

Ph.D. Assistantship “Western Larch Root System Architecture Response to Drought

A fully funded Ph.D. research assistantship studying genotype × drought acclimation effects on root system architecture of western larch seedlings is available in the Center for Forest Nursery and Seedling Research (CFNSR) at the University of Idaho (<https://www.uidaho.edu/cnr/center-for-forest-nursery-and-seedling-research>). The student will be advised by Dr. Andrew Nelson, Director of the CFNSR. Funding is available for four years beginning January 2020 through a USDA AFRI grant in collaboration with Professor Douglass Jacobs at Purdue University. The assistantship includes a competitive stipend, an out-of-state tuition waiver, full coverage of in-state tuition, and student health insurance. Additional funds are available for research supplies and travel.

The student will research western larch genotypic responses to drought acclimation treatments applied during the first year of growth in the nursery across a broad range of genotypes from northern Idaho and southeastern Canada. Root system architecture will be evaluated during the first year of growth in the nursery followed by additional evaluation under controlled environmental conditions in the lab. The student will be expected to present research results at scientific conferences and publish results in peer-reviewed journals.

The student will have access to greenhouses and a laboratory at the University of Idaho to conduct their research. The lab is outfitted with equipment to test seedling quality (e.g., root growth potential, cold hardiness), an image analysis station, LI-6400s to measure gas exchange and plant moisture stress meters, growth chambers, and drying oven and precision balances. The student may also use recently built Controlled Environment Phenotyping Facility at Purdue University (<https://ag.purdue.edu/cepf/>) to collect phenotypic data on aboveground and belowground seedling morphology.

Required qualifications include a M.S. degree in Plant Biology, Ecophysiology, Restoration Ecology, Horticulture, or a related discipline. The successful candidate will demonstrate an ability to work both independently and as a team member, and be comfortable traveling and working in the greenhouse, lab, and field. Applicants must have a valid U.S. driver’s license. The student must be able to pass a criminal background check and become qualified to drive University of Idaho vehicles. Desired qualifications include previous research, publication, and presentation experience.

The student is expected to begin 13 January 2020 and will be based in Moscow, Idaho. Interested applicants should send a cover letter detailing their interest in the position, a curriculum vitae, contact information for three professional or academic references, unofficial transcripts, scores on the Graduate Record Exam, and examples of past research publications (if available) to Dr. Andrew Nelson (asnelson@uidaho.edu). Applications will be accepted until 1 October 2019.