



MSC POSITION: REGENERATION OF HARDWOOD SPECIES AT THEIR NORTHERN RANGE LIMITS

FOREST RESEARCH INSTITUTE – UQAT

Project: description In the context of climate change, several hardwood species, including yellow birch and red maple, are expected to expand northward. However, their establishment at northern range limits remains uncertain, and the mechanisms limiting regeneration are still poorly understood. *This MSc project aims to better understand these processes within the boreal–temperate ecotone of Québec (Abitibi-Témiscamingue, Laurentians, Mauricie), with a particular focus on an understudied factor: seed quality as a potential bottleneck in regeneration.* The selected candidate will combine fieldwork, laboratory analyses, and data processing to link seed production and quality to environmental conditions and seedling establishment success along a nordicity gradient. This project contributes to a central question in forest ecology—what limits species migration—while providing comprehensive research training and strong connections to Québec’s forest sector. It is embedded in an applied framework, with interactions planned with forest professionals and institutional partners, including the Québec Ministry of Natural Resources and Forests. *This is a two-year research-based MSc with thesis, supported by a scholarship of at least \$21,000 CAD per year, which may be increased depending on the candidate’s profile and eligibility.*



Start date: Fall 2026 or Winter 2027, depending on candidate availability

Research environment, supervision and values: the MSc will take place within a forest ecology research group in a dynamic and collaborative environment. The student will be supervised by Valentina Buttò (Professor, IRF-UQAT), with a committee including M.H. Brice (Professor, Université de Montréal), F. Girard (Professor, Université de Montréal), and P. Grondin (Research scientist, MRNF), providing complementary expertise in ecology, silviculture, and forest dynamics. Supervision is based on regular, structured, and supportive mentoring, with the goal of fostering autonomy, critical thinking, and the ability to carry out a research project through to publication. We are committed to fostering a respectful, inclusive, and collaborative work environment. We value diversity, equity, inclusion, and accessibility (DEIA) and recognize the richness of diverse backgrounds and experiences within our team.

Profile and training: We are looking for a motivated candidate interested in research and its practical implications, with a background in forestry, ecology, biology, or a related field. The project is well suited for someone curious, rigorous, and comfortable with fieldwork, who can work independently while engaging in a collaborative team. Experience with data analysis is an asset. Over the course of the two-year MSc, the student will develop scientific autonomy by contributing to all stages of the project. The project will lead to the completion of a thesis and offers the opportunity to contribute to a scientific publication. Over the course of the two-year MSc, the student will develop scientific autonomy by contributing to all stages of the project. The project will lead to the completion of a thesis and offers the opportunity to contribute to a scientific publication. By the end of the program, the student will have developed strong expertise in forest regeneration ecology and gained practical experience working with forest sector partners.



Application materials: Please submit a CV, a cover letter, transcripts (unofficial copies accepted), and the contact information of two referees to: valentina.butto@uqat.ca

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