
Mr. Rangel received his Bachelor of Science from the University of California, Riverside and has several years of experience in ecological restoration and wildlife conservation. Mr. Rangel's experience pertains to the flora and fauna of California focusing on botany, ecological restoration, seed collection, plant propagation, invasive plant management, mammalogy, herpetology, ornithology and entomology. He has surveyed a variety of species in California, including Lange's Metalmark Butterfly, Antioch Dunes Evening Primrose, Delta Tule Pea, Mason's Lilaeopsis, Contra Costa Wallflower, Marin Manzanita, Montara Manzanita, Kings Mountain Manzanita, San Francisco Wallflower, Tiburon Paintbrush, Franciscan Thistle, Presidio Clarkia, San Francisco Lessingia, Soft Bird's-beak, and Hispid Bird's-beak. His field experience includes the following wildlife capture and survey techniques: live mammal-trapping with Sherman traps, dip-netting, quadrant surveys, visual encounter transects, mist-netting and acoustic monitoring. He has also conducted pitfall trapping for California tiger salamanders, visual encounter surveys for California red-legged frog and other native herpetofauna throughout the west coast. **Mr. Rangel has handling experience with California tiger salamander under the supervision of 10(a)(1)(A) permitted biologist, Sean Dexter (TE#09196C-0) for the Environmental Investigations on the Former Naval Weapons Station Seal Beach Detachment-Concord - USFWS Biological Opinion (BO, #81420-2011-F-0313)(2012 BO and 2018 Amendment). He has observed and handled 21 CTS adults.**

EDUCATION

Master of Science in Environmental Science, University of San Francisco (August 2022 - Present)

Bachelor of Science with a Major in Biology, University of California, Riverside (September 2008 - June 2012)

WORK HISTORY

- **Staff Biologist, Condor Country Consulting** (January 2023 - Present)
Main responsibilities include sensitive species' biological surveys, monitoring, and maintenance of projects. Target species for animal surveys include California tiger salamander and California red-legged frog.
- **Graduate Student Instructor, University of San Francisco** (August 2022 - Present)
Lab instructor for undergraduate Introduction to Environmental Sciences course. Provided instruction in introductory environmental science topics, supervised lab activities, graded all assignments in a timely manner, and communicated course expectations and deadlines to students.
- **Restoration Operations Manager; Save The Bay** (May 2019 - July 2022)
Restoration Operations Specialist; Save The Bay (May 2017 - May 2019)
Led community-based restoration programs conducting wetland-upland ecotone restoration projects across San Francisco Bay. Assisted with project planning and restoration design; designed a planting plan for the Ravenswood R4 horizontal improvement project. Responsible for leading volunteers and staff in revegetation, invasive species removal, seed collection and nursery propagation projects. Led interpretative walks for student volunteers and taught environmental science concepts on field trips. Responsible for purchasing and maintenance of project supplies, managing project supply budgets, and maintenance of work trucks. Participated and led site-wide vegetation monitoring of restoration sites and data analysis of monitoring results. Responsible for maintenance of tools and equipment. Led annual safety training for field staff.
- **Restoration Technician; Point Blue Conservation Science** (December 2014 - May 2017)
Responsibilities include leading native plant nursery operations at the San Pablo Bay National Wildlife Refuge, leading native plant propagation, seed collection, and implanting phytosanitary protocols; providing assistance to project managers in a variety of tasks including preparations for restoration projects and field work days; leading interns, students, and volunteers in the field conducting site maintenance work such as watering, weeding, and irrigation installation and native plant installation.
- **Ecological Restoration Intern; Presidio Trust** (November 2013 - November 2014)
Duties included supporting and leading volunteer programs; implementing restoration activities such as weed management and native plant re-vegetation throughout the Presidio; assisting with adaptive

management and monitoring for rare plants throughout the GGNRA; performing vegetation surveys in restoration and stewardship sites; performing photo-monitoring for restoration sites; leading educational tours with the public, including plant and bird walks; collecting and storing botanical specimens for the Presidio Herbarium, maintaining records of work performed.

- **Antioch Dunes Seasonal Biological Technician; US Fish and Wildlife Service** (May 2013 – October 2013)
Duties included leading a summer intern crew. Developed daily work plans involving invasive plant management, vegetation mapping using Trimble GPS units, and native plant seed collection. Assisted in rare plant and invertebrate monitoring. Compiled a bird list for the refuge. Assisted with Least Tern monitoring as needed. Provided cross-refuge assistance in monitoring for Salt Marsh Harvest Mice and for herbicide treatment for invasive weeds.
- **Antioch Dunes Biology Intern; US Fish and Wildlife Service** (September 2012 – May 2013)
Duties included invasive plant management; native plant seed collecting, planting, and watering; rare plant monitoring; fire prevention management; report writing; developing a bird list for the refuge; and leading volunteer work groups. Provided cross-refuge assistance in capturing and radio tagging Clapper Rails, performing dip-net surveys for California tiger Salamander and Vernal Pool Tadpole Shrimp.
- **Supplemental Instruction Leader; UC Riverside** (September 2010 – June 2012)
Worked under the Academic Resource Center of UC Riverside to provide supplemental tutoring services in classes with historically high fail rates. Worked in association with biology and chemistry professors to identify areas in coursework where students needed reinforcement. Held group tutoring sessions multiple times a week, and held occasional midterm and final review sessions aimed at increasing students understanding of the course material.

CERTIFICATION/TRAINING

Professional

- CPR/AED – American Heart Association (June 2020)
- Wetland Training Institute's Wetland Delineation Training (October 2022)

PROFESSIONAL MEMBERSHIPS

- California Native Plant Society (East Bay)

PROJECT EXPERIENCE

- **Swainson's Hawk Nest Monitoring, Sandia National Laboratories, Livermore, CA. April 2023 – June 2023. \$42K. Role: CDFW-approved Biologist.** Monitored active nest of threatened Swainson's hawk (*Buteo swainsoni*), adjacent to water construction repair project from nesting to fledging period. Monitored the Swainson's hawk pair near active construction sites to determine if project work was inhibiting normal nesting behavior.
- **Biological Services for the former Naval Weapons Station, Seal Beach Detachment Concord, CA. US Navy Base Realignment and Closure Commission. Jan 2023 – ongoing.** Role: Assistant Biologist. In 5,000+ acre parcel, 7 wildlife exclusion fenced sites were surveyed according to the USFWS issued trapping protocol for the collection and relocation of California red-legged frogs (CRLF) and California tiger salamanders (CTS, *Ambystoma californiense*). Duties include trap setting, checking, and the processing of target and non-target species. Pitfall traps were opened and checked daily during heavy rainfall events to collect and relocate CTS (at least 30 feet from the project area). Work completed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) USFWS BO (#81420-2011-F-0313) for the Environmental Investigations on the Former Naval Weapons Station Seal Beach Detachment-Concord (2012 BO and 2018 Amendment).
- **Ravenswood R4 Levee Restoration Project, Menlo Park, CA, March 2018 - July 2022.** Role: Restoration Operations Specialist. Constructed and managed on-site division bed native plant nursery. Sourced and collected native rhizomatous plant material. Maintained and repaired nursery. Constructed

and maintained drip-irrigation systems. Designed restoration plan and led staff and volunteers in native plant installation and invasive plant removal projects. Monitored establishment of plants.

- **Bel Marin Keys Seasonal Wetland Restoration Project, Novato, CA, March 2018 - July 2022.**
Role: Restoration Operations Specialist. Constructed and managed on-site division bed native plant nursery. Sourced and collected native rhizomatous plant material. Maintained and repaired nursery. Constructed and maintained drip-irrigation systems. Led staff and volunteers in native plant installation and invasive plant removal projects. Monitored establishment of plants.
- **Bair Island Wetland Ecotone Restoration Project, Redwood City, CA, December 2017 - July 2022.**
Role: Restoration Operations Specialist. Supervised student volunteers in installation of native plants. Led invasive plant removal projects and irrigation of installed plants. Conducted vegetation monitoring for restoration sites.
- **Eden Landing Wetland Ecotone Restoration Project, Hayward, CA, December 2017 - July 2022.**
Role: Restoration Operations Specialist. Supervised student volunteers in installation of native plants. Led invasive plant removal projects and irrigation of installed plants. Conducted vegetation monitoring for restoration sites.
- **Palo Alto Baylands Wetland Ecotone Restoration Project, Palo Alto, CA, May 2017 - July 2017.**
Role: Restoration Operations Specialist. Supervised student volunteers in installation of native plants. Assisted in management of native plant nursery, including seed collection, propagation efforts, repairs and maintenance of nursery equipment and irrigation systems, and implementing phytosanitary protocols. Led invasive plant removal projects and irrigation of installed plants. Conducted vegetation monitoring for restoration sites.
- **Martin Luther King Jr. Regional Shoreline Restoration Project, Oakland, CA, May 2017- May 2017.** Role: Restoration Operations Specialist. Supervised student volunteers in installation of native plants. Assisted in management of native plant nursery, including seed collection, propagation efforts, repairs and maintenance of nursery equipment and irrigation systems, and implementing phytosanitary protocols. Led invasive plant removal projects and irrigation of installed plants. Conducted vegetation monitoring for restoration sites.
- **Sonoma Creek Levee Improvement Project, Petaluma, CA, October 2016 - May 2017.**
Role: Restoration Technician. Supervised student volunteers in installation of native plants. Managed San Pablo Bay National Wildlife Refuge native plant nursery, collected seed and managed seed inventory, led propagation efforts, repaired and maintained nursery equipment and irrigation systems, and developed phytosanitary protocols. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.
- **Sonoma Bayland Wetland Ecotone Restoration Project, Petaluma, CA, November 2015 - May 2017.** Role: Restoration Technician. Supervised student volunteers in installation of native plants. Managed San Pablo Bay National Wildlife Refuge native plant nursery, collected seed and managed seed inventory, led propagation efforts, repaired and maintained nursery equipment and irrigation systems, and developed phytosanitary protocols. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.
- **Cullinan Ranch Wetland Ecotone Restoration Project, Vallejo, CA, December 2014 - May 2017.**
Role: Restoration Technician. Supervised student volunteers in installation of native plants. Managed San Pablo Bay National Wildlife Refuge native plant nursery, collected seed and managed seed inventory, led propagation efforts, repaired and maintained nursery equipment and irrigation systems, and developed phytosanitary protocols. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.
- **Sears Point Gully Restoration Improvement Project, Petaluma, CA, December 2014 - May 2017.**
Role: Restoration Technician. Supervised student volunteers in installation of native plant containers, willow sprigs and cattle exclusion fencing. Led invasive plant removal projects. Designed and repaired drip irrigation systems. Conducted survivorship monitoring for installed plants.

- **Kings Ranch Riparian Restoration Improvement Project, Petaluma, CA, December 2014 - May 2017.** Role: Restoration Technician. Supervised student volunteers in installation of native plant containers, willow sprigs and cattle exclusion fencing. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.
- **Stony Point Quarry Creek Restoration Improvement Project, Cotati, CA, December 2014 - May 2017.** Role: Restoration Technician. Supervised student volunteers in installation of native plant containers, willow sprigs and cattle exclusion fencing. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.
- **Crane Creek Restoration Project, Santa Rosa, CA, December 2014 - May 2017.** Role: Restoration Technician. Supervised student volunteers in installation of native plant containers, willow sprigs and browser exclusion fencing. Led invasive plant removal projects across restoration site. Designed and repaired drip irrigation systems. Conducted survivorship monitoring for installed plants.
- **Green Valley Creek Restoration Project, Forestville, CA, December 2014 - May 2017.** Role: Restoration Technician. Supervised student volunteers in installation of native plant containers, willow sprigs and browser exclusion fencing. Led invasive plant removal projects and irrigation of installed plants. Conducted survivorship monitoring for installed plants.