**KATE A. BECKER**

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**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**](https://github.com/SaferSeafood) | [**Blog**](https://bren.ucsb.edu/projects/improving-access-fish-consumption-advisories-and-maintaining-confidence-californias)

* Executed the creation and deployment of the interactive, data–driven, and public-facing online [SaferSeafood application](https://shiny.calcofi.io/SaferSeafood/) 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**](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**](https://github.com/kateebeckerr/Becker-eds240-Final)