

# Taylor Lockmann

760-701-0017 | tlockmann@ucsb.edu | [LinkedIn](#) | Santa Barbara, CA

Environmental scientist with experience in spatial planning, data analysis, and science communication. Developed web applications for both technical and non-technical audiences to explore novel environmental data sets.

## 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, Ecology of Managed Ecosystems, Conservation Planning, Conservation Planning Practicum, Advanced GIS, Climate Change Biology, Applied Population Ecology, Computing for Environmental Science, Groundwater Management, Strategic Planning for Non-Profit Ventures, 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 (1 quarter); 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.

## DATA MANAGEMENT & GIS RESEARCH EXPERIENCE

---

**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.

-Continued-

## DATA MANAGEMENT & GIS RESEARCH EXPERIENCE continued

---

### 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.

## PROJECT MANAGEMENT EXPERIENCE

---

### Environmental Scientist – Blue Tomorrow, LLC

Santa Barbara, CA (9/22-12/22)

- Oversaw project development specific to client needs; from scope and budget considerations, to project timeline and steps to completion, to implementation and monitoring plans.
- Built, evaluated, and prioritized climate change adaptation actions for Tribal governments based on vulnerability assessments, Tribal resources, and Tribal leadership needs.
- Conducted technical reviews and produced environmental reports and protection measures pursuant to NEPA and CEQA regulations for qualifying project sites.
- Conducted project site visits with stakeholders to determine specific needs and construct conceptual models of barrier improvements for field sites.

### 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)