

# Graduate Student Opportunity in Aquatic Landscape Ecology

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This is an exciting and innovative opportunity to help develop a framework for protecting biodiversity and creating aquatic class parks in Ontario. We have guaranteed funding for 4 year PhD position at Trent University, Ontario.

**Background and priority:** Freshwater ecosystems are some of the most threatened in the world, yet most protected area networks have historically focused on conserving terrestrial ecosystems. In Ontario, and globally, the purpose of protected area systems is to protect ecosystems that represent the full range of biodiversity in a region. Systematic approaches for assessing terrestrial representation and identifying priorities for their protection are well-established, but there are few examples of comparable methods for aquatic ecosystems. Consequently, freshwater ecosystems are often included only incidentally in terrestrial protected areas where aquatic biodiversity may not be effectively protected. National and international commitments to conserve at least 17% of terrestrial and inland waters in protected areas by 2020 has increased recognition of the gap in protection for freshwater biodiversity and the urgency for action.

**Who should apply?** In support of the conservation of aquatic biodiversity in Ontario, we are looking for a motivated graduate student with a BSc or MSc to begin a PhD to develop different approaches for using a provincial Aquatic Ecosystem Classification system (AEC) to incorporate freshwater ecosystems into protected areas system planning. The AEC is a new spatial data framework for classifying all rivers and streams in Ontario. The project would involve testing ways to use the AEC to assess freshwater biodiversity, identify gaps in protection, and design interconnected networks of aquatic protected areas. The applicants should have a background in spatial – landscape ecology. Working knowledge and skills using GIS, Python, statistical packages (e.g. R, MATLAB) and MS Access are assets but motivated students could develop these skills during their tenure.

**Opportunity awaits:** This is a great opportunity to develop new science that will be used to help define an expansion of Ontario's parks and protected areas system. The student will be co-supervised by aquatic ecologist **Dr. Nick Jones** (OMNRF - Trent University) and landscape ecologist **Dr. Stephanie Melles** (Ryerson University). Students will have the opportunity to interact with academia and work alongside government.

Lab websites: [people.trentu.ca/nicholasjones](http://people.trentu.ca/nicholasjones) and [www.spataleco.com](http://www.spataleco.com)

**Funding:** Full stipend.

**Application details:** Interested applicants should email a cover letter detailing experience, CV, and contact information for two references to [Nicholas.Jones@Ontario.ca](mailto:Nicholas.Jones@Ontario.ca) and [stephanie.melles@ryerson.ca](mailto:stephanie.melles@ryerson.ca). Applications may be accepted until Sept 1st, but please apply as soon as possible. We will review applications as they are received and the anticipated start date is this fall 2018.

**Primary location:** Trent University is located in beautiful Kawartha Lakes Region in the City of Peterborough. Trent has a student population of 8,000 with 500 post graduates. Peterborough has a vibrant downtown and hosts many festivals year round. This position will also include travel to Toronto.

Please visit the Environmental & Life Sciences Graduate Program, Trent University.

[www.trentu.ca/els](http://www.trentu.ca/els)

[en.wikipedia.org/wiki/Trent\\_University](https://en.wikipedia.org/wiki/Trent_University)

[en.wikipedia.org/wiki/Peterborough,\\_Ontario](https://en.wikipedia.org/wiki/Peterborough,_Ontario)