

**Funded MS position at Oregon State University:  
Restoration ecology in ponderosa pine/mixed-conifer forests of the eastern Oregon Cascades**

Graduate program start: Fall 2025

Preferred start date to lead field season and familiarize with project context: mid-June 2025

Applications due: Friday November 15<sup>th</sup>, 2024



**The project:** We are recruiting a new MS student for funded research project focused on “Vegetation and surface fuel responses to operational-scale thinning and prescribed burning in ponderosa pine and mixed-conifer forests in the eastern Oregon Cascades”, with field site located at the USFS Pringle Falls Experimental Forest. The MS student will be co-supervised by Drs. Meg Krawchuk (OSU) and Harold Zald (USFS). The successful candidate will enroll in the Department of Forest Ecosystems and Society (FES) in the College of Forestry at Oregon State University in Corvallis, Oregon. The MS would begin Fall 2025. Preferred start date for the successful candidate is mid-June 2025 so they can serve as crew lead for field data collection during the summer of 2025 and gain familiarity with the project, site, and data. The successful candidate will also lead a second field season in summer 2026. The MS student will collaborate with Drs. Krawchuk and Zald to improve our understanding of long-term changes in forest composition, structure, and fuels after large operational-scale fuel reduction and restoration treatments.

To learn more about the FES Graduate program, please see: <https://fes.forestry.oregonstate.edu/graduate-programs/forest-ecosystems-society>.

**The context:** After long periods of fire exclusion in historically frequent fire conifer forests, initial fuel reduction treatments are critical first steps for reducing high severity fire and promoting fire resilient stands of large trees. However, treatment longevity in these forest types is about 10-20 years, after which subsequent maintenance treatments are required. Understanding long-term responses of overstory trees, tree regeneration, understory vegetation, and surface fuels to first entry fuel reduction treatments is critical to inform subsequent maintenance treatments to meet multiple resource objectives, reduce long-term treatment costs, and increase the pace, scale, and overall benefits of fuel reduction treatments. The Lookout Mountain Study (LMS) at Pringle Falls Experimental Forest (<https://research.fs.usda.gov/pnw/forestsandranges/locations/pringlefalls#research>) is uniquely positioned to examine these issues at an operational scale. Located on the Deschutes National Forest, the LMS is a replicated experiment coupling four levels of overstory thinning with understory fuels reduction (mowing

and prescribed burning) to restore open forest structure and sustain fire adapted conditions with planned repeated burning. In this project, the MS student will build a data-driven understanding of the long-term effects of initial treatments in ponderosa pine and mixed-conifer forests, helping to inform how subsequent maintenance treatments can best achieve fuel reduction and ecological objectives. The broad structure of the research program is established, but the MS student will have leeway in identifying their own nested research questions and ideas within this overall program.

**Application:** Please submit your CV, contact information for two professional references, and a one-page statement describing your interests and experiences in the topic area, including research, outreach, and collaboration experiences. Please outline how you meet the required and desired qualifications described below.

We encourage applicants from all backgrounds to apply, particularly students who are underrepresented in the field of natural resources management.

We will be contacting applicants and scheduling interviews, and successful applicants will be invited to apply to the FES graduate program in the College of Forestry at Oregon State University. Please do not apply to the FES program without this invitation.

Applications should be emailed to: Dr. Meg Krawchuk (meg.krawchuk [at] oregonstate.edu), with Dr. Harold Zald (harold.zald [at] usda.gov) cc'd.

For more information or any questions, please contact Meg and Harold by email.

**For full consideration, please submit your application materials by Friday, November 15th, 2024.**

**Required qualifications:**

- Undergraduate coursework in some combination of forestry, forest ecology, fire ecology, plant ecology, restoration ecology, or botany.
- Prior field work experience with forest inventory measurements, fuels, or vegetation sampling
- Orienteering skills (navigation with map, compass, gps, and aerial photographs)
- Ability to navigate off trail and hike up to five miles per day in rolling/mountain terrain.
- Competent using Microsoft Word and Excel
- Possess a valid US driver's license
- Ability to work effectively in teams in the office and field

**Desired qualifications:**

- BS degree in forestry, ecology, natural resources, environmental sciences, or related fields.
- Prior field experience collecting fuels or vegetation data in conifer forests of the Pacific Northwest, California, or Rocky Mountains
- Experience working collaboratively on projects
- Experience utilizing quantitative forestry, or ecological research methods
- Experience using GIS, statistical and/or qualitative analysis software (e.g. R, python, google earth engine, ArcGIS)
- Strong field leadership skills and comfort leading a small field crew
- A demonstrated interest in fire and restoration concepts

**Funding** for the position covers tuition, stipend, and benefits for two years of the MS program, including 1 quarter of teaching responsibilities (1 TAship/year). Funding includes support for travel, field work, and participation in scholarly activities such as conferences and workshops. Funding also covers housing at Pringle Falls Experimental Forest during the field season (June – August). This project is funded by the Bipartisan Infrastructure Law, U.S. Forest Service Wildfire Crisis Strategy