



# Ancient Forest Exploration & Research

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## 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

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

#### Site Description

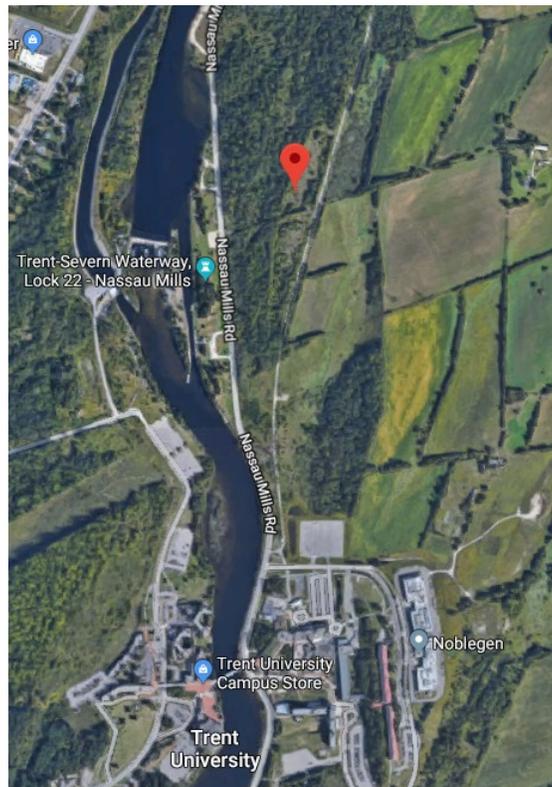
Ian explained that this site was owned by GE and a home was built here that has since been demolished. The site is bordered by Nassau Mills Road on the west and a main trail and agricultural fields on the east. A variety of hardwoods, white cedars, and several large white pines characterize this area.

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 designations<sup>1</sup>

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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<sup>1</sup> Definitions for designations are in progress.