine science

Science Leader Volunteer: ***Ocean Discovery Institute*** **2023 – Present**

- Engaged K-6th students from underserved communities, sharing my research and inspiring interest in marine science careers

Aquaculture Community Science Outreach: ***Blue Economy Symposium: Fort Bragg, CA*** **2022**

- Demonstrated purple urchin aquaculture to the Fort Bragg, CA community at the Noyo Science Center

Professional Service

SURE Student Applicant Reviewer: ***California Sea Grant at San Diego State University*** **2022**
Student Travel Grant Reviewer: ***Western Society of Naturalists*** **2022**

Selected Presentations

Weidenfeld, J., Grosholz T. "Experimental field study of growth and survival of invasive clams in Montezuma Slough" Poster presentation at Bay Delta Science Conference 2024.

Weidenfeld, J., Hentschel B. "Effects of a Sea Urchins diet on its commensal polychaete *Flabesymbios commensalis*" Oral presentation at Sustainable Oceans Symposium, 2023.

Weidenfeld, J., Grosholz T. "Growth of *Potamocorbula amurensis* and *Corbicula fluminea* in Suisun Marsh 2018" Oral Presentation at Estuarine Ecology Team, 2020.

Weidenfeld, J., Grosholz T. "Experimental field study of growth and survival of invasive clams in Montezuma Slough" Recorded Oral Presentation at Virtual Interagency Ecological Program, Aug 2020

Teaching Experience

Biological Statistics Using RStudio: ***San Diego State University*** **2022 – 2024**
Intro to Animal Biology: ***San Diego State University*** **2021**
General Biology: ***San Diego State University*** **2020**

Activities and Organizations

Student Co-Chair: ***The Western Society of Naturalists*** **2021-2023**
Treasurer: ***Marine Ecology and Biology Student Association San Diego State University*** **2021-2024**
Photographer: ***American Fisheries Society Cal-Neva chapter*** **2019**
Docent & Waterways field trip assistant: ***Putah Creek Council*** **2019-2020**
Treasurer: ***American Fisheries Society Davis-Sac Subunit*** **2017-2018**
Stewardship Leader: ***Putah Creek Council*** **2014-2016**