

Potential Students

Thank you for your interest in my research. I am always interested in energetic and motivated students to join the lab. Please refer to Western's Biology Prospective Graduate Student web page (<http://www.uwo.ca/biology/graduate/graduateprospective.htm>) to ensure that you qualify for the Biology MSc or PhD program before contacting me about positions.

My research addresses basic questions about biodiversity, such as:

- How do patterns of species diversity change across space and time?
- What factors generate and maintain these patterns?
- What are the causes and consequences of biodiversity loss?
- How does biodiversity affect ecosystem-level processes like nutrient and energy flux?

These are broad questions that encompass topics related to community assembly and disassembly, succession, dispersal, spatial heterogeneity, species trophic interactions, and nutrient transformations, among others. To focus these topics, I work specifically in Canadian forest soil systems, both in the field and in experimental laboratory greenhouses. Focus areas for students may include:

- biodiversity-ecosystem function relationships
- soil biodiversity and food webs
- experimental climate change research
- litter decomposition and nutrient cycling
- moss-associated cyanobacteria and nitrogen fixation
- bryophyte diversity and associations
- forest harvest, silviculture, or management studies
- taxonomy and systematics of microarthropods

For a good fit with my lab, potential students should:

- be excited about ecology, work hard in the field and the lab, write grants and seek external funding for their work, and publish their research in peer-reviewed journals.
- have a keen interest in learning to identify a group of organisms. I will teach you what I know and offer resources, but I expect students to be motivated and work independently in this area.
- want to develop their skills so they can contribute to a collaborative lab environment.

Bonus points for students who:

- have a good sense of humour
- like eating lunch outside
- can bake, or program in R (or both!)

Funding

Graduate students receive guaranteed funding, which comes from a combination of scholarship support (student scholarship, supervisor grants) and departmental service (graduate students work as teaching assistants for undergraduate biology labs in the department). I only offer funded positions for which I have obtained a grant – usually for a specific project. As such, I cannot consider students with divergent interests unless they come with their own guaranteed funding. Regardless, I encourage all students to apply for their own funding and develop their own research program.

Related information:

- Financial support info: <http://www.uwo.ca/biology/graduate/graduatefinancial.htm>
- Awards and Scholarships: <http://www.uwo.ca/biology/graduate/scholarships.htm>
- Graduate courses: <http://www.uwo.ca/biology/graduate/graduatecourses.htm>

If you are interested in a position in my lab, please send me an email where you address the following:

- What system are you interested in (e.g. peatlands, Boreal forest soils, agricultural soil)?
- What taxonomic group / ecosystem process are you interested in (e.g. Collembola, mites, cyanobacteria / decomposition, N-fixation)?
- What questions are you interested in asking (e.g. how does habitat fragmentation affect biodiversity? What are the effects of elevated CO₂ on N budgets?)?
- Do you have field experience?
- Are you comfortable with basic experimental design and statistics such as ANOVA?

I ask these questions because soil work is challenging and you must be personally motivated to be successful.