

MSc Candidate Position in Arctic Paleolimnology

Greening landscapes and thawing permafrost: Long-term impacts of climate change on carbon cycling in Arctic lakes

We are looking for a motivated and curious MSc student to join our research team in the <u>Paleoenvironmental Research and Aquatic Biogeochemistry Lab</u> at the Université du Québec en Abitibi-Témiscamingue (UQAT). This project investigates how climate-driven Arctic greening and permafrost thaw are reshaping long-term carbon dynamics in remote Arctic lake ecosystems.

Project Overview

The Canadian Arctic is undergoing rapid environmental transformation due to ongoing climate change. Expanding vegetation and widespread permafrost thaw are altering carbon pools and transport pathways across the landscape, with important implications for the amount and form of carbon entering lake ecosystems. But how have these changes evolved over time, and what do they mean for the future of Arctic lakes?

This project will use lake sediment cores as natural archives to reconstruct long-term shifts in carbon dynamics between lakes and the surrounding landscape over the past several centuries. The MSc research will involve fieldwork in the Arctic, laboratory analysis of lake sediments, and multi-proxy techniques, including geochemical analyses, spectroscopic methods, and remote sensing and satellite image interpretation. The student will be supervised by Professors Carsten Meyer-Jacob (UQAT) and Milla Rautio (Université du Québec à Chicoutimi (UQAC)), and will work in an interdisciplinary, collaborative research environment.

Position Details

Start Date: January 2026 or May 2026 **Duration:** 2 years (full-time MSc)

Financial Support: Scholarship of \$21,000 CAD/year for 2 years
Location: UQAT, Rouyn-Noranda campus (Quebec, Canada)
Graduate Program: Maîtrise en écologie et aménagement des
écosystèmes forestiers – Click here to learn more about the program.

Who should apply?

We welcome applications from students with:

- A BSc or equivalent in Biology, Earth and Environmental Sciences, or related fields
- Experience or strong interest in field and lab work
- Good written and spoken communication skills in English
- Ability to work both independently and as part of a team
- A strong motivation to explore and address environmental challenges in a changing environment
- Background in paleolimnology, aquatic ecology or biogeochemistry (an asset)

How to apply: For inquiries or to apply, please send an email with the subject line "MSc Project: Arctic Carbon Cycling" to Professors Carsten Meyer-Jacob (carsten.meyer-jacob@uqat.ca) and Milla Rautio (Milla.Rautio@ugac.ca). Applications should include a statement of



interest, a CV, a copy of transcripts (unofficial transcripts are acceptable), and the names of three references. Applications will be reviewed until the position is filled.



UQAT: HIGHER LEARNING ON A HUMAN SCALE

Study in the heart of Quebec's great outdoors

Set in a region where wilderness, lakes, and forest stimulate creativity and foster talent, UQAT is different by nature.

With 22,000 lakes and endless miles of boreal forest, Abitibi-Témiscamingue is a dynamic place full of creative people, new ideas, and bold projects. <u>See what our students have to say!</u>

Renowned professors with time for you

The professors at UQAT are recognized experts in their fields who epitomize quality teaching. And with a ratio of one professor or lecturer to every twelve students, UQAT offers a personalized educational environment where you will fit right in. Knowing you can always count on your professors to be available - now that's a real advantage.

A world of high-calibre research

Research activities at UQAT are producing remarkable results in a range of scientific fields. According to the 2024 independent firm RE\$EARCH Infosource Inc., UQAT ranks first in terms of research intensity per professor among Canadian Undergraduate universities.

With more than \$24 million in research per year and stateof-the-art laboratories, UQAT is an exceptional environment for graduate students. Many of our students have achieved excellence in their chosen fields and many of our professors have been recognized for the quality of their research and their innovative spirit. Find out more

STUDENT FOR A DAY

One visit is enough to know that UQAT is a first-class institution. The Student for a Day program is the best way to learn more about UQAT, visit the campus that interests you, and meet professors and students.

We'll tailor the visit to your needs and interests!

Find out more

