A post-doctoral fellowship or a Ph.D. assistantship is available at the University of Idaho to study western larch (Larix occidentalis) seedling responses to simulated drought, with an emphasis on changes in root architecture. The fellow/student will be supervised by Dr. Andrew Nelson, Director of the Center for Forest Nursery and Seedling Research (CFNSR) (https://www.uidaho.edu/cnr/center-for-forest-nursery-and-seedling-research). Funding for the post-doc is available for one year with possibility of extension depending on performance or for four years for the Ph.D. student. The project is part of a USDA AFRI grant in collaboration with Professor Douglass Jacobs at Purdue University. The position includes a competitive salary and benefits for the post-doc or a competitive assistantship, tuition, and health insurance for the Ph.D. student. Additional funds are available for research supplies and travel.

The fellow/student will study root architectural responses to drought of seed sources from contrasting wet and dry ecosystems in northern Idaho and Southeastern British Columbia. Seedlings will be grown under different drought acclimation treatments in greenhouses followed by analysis of seedling morphology and physiology using hyperspectral scanning, red-green-blue imagery, x-ray scanning, gas exchange, and other direct physiology measurements. The fellow/student will be expected to present research results at scientific conferences and publish results in peer-reviewed journals.

The fellow/student will have access to state-of-the-art greenhouses and laboratories at the University of Idaho to conduct their research. The labs are fully outfitted with modern equipment to test seedling quality (e.g., root growth potential, cold hardiness), image analysis software, LI-6400s, plant moisture stress meters, and growth chambers. The fellow/student may also use the new Controlled Environment Phenotyping Facility at Purdue University (https://ag.purdue.edu/plantsciences/controlled-environments/) to collect phenotypic response data to treatments.

Required qualifications for the post-doc include a Ph.D. degree in forestry, plant ecophysiology, botany, horticulture, or related discipline. Required qualifications for the Ph.D. student include a M.S. degree in forestry, plant ecophysiology, botany, horticulture, or 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. The fellow/student must be able to pass a criminal background.

The fellow/student is expected to begin summer 2020 and will be based in Moscow, Idaho.

Interested applicants should send a cover letter detailing their interest in the position and whether they are interested in the post-doc or Ph.D. opportunity, a curriculum vitae, contact information for three professional or academic references, unofficial transcripts, and examples of past research publications (if available) to Dr. Andrew Nelson (asnelson@uidaho.edu). Review of applications will begin immediately until a suitable candidate is found.