



Ancient Forest Exploration & Research

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

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

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

SITE VISIT REPORT #3

An Old-growth Forest Assessment for the

Promise Rock Nature Trail

City of Peterborough, Ontario

Written April 10, 2019 and revised November 12, 2019 and March 3, 2020 by Carling Dewar

Site information

Property name and location:	Promise Rock Nature Trail, Peterborough ON (just north of Trent University) (44.367037, -78.288202) http://www.trentu.ca/academic/trailstudies/tnatrails.html				
Dates visited and attendees:	<table border="0"> <tr> <td>Friday April 5, 2019, 2pm-3:45pm:</td> <td>Friday December 13, 2019, 1pm-2:30pm:</td> </tr> <tr> <td> <ul style="list-style-type: none"> • Carling Dewar (AFER) • Mike Henry (AFER) • Ian Attridge (Trent University instructor, local lawyer) </td> <td> <ul style="list-style-type: none"> • Carling Dewar (AFER) • Laura Collings (AFER) • Patrick Levasseur (Trent University PhD candidate) </td> </tr> </table>	Friday April 5, 2019, 2pm-3:45pm:	Friday December 13, 2019, 1pm-2:30pm:	<ul style="list-style-type: none"> • Carling Dewar (AFER) • Mike Henry (AFER) • Ian Attridge (Trent University instructor, local lawyer) 	<ul style="list-style-type: none"> • Carling Dewar (AFER) • Laura Collings (AFER) • Patrick Levasseur (Trent University PhD candidate)
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Purpose of visits:	<p>April 5, 2019: Determine the potential for old-growth trees and stands at this site while testing the new iNaturalist project.</p> <p>December 13, 2019: Determine typical tree ages at this site.</p>				
Weather and terrain conditions:	April 5: 4°C, overcast with periods of drizzle. December 13: 3°C, sunny with scattered clouds. Trails easy to access; icy in spots.				
Notes:	Patrick brought his dog on the December 13 trip.				

Site Description

Ian explained that this site was owned by GE and a home was built here that has since been demolished. The site is bordered by Nassau Mills Road on the west and a main trail and agricultural fields on the east. A variety of hardwoods, white cedars, and several large white pines characterize this area.

April 5, 2019: A handful of small-/large eastern hemlock trees were observed (no measurements taken). There are a moderate amount of snags/CWD throughout. Although this site is disturbed by trail users, it could qualify as old-growth. A porcupine was seen in a tree and there was a large scat pile and hollow at the base of this tree. Several pileated woodpecker holes were observed.

December 13, 2019: Four trees were cored including two eastern hemlocks and two eastern white pines, averaging 140 years old (range: 104-177). Additional information can be found in table 1 below. The porcupine was seen again in the hollow of the same tree where it was seen during the previous trip.

From <http://www.trentu.ca/academic/trailstudies/tnatrails.html>: "This trail consists of an overgrown rail bed and wooded loop trail leading to the famous "Promise Rock", a large, flat-topped limestone outlier deposited at the end of the last ice age. This rock was once a part of Cub Scout initiation ceremonies. Natural features include a stand of **100 year old white pine and hemlock trees**. Beware, poison ivy is common in this area." [site was last updated in 2007 by Sarah Gauntlett].

Maps

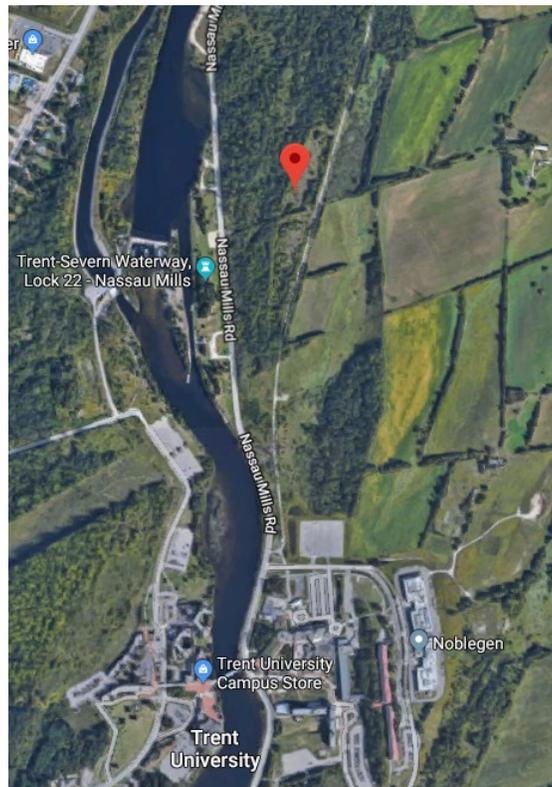


Figure 1. Location of Promise Rock Nature Trail, in relation to Trent University. From Google Maps.

Photos (April 5, 2019)



Figure 2. Tree cavity with porcupine scat pile.



Figure 3. Cedar forest with Promise Rock in the background.

Old-growth features

1. **Species present and tree ages:** Several hardwood spp., white cedars, eastern hemlocks and several large, supercanopy white pines observed. Two of four trees cored on December 13 exceed provincially-defined old-growth ages for the species (OMNR 2003).

Table 1. Age estimates for trees cored on December 13, 2019 by Laura Collings, Carling Dewar, and Patrick Levasseur.

Species	DBH (cm)	Age estimate (# of rings counted)	Notes
Eastern hemlock	57.7	131	-
Eastern hemlock	65.4	177	Exceeds old-growth age-of-onset of 140 years (OMNR 2003).
Eastern white pine	60.9	104	Could not locate pith; core pieces near centre were mixed while handling.
Eastern white pine	71.4	148	Exceeds old-growth age-of-onset of 120 years (OMNR 2003).

2. **Coarse woody debris** (*none, uncommon, common, abundant*): Common.
3. **Snags** (*none, uncommon, common, abundant*): Common.
4. **Supercanopy trees present?** Yes (white pines).
5. **Pit and mound topography present?** Yes
6. **Evidence of human disturbance?** Yes, this site contains several narrow, compacted trails.
7. **Wildlife observations:**
 - April 5: Porcupine perched in cedar tree (with large scat pile and cavity at the base of the tree), several trees with pileated woodpecker holes observed.
 - December 13: Porcupine observed again in the hollow of the same tree.

Forest designations¹

Young Mature Old Old-growth

Notes: Can be considered an old-growth forest if the definition allows for some human disturbance.

References

- Ontario Ministry of Natural Resources (OMNR). 2003. Old-growth Forest Definitions for Ontario. Ontario Ministry of Natural Resources, Queen's Printer for Ontario, Toronto, Ontario. Retrieved March 3, 2020 from <https://collections.ola.org/mon/6000/10310919.pdf>
- Trent University. 2007. Trails in Trent University's Nature Areas. Accessed April 10, 2019 from <http://www.trentu.ca/academic/trailstudies/tnatrails.html>

Acknowledgements

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¹ Definitions for designations are in progress.