



Natural Resources
Canada

Ressources naturelles
Canada



Canada's National Research Forests

Unique research opportunities



Canada



Forest region: Great Lakes - St. Lawrence

Canada's two national research forests, the Petawawa Research Forest (PRF) and the Acadia Research Forest (ARF), are important assets of the Canadian Forest Service (CFS). They are the outdoor laboratories for scientists involved in forest research. These research forests attract forestry experts from around the world with their unique research potential.

It takes a long time to grow a tree. Canada's national research forests are among the few places in Canada where forest development has been researched from seed to harvest and beyond. The legacy of these research forests is unique and irreplaceable.

The results of the work carried out at the PRF and ARF are the foundation for policies that help to ensure the forest sector's stability and growth. These results are also included in forest management manuals used in Canada and around the world.

Since 1930, weather data have been collected at both research forests. Using this data, researchers can make links between climate conditions and tree growth, providing a greater understanding of various aspects of how trees grow and adapt to changing climate conditions.

Petawawa Research Forest

The PRF is Canada's oldest and largest national research forest, encompassing 9945 hectares in the Great Lakes–St. Lawrence forest region.

The PRF was established in 1918 when the Department of National Defence (DND) asked the then Forestry Branch to protect and manage the forest of the Petawawa Military Reserve. Establishing the PRF was seen as an opportunity to initiate a research program that would advance the scientific foundations of forest management in Canada and abroad.

To date, scientists have established and measured more than 2000 experiments and demonstrations to enhance forest management. Many of these experiments have been active for decades and new ones continue to be established every year. The resulting research addresses issues that affect all Canadians, from climate change and biodiversity to forest productivity and economics.

The PRF is home to a grid of Permanent Sample Plots, with currently more than 500 active plots, all of which are measured regularly to monitor growth and yield, mortality and biodiversity. Natural reserves are also part of the PRF. Thirteen such areas have been left undisturbed since the late 1940s and are measured periodically to track ecological processes.

Ontario's two remaining active fire towers are in the PRF. On hot and dry summer days, the fire towers provide vantage points to monitor the PRF, DND land and Algonquin Park.

The PRF is host to the Forest Visitor Centre, which welcomes visitors from around the world each summer. Visitors can learn about the research forest, plants and trees and enjoy walking trails.

Acadia Research Forest

The ARF is the oldest outdoor research facility in the Acadian forest region of Eastern Canada and covers 8895 hectares.

The ARF was officially founded in 1933 when the government of New Brunswick transferred the administration of this forest land to the Dominion of Canada, with the purpose of demonstrating that good forest management would lead to greater productivity, sustained yield and economic benefits.

Forest region: Acadian forest





The ARF has a rich history. It was used as an unemployment relief camp and as an internment camp from the early 1930s until the end of World War II.

The ARF is managed under a sustainable management plan for the primary objective of supporting forest research. More than 90 percent of the research forest is productive forest and 80 percent of that is available for research projects.

The older forest area is of fire origin from the late 1800s. Hence, the ARF can provide the researcher with a variety of stand structures from recent cutovers, plantations and second-growth forests to mature and relatively undisturbed forests.

The main studies at ARF include tree genetics, tree improvement and silviculture techniques. The ARF is known for its balsam fir and red and black spruce sites, but scientists also work with white and red pine and several hardwood species.

For Potential Researchers

We encourage the use of Canada's national research forests by researchers from the CFS, universities, provinces/territories, the federal government and agencies.

Canada's national research forests offer

- thousands of scientific plots in the fields of silviculture, genetics, biodiversity, ecology, forest fire management and intensive forest management
- a wealth of historical data available exclusively here, produced by multidisciplinary scientific teams
- a range of native and exotic species in experimental plots and plantations, as well as ecological reserves (some untouched since the late 1940s)
- site security, access, tenure and protection

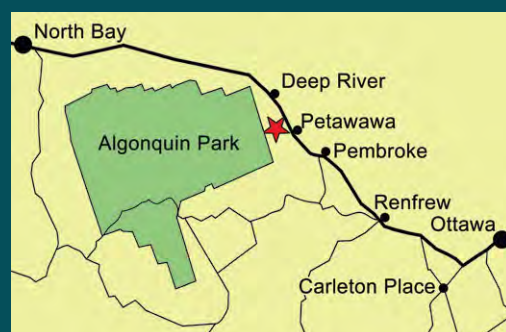
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