

Taylor Yorkey

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Data analyst with expertise in R, GIS, spatial analysis, and environmental data management. Experienced in developing and maintaining data pipelines, creating dynamic visualizations, and communicating technical findings to diverse audiences.

EDUCATION

Master of Environmental Science and Management, 3.96 GPA

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

Specialization: Conservation Planning

Highlighted Coursework: Advanced Data Analysis, Conservation Planning, Advanced GIS, Applied Population Ecology, Computing for Environmental Science, Management of Scientific Data

Bachelor of Science in Environmental Studies, 3.48 GPA

University of California, Santa Barbara (UCSB)

Honors/Awards: Regents Scholar, Dean's List; Edison-McNair GRE Preparation Course Scholarship (Spring 2018), Edison-McNair grant for 8-week GIS research project (Summer 2018)

Study Abroad: University of Copenhagen, Denmark; Awarded U.S. Department of State's Benjamin A. Gilman International Scholarship and UC Education Abroad Program's Promise Scholarship (Fall 2017)

MASTERS' GROUP PROJECT

Assessing Impacts of Pinniped Acoustic Deterrents on Migratory Cetacean Species in Channel Islands and Monterey Bay National Marine Sanctuaries (3/21-6/22)

Client: National Oceanic and Atmospheric Administration (NOAA) | **Role:** Data Manager

- Analyzed spatial and temporal dynamics of acoustic detonations in relation to cetacean migratory pathways utilizing ArcGIS, R and RStudio Shiny web applications for dynamic visualizations, working in collaboration with NOAA, California Department of Fish and Wildlife (CDFW) and the Scripps Institute of Oceanography.
- Created visual maps using ArcGIS of confirmed acoustic detonations overlaid onto cetacean migratory pathways, as well as maps of historical squid fishing industry activities in relation to acoustic detonations.
- Built a species distribution model of squid fishing pressure utilizing MaxEnt modelling software, resulting in 12 monthly probability surfaces of squid fishing in order to correlate fishing pressure with acoustic detonations.
- Compiled findings into educational outreach and guidance documents for collaborating agencies, culminating in a 90+ page report to inform fisheries' best practices on acoustic deterrent use.

PROFESSIONAL EXPERIENCE

Data Analyst - E Source

Santa Barbara, CA (3/23-Present)

- Develop and automate data analysis workflows in R to streamline reporting and decision-making processes.
- Perform statistical and spatial analysis using R to support environmental impact assessments and resource management projects.

-Continued-

- Build and maintain R Shiny applications to enable interactive data exploration for stakeholders.
- Clean, process, and analyze large datasets to derive insights and trends in environmental data.
- Communicate technical insights through reports, dashboards, and presentations tailored to stakeholders with varying levels of technical expertise.
- Create GIS layers and visualizations to support spatial data analysis as needed.

Arnhold Environmental Graduate Fellow – Environmental Market Solutions Lab (emLab), UCSB
Santa Barbara, CA (9/21-9/22)

- Performed thorough literature review and analyzed land use change under different future climate scenarios utilizing various land use datasets and projection models such as GCAM-Demeter and CLUMondo.
- Quantitatively compared future land use projections from various sources in regards to cropland usage, livestock density, and human population density to investigate and identify areas of potential increased human-wildlife conflict (HWC).
- Created visualizations of hotspots for projected HWC in specific regions of interest utilizing findings of land use change analysis, thus projecting future directions of HWC and informing management decisions.
- Created species distribution models for African lions using MaxEnt and Wallace programs, establishing a baseline of lion distribution for comparison against future climate projections and species range shifts.
- Produced reports for program donors summarizing key findings and outlining future project directions, including establishing future species range shifts in association with human-induced climate change.

Biodiversity & Climate Change Intern – Conservation International, Moore Center for Science
Santa Barbara, CA (4/21-9/21)

- Developed interactive web application using R Shiny for evaluation of biodiversity and irrecoverable carbon metrics in user-defined areas of interest for use by both scientists and the public.
- Conducted data analysis, visualization, report formatting and writing for a compendium of five comprehensive climate change vulnerability assessments for tropical conservation sites in Peru, Guatemala, and Kenya.
- Contributed to the development of a web-based application to rapidly produce a multi-axis vulnerability screening for any user-defined area.
- Incorporated novel data sets and structures into web applications in collaboration with Conservation International scientists, thus reducing processing time for site assessments.

Mission Continuity Specialist – Environmental Health & Safety, UCSB
Santa Barbara, CA (12/18-1/21)

- Managed university's continuity program by working directly with departments to develop business continuity plans focusing on Campus Essential Functions.
- Implemented and oversaw execution of a pilot program to simultaneously develop 32 departmental continuity plans using a network of Google Forms, Google Shared Drives, and Salesforce UC Ready software.
- Managed and maintained university's database of business continuity plans for accuracy and rapid deployment during disasters or disruptions.
- Oversaw the development of a virtual Emergency Operations Center (EOC) platform using Microsoft SharePoint, for use by campus leadership during times of disruption when a physical presence on campus is not possible, which became the foundation for EOC operations during the COVID-19 pandemic.

- Supervised 2 student employees in matters of campus preparedness and emergency management GIS.

CERTIFICATIONS

Environmental Health & Safety Generalist (12/18)

California Department of Fish and Wildlife (CDFW) Oil Spill Prevention & Response Training (10/19)

SKILLS & ADDITIONAL TRAINING

Technical: GIS (ArcMap, QGIS), Esri Training MOOC: Cartography, NASA ARSET Training: Using Google Earth Engine for Land Monitoring Applications

Computer: Microsoft Office (Word, PowerPoint, Excel, Teams), Google Suite (Docs, Sheets, Drive), Zoom

Emergency Response: First Aid Certified (04/22), Community Emergency Response Team (02/19-01/21)

PROJECTS & LEADERSHIP

Secretary, Board of Directors – Santa Barbara Outrigger Canoe Club (SBOCC) (2024-Present)

- Manage board communications, meeting agendas, and official records.
- Assist in decision-making and strategic planning for team growth and community engagement.
- Support event planning and logistics, including race coordination and fundraising initiatives.

SBOCC Rig Run Paddling Race Planning Committee (01/24-06/24)

- Led GIS mapping for racecourse visualization and logistics planning.
- Coordinated with team members to integrate Hawaiian cultural elements into event programming.