

Graduate student positions in biogeochemistry and climate change interactions in sub-Arctic and boreal landscapes

Biogeochemistry of Boreal Ecosystems Research Group ([BBERG](#)), Earth Sciences Department, Memorial University of Newfoundland and Labrador St. John's Campus led by Dr. Sue Ziegler, Tier 1 Canada Research Chair in Boreal Biogeochemistry. Memorial University is located in beautiful, historic [St. John's, Newfoundland](#) in eastern Canada, and has a student population of ~18,000.

MSc and PhD positions within the Earth Sciences Program: Start dates of May 1st or September 1st, 2025.

We are seeking highly motivated and curious MSc and PhD level students. Our research group specializes in advancing our understanding of high latitude ecosystem and landscape responses to climate change through the study of terrestrial-aquatic and river-marine interfaces and connections. We are a collaborative group of graduate, undergraduate, and high school students, technicians, coordinators, faculty and government researchers, and community members engaged in long-term environmental research centered around local and regional knowledge, needs and concerns in Newfoundland, Labrador, and Nunatsiavut (Inuit land claim area in northern Labrador). Our research culture and methods are based on values of unassuming respect, healthy, well-developed relationships, and accountability.

We are looking for individuals who align with our values including the placement of community-based initiatives and knowledge at the centre of our work, and who will thrive working in an anti-oppressive, consensus-based research space with diverse colleagues. Those interested in pursuing an MSc program in our group should have research experience, ideally completing or having completed an undergraduate honours research thesis in the natural sciences (e.g. biology, chemistry, physics, biochemistry, geology, earth, environmental, or marine sciences). Those interested in pursuing a PhD program should also have research experience, ideally having completed an MSc thesis in the natural sciences. Successful candidates will be expected to work independently and as part of our community as we are a team-based group. This will include attending weekly research group meetings and providing feedback to members in the group.

Current graduate research opportunities in our group include: (1) Evaluating controls on boreal forest mineral soil carbon distribution, and developing predictive models and maps for soil carbon stocks, (2) Evaluating controls on carbon export and balance and informing predictions of terrestrial-aquatic carbon fluxes in boreal landscapes, and (3) Bridging scientific, local and Inuit knowledge to inform our understanding of coastal margin watersheds and how they interact with coastal ecosystems. These opportunities include co-supervision and networking with collaborators including researchers in the Nunatsiavut Government, Canadian Forest Service, Environment Climate Change Canada, Newfoundland and Labrador Geologic Survey, and faculty researchers at Memorial and other institutions in Canada and the U.S.. Graduate researchers in our group have opportunities to carry out laboratory and field-based research with support from experienced individuals in our team including local and Indigenous field experts. Successful candidates will be provided support in ethical data collection and management, data processing

and analyses, communications and writing. They will also have opportunities for mentoring high school or undergraduate research students. In addition to full stipend support, funding is available for professional development that aligns with successful candidates' career goals.

Application details: Review of applications **will begin on December 20th, 2024** and continue until filled. We encourage informal inquiries via email. Feel free to direct these to Dr. Sue Ziegler, Tier 1 Canada Research Chair in Boreal Biogeochemistry (sziegler@mun.ca) or other [research group members](#) based in St. John's.

To apply please submit your application to Dr. Sue Ziegler at sziegler@mun.ca (with subject line: BBERG Graduate Position): (1) letter describing your background and suitability for graduate research in our group, (2) CV, (3) unofficial transcripts, and (4) names and contact information for 2 references.

Please note: To be eligible for graduate program enrollment with full financial support within the Department of Earth Sciences in 2025 candidates must also [apply through the School of Graduate Studies](#) at Memorial University before **January 15, 2025**.