



SOUTH NATION
CONSERVATION
DE LA NATION SUD

Assisted Migration Field Trial

Projected models for Ontario indicate that the rate of climate change will likely exceed the ability of native tree species to adapt or keep pace as their preferred climatic conditions move away generally northward. Native trees and forests may therefore increasingly find themselves mal-adapted to the climate that surrounds them leading to unknown consequences. Assisting tree species migration through artificial regeneration (tree planting) is a controversial topic yet one which warrants careful exploration.

This trial seeks to undertake the lowest risk level of assisted tree migration by using a tree species, Burr Oak, that is already established and adapted to afforestation sites in the area, and introducing populations from more southern climates which potentially may be better adapted to future climates in this region. The mixed planting design will allow for comparative observations and data collection as the trees grow. The number of trees per seed source ensures a basic breadth of genetic diversity, and with ongoing management over the coming decades, this planting could be a seed production area. It is expected that one source will eventually prove better adapted and able to produce seed, ...seed that is potentially better adapted for future local afforestation programs.

Partners:

- * South Nation Conservation
- * Ontario Ministry of Natural Resources and Forestry
- * Forest Gene Conservation Association
- * Township of Alfred Plantagenet
- * Forests Ontario



Migration trial oak

Roles and Responsibilities:

South Nation Conservation:

- * Project management and implementation, including: site preparation, planting, tending and maintenance
- * Carry out site preparation and annual tending
- * Monitor regularly for insects and diseases
- * Install deer exclusion fencing if needed
- * Monitor flowering and seed crop development

MNR Climate Change office:

- * Provide advice and guidance
- * Provide nursery stock and deer exclusion fencing if needed
- * Layout the trial on the ground
- * Manage the tree planting operation to establish trees according to the attached trial design

Forest Gene Conservation Association:

- * Provide advice and supply mulch mats
- * Plan spacing and thinning to promote crown development for seed production, mark trees for thinning
- * Design and implement a monitoring program

The Township of Alfred Plantagenet:

- * Provide land for the operational trial
- * Allow appropriate signage at trial site
- * Provide future access to site for monitoring

Forests Ontario:

- * Support site as part of the 50 MTP
- * Seek landowners for other trials sites
- * Collaborate with other partners on monitoring
- * Promote the site and the trial