HOPE HAHN

Central and Northern California Ocean Observing System
Monterey Bay Aquarium Research Institute
hhahn@mbari.org | (831) 775-1891 | https://h-hahn.github.io/

EDUCATION

Master of Environmental Data Science, 4.00 GPA (June 2024)

Bren School of Environmental Science & Management – University of California, Santa Barbara

Highlighted Coursework: Geospatial Analysis, Modeling Environmental Systems, Statistics for Environmental Data Science, Working with Environmental Datasets, Data Visualization and Communication

Bachelor of Science in Aquatic Biology, 3.67 GPA (June 2022)

University of California, Santa Barbara

Honors/Awards: Distinction in the Major for Outstanding Undergraduate Research (2022); Dean's Honors (6 quarters); Schmidt Family Foundation Research Award (2021)

Senior Thesis: Global Synthesis on the Extent and Causes of Coral-to-Macroalgae Phase Shifts

WORK EXPERIENCE

Monterey Bay Aquarium Research Institute, Moss Landing, CA

CeNCOOS Research Technician – Data Management and Cyberinfrastructure (8/2026 – Present)

- Prepare data for integration into CeNCOOS DMAC systems including alignment of data to national and/or international metadata formats and standards (e.g. NetCDF, EML, OBIS-ENV-DATA)
- Contribute to the development capabilities to visualize or process CeNCOOS data holdings, including via knowledge and context gathering facilitated through work of the CeNCOOS Engagement Specialist
- Participate in data quality assessment and quality control as required, including flagging outlier data summary statistics analysis, aligning label and vocabularies in large and long-term datasets

Dr. Cherie Briggs Lab – UCSB EEMB, Goleta, CA

Database Manager (9/2024 – 11/2025)

- Built a centralized database to support annual aquatic and amphibian field monitoring from various sites sampled from the Johnson Lab at CU Boulder
- Designed a reproducible data pipeline for data entry and QA/QC of field survey datasets using R and SQL
- Collaborated with researchers across universities to standardize ecological data, improving usability for biological analyses
- Prepared technical documentation and metadata to support consistent data collection for environmental monitoring projects

Dr. Cherie Briggs Lab – UCSB EEMB, Goleta, CA

Laboratory Technician (9/2022 – 3/2024) | **Undergraduate Researcher** (6/2021 – 3/2022)

- Conducted annual amphibian and macroinvertebrate surveys at East Bay ponds, collecting environmental samples to monitor infection dynamics and identify potential vectors for California Red-Legged Frogs, Chorus Frogs, Bullfrogs, and Newts
- Processed field samples for laboratory analyses, including DNA extraction and qPCR, generating accurate data for ecological assessments
- Performed qPCR to identify Bd infection and quantify zoospore load, which provided data on Bd prevalence and transmission across amphibian populations

Dr. Hillary Young Lab – UCSB EEMB, Goleta, CA

Laboratory Technician (9/2022–2/2023)

- Extracted DNA from small mammal feces to prepare for PCR to identify diseases and collect data for a project that modeled disease spread from small animals to humans in Madagascar
- Quantified DNA extracted using a Qubit Fluorometer to ensure that there was sufficient DNA for PCR

DATA PROJECTS

Improving Access to Fish Consumption Advisories and Maintaining Confidence in CA's Healthy Seafood Products

Role: Data Manager | Clients: Scripps Institution of Oceanography, CalCOFI (1/2024–6/2024)

- Designed and implemented an interactive web application using RShiny to educate the public on potential fish DDT contamination based on aquatic monitoring data across multiple organizations
- Enhanced our client's DDT prediction model by integrating it into a machine learning workflow, validating prediction accuracy
- Managed and organized the team's GitHub repository, ensuring streamlined data access and efficient collaboration.

SKILLS & CERTIFICATIONS

Programming and Software Skills: R/RStudio, Python, PostgreSQL, GitHub, DBeaver, VS Code, Microsoft Office

Certifications: NAUI Open Water SCUBA Diver