

Mr. Kellogg is a botanist, wildlife biologist, and vegetation ecologist with 10+ years of experience in the fields of conservation biology and natural resource management. Mr. Kellogg has extensive experience conducting rare and community plant surveys, overseeing invasive vegetation management plans and fuel reduction operations, and restoring ecosystems with native plants. Mr. Kellogg also has experience conducting biological surveys for special status animal species, nesting bird surveys, construction monitoring, writing CEQA documents, authoring USACE and RWQCB permits, and is skilled at ArcGIS mapmaking and spatial analysis. Mr. Kellogg has published original research within the fields of mycology, forest pathology, and water quality management, and has experience working with clients within the academic, public, and private sectors both domestically and abroad.



EDUCATION

B.A. Environmental Studies and Anthropology, The University of North Carolina at Chapel Hill (Class of 2019)

WORK HISTORY

- **Staff Biologist:** Condor Country Consulting, Inc. Martinez, California (March 2024 – present). Responsibilities include special status species biological surveys, pre-construction monitoring, restoration, mapmaking, and GIS spatial analysis. Special status animal species surveyed and monitored for include: California Black rail, Ridgeway's rail, Salt Marsh Harvest Mouse, San Francisco Dusky-footed woodrat, California Tiger Salamander (CTS), raptor nests, and migratory bird nests. Special status plant species monitored for include: Wiggin's cholla (*Opuntia wigginsii*), Mountain sliver bush lupine (*Lupinus albifrons* var. *medius*), and Whitebark pine (*Pinus albicaulis*), among many others.
- **Project Biologist:** Montrose Environmental Group, Oakland, California (January 2024 – November 2024). Drafted Environmental Impact Reports (EIR), Environmental Impact assessments (EIA), and CEQA sections of permit applications for clients. Conducted wetland delineations for project impact assessments. Utilized ArcGIS to conduct geospatial analysis of proposed impacts to natural resources, mapped the presence of special status plant and animal species within the vicinity of proposed projects. Conducted biological monitoring of special status species on project sites, including California red-legged frog, western pond turtle, dusky footed woodrat, California rail, hoary and pallid bats, and migratory bird nesting sites. Conducted community, rare, and wetland plant surveys at project sites. Trained construction crews on best management practices and special status species impact mitigation strategies at work sites in English and Spanish.
- **Biological Science Technician:** Point Reyes National Seashore, Point Reyes Station, California (June 2023 – October 2023). Conducted rare plant surveys for federally endangered California dune plants, such as *Corisanthe valida* (Sonoma spineflower), and *Lupinus tidestromii* (Tidestrom's lupine). Surveyed the 2020 Woodward fire area of Point Reyes National Seashore for invasive plants such as *Cortaderia jubata* (Pampass grass), *Centaurea melitensis* (Maltese star thistle/tocalote), and *Aegilops triuncialis* (Barbed goatgrass), among many others. Led crews of volunteers into wilderness areas to remove invasive species via mechanical and chemical means. Created and maintained an ArcGIS map documenting areas surveyed, treated, and in need of treatment for the removal of invasive plant species within the Woodward fire burn area.

- **Consulting Utility Forester:** Davey Resource Group/ACRT Pacific, Vallejo/San Carlos, California (December 2021 – May 2023). Used ArcGIS to inventory, map, and evaluate 200 - 300 trees per week for strike potential to PG&E facilities for wildfire prevention operations. Assessed tree health using principles of forest ecology to gauge wildfire risk in Local and State Responsibility Areas (LRA/SRA). Conducted biological monitoring surveys for endemic species habitat, such as red-legged frogs, bald eagles, and Ridgeway rail in compliance with CEQA and NEPA requirements. Trained in rapid response wildfire fighting in early stages of wildfire development.
- **Habitat Restoration Technician:** RECON Environmental, Oakland, California (June 2021 – November 2021). Removed invasive plant species using mechanical, chemical, and manual techniques. Maintained hundreds of willow and native plant saplings at the company nursery for planting around the East Bay. Trained in the safe and precise application of herbicide on noxious weeds near residential areas to avoid harming human and animal communities. Trained in the use and maintenance of power tools, including weed eaters and chainsaws.
- **Regional Climate Change Adaptation and Mitigation Intern:** United States Environmental Protection Agency Region 10, remote out of Seattle, Washington office (October 2020 – December 2020). Acted as liaison between Tribal representatives of the Confederated Tribes of the Colville Reservation and the US EPA Region 10 Office for three remote webinars to discuss how to effectively manage the health implications of wildfire smoke during wildfire season. Developed a social media outreach strategy for the EPA Region 10 Office and actively coached senior staff on how to use Twitter, Facebook, and Instagram for effective community engagement. Proficiently used Canva, ArcGIS, and Google Earth to create visually appealing presentations for EPA staff, storytelling tools for community outreach, and data visualizations.

VOLUNTEER EXPERIENCE

- **Agricultural Extension Volunteer:** Peace Corps Togo, Akpité, Togo (June 2019 – March 2020). Taught agroecology to classes of 60 - 90 middle school-aged children in the French language. Organized informational workshops for 60+ farmers in the village of Akpité demonstrating high yield agroecological farming techniques and efficient animal husbandry regimes. Conducted informational interviews in French for 50+ households in Akpité to determine the community's perspective regarding developmental priorities, goals, and needs.

CERTIFICATION/TRAINING

Professional

- GIS for Climate Action, ESRI (June 2024)

Observation & Handling Experience Summary

- Alameda whipsnake
 - Total # Handled: 0, Total Survey Hours: 650+
 - Survey methods included: pre-construction surveys, construction biological monitoring
- American badger
 - Total # Handled: 0, Total Survey Hours: 600+
 - Survey methods included: pre-construction surveys, construction biological monitoring
- Bald eagle
 - Total # Handled: 0, Total Survey Hours: 1600+
 - Survey methods included: nesting bird surveys while prescribing vegetation management interventions for hazard trees, recording findings in Fieldmaps, pre-construction surveys, construction biological monitoring



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- Burrowing Owl
 - Total # Handled: 0, Total Survey Hours: 900+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - California Black rail
 - Total # Handled: 0, Total # Observed (auditory): 10, Total Survey Hours: 24
 - Survey methods included: pre-construction protocol-level surveys, construction biological monitoring
 - California red-legged frog (Juvenile and Adult)
 - Total # Handled: 0, Total # Observed: 8, Total Survey Hours: 600+
 - Survey methods included: pre-construction surveys, construction biological monitoring, capture and relocation, euthanizing competing invasive American bullfrogs
 - California Spotted owl
 - Total # Observed: 0, Total Survey Hours: 20+
 - Survey methods include: pre-construction protocol-level surveys
 - California Tiger Salamander
 - Total # Handled: 0, Total Survey Hours: 200+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - Callippe silverspot butterfly
 - Total # Handled: 0, Total Survey Hours: 200+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - Crotch's bumblebee
 - Total # Observed: 0, Total Survey Hours: 40+
 - Survey methods included: pre-construction surveys, biological monitoring
 - Golden eagle
 - Total # Handled: 0, Total Survey Hours: 2000+
 - Survey methods included: nesting bird surveys while prescribing vegetation management interventions for hazard trees, recording findings in Fieldmaps, pre-construction surveys, construction biological monitoring
 - Hoary bat
 - Total # Handled: 0, Total Survey Hours: 160+
 - Survey methods included: construction biological monitoring
 - Least Bell's vireo
 - Total # Observed: 0, Total Survey Hours: 16
 - Survey methods included: pre-construction protocol-level surveys
 - Migratory birds
 - Total # Handled: 0, Total Survey Hours: 1000
 - Survey methods included: nesting bird surveys, pre-construction monitoring, construction biological monitoring
 - Mountain silver bush lupine
 - Total # Observed: 25, Total Survey Hours: 20+
 - Survey methods included: floristic botanical survey
 - Northwestern pond turtle
 - Total # Handled: 0, Total # Observed: 1, Total Survey Hours: 400+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - Pallid bat
 - Total # Handled: 0, Total Survey Hours: 160+
 - Survey methods included: construction biological monitoring
 - Ridgeway's Rail
 - Total # Handled: 0, Total Survey Hours: 600+



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- Survey methods included: surveying spartina wetlands during herbicide applications, recording sightings on Fieldmaps and ArcGIS.
 - Salt marsh harvest mouse
 - Total # Handled: 0, Total # Observed/Positively ID'd: 0, Total Survey Hours: 225+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - San Francisco dusky-footed woodrat
 - Total # Handled: 0, Nests dismantled and relocated: 200+ Total Survey Hours: 1200+
 - Survey methods included: pre-construction surveys, construction biological monitoring
 - Soft salty bird's beak
 - Total # Observed: 1, Total Survey Hours: 40
 - Survey methods included: construction biological monitoring
 - Sonoma spineflower
 - Total # Handled: 100, Total Survey Hours: 80+
 - Survey methods included: transect counts, percent cover, using ground data to create distribution maps on ArcGIS
 - Southwestern willow flycatcher
 - Total # Observed: 0, Total Survey Hours: 16
 - Survey methods included: pre-construction protocol-level surveys
 - Swainson's hawk
 - Total # Handled: 0, Total Survey Hours: 500+
 - Survey methods included: nesting bird surveys, construction biological monitoring
 - Tidestrom's lupine
 - Total # Handled: 100, Total Survey Hours: 80+
 - Survey methods included: transect counts, percent cover, using ground data to create distribution maps on ArcGIS
 - Tricolored blackbird
 - Total # Handled: 0, Total Survey Hours: 500+
 - Survey methods included: nesting bird surveys, pre-construction surveys, construction biological monitoring
 - Whitebark pine
 - Total # Observed: 3, Total Survey Hours: 9
 - Survey methods included: pre-construction surveys, serpentine transects
 - White-tailed kite
 - Total # Handled: 0, Total # Observed: 9, Total Survey Hours: 525+
 - Survey methods included: nesting bird surveys, pre-construction surveys, construction biological monitoring
 - Wiggins cholla
 - Total # Observed: 1, Total Survey Hours: 20+
 - Survey methods included: floristic botanical survey

PROFESSIONAL MEMBERSHIPS

- The Doris Duke Conservation Scholars Program Alumni Network

PROJECT EXPERIENCE

- **Biological monitoring for the Military Ocean Terminal Concord (MOTCO) Well Replacement Project, MOTCO, Concord, CA. November 2025.** Role: Biologist/botanist. Monitored vegetation trimming activities in the pickleweed salt marsh habitat of MOTCO for Salt marsh harvest mouse (*Reithrodontomys raviventris*), as well as other special status animals and plants. Observed one Soft salty bird's beak (*Chloropyron molle ssp. molle*) on project site and flagged it to be avoided by trimming crew.
- **Pre-construction botanical surveys and biological monitoring for the University of California at Berkeley Botanical Garden Wildland Fuel Reduction Project, UC Berkeley, Berkeley, CA. July 2025 – present.** Role: Botanist/biologist. Conducted floristic botanical surveys documenting all plant species within the project site. Surveyed for rare plants before the beginning of work throughout the project site. Dismantled and relocated San Francisco dusky-footed woodrat (*Neotoma fuscipes*) within project area ahead of work crews. Monitored construction site for special status species, migratory bird and raptor nests.
- **Pre-construction botanical surveys and biological monitoring for the University of California at Berkeley Wildland Fuel Reduction Project, UC Berkeley, Berkeley, CA. July 2025 – present.** Role: Biologist. Dismantled and relocated San Francisco dusky-footed woodrat (*Neotoma fuscipes*) within project area ahead of work crews. Monitored construction site for special status species, migratory bird and raptor nests.
- **Pre-construction botanical surveys for Mammoth Mill Site Investigation, US Forest Service, Mono County, CA. June 2025.** Role: Botanist. Conducted floristic botanical surveys documenting all plant species within the project site. Surveyed for the federally threatened Whitebark pine (*Pinus albicaulis*) as well as other state and federally listed special status plant species. Conducting nesting bird surveys for migratory birds and raptors.
- **Biological monitoring for Mare Island Pickleweed Restoration Project, US Navy, Vallejo, CA. June 2025.** Role: Biologist. Conducted biological monitoring for Salt marsh harvest mouse (*Reithrodontomys raviventris*), migratory bird and raptor nests during routine vegetation management activities.
- **Pre-construction biological surveys for Mt. Laguna Air Force Station Site Inspection, US Army Corps of Engineers, San Diego County, CA. May – June 2025.** Role: Biologist. Provided environmental awareness training to personnel on site, surveyed for active bird nests, conducted informal wetland delineations, conducted floristic botanical surveys, performed habitat and vegetation community assessments, and monitored for any special status species within the project area's boundaries ahead of geophysical site inspections and soil core sampling. Protocol-level surveys were conducted for Southwestern willow flycatcher (*Empidonax traillii extimus*), California spotted owl (*Strix occidentalis occidentalis*), and Least Bell's vireo (*Vireo bellii pusillus*). Special status animal species surveyed for included: southwestern arroyo toad (*Anaxyrus californicus*), Southern California legless lizard (*Anniella stebbinsi*), golden eagle (*Aquila chrysaetos*), Crotch's bumble bee (*Bombus crotchii*), Dulzura pocket mouse (*Chaetopidus californicus femoralis*), barefoot banded gecko (*Coleonyx switaki*), Townsend's big-eared bat (*Corynorhinus townsendii*), Monarch butterfly (*Danaus plexippus*), large-blotched salamander (*Ensatina eschscholtzii*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus frantzii*), pocketed free-tailed bat (*Nyctinomops macrotis*), peninsular bighorn sheep (*Ovis canadensis nelson*), coast horned lizard (*Phrynosoma blainvillii*), Laguna Mountains skipper (*Pyrgus ruralis lagunae*), and two striped garter snake (*Thamnophis hammondi*). Special status plant species surveyed for included: delicate clarkia (*Clarkia delicata*), Cuyamaca larkspur (*Delphinium hesperium ssp. Cuyamaca*), Mt. Laguna aster (*Dieteria asteroids var. lagunensis*), Laguna Mountains goldenbush (*Ericameria cuneata var. macrocephala*), San Diego gumplant (*Grindelia ballii*), Laguna Mountains alum-root (*Heuchera brevistaminea*), San Diego sunflower (*Hulsea californica*), Parish's meadowfoam (*Limnanthes alba ssp. Parishii*), Orcutt's linanthus (*Linanthus orcuttii*), Mountain Springs bush lupine (*Lupinus albifrons var. medius*), Wiggin's cholla (*Opuntia wigginsii*), Laguna Mountains jewel-flower



(*Streptanthus bernaardinus*), San Bernardino aster (*Symphytotrichum defoliatum*), and velvety false lupine (*Thermopsis californica var semota*).

- **Biological monitoring for MOTCO Environmental Restoration Services: Groundwater Monitoring Services, US Army Corps of Engineers, Concord, CA. April - May 2025.** Role: Biologist/Monitor. Received 3-hour training from Principal Biologist Sean Dexter on how to use a “squawk box” to auditorily monitor for California black rail (*Laterallus jamaicensis coturniculus*) and recognize their calls. Conducted pre-construction surveys and biological monitoring for special status species ahead of soil core sampling of contaminated areas within the tidal marshes of the Military Ocean Terminal Concord. Conducted protocol-level surveys for California black rail, and monitored for Salt Marsh Harvest Mouse, Northwestern pond turtle, Ridgeway’s rail, migratory bird nests, and raptor nests during construction activities.
- **Botanical Survey’s for Lawrence Berkeley National Laboratory Fuel Reduction Project, the University of California at Berkeley, Berkeley, CA. April – July 2025.** Role: Botanist. Completed timed floristic botanical surveys and monitored for special status plant species in advance of UC Berkeley’s planned fuel reduction and vegetation management activities scheduled for the summer of 2025.
- **CTS Exclusion Fence Maintenance and Removal, Former Naval Weapons Station Seal Beach Detachment, United States Navy, Concord, CA. March – April 2025.** Role: Monitor. Conducted migratory bird nesting surveys and removed exclusion fencing for California Tiger Salamander (CTS) on US Navy-owned lands.
- **Biological monitoring for Vallecitos Storm Damage Repair Project, Alameda County Water District, Sunol, CA. October 2024.** Role: Monitor. Repair work on riprap banks of man-made canal and removal of vegetation from canal beds required special-status species monitoring. Duties included monitoring construction activities, relocating special-status animal species, conducting bilingual environmental training for construction crews, and coordinating monitoring schedules with engineers, construction crews, and biologists. Conducted biological monitoring for the following listed species: Alameda whipsnake, California red-legged frog (CRLF), California Tiger Salamander (CTS), burrowing owl, American badger, San Francisco dusky-footed woodrat, tricolored blackbird, golden eagle, bald eagle, migratory birds, Swainson’s hawk, white-tailed kite, Northwestern pond turtle, and Callippe silverspot butterfly. Observed 8+ CRLF and 1 Northwestern pond turtle.
- **Biological monitoring for Washington Creek Restoration Project, Alameda County Flood Control and Water Conservation District (ACFCWCD), Fremont, CA. September 2024.** Role: Monitor. Duties included monitoring construction activities, conducting bilingual environmental training for construction crews, and coordinating monitoring schedules with construction crews and biologists. Conducted biological monitoring for the following species: hoary and pallid bats, San Francisco dusky-footed woodrats, migratory birds, golden eagle, bald eagle, Swainson’s hawk, and white-tailed kite.
- **Annual Inspection for Papermill Creek Post Construction Monitoring, Marin County Flood Control and Water Conservation District (MCFCWCD), Novato, CA. September 2024.** Role: Botanist. Wrote Year 2 monitoring report for willows planted as part of a revegetation effort on the part of MCFCWCD to mitigate impacts of 2022 tree removals.
- **Heyer Avenue Improvements, Alameda County Public Works Agency, Castro Valley, CA. August 2024.** Role: Botanist/Arborist. Conducted arborist tree assessment on trees to be impacted by county road improvements and made recommendations as to which ones could be preserved and which ones should be removed.
- **Vallecitos Channel Willow Monitoring Project, Alameda County Water District, Sunol, CA. 2021 – 2024.** Role: Botanist. Monitored percent survivorship of arroyo willows planted for county reforestation project. Took measurements using transects for percent cover of invasive plants and documented presence of native wetland plants. Native plant species monitored included arroyo willow and many species within the *Carex* and *Juncus* genera.

- **Belmont Slough Levee Repair Project, City of Redwood City Redwood City, CA. July 2024.** Role: Monitor. Monitored for special-status species presence as the breached Belmont Slough levee was repaired. Duties included monitoring construction activities, relocating special-status animal species, and conducting bilingual environmental training for construction crews. Conducted biological monitoring for the following species: salt march harvest mouse, Ridgeway's rail, San Francisco dusky-footed woodrat, sculpin, migratory bird nests, and Northwestern pond turtle.
- **Culvert Repairs Project, County of San Mateo Department of Public Works, Pescadero, CA. June 2024.** Role: Monitor/Botanist. Conducted community botanical and pre-construction surveys near compromised county-maintained culverts in advance of repair work. Documented habitat types, native species present, and presence/absence of rare plants.
- **CAL FIRE Sonoma-Lake-Napa Regional Unit Headquarters Replacement Project, California Department of General Services, Eldridge, Eldridge, CA. May - June 2024.** Role: Botanist. Conducted community botanical and pre-demolition/pre-construction surveys on CAL FIRE property scheduled for demolition and construction work. Documented habitat types, native species present, and presence/absence of rare plants. Created GIS maps of CNDDDB listed plant and animal species within a 5-mile radius of project site.
- **Graton Rancheria Casino Well Monitoring, Rohnert Park, CA. 2010-present.** Role: Monitor. Collected monthly well water samples for the Federated Indians of Graton Rancheria to determine the impact of the Tribe's casino operations on ground water levels.
- **CAL FIRE San Luis Obispo Regional Unit Headquarters Replacement Project, California Department of General Services, San Luis Obispo County, CA. May 2024.** Role: GIS specialist. Created GIS maps showing CRLF habitat and impacted wetland areas for the impact mitigation section of the project's Environmental Impact Report (EIR).
- **Biological Surveys, City of American Canyon, Napa County, CA. May 2024.** Role: Monitor/Biologist. Conducted nesting bird surveys in advance of the city's fuel reduction vegetation management operations. Nesting surveys conducted for the following species: white-tailed kite, bald eagle, golden eagle, Swainson's hawk, red-tailed hawk, red-shouldered hawk, and migratory birds.
- **Midpeninsula Regional Open Space District (MROSD) Programmatic Permitting Services, MROSD, San Mateo, Santa Clara, and Santa Cruz Counties, CA. April 2024.** Botanist/GIS specialist. Used GIS to assess which properties held by MROSD may contain special status species and sensitive habitat types to clarify permitting requirements for the client.
- **Watersheds Maintenance Guidelines Updates Project, Santa Clara Valley Water District (SCVWD), Santa Clara County, CA. April 2024.** Role: Consultant. Created charts and graphs with updated watershed hydrological and biological data for the SCVWD.
- **Vegetation Management Plan (VMP), City of Oakland, Oakland, CA (2016–2024).** Role: Consultant. Organized and responded to public comments on the city's fuel reduction VMP in compliance with CEQA regulations.
- **Citywide Routine Maintenance Program, County of San Mateo, La Honda, CA. March 2024.** Role: Wetland delineator/GIS specialist. Conducted wetland delineations and produced GIS maps of wetland boundaries in advance of the county's culvert repair operations.
- **Las Posadas Demonstration State Forest, Sequoia Ecological Consulting, Napa County, CA. March 2024.** Role: Consultant. Wrote the forestry and agriculture sections of the CEQA documents required for CAL FIRE to conduct fuel reduction operations at Las Posadas Demonstration Forest.
- **AGS Tunnel Road Project, City of Oakland, Oakland, CA. March 2024.** Role: Monitor/Botanist. Conducted pre-construction monitoring, community botanical surveys, and rare plant surveys in advance of the city's road repair operations.
- **Bioretention Facilities Monitoring, Port of Oakland, Oakland, CA. February 2024.** Role: Botanist. Conducted community plant surveys and annual quality control monitoring for the city's bioretention and flooding mitigation facilities.

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- **San Leandro Creek Bank Repair Project, Alameda County Flood Control and Water Conservation District, Alameda County, CA. February 2024.** Role: Consultant/GIS Specialist. Prepared GIS maps, USACE, and RWQCB permits for emergency tree removal and creek bank repair operations.
 - **Ostwald Habitat Mitigation and Monitoring Project, San Jose Water Company, Santa Clara County, CA. 2023 – 2024.** Role: Consultant. Prepared USACE and RWQCB permits for emergency culvert repair project.
 - **Elmhurst Creek Project, Alameda County Flood Control and Water Conservation District, Alameda County, CA. February 2024.** Role: Consultant/GIS specialist. Conducted spatial analysis on GIS to determine the impact of proposed channel widening project to waters of the state and waters of the United States.
 - **Hinman Dam Decommissioning Project, California Department of General Services and California Department of Veterans Affairs (CDVA), Yountville, CA. January 2024.** Role: Consultant. Prepared CEQA sections, USACE, and RWQCB permits for proposed dam decommissioning project.
 - **Twin Pines Park Belmont Creek Restoration Project, City of Belmont Department of Public Works, Belmont, CA. January 2024.** Role: Consultant/GIS specialist. Prepared GIS maps, CEQA sections, USACE and RWQCB permits for proposed creek restoration project.
 - **Woodward Fire Burn Area Remediation Program, National Parks Service, Point Reyes National Seashore, CA. June – October 2023.** Role: Biological science technician. Removed invasive plants from the 2020 Woodward fire burn area. Plant species removed included pampas grass, barbed goat grass, tocalote, sea rocket, ice plant, and infertile cape weed. Created GIS maps of treated areas. Conducted rare plant surveys for Tidestrom’s lupine and Sonoma spineflower.
 - **Wildfire Prevention Vegetation Management, Davey Resource Group/ACRT Pacific, North Bay and Peninsula, CA. December 2021–May 2023.** Role: Consulting utility forester. Inspected 300+ trees per week for strike potential to PG&E-owned power lines on the wildland-urban interface (WUI) as a part of PG&E’s statewide wildfire mitigation strategy. Conducted presence/absence nesting bird surveys for raptors and migratory birds.
 - **Habitat Restoration Technician, RECON Environmental, Oakland, CA. June – November 2021.** Role: Habitat restoration technician. Manually and chemically removed invasive plant species, managed a native plant nursery consisting of several hundred saplings, and planted native plants in several sites around the East Bay. Conducted biological monitoring for Ridgeway’s rail while applying herbicide to the invasive species eastern spartina in the San Leandro mudflats.
 - **Climate Change Adaptation and Mitigation Strategies/Tribal Relations Intern, Environmental Protection Agency Region 10, Remote. October – December 2020.** Role: Analyst. Drafted and edited climate change adaptation and mitigation strategies for local and tribal governing bodies based in central Washington state. Organized several online workshops between the US EPA Region 10 and the Confederated Tribes of the Colville Reservation on how to mitigate the health effects of wildfire smoke on tribal members during the 2020 wildfire season.
 - **Coastal Studies Institute, Coastal Ecology Intern, Manteo, NC. August – December 2018.** Role: Student researcher. Conducted rare and community plant surveys in several state and federal forest reserves in North Carolina’s Outer Banks. Conducted original research on the effects of sea level rise on ground and surface water pollution via septic systems and presented this research to the town council of Nag’s Head, North Carolina. Used advanced lab equipment to analyze and draw research conclusions about non-point source water pollution from locally collected water samples.
 - **Borderlands Restoration Network, Restoration Intern, Patagonia, AZ. June – August 2017.** Role: Restoration technician/Farmer. Built anti-erosion rock structures in southern Arizona’s Sonoran Desert to restore riparian habitats and recharge subterranean aquifers depleted by historic mining and ranching operations. Maintained a native tree nursery whose saplings were purchased by the US Forest Service to



restore habitats affected by historic mining and logging operations. Maintained a functioning greenhouse and farm used to educate locals about sustainable, arid-land permaculture techniques.

- **Highlands Biological Station, Forest Ecology and Mycology Intern, Highlands, NC. August – December 2016.** Role: Student researcher. Conducted original research investigating which environmental factors drive the distribution and concentration of chestnut blight in American chestnut trees in the southern Appalachian Mountains. Used GIS to visualize sampling plots and conduct spatial analysis on how topographical features influenced blight distribution. Cultured fungal samples in agar mediums to conduct genetic identification and analysis on samples. This research was used by the Baird Lab of Mississippi State University to locate viable sites for the introduction of blight-resistant hybrid American-Chinese chestnut trees.

PUBLICATIONS AND PRESENTATIONS

- Co-author (2018): “Environmental Change and Septic Systems in Nags Head: Local Perspectives and Impacts on Water Quality and Quantity
- Sole author (2016): “Distribution of chestnut blight (*Cryphonectria parasitica*) among American chestnut trees in the southern Appalachian mountains”
- Co-author (2016): “An assessment of stream health of the Whitewater River”