



MSc Opportunity: Landscape Sensitivity to Abrupt Permafrost Thaw.

The Arctic Landscape Ecology Lab (UVic), the Northwest Territories Geological Survey, and the Geological Survey of Canada are seeking an MSc student to lead a research project exploring the terrain controls of thaw slump initiation.

Increasing temperatures and precipitation are driving rapid increases in permafrost slope failure. Understanding the factors controlling the spatial distribution of these disturbances is important because they impact infrastructure, water quality, and wildlife habitat. This MSc project will explore the terrain attributes facilitating the initiation and growth of retrogressive thaw slumps. The analysis will combine field surveys, RPAS surveys, drill cores, and GIS inventories from multiple regions in the western Canadian Arctic. The successful applicant will also use geospatial techniques to develop a predictive model of terrain susceptibility.

Interested applicants should have a BSc MSc in geography, environmental science, earth science, or related field, and previous experience with remote sensing, GIS and statistics. Applicants must be self-motivated, have strong communication skills, experience managing multiple tasks, and be willing to travel to the Canadian Arctic for fieldwork. Previous experience in permafrost environments is an asset, but is not vital.

This research project will supervised by Trevor Lantz (UVic) and will involve collaboration with Dr. Ashley Rudy (NWTGS) and Dr. Peter Morse (GSC). An annual stipend of \$21,000 (plus benefits) is guaranteed for two years and additional support for field and conference travel is available for the duration of the project. This research project is part of PermafrostNet, a multi-sectorial research network of twelve Canadian universities and more than 40 partner organisations. As a member of the network, the successful applicant will have opportunities to engage with government (provincial, federal, indigenous), industry, and international partners, as well as graduate students and researchers from across Canada.

The University of Victoria and PermafrostNet are strongly committed to fostering diversity as a source of excellence, cultural enrichment, and social strength. We welcome those who would contribute to further diversification including, but not limited to women; visible minorities; First Nations, Inuit and Métis peoples; persons with disabilities; and persons of any sexual orientation or gender identity and expressions.

To apply, please send a cover letter describing your qualifications and interest in this project, a complete CV, and unofficial transcripts to Dr. Trevor Lantz (tlantz@uvic.ca). Questions should be directed to Dr. Trevor Lantz (tlantz@uvic.ca). Application review will begin on November 1, 2021, but submissions will be accepted until a suitable candidate is found. The start date for this position is January, 2022 or September, 2022.

