

David L Nieland

Subject: MSc or PhD opportunity - Climate effects on tree growth across a moisture-limited forest landscape

We are seeking a motivated individual with interests in forest dynamics and forest-climate interactions for an MSc or PhD project at the University of Regina investigating tree growth across a semi-arid “island” forest landscape in the Canadian prairies. Tree growth has a strong bearing on the structure, biomass, and carbon balance of forests. Relationships between growth and water availability are critical to understanding how increasing aridity may threaten the long-term persistence of forest cover near the prairie-forest ecotone in western Canada, potentially leading to the loss of ecosystem services provided by forests in this region. The successful candidate will use dendrochronological techniques to reconstruct recent growth history across Cypress Hills Interprovincial Park on the Alberta-Saskatchewan border, and use the resulting data to derive predictive relationships between growth and water availability for several tree species. The position will be hosted at the Department of Biology and the Prairie Adaptation Research Collaborative at the University of Regina, working under the supervision of Dr. Mark Vanderwel (<http://vanderwelforestlab.weebly.com>) and Dr. Dave Sauchyn (http://www.parc.ca/research_professors_sauchyn.htm).

Applicants should have a minimum of a BSc and strong academic record in biology or a related field, with a keen interest in forest ecology and climate change impacts on terrestrial ecosystems. Experience with field work and good quantitative skills would be major assets. Preferred start date is May 2016. To apply, please send a cover letter describing research interests, a CV, unofficial academic transcripts, and contact information for 2 references by e-mail to mark.vanderwel@uregina.ca and david.sauchyn@uregina.ca. Review of applications will begin on February 29 and will continue until the position is filled.

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