

Funded Positions in Global Change Ecology

Supervisors: Dr. Andrew Tanentzap and Dr. Erik Emilson



The Ecosystems and Global Change Group (www.ecosystemchange.com) at Trent University jointly led by Prof Andrew Tanentzap (Canada Research Chair in Climate Change and Northern Ecosystems) and Dr Erik Emilson (Research Scientist, Canadian Forest Service sector of Natural Resources Canada, (<https://glfc-wet.github.io>) is recruiting MSc/PhD students at the intersect of ecosystem ecology, microbiology, and geochemistry in northern waters and soils.

What we can offer: Our research training environment features some of the most advanced environmental research infrastructure in Canada, including use of a Fourier transform – ion cyclotron resonance mass spectrometer, long-read ([Oxford Nanopore](https://www.oxfordnanopore.com)) sequencing facility, radioisotope and stable isotope labs, and eddy covariance systems, with extensive support for field research (ATVs, snowmobiles, autonomous surface vessel). As our team partners with government scientists, you will have a unique opportunity to influence environmental policy and make connections outside of academic to bolster your career. All postgraduate candidates are paid a stipend. Our group also supports flexible working arrangements and supports applicants from diverse backgrounds as we strive to build a more equitable, diverse, and inclusive workplace. Students will be enrolled in the Environmental & Life Sciences Graduate Program at Trent University.

Projects available:

- MSc or PhD – Tracing pathogens released into a warming Arctic. Working with Indigenous and Health Canada partners, this project will use eDNA approaches to identify novel microbial pathogens released from thawing permafrost and track their movement in the Canadian Arctic.
- PhD – The ecological role of chemical diversity under a warming climate. This project will test how ecosystem function varies with the composition of organic matter in freshwaters and soils across a space-for-time gradient of future climate change.

- PhD – The global pulse of dissolved organic matter. This project will leverage existing FT-ICR MS datasets, including monthly measurements from 70 sites worldwide, to analyse seasonality in dissolved organic matter of lakes and identify drivers of their thermal responses.
- MSc/PhD – Your own project! We are interested in working with applicants motivated to develop their own research project in the areas described above and on our websites. Reach out with your ideas!

How to apply: Please email Andrew Tanentzap (atanentzap@trentu.ca) with a CV and a description of what you hope to get out of working with us, how your research interests are a good fit to our group, and how your past experiences make you suitable for the independent and often challenging nature of research. Positions will remain open until they are filled.