



INFORMATION ON AN ONGOING PROJECT CONTRIBUTION AGREEMENT

Making Forests Resilient Through Assisted Tree Migration

Climate warming poses serious risks to Canada's forests, making it crucial to develop effective strategies for forest-assisted migration. If tree species cannot adapt to changing conditions, it could harm forest health, biodiversity, and the important services forests provide.

PROJECT TITLE

Silva 21 Legacy Trials: Testing Forest Stand Establishment and Education to Inform Operational Forest-Assisted Migration

ORGANIZATION

University of New Brunswick
unb.ca/fredericton/forestry

CONTACT

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START DATE

December 1st, 2023

END DATE

March 31st, 2026

In response to the risks that climate warming poses to Canada's trees, this project focuses on developing practical knowledge to support forest-assisted migration, an important strategy for adapting forests to climate change. The research will build on existing trials set up under the Silva21 research program initiative, specifically the Transborder Experimental Assessment of Warming Vulnerability in Northeastern Tree Species and Their Assisted Migration Potential (TransX) and Thinning to Reduce Stress (ThiRST) projects. The main goal is to test the assisted migration of key tree species, both coniferous and broadleaf, to improve their establishment in warmer and drier conditions. The project will track how various tree species respond in the TransX trials, providing valuable guidelines for successful assisted migration efforts.

Once the trees are established, the project will also look at how to monitor and support these young forest stands as they grow in changing climates. This involves creating a new method to assess drought stress in trees using drones and multispectral sensors. This will be done in a unique silvicultural experiment called ThiRST, which began in 2023 and includes structures that exclude rainfall and practices like pre-commercial thinning in a white spruce plantation. The results of this project aim to strengthen forest resilience and productivity as climate change continues to affect ecosystems.