PROJECT TITLE: SCIENCE FOR ADAPTIVE MANAGEMENT OF FIRE, INVASIVES, AND RESTORATION IN WESTERN LANDSCAPES

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Discipline: Ecology;

PROJECT DESCRIPTION

BACKGROUND

Exotic annual grass (EAG) invasions are the primary threat to upland western landscapes, with many thousands of acres of perennial plant communities and the habitat they provide lost to the combined impacts of EAG invasion and restoration.

INTERN TASKS

1) Field sampling of plant communities recovering from wildfire and land treatments intended to reduce exotic annual grasses and increase native perennials around a 5-state region of the western US, including helping with logistics, planning, and data curation.

2) Assisting with sample processing, including sorting, weighing, and elemental analysis of plants and soils in the lab (carbon, nitrogen)

3) Regular group interactions with our science and collaborating land-management teams, in field site visits, Teams meetings, and roundtable sessions.

BENEFITS TO INTERN

The student will become highly proficient in technical skills regarding sampling and analysis of plant communities, translating the information into wildfire risks, and knowledge content regarding altered wildfires, invasive plant problems, and the challenges and opportunities to use restoration to mitigate the issues. The student will gain experience in working with a very diverse STEM team that includes people from all genders and several ethnicities including Native American (Blackfoot tribe).

The student will gain substantial networking opportunities within the USGS, associated universities (Utah State U, Idaho State U, University of Idaho, Boise State University), and among the many state and federal land managers that our team interacts with. These include Idaho Fish and Game, the US Fish and Wildlife Service Idaho office and several local National Wildlife Refuges, and most especially the BLM (primary funder of the projects). In the BLM, the YES intern will have interactions primarily with District-level biologists and resource managers (who work across many field offices), and importantly will also have the rare opportunity to interact with the many National Office Managers who are now located in Boise. The combination of our USGS-interagency program and its location in Boise offer a major networking advantage to any young ecologist looking to develop a career with land management in the western US that is paralleled only in Denver. We are looking to advance USGS science interns
from our programs into the many job openings available now and projected for the next few years into these BLM, FWS, and other programs in order to sustain the mutual science/management program relationships that have been nationally recognized (e.g. National Public Land award 2017).

With successful engagement in our program, the student can either expect follow-on employment opportunities, or assistance including detailed letters of recommendation or personal referrals to their next steps forward.

MENTORING PLAN

The YES interns will first engage in a "get-to-know-y" process with the lead PI, Matt Germino, and then will be paired with one of the senior project managers (all MS or PhD level with extensive supervisory and mentoring experience). The intern will always be working with a well-established field technician or project manager (i.e. min of 4 years experience with us). Our team of >10 USGS ecologists and university professors/postdocs meets weekly (held since 2011!), and all participants including YES interns share past/future goals for the week and beyond and discuss general science and specific projects, in addition to career advancement. We have an exceptionally good track record for advancing many dozens of young scientists. PI Germino was a professor (2000-2011, state university) focused on undergraduate and graduate student development through research experiences.

ADDITIONAL DETAILS

STUDENT SKILLS AND INTERESTS

Ability to identify plants to species in the field, it is helpful if they have experience with western deserts and sagebrush steppe especially. Plant community sampling and GIS are beneficial. Interests should be a career in upland natural resource science or management.

LOCATION: Boise ID

ACTIVITY LEVEL:

Level 8-2: The work requires some physical exertion such as long periods of standing, walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; or recurring lifting of moderately heavy items. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

FIELD WORK 50-75%       VIRTUAL? No
LAB WORK 25-50%
OFFICE WORK 25-50%
OTHER 0-25%

PROJECTED START DATE 5/18/2022
EXPECTED DURATION 3-4 months, although some YES participants have stayed with us for >4 years.