Juliet Cohen

(818) 620-0343 | jscohen@bren.ucsb.edu | GitHub | Website | Santa Barbara, CA

SUMMARY OF QUALIFICATIONS

- Extensive experience programming in R, working with API's, large data sets, visualization, and GitHub
- Manage environmental data and metadata for the Arctic Data Center at NCEAS
- Served as a data specialist for biological conservation projects, modeled species distributions, collaborated with partner agencies, and summarized monthly data reports
- 5 years of ecological research, field work, and team leadership experience

EDUCATION

Master of Environmental Data Science (Expected June 2022)
Bren School of Environmental Science & Management - University of California, Santa Barbara
GPA: 4.0
Selected Coursework: Scientific Programming Essentials; Remote Sensing and Environmental Data; Analytical Workflows and Scientific Reproducibility; Spatial Analysis for Environmental Data Science

Bachelor of Science in Ecology and Evolution (June 2019)
University of California, Santa Barbara
Honors: Distinction in the Major (Major GPA: 3.7)
Study Abroad: Monteverde Institute, Costa Rica - Tropical Biology and Conservation Program
Athletics: Rowing Team

AWARDS & SCHOLARSHIPS

Undergraduate Research and Creative Activities Grant 2018
Awarded $750 by UC Santa Barbara to fund senior thesis research (see Ecological Research & Papers below)

Dean Bazzi Memorial Scholarship 2018
$500 Awarded to an outstanding student in the area of aquatic biology, environmental biology, or Zoology

UC Santa Barbara EAP Gaucho Scholarship 2018
Scholarship for $2000 allocated towards study abroad experience at the Monteverde Institute, Costa Rica

ECOLOGICAL RESEARCH & PAPERS

Master's Capstone Project: A machine learning approach to analyze crop yields and environmental change in Sub-Saharan Africa through satellite imagery (1/22 – present)

- Role: Data Manager (executes data cleaning, quality control, metadata, and large-scale data analysis)
- Develop an open-source pipeline in Python and R to streamline the analysis crop yields and socioeconomic factors through satellite imagery and machine learning on remote servers
- Empower resource-poor countries to monitor the impact of climate change on food security

Anthropogenic niche partitioning: mesocarnivore spatial and temporal coexistence along an urban gradient through camera traps (6/18 – 6/19)

- Independent senior thesis project conducted throughout Santa Barbara County
- Funded through Undergraduate Research and Creative Activities Grant
- Poster presentation at the *UC Santa Barbara Undergraduate Research Colloquium*
- See Research section on personal website (linked above) for poster

Filtration Efficiency in Bivalves: effects of species and size in oysters and mussels (9/18 – 12/18)

- Scientific paper presented at *Monteverde Institute Research Symposium 2018* in Monteverde, Costa Rica
- Funded research through Tropical Biology and Conservation program
- See Research section on personal website (linked above) for scientific paper

DATA SCIENCE & CONSERVATION WORK EXPERIENCE

National Center for Ecological Analysis and Synthesis – Arctic Data Center Intern (1/22 – present)
- Programming in R, using application programming interfaces to upload and manage data and metadata for the Arctic Data Center, the primary repository for the National Science Foundation's Office of Polar Programs
- Correspond with researchers to publish open-source data and metadata to the DataOne repository
- Collaborate with NCEAS scientists (Slack, email, etc.)

Pacific States Marine Fisheries Commission & CDFW - Fisheries Technician (12/20 – 6/21)
- Monitored endangered Southern California steelhead trout (*Oncorhynchus mykiss*) populations
- Utilized DIDSON underwater sonar cameras to monitor fish populations, train employees in software
- Conducted trout spawning surveys, electrofishing, PIT tagging, and executed database QA/QC

Oahu Invasive Species Committee - Data Specialist & Field Technician (9/19 – 8/20)
- Served as data specialist and crew leader in field surveys for incipient invasive flora and fauna on Oahu
- Mapped in ArcGIS, ran queries, executed species distribution modeling and database quality control
- Hiked in mountainous terrain through rugged forests and watersheds
- Sampled endemic tree species for presence of invasive fungal pathogen
- Communicated with the public and reporting to partner organizations in Hawaii
- Conducted aerial surveys via helicopter, as well as insert-extract operations

San Diego Natural History Museum - Field Technician (5/19 – 7/19)
- Led field surveys of the flat-tailed horned lizard, a highly cryptic species of special concern threatened by anthropogenic activity
- Hiked survey transects in arid desert habitat, handled reptiles, identified scat, navigated unmaintained desert roads driving 4-wheel drive vehicles, used Collector for ArcGIS

UC Santa Barbara McCauley Lab - Research Assistant (9/17 – 5/19)
- Conducted mesocarnivore spatial ecology research studying anthropogenic impacts on behavior
- Trapped, handled, and collared mesocarnivores with radio collars and tracked via VHF radio-telemetry
- Administered anesthesia, collected hair samples for stable isotope analysis, managed remote cameras

ADDITIONAL WORK EXPERIENCE

Cheadle Center for Biodiversity and Ecological Restoration – Field Technician (1/18 – 5/19)
Wetland field restoration, herbarium maintenance, and botanical specimen preparation
Channel Islands Restoration - Field Assistant (8/17)
Surveyed for endangered plant species in wetland habitat of Carpinteria salt marshes
Partnership for the Interdisciplinary Study of Coastal Oceans - Laboratory Intern (6/17 – 9/17)
Identified invertebrate species with microscope to reveal long term trends in intertidal marine life

SKILLS AND CERTIFICATIONS

Computer Program Fluency: R, Python, Ecological Metadata Language, ArcGIS, SQL, GitHub, DIDSON sonar metrics software, Microsoft Access, Microsoft Suite

Field Skills: Trap and handle wildlife, monitor mammals using VHF radio-telemetry techniques and remote cameras, drive 4-wheel drive vehicles, lead field surveys, landscape restoration and horticulture

Certifications: Wilderness First Aid, Interagency Aviation Training, IACUC, First Aid, CPR