

# The Montagne de Chêne Shelter Forest

Red oak-sugar maple forest

## Exceptional Forest Ecosystem of the Laurentian Region

### WHAT MAKES THE ECOSYSTEM EXCEPTIONAL?

Based on current information (CDPNQ – Québec's natural heritage data centre, 2003), the Montagne de Chêne shelter forest is home to one of the most attractive colonies of *Conopholis americana* in Québec. This plant exists as a root parasite on red oak (*Quercus rubra* var. *borealis*) and is listed among the province's threatened or vulnerable species<sup>1</sup>. Montagne de Chêne shelter forest is the northern limit of this species' range in North America. It is normally found south of 45° N latitude, while the red oak grows farther north, above the 46th parallel.

### BRIEF DESCRIPTION OF THE MONTAGNE DE CHÊNE SHELTER FOREST

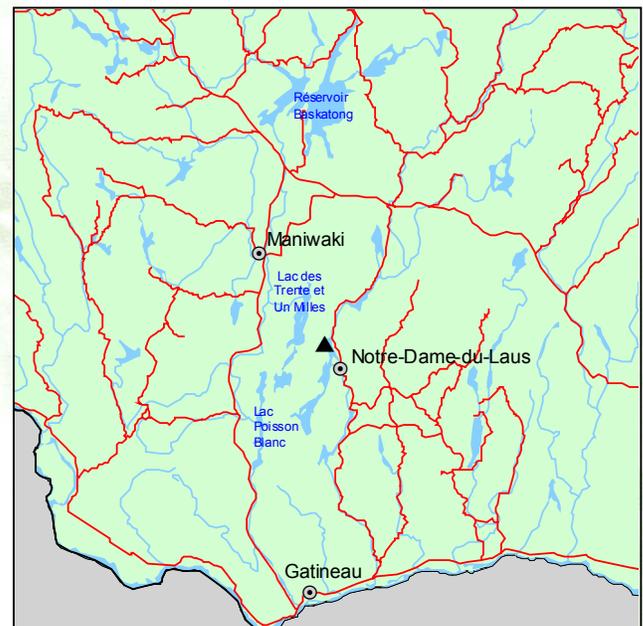
The Montagne de Chêne shelter forest covers an area of 86 ha and is located some 37 km southeast of Maniwaki. It is part of the western sugar maple-yellow birch bioclimatic subdomain. Hills and a few mountains with moderate to steep slopes and many rocky scarps characterize the rugged topography surrounding the forest. The crystalline bedrock is composed of metamorphic rock.

The Montagne de Chêne shelter forest consists of oak patches with a population of more than 1000 conopholis stems divided into several colonies scattered over a large area. This site represents a habitat that is important for maintaining *Conopholis americana* in Québec.

Like oaks, *Conopholis americana* is typical of the eastern deciduous forests of North America. According to the CDPNQ, provincial populations of this species are found mainly in two regions: one population is near Gatineau and the other, in the Monteregian Hills. The species' presence has been confirmed in fewer than 20 locations, although half of them have not been visited for 25 years and most of them are located on privately owned land.

This unique flowering plant which lacks chlorophyll was first gathered in Québec in 1924. It is one of three members of the family *Orobanchaceae* (herbaceous plants that are parasitic on the roots of other plants). Its yellow flowers are arranged in a very dense spiral spike and its short stem resembles an inverted pine cone. All studies show that this species always attaches itself to the underground roots of neighbouring oak trees and that it does not appear to affect the development of its host. This plant requires a good layer of humus and forest litter for its growth and to prevent desiccation.

In addition to *Conopholis americana*, several other herbaceous plant species make their home on the bare forest floor of these red oak-sugar maple (*Acer saccharum*) stands, including Canada honeysuckle (*Lonicera canadensis*), wild lily-of-the-valley (*Maianthemum canadense*), false Solomon's-seal (*Maianthemum racemosum*), lance-leaved wild licoria (*Galium lanceolatum*), wild sarsaparilla (*Aralia nudicaulis*), squaw vine (*Mitchella repens*) and yellow clintonia (*Clintonia borealis*).



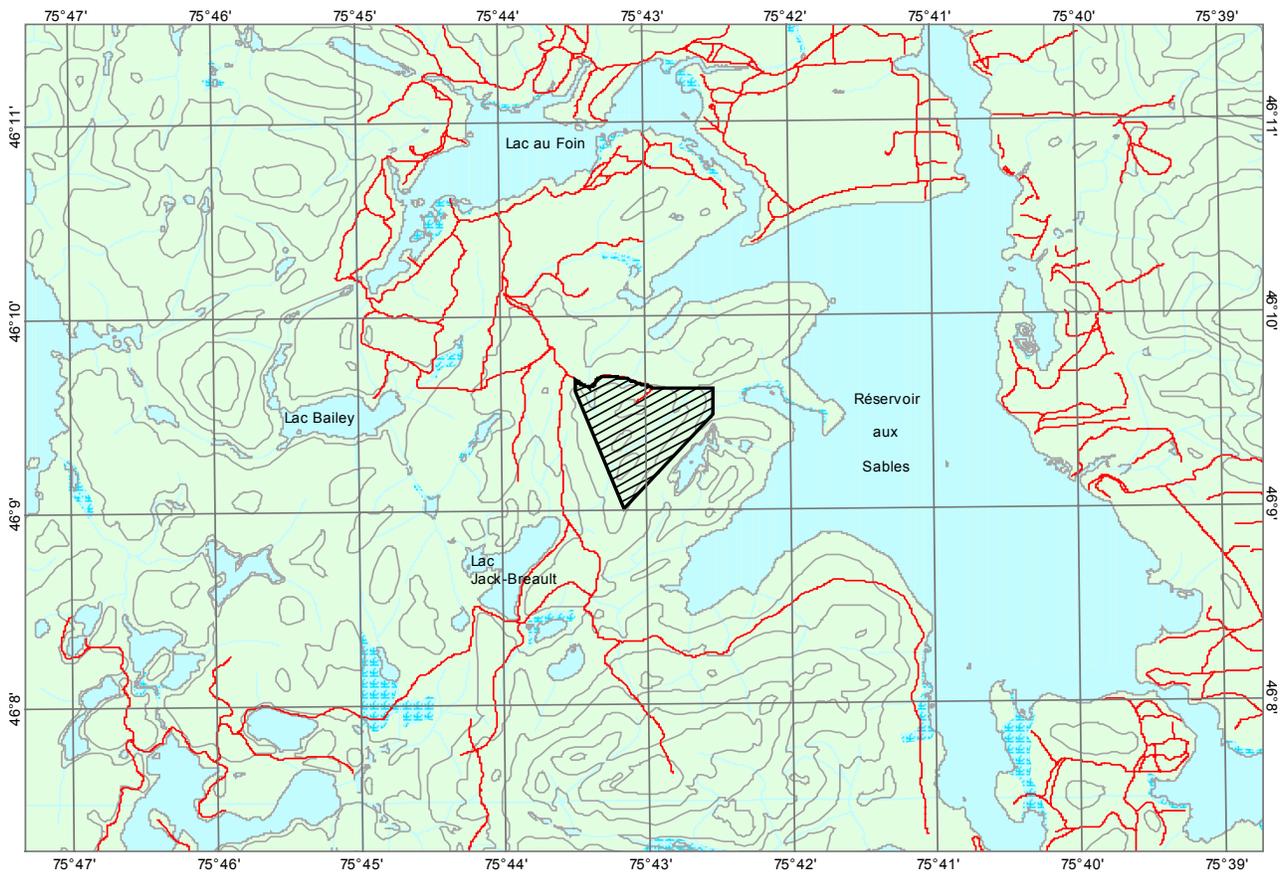
▲ Montagne de Chêne Shelter Forest

1. The expression "threatened or vulnerable plants" refers to species that are protected under the Act respecting threatened or vulnerable species as well as to those at risk of becoming so and whose names appear on the list determined by Ministerial Order. The Ministère de l'Environnement du Québec is responsible for protecting and managing threatened or vulnerable plant species and maintains a databank on these species (CDPNQ).

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 Cartography: Ministère des Ressources naturelles, de la Faune et des Parcs



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