Master's Degree Assistantship available in Forest Ecology within the Department of Forestry and Wildland Resources, Humboldt State University

Dr. Harold Zald (http://www2.humboldt.edu/fwr/faculty/detail/harold_zald) and Dr. Kerry Byrne (http://www.kmbyrne.net/) are seeking a highly motivated student interested in joining the Forest Measurements and Ecology Lab (http://zaldforestlab.weebly.com) to pursue an MS degree in Forestry and Wildland Resources at Humboldt State University (http://humboldt.edu/fwr/program/graduate_degrees). The selected student will collect and analyze field and lab data to quantify mortality of large old-growth Sugar (*Pinus lambertiana*) and Jeffery (*PInus jefferyi*) pines in response to a large catchment scale prescribed fire scheduled for Fall 2020 in an old-growth mixed conifer forest in the southern Sierra Nevada of California. The project will occur at Teakettle Experimental Forest (http://teakettle.ucdavis.edu/index.htm), a 1300 ha old-growth, mixed-conifer forest 80 km east of Fresno, CA in the southern Sierra Nevada. Field duties will include performing a census of large pine trees within the watershed, collecting field observations on tree vigor and duff depth, collecting duff and soil cores for root analysis, and establishing an experiment to determine the efficacy of duff raking in mitigating large pine mortality. Laboratory work will include processing duff and soil core samples to quantify bulk density and root biomass. Selected student must be able to work independently and in team settings, thrive in adverse field conditions, and be willing to camp for extended periods of time during the field season. The facilities at Teakettle are rustic due to the remote location of the station. The cabin has solar power, bathrooms, a kitchen and common space; individual will spend the summer sleeping in tents. The nearest town for supplies is Shaver Lake, CA, approximately a 1-hour drive from the field station.

Minimum Qualifications:

Strong candidates for admission to the HSU Department of Forestry and Wildland Resources Graduate Program should have a grade point average of 3.0 or greater on a 4.0 scale for all college and university work, and GRE scores in the top 50th percentile (>152 Verbal, >153 Quantitative, >4 Writing). Minimum qualifications include a BS degree completed no later than June 2020 in Forestry, Forest Ecology, Ecology, or related fields. Additional minimum qualifications include:

- Undergraduate coursework in some combination of forest ecology, fire ecology, plant ecology, and soil science.
- Prior field work experience with either basic tree measurements or vegetation sampling
- Orienteering skills (navigation with map, compass, gps, and aerial photographs)
- Ability to navigate off trail and hike up to six miles per day in steep terrain.
- Prior work or educational experience processing any type of soil or biological samples in a laboratory setting
- Competent using Microsoft Word and Excel
- Possess a valid US driver's license

Preferred Qualifications:

- Prior field experience in conifer forests of California, the Pacific Northwest, or Rocky Mountains
- Experience collecting data using a mapping or survey grade GPS
- Undergraduate coursework in GIS and remote sensing
- Undergraduate coursework in statistics using either R or Python software

Assistantship Benefits

MS student will be hired as a full time field research assistant beginning in June 2020 at $17.46/hr. During the academic year, the student will have a salary of $17.46/hr for up to 20 works per week. The project has funding for at least 2 years, with the second year of funding conditional on satisfactory student academic standing and project progress. Additional funding opportunities may exist to teach lab sections of Forest Measurements and Forest Restoration classes taught by Dr. Zald. MS student will supervise at least one undergraduate field and lab assistant supporting field data collection and laboratory sample processing.

How to Apply

Applicants are being considered to begin field work in June 2020 and enroll in graduate school fall semester of 2020. To apply, send the following (as a single PDF document) to Dr. Harold Zald (hsz16@humboldt.edu) and Dr. Kerry Byrne (kb33@humboldt.edu):

1. A letter of interest (clearly stating your research interests and background).
2. CV (including GPA, GRE scores, prior relevant work experience).
3. The names and contact information for three academic and/or professional references

Review of applications will begin immediately and will continue until a suitable candidate is selected for the position. After initial screening, a selected applicant will be asked to submit a formal application for graduate school at HSU through CSUMentor (http://www.csumentor.edu/admissionapp/grad_apply.asp). Women and applicants from diverse cultural and ethnic backgrounds are especially encouraged to apply. We also encourage applications from residents of California and member States of the Western Regional Graduate Program (http://wiche.edu/wrgp), who all qualify for out of state tuition waivers. Residents of California may be eligible for the State University Grant (https://www2.calstate.edu/attend/paying-for-college/financial-aid/types/Pages/state-university-grant-program.aspx) to pay for tuition if they submit their FAFSA by March 2.

Students who do not have a previous degree in forestry are eligible for admission to the Department of Forestry and Wildland Resources graduate program. However, students who are admitted may be required to take prerequisite undergraduate forestry courses (e.g. forest mensuration, silviculture, etc.)

Contact Information:

If you have any questions or concerns regarding the application process, please contact Harold Zald at hsz16@humboldt.edu