



## RESISTANCE AND RESILIENCE OF FOREST CARBON FOLLOWING CUMULATIVE NATURAL AND ANTHROPOGENIC DISTURBANCES

**Background:** Major natural disturbances such as wildfires and insect pest outbreaks are the major determinants of carbon dynamics in the boreal forest, and the likely increase in their frequency and severity in the future is the greatest uncertainty about the ability of these forests to play their full role in mitigating climate change. Forest management can reinforce these vulnerabilities, for example by decreasing the proportion of mature stands on the landscape, thus diminishing seed sources and increasing the risk of a regeneration deficit following wildfires. The objective of this project is to determine how stand initiation (fire, harvesting, planting), any interventions (salvage harvesting, reforestation) as well as the stand age and nature of the surrounding landscape influence the loss and the speed of recovery of carbon stocks after fire. It will combine cartographic analysis of inventory data and remote sensing products, combined with field sampling to validate soil organic carbon stocks and the actual age of old-growth stands.

**Location:** The selected candidate will become a member of the Forest Research Institute (IRF; <http://www.uqat.ca/programmes/irf/>) of the University of Québec in Abitibi-Témiscamingue, but based at the Center for experimentation and development in the boreal forest (CEDFOB) in Baie-Comeau, a small city cozily nestled between the boreal forest and the estuary of St-Lawrence.

**Financial support:** 24,500 CAD per year for a duration of 4 years.

**Start date:** January 2027.

**To apply:** Send a resume, cover letter, grades and the name of two references to Xavier Cavard ([xavier.cavard2@uqat.ca](mailto:xavier.cavard2@uqat.ca)). A Master diploma or equivalent in ecology, biology or linked discipline is required.

Potential applicants must send the requested documents before July 17<sup>th</sup> 2026.



## 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. [See what our students have to say!](#)

### Denowned 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 2025 independent firm RESEARCH Infosource Inc., UQAT ranks among the top two Canadian Undergraduate university in terms of research performance.

With nearly \$26 million in research per year and state-of-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](#)

