



# Ancient Forest Exploration & Research

Powassan Office: 3492 Memorial Park Dr., RR#4, POH 1Z0

Peterborough Office: The Mount, 1545 Monaghan Rd., K9J 5N3

(705) 312-AFER (2337) | info@ancientforest.org | charitable number: 89288 2762 RR0001

## SITE VISIT REPORT #9

An Old-growth Forest Assessment for the

**Jack Lake Old-Growth Forest Complex**

Peterborough County, Ontario

Prepared January 6, 2020 by Carling Dewar

### Site information

<b>Property name and location:</b>	Jack Lake Old-Growth Forest (OGF) Complex 1. East Jack Lake <a href="#">44.688998, -78.007478</a> 2. West Jack Lake: <a href="#">44.698516, -78.090209</a> 3. Central Jack Lake: <a href="#">44.700177, -78.044869</a>
<b>Surveyors:</b>	AFER staff: Carling Dewar, Laura Collings, and Hayley McGregor
<b>Land designation(s):</b>	1. East Jack Lake: Crown and private land 2. West Jack Lake: Crown land 3. Central Jack Lake: Crown and private land

### Summary

Three forests were visited in the Jack Lake Old-growth Forest Complex to the west, east, and on a peninsula in the center of Jack Lake, respectively. Some old-growth trees were found in the west forest, and there are likely to be old-growth trees in the central forest, but disturbances from recreation (west forest) and potential overabundance of herbivores (central forest) prevent these forests from being categorized as “old-growth”. The forest east of Jack Lake has recently been and will continue to be logged and is therefore considered to be a “mature” forest at best. Further investigation into the hunt camp property nearby may yield old-growth forest remnant discoveries.

### Site Description

The Jack Lake Old-Growth Forest (OGF) Complex is located in both North Kawartha and Havelock-Belmont-Methuen Townships within the Peterborough Crown Game Preserve. Access to this area is via Highway 28, south of the village of Apsley (Figure 1). Three areas in this complex were visited to determine their old-growth status and have been named East Jack Lake, West Jack Lake, and Central Jack Lake for the purposes of this report (Figure 3).

Forest Resources Inventory (FRI) age data from 1987-2003 (Figure 1) and 2007 (Figure 2) show very different old-growth forest information for each of the areas visited. We were most interested in investigating mid- to late-succession species such as eastern hemlock, white cedar, and white pine, which were all present in the 2007 FRI age data. As such, we mainly used this map to select sites but also considered 1987-2003 data.

#### Dates visited:

- West Jack Lake:
  - Thursday July 11, 2019 (reconnaissance)

- Tuesday, August 20, 2019 (tree aging, iNaturalist project<sup>1</sup> testing)
- Central Jack Lake:
  - Thursday July 11, 2019 (reconnaissance)
- East Jack Lake:
  - Thursday July 11, 2019 (reconnaissance)
  - Tuesday, August 20, 2019 (reconnaissance)

**West Jack Lake site description:** This forest can be accessed from an ATV/snowmobile trail on the west side of Jack Lake Road soon after entering the Crown Game Preserve. This trail leads in several directions; we followed it toward and alongside a nearby lake where we found several large white pines, a red pine, and a white spruce that all exceeded the minimum size requirement for old-growth (Quinby 2019). We travelled approximately 500 metres along this trail.

In addition to information provided here, several tree observations from West Jack Lake were added to our iNaturalist project: <https://www.inaturalist.org/observations/31191107> (AFER 2019).

**Central Jack Lake and East Jack Lake:** These forests were assessed from the roadside; on-foot exploration was either not feasible due to poor weather conditions, narrow roads and/or lack of immediately visible old-growth forest characteristics.

**Central Jack Lake site description:** This forest is located on a peninsula encircled by Fire Route 89, Fire Route 89C and Fire Route 89J. The shoreline is occupied by cottages. It lacks regeneration of trees and shrubs, the understory is dominated by grasses, and contains very little coarse woody debris (CWD). A thunderstorm began soon after we arrived which prevented closer examination.

**East Jack Lake site description:** This site encompasses several different forest stands along Fire Route 85, east of Jack Lake. This road is narrow and during our first visit (July 11), we turned around after encountering a “private road” sign. During our second visit we had permission from the McCoy Bay Road Association to access the remainder of this road. Almost all forests observed appeared to be recently logged, except at a hunt camp near the north end of McCoy Road. Logging occurs approximately every 50 years based on communication with the president of the McCoy Bay Road Association.

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<sup>1</sup> [Peterborough Old-Growth Forest Project – Level 1](#) (AFER 2019)

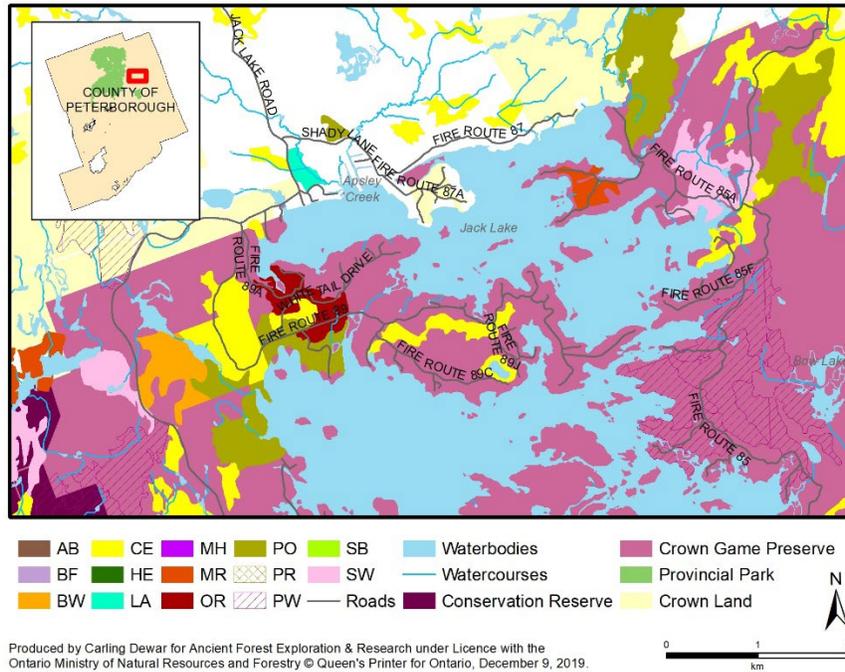


Figure 1. 1987-2003 FRI age data for the Jack Lake OGF Complex. See Appendix A for acronyms.

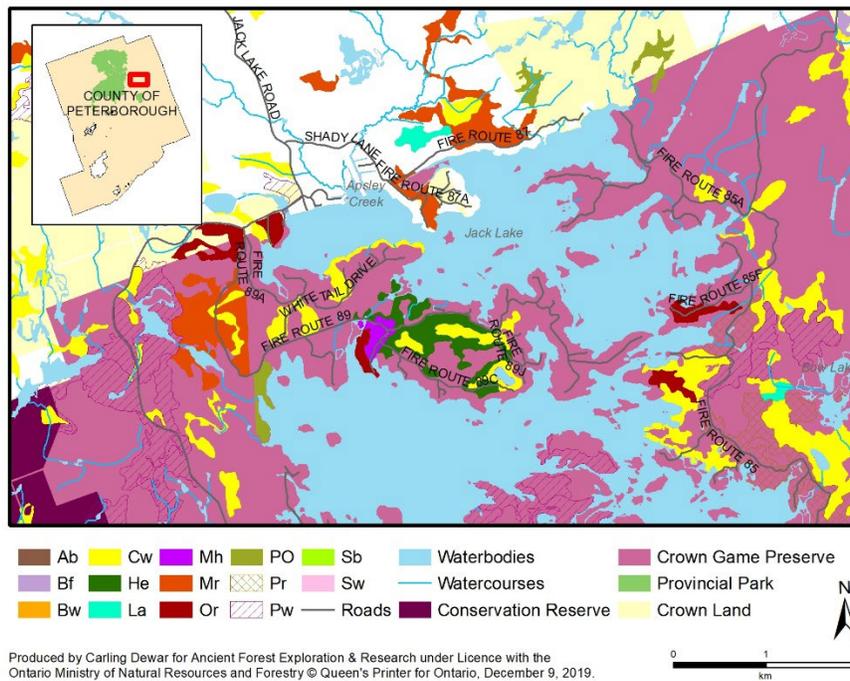


Figure 2. 2007 FRI age data for the Jack Lake OGF Complex. See Appendix A for acronyms.

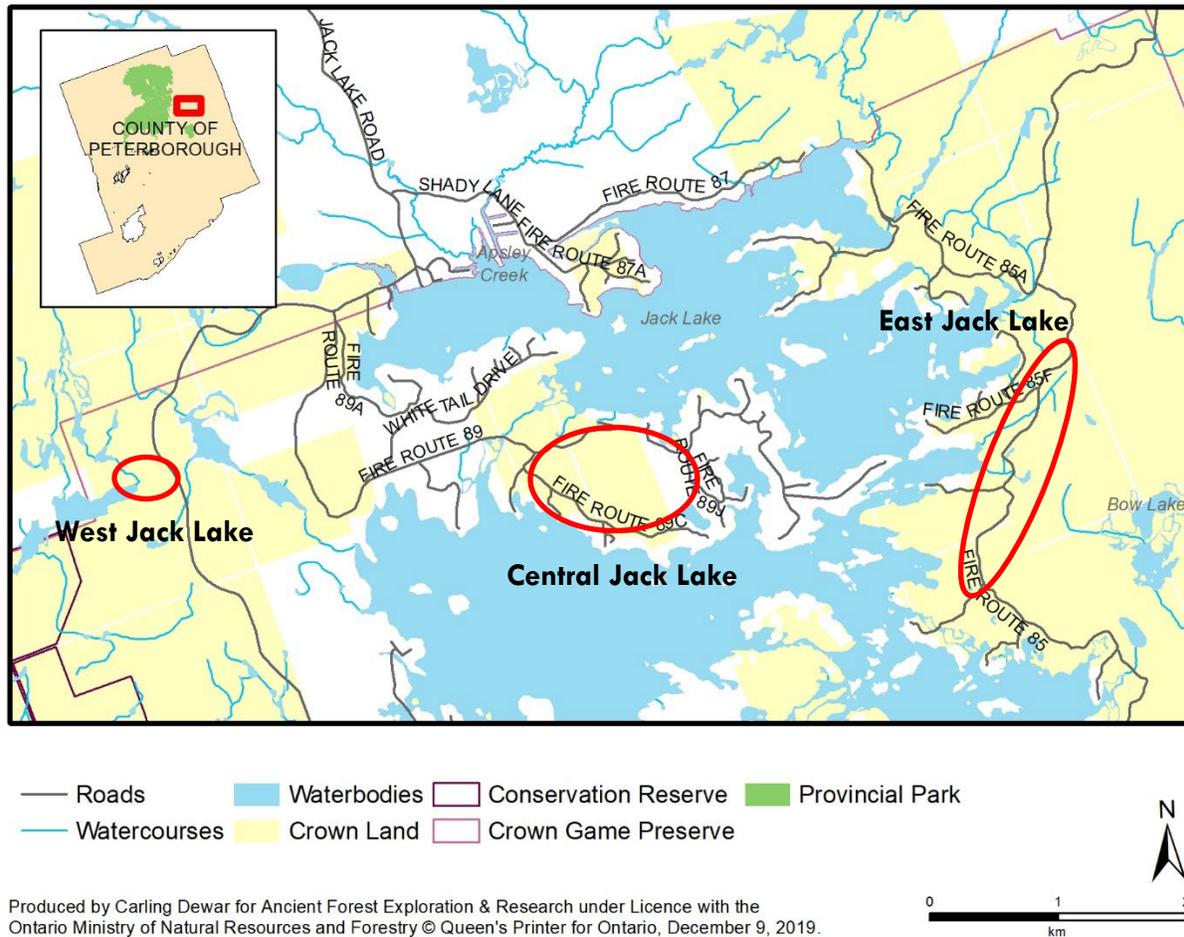


Figure 3. Areas visited in the Jack Lake OGF Complex.

## Old-growth features

### 1. Tree ages:

West Jack Lake:

- White spruce (57.5cm DBH): 111 years
- Red spruce (58.3cm DBH): 136 years
- White pine (83.4cm DBH): 135 years

No trees were aged at Central or East Jack Lake.

### 2. Tree species present:

West Jack Lake: White pine, eastern hemlock, white spruce, white cedar, sugar maple, northern red oak, white birch

Central Jack Lake: Eastern hemlock, white cedar, American beech, sugar maple, white ash, northern red oak

East Jack Lake: White pine, red pine, eastern hemlock

**3. Coarse woody debris** (*none, uncommon, common, abundant*):

West Jack Lake: common

Central Jack Lake: uncommon

East Jack Lake: not noted

**4. Snags** (*none, uncommon, common, abundant*):

West Jack Lake: common

*Not noted for Central or East Jack Lake.*

**5. Super-canopy trees present?**

West Jack Lake: yes

Central Jack Lake: yes

East Jack Lake: not noted

**6. Pit and mound topography present?**

*Not noted for forests in this OGF complex.*

**7. Evidence of human disturbance?**

West Jack Lake: yes; there is an extensive snowmobile trail network in this area, as well as an abandoned hunt camp and active campsite.

Central Jack Lake: yes, lack of CWD could indicate removal by cottagers for firewood.

East Jack Lake: yes, recent logging operations evident.

**8. Wildlife observations:**

West Jack Lake: pileated woodpecker holes abundant in snags

Central Jack Lake: lack of understory growth may indicate high ungulate (deer and moose) populations

East Jack Lake: not noted

## Photos

### West Jack Lake:



Left: One of several snowmobile trails in the West Jack Lake Forest. Notice the snag in the mid-ground with numerous cavities. Right: AFER staff member poses with the 83.4cm DBH white pine that was cored, estimated to be 135 years old.

**Central Jack Lake:**



One area of the Central Jack Lake Forest with an open understory and abundant grass.

**East Jack Lake:** no photos taken

**Forest designations<sup>2</sup>**

West Jack Lake:

- Young                       Mature                       Old                       Old-growth

Central Jack Lake:

- Young                       Mature                       Old                       Old-growth

East Jack Lake:

- Young                       Mature                       Old                       Old-growth

**Notes:** High levels of human disturbance from recreational use (West Jack Lake) and logging (East Jack Lake) distance these forests from the “old-growth forest condition”. Central Jack Lake may also be experiencing overabundant animal populations that are reducing forest regeneration. Multiple designations indicate that some areas of the forest are older than others.

**References and Resources**

Ancient Forest Exploration & Research (AFER). 2019. [Peterborough Old-Growth Forest Project – Level 1](https://www.inaturalist.org). Available from <https://www.inaturalist.org>. Accessed December 6, 2019.

Quinby, P. 2019b. Minimum Diameters for Old-growth Trees in Ontario’s Northern Temperate Forests. Forest Landscape Baselines No. 36, Ancient Forest Exploration & Research. Powassan & Peterborough, Ontario. ([https://14b54489-f611-4cf7-9e23-d1b121227c63.filesusr.com/ugd/1eacbf\\_d0fad9641f2a464986ae5d9b7478ed6a.pdf](https://14b54489-f611-4cf7-9e23-d1b121227c63.filesusr.com/ugd/1eacbf_d0fad9641f2a464986ae5d9b7478ed6a.pdf))

<sup>2</sup> Definitions for designations are in progress.

## Appendix A: Acronyms

AB: black ash	LA: larch/tamarack	PR: red pine
BF: balsam fir	MH: sugar maple (aka hard maple)	PW: white pine
BW: white birch	MR: red maple	SB: black spruce
CE/CW: white cedar	OR: red oak	SW: white spruce
HE: eastern hemlock	PO: poplar species	