

PhD project in aquatic ecology

Spreading dynamic of an invasive alien species and impact on the boreal aquatic fauna

Context: The spiny water flea (*Bythotrephes longimanus*) is an invasive alien species from Eurasia detected for the first time in North America in the 80's. Since then, it has drastically modified the Great Lakes food webs and many lakes of the temperate and boreal forest. The spiny water flea was detected in Abitibi-Témiscamingue for the first time in 2018 but its impacts on zooplankton and fish communities remain unknown.

Project description: The objective of this project is to better understand the invasion dynamics of the spiny water flea in Abitibi-Témiscamingue (Quebec, Canada), to limit its spread.

Axis 1 will aim to evaluate the lake vulnerability in Abitibi-Témiscamingue to the spiny water flea invasion and to identify the main variables involved in the spread of the spiny water flea. Axis 2 will aim to evaluate the impacts of this invasion on boreal aquatic food webs using sampling of numerous lakes in Quebec and Ontario.

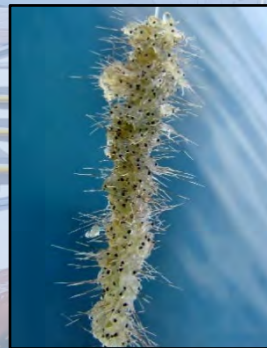


Photo courtesy of : MFFP

Keywords: Boreal lake, zooplankton, fish, food webs, spiny water flea

Profile needed:

- **Education:** Hold a Master's degree in ecology, biology or environmental sciences with a particular interest in aquatic environments and/or invasive alien species;
- **Requirement:** Be motivated and determined to contribute to the improvement of ecosystem management and preservation. Enjoy working outdoors in a natural environment, on the water and as part of a team. Driver's license required, boat license is a bonus;
- **Skills:** Leadership, autonomy, dynamism, organizational skills, determination, curiosity, ability to communicate;
- **Assets:** Statistics courses, swimming skills, first aid training;
- **Equity, Diversity, Inclusion:** We encourage applications from underrepresented groups in science (Indigenous peoples, women, visible and ethnic minorities, LGBTQ+).



Study location: The student will be part of the Research Group in Ecology of the MRC-Abitibi ([GREMA](#)) and will be based at the Amos campus of the Forest Research Institute ([IRF](#)) of the Université du Québec en Abitibi-Témiscamingue ([UQAT](#)). UQAT offers a quality environment for students, close to nature, with many cultural activities and an excellent quality of life especially thanks to the many outdoor activities. Our research team is young, dynamic and multicultural. Although UQAT is a French-speaking university, we offer a bilingual French-English environment to succeed in research. The student will be a member of strategic groups of excellence in Canada such as the Interuniversity Group of Research in Limnology ([GRIL](#)). The project will include fieldwork for the sampling of lakes in the Abitibi and Ontario boreal forest, as well as laboratory analyses and the writing of scientific articles.

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Partners : [Fondation de la Faune du Québec](#), [Conseil régional de l'environnement de l'Abitibi-Témiscamingue](#), [Organisme du Bassin-Versant du Témiscamingue](#), [Organisme du Bassin-Versant de l'Abitibi-Jamésie](#), [Société des Établissements de Plein Air du Québec](#)

To apply : Send your resume, cover letter, transcripts and contact information for two references to Guillaume Grosbois (guillaume.grosbois@uqat.ca).

We are waiting for your applications! Come and share a great professional adventure with us and contribute to the protection of our boreal aquatic ecosystems!

Application deadline : January 23, 2022

Additional information :

- [City of Amos](#)
- [MRC-Abitibi](#)
- [Aiguebelle](#) and [Opémican](#) national parks
- [Abitibi-Témiscamingue tourism](#)

Financing : 21 000 \$ scholarship per year for three years.

