KATE A. BECKER

katebecker@ucsb.edu | 732-998-5122 | [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

EDUCATION

Master of Environmental Data Science (June 2024)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)

> Highlighted Coursework: Environmental Policy Evaluation, Machine Learning, Data Visualization, Geospatial Analysis and Remote Sensing, Scientific Programming, Analytical Workflows, and Scientific Reproducibility, Statistical Modelling, Text Sent Analysis

Bachelor of Science in Environmental Studies (June 2023)
University of California, Santa Barbara (UCSB)

> Concentrations: Environmental Policy, Sustainability, Climate Change, and Conservation
> International Academic Field Studies Program: Wildlands Studies Hawaii, Big Island, Hawaii (3/21–5/21); Focus on marine and terrestrial field research as well as indigenous marine management and food systems

MASTER'S CAPSTONE PROJECT

Improving Access to Consumption Advisories and Maintaining Confidence in California's Seafood Products (1/24–6/24)
Role: Product Leader | **Clients**: Scripps Institute of Oceanography, California Cooperative Oceanic Fisheries Investigations (CalCOFI) | **Deliverables**: Interactive Web Application, Shiny Dashboard Github Repository, User Manual and Technical Guide | **Repository** | **Blog**

- Executed the creation and deployment of the interactive, data–driven, and public-facing online SaferSeafood application to visualize DDT concentrations for specific fish species and location of capture
- Developed a spatiotemporal statistical model to predict DDT concentrations in sport fish across Southern California
- Invited to attend the Southern California Oceanic Observing Systems Conference (SCOOS) in San Diego

FISHERIES MANAGEMENT EXPERIENCE

Undergraduate Researcher
Eliason Lab – UCSB, Santa Barbara**,** CA (3/22–6/23)

- Investigated thermal tolerance of fishes under fluctuating temperatures and varying diet quality using cardiovascular performance as a metric
- Performed fish husbandry for approximately 130 *Fundulus parvipinnis and Girella nigricans* in a wet lab over six months
- Aided in data collection for copper toxicity tolerance research in *Mytilus galloprovincialis*

Summer Intern
Eliason Lab - **UCSB**, Santa Barbara, CA (5/22–8/22)

- Designed the investigation of parasite load, *Euhaplorchis californiensis*, in the brain regions of California killifish, *Fundulus parvipinnis*, as it pertains to thermal tolerance
- Awarded UCSB Coastal Fund ($5,000)

ADDITIONAL EXPERIENCE

Fine Dining Waitress, The Kitchen American Bistro, Boulder, CO (7/24–Present)

- Cultivated a welcoming atmosphere, mirroring the comfort and warmth of a home kitchen
- Upheld the restaurant's mission, established by Kimbal Musk, to provide an exceptional and personalized dining experience
- Expertly served elevated international dishes and craft cocktails with in-depth knowledge of menu items, flavor profiles, pairing options, and allergens
- Provided attentive service across brunch, lunch, and dinner shifts while taking on additional responsibilities such as food running, restocking, bussing, hostessing, and ensuring sanitation standards

Fine Dining Waitress, The Ritz-Carlton Bacara, Santa Barbara, CA (6/21–1/22)

- Served food and beverages to a variety of high-profile guests for an average of 40 hours a week while receiving Bachelor's degree
- Memorized hotel guest profiles, daily specials, seasonal cocktail list, and regular menu, including possible allergens
- Performed extra work as needed such as food running, barista, restocking, cleaning, and private event staff

Boutique Sales Associate Stella E Luna Boutique, Point Pleasant, NJ (5/19–10/19)
Strengthened upscale boutique by managing and processing sales, social media marketing, and customer satisfaction

Food Service Shore Fresh Seafood Restaurant & Market, Point Pleasant, NJ (6/18–10/18)
Provided food and beverage service to an average of seven tables at once while coordinating seafood market

SKILLS, CERTIFICATION, & ADDITIONAL EDUCATION

Technical: Spatial Mapping in ArcGIS, Statistical Analysis and Data Visualization in R Studio, UX Design, Python, Machine Learning, Google Workspace, Scientific Writing, R, Python, SQL, Git, (Basic) Command Line, Microsoft Office (Word, Excel, PowerPoint), Java, HTML, and CSS

Research Qualifications: IACUC Training (Fish), CITI Wildlife Research, CITI Working with Fish in Research Settings
Certification: PADI Open Water Diver

Additional Education: University of Queensland, Australia UCEAP Study Abroad Program (Winter 2021 and Spring 2021); Accepted twice into competitive academic program but canceled due to COVID-19; Marine Biology and Terrestrial Ecology courses while working in conjunction with the Heron Island Research Station

Writing, Research, and Presentation: Report writing, literature review, policy memos, and public presentations

PROJECTS

Phenology Investigation
> **Master's Geospatial Analysis and Remote Sensing Course Project**
> Employing landsat data
> Creating an NDVI function
> Raster manipulation
> **Link to repository**: https://github.com/kateebeckerr/Phenology_Investigation.git

Remote Sensing Land Cover
> **Master's Geospatial Analysis and Remote Sensing Course Project**
> Converting landsat values to reflectance values
> True Color Imagery
> Creating and applying a decision tree classifier
> **Link to repository**: https://github.com/kateebeckerr/RemoteSensing_Landcover.git

Redlining Injustices
> **Master's Geospatial Analysis and Remote Sensing Course Project**
> Employing EJ Screen Data
> Spatial Mapping
> Wrangling geometries
> **Link to repository**: https://github.com/kateebeckerr/Redlining_Injustices.git

Santa Barbara Thomas Fire
> **Master's Geospatial Working with Environmental Datasets Course Project**
> Employing EPA data and Landsat 8 satellite data
> Raster data processing
> True and False Color Image construction
> ` **Link to repository: https://github.com/kateebeckerr/ThomasFire_Analysis**

Fisheries in Alaska
> **Master's Data Visualization Course Project**
> Employing Alaska Department of Fish and Game Data and GIS Shapefiles
> DEI lens application
> Spatial Mapping
> Wrangling Geometries
> Time Series Analysis
> **Link to repository: https://github.com/kateebeckerr/Becker-eds240-Final**