

Identifying stakeholder priorities for rangeland restoration and management

1. *Faculty mentor information:*

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2. *Other project mentors:*

Retta Bruegger (CSU Regional Extension Specialist, Western Region, Range Management); retta.bruegger@colostate.edu; Emily Lockard (Research Associate, CSU Agricultural Experimental Station (AES) – Southwestern Colorado Research Center (SWCRC)); emily.lockard@colostate.edu

3. *In what region(s) will the student be working (county/ region)?*

The intern for this project will be based in Fort Collins, CO (Larimer County) at CSU. However, the project will involve travel to restoration field sites in southwestern Colorado in and around Yellow Jacket, CO (CSU AES – SWCRC; Montezuma County) and Dolores County.

4. *Please describe the proposed internship goals, scope, and objectives.*

Land degradation is a major challenge in many arid and semi-arid rangelands. As such, there is a widespread need for adaptive management and restoration that promotes ecological functioning and meets the needs of stakeholders in these systems. To meet this challenge, we are establishing a network of restoration sites across environmental and land use gradients in rangeland ecosystems in Colorado spanning native vegetation, dryland cropland, and previously irrigated (de-watered) agricultural lands to evaluate the effectiveness of a variety of dryland restoration techniques to increase native plant cover and ecosystem functioning. As a first step of this co-produced restoration project, we will conduct a questionnaire of stakeholder priorities for rangeland restoration in southwest Colorado. The intern will: (1) work as part of a research team to distribute and collect stakeholder questionnaires; (2) organize and analyze project data; and (3) assist with restoration study site setup (in some remote, dryland areas).

5. *How was this applied research project identified?*

This study will be conducted in collaboration with RestoreNet, a networked dryland restoration project established in 2018 as a collaborative effort between scientists and land managers to systematically test restoration techniques across environmental gradients spanning dryland ecosystems of the western US. This specific project was coordinated through discussions about needs for dryland restoration research in southwestern Colorado between C. Havrilla (CSU), R. Bruegger (CSU Extension), E. Lockard (CSU AES - SWCRC) and a group of stakeholders in southwest Colorado (see below).

6. *With which stakeholder group(s) will the intern work?*

This project involves interactions with a team of stakeholders including local landowners and ranchers in Montezuma and Dolores counties, USDA Natural Resources Conservation Service (NRCS), Bureau of Land Management (BLM), US Forest Service (USFS), US Fish & Wildlife Service (USFWS), Colorado Parks and Wildlife (CPW), and the Dolores County Sage Grouse Working Group.

7. *What student learning outcomes do you anticipate and are there opportunities for professional development?*

The student will gain skillsets in applied ecological restoration, participatory research, stakeholder engagement, and adaptive natural resource management. There will be also be professional development opportunities in data organization, analysis, and visualization.

8. *Do you have a specific mentor style that you would like to share with potential interns?*

The project mentors have advised a number of undergraduate, Master's, and PhD students. Our mentoring style is based around open, effective communication. This manifests in working with mentees to establish clear goals at the start of the project and offering scaffolded direction throughout the project and constructive feedback and guidance in support of the mentee's professional goals.

9. *Are travel funds available? Opportunities to provide student assistance with housing?*

Travel funds are available and CSU vehicles will be provided between CSU and research field sites. Please note that field work in southwest Colorado and may involve some camping in remote areas.