

TWO STUDENT FIELD ASSISTANT POSITIONS

Project: Meadow Sampling in the Klamath Mountains Ecoregion

Faculty: Dr. Lucy Kerhoulas (Forestry), Dr. Rosemary Sherriff (Geography), & Dr. Erik Jules (Biology)

Duration: 14 weeks: May 13 – August 14, 2024

Hours: 40 hours a week (full-time) generally worked in 10-hr shifts

Wage: \$18/hr; if work overtime in field as 10-hr shifts, totals to \$20/hr

Location: Based out of Arcata, CA with fieldwork throughout the Klamath Mountains Ecoregion



Job Descriptions:

We are looking for two motivated research assistants to help with fieldwork this summer. Meadow will be verified by walking along transitional zones that define the meadow edge and surrounding land cover. Meadows will be assessed for their hydrogeomorphic type; dominant vegetation communities; burn conditions; and signs of degradation (e.g. forest encroachment, channel incision, motor vehicle damage, grazing use). This work will require extensive hiking and camping, with the possibility of backpacking in order to access some of the more remote locations. Field locations will be throughout the Klamath ecoregion, and car-camping is very likely.

Desired Qualifications:

General

- Attention to detail, strong work ethic, and ability to follow protocols
- Current student or recent graduate
- Grade point average of 3.0 or greater

Field

- Enthusiasm, ability to go with the flow (there are lots of unknowns with this work), and a positive attitude
- Ability to work well with others in remote field settings for extended periods of time
- Ability to work long days under physically challenging conditions (e.g., heat, steep slopes)
- Ability to navigate using maps and GPS
- Prior field/research experience outside of the classroom (volunteer or paid)
- Experience identifying plants and ability to use a dichotomous key (i.e., The Jepson Manual)
- Wilderness First Aid or other related medical training, or willingness to take a course this Spring
- Access to basic personal camping equipment (e.g., tent, sleeping bag, backpack, flashlight)
- Ability to camp multiple nights in a row (might work four days on / three days off or eight days on / six days off)
- Valid driver's license and agreement to complete Defensive Driver Training prior to job start
- Desired coursework: Plant Taxonomy, Plant Ecology, Applied Natural History & Ecology, Wildland Plant Communities, geospatial analysis (or equivalents)

To Apply: Email (as a single PDF or Word document): 1) a brief letter of interest (clearly state relevant education, experience, and interest in the position), 2) your resume (including GPA and complete contact information), and 3) the names and contact information of two references to Lucy Kerhoulas (lucy.kerhoulas@humboldt.edu) by **April 19th**. We are committed to hiring students that reflect the diversity of the residents of California and the students at Cal Poly Humboldt.

More Project Details:

Meadows make up a relatively small portion of northwestern California but have an outsized role in streamflow regulation, fire resilience, wildlife habitat, water filtration, cold water storage, carbon storage, and cultural importance. Montane meadows act as “sponges” that store and meter water downstream during the spring baseflow recession and summer, maintaining important habitat for numerous species, including at-risk salmonids that require cold water refugia during the hot summer months. Many meadow systems within California have been impacted by livestock grazing, ditch draining, road and trail building, fire suppression, and climate change. Stream incision, conifer encroachment and colonization by invasive plants are common geomorphic and ecological responses to these types of disturbances, often compromising the function and further reducing the extent of these important systems.

This project will help fill important information gaps regarding the location and restoration potential of meadow systems across northwestern California and help inform the development of geospatial models and assessment methodologies similar to what exists for the Sierra Nevada and Cascade Ranges (i.e. Lost Meadows Model developed by the USFS Pacific Southwest Research Station and SM-WRAMP developed by the Sierra Meadows Partnership).

Inventory and assessment protocols developed collaboratively with the Klamath Meadows Partnership (KMP) Technical Advisory Committee (TAC) will be used to inventory and assess meadows across select watersheds throughout northwestern California located on Forest Service land. Watershed selection will be conducted alongside KMP partners to maximize efforts across multiple organizations. Available spatial datasets will be compiled prior to the field season to identify potential meadow locations for field validation and as part of an initial step in developing a comprehensive meadow inventory for the Klamath Mountains and North Coast Ranges of California.

Field work for this project will include field verification of meadows identified from a desktop GIS analysis. Digitized meadow polygon perimeters will be verified using field mapping with a GPS unit by walking along transitional zones that define the meadow edge and surrounding land cover. Meadows will be assessed for their hydrogeomorphic type (Weixelman 2011 key); dominant vegetation communities; burn conditions; and signs of degradation (e.g. forest encroachment, channel incision, motor vehicle damage, grazing use).