MIKE BUTLER

1230 Fredericks St., Apt. C, San Luis Obispo, CA - mbutle21@calpoly.edu - (925) 332-6775

EDUCATION

M.S. Biological Sciences (In Progress)

California Polytechnic State University, San Luis Obispo, San Luis Obispo, CA (Summer 2024 -)

B.S. Environmental Science and Policy, Biology Minor (3.94 GPA)

California State University Long Beach, Long Beach, CA, December 2022

HONORS AND AWARDS

- David and Frieda Wertman Scholarship Recipient, Cal Poly (2024)
- Richard D. Green Dean's Awardee- Outstanding Baccalaureate Graduate, CSULB (2023)
- COAST Undergraduate Research Grant Awardee, CSULB (2022)
- Port of Long Beach Environmental Science Scholarship Recipient, CSULB (2022)
- President's Honor List, CSULB (Fall 2018 through Fall 2022)

WORK AND RESEARCH EXPERIENCE

Botanist / Restoration Technician, Chambers Group Inc, Santa Ana, CA (October 2023 – June 2024)

- Performed two rounds of targeted rare plant surveys for *Calochortus catalinae*, *Convolvulus simulans*, *Malacothamnus davidsonii* and other CRPR species in Simi Valley
- Surveyed vegetation as part of an ongoing study in three canyons in the San Bernadino Mountains, near Lake Arrowhead
- Performed ongoing rapid response removal as contracted by Orange County Parks for high priority emerging invasives such as Stinking Roger (*Osteospermum calendulaceum*), at present found at just a single site in North America
- Performed restoration activities including planting and watering native species, and removing non-native species for various Orange County Parks and city of Newport Beach projects

Seasonal Botany Biotechnician, National Park Service, Thousand Oaks, CA (February – May 2023)

- Led a field crew of interns in surveying 70 plots across the Santa Monica Mountains NRA, navigating off-trail to remote backcountry plots in chaparral, coastal sage scrub, oak woodlands, and non-native grasslands
- Performed 30m point-line transect surveys, accurately keying plants out and recording species richness, abundance, and height data
    - Recorded the age structure of shrub and tree populations for select plots
- Assisted with designing and establishing six experimental restoration plots across two NPS sites for *Pentachaeta lyonii* (CRPR 1B.1)
- Contributed to photo databases, both internal (NPS) and external (CalPhotos)

Undergraduate Research Assistant, Wetlands Ecology Lab at CSULB, Long Beach, CA (Spring 2021 - Spring 2023)

- Conducted my own research project in Upper Newport Bay, studying soil organic carbon content across tidal elevations of the salt marsh, analyzing differences in soil carbon storage as it varied with plant community composition and canopy complexity
    - Surveyed salt marsh vegetation along two transects (five 1m2 quadrats each), recording species richness, percent cover and canopy complexity
    - Collected a total of 20 soil samples and performed lab analyses, including combustion analysis for organic carbon content, and grain size analysis via the hydrometer method
    - Performed statistical analysis of results with R and Excel
- Performed more than five aquatic seining surveys at the Colorado Lagoon, Huntington Beach Wetlands, and Los Peñasquitos Marsh
- Performed a survey for the Ridgway's Rail, a federally endangered species, in Upper Newport Bay
- Assisted a graduate student with their project studying non-native Yellow Flag Iris (*Iris pseudacorus*) in San Diego's Los Peñasquitos estuary
    - Recorded insect pollinator visitation within quadrats of Yellow Flag Iris and within quadrats of native riparian plants at the freshwater site
    - Recorded insect herbivory data on Yellow Flag Iris along transects at the brackish site
- Processed soil samples from graduate students and other lab projects
    - Analyzed organic carbon content for 63 samples, and grain size for 66 samples

LOB Herbarium Assistant, CSULB, Long Beach, CA (January – February 2023)

- Mounted and labeled dried plant collections onto herbarium sheets

Senior Capstone Project, CSULB, Long Beach, CA (Fall 2022)

- Led a group of seven students in developing a dendroclimatological study of blue oaks (*Quercus douglasii*) at a field site in the central valley (Tulare County)
- Studied the effects of drought on the growth of blue oaks across distinct areas on the former cattle ranch property through increment core analysis
    - Collected, mounted, and sanded increment core samples from 20 blue oaks
    - Recorded DBH and height data for each, utilizing a laser rangefinder and a DBH tape
    - Recorded GPS coordinates for each with an Arrow unit and the FieldMaps app
    - Cross referenced increment cores against each other and historic precipitation data for Tulare County
- Used ArcGIS Pro to analyze and explain the effects of geographic factors (slope and aspect) on sensitivity of growth rings to variation in annual precipitation

Naturalist, Palos Verdes Peninsula Land Conservancy, Rolling Hills Estates, CA (September 2021 – May 2022)

- Staffed the White Point Nature Education Center and George F. Canyon Nature Center, distributing educational materials to the public and fielding questions
- Educated the public about California native coastal sage scrub, chaparral, and riparian plant communities, wildlife, and the natural and cultural history of the Palos Verdes peninsula

- Managed native plant sales at the nature center, maintaining an excel database of our sales and stock and placing orders for the most in demand plants from our nursery in anticipation of running out
- Led numerous guided nature hikes through White Point and George F. Canyon Preserve
- Trained two new hires in nature center operations
- Conducted seed banking in accordance with SeedLA guidelines for Lemonadeberry (*Rhus integrifolia*) and Deerweed (*Acmispon glaber*)

Nursery Intern, Tidal Influence, Long Beach, CA (Fall 2019 – Spring 2020)

- Restored salt marsh habitat through propagating and tending to native salt marsh and coastal sage scrub plants in a nursery setting, installing them at various restoration sites, and managing newly planted sites from Long Beach to Huntington Beach
- Assisted more than four public volunteer programs to conduct native habitat restoration and raise awareness about the value of coastal wetlands