



Ancient Forest Exploration & Research

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SITE VISIT REPORT #4

An Old-growth Forest Assessment for the
Jeffrey-Cowan Forest Preserve, a Kawartha Land Trust Property
 Peterborough County, Ontario

Written May 3, 2019 and revised November 12, 2019 and March 5, 2020 by Carling Dewar

Site information

Date of visit:	Friday May 3, 2019				
Property name and location:	Jeffrey-Cowan Forest Preserve 81 Fire Route 10, North Kawartha Township, Peterborough County 135 acres				
Attendees:	Carling Dewar (AFER), Laura Collings (AFER), and five KLT stewards/staff				
Start time:	11:15am	End time:	4:00pm	Duration:	4.75 hours
Purpose of visit:	To determine if forests at this location qualify as old-growth.				
Weather and terrain conditions:	Overcast with periods of drizzle, high of 12°C. Little wind.				
Notes:	Two dogs present. Other dog walkers were seen on the property.				

Site description

The Jeffrey-Cowan Forest Preserve (JCFP) has a mixture of second-growth and old-growth forests with large stands of white oak and eastern hemlock as well as scattered super-canopy white pines. There is also a red pine plantation on the property. A few American beech trees are present, but most are unhealthy due to beech bark disease. A young bitternut hickory tree and sapling were observed at the edge of a trail. Soils are thin across most of the property and rocky outcroppings and erratics are common. Understory plants are heavily browsed by deer, thus regeneration is lacking.

There is an extensive trail and irrigation system across the property. Scattered stumps can be found in some areas, but eastern hemlock forests appear largely untouched. Several large snags and a moderate amount of downed woody debris were observed here.

Most eastern hemlocks measured were less than 40cm DBH. One near the man-made pond was 52.9cm DBH and was the largest observed. The largest pine measured was 73.2 cm DBH, but similar-sized or possibly larger white pines were observed. See table 1 for details. There is an impressive eastern hemlock-white pine stand along the west shore of Northey Bay (on the east side of the property), as described in the managed forest plan (Keillor-Faulkner 2018):

[see next page]

Additional information

Stand 3 is found on the northeast slope to Northey's Bay. It is by far the most impressive stand consisting of mostly large, tall high-quality white pine. Little evidence of human-made disturbances make this a true virgin stand of white pine that early settlers came across in their efforts to settle Ontario. Many of the white pine are 35 to 40 m tall, large diameter 50 cm or more, with straight stems and little knotwood. Because of the high basal area (44 m²/ha) the stand is shrub and herb poor (lack of light penetration). Nevertheless this stand would make an important yarding area for deer particularly since it is bordered by stands that contain winter browse and it is relatively isolated from areas of human activity. Wind throw of large pine and hemlock while not common is an ongoing pedogenic disturbance creating coarse woody debris and downed trees in varying stages of decomposition.

7A.3 Compartment history

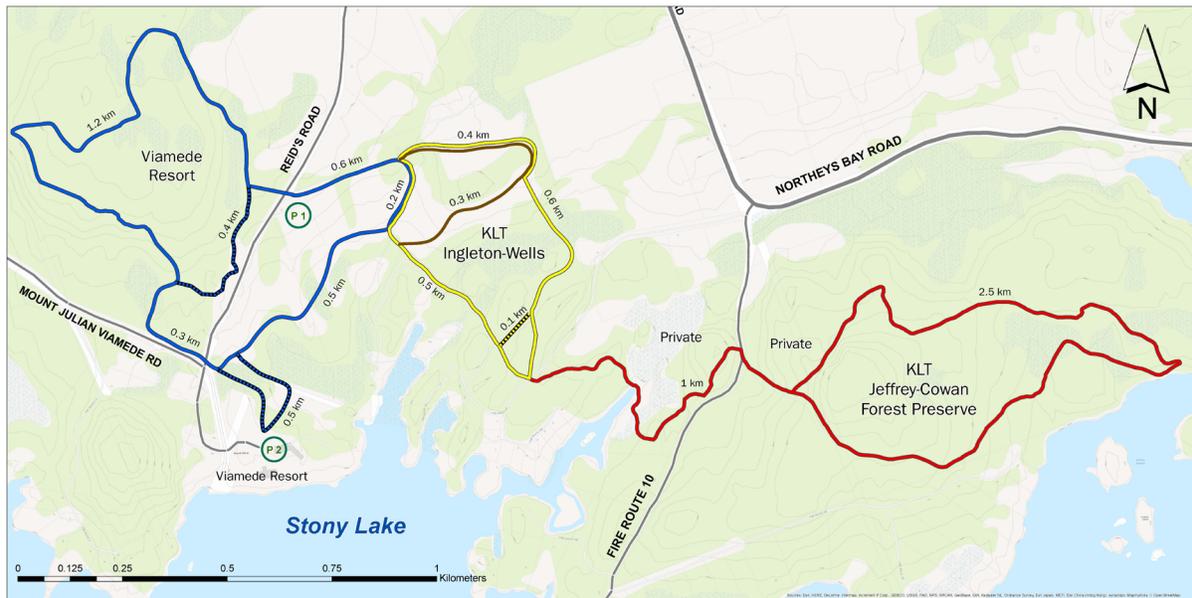
The origin of this stand is probably the result of natural wildfire in the 1800's or the late 1900's as there is no evidence of any human-made disturbance. Natural disturbance such as windthrow have been occasional and on-going and result in the recruitment of hemlock and pine regen.

This plan includes information on other areas of the property, as well.

Maps



Stony Lake Trails



Trails

- Blue 3 km
- Browne 1 km
- Blue Connector
- Red 3.5 km
- Yellow 2 km
- Yellow Connector
- P 1 105 Reid's Rd., Woodview, ON
- P 2 595 Mt Julian Viamede Rd., Woodview, ON

These are recreational trails and lengths are an approximation, use at your own risk. Please tread lightly, stay on the trails, and respect all signs. Enjoy!

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Data supplied under license by the Ontario Ministry of Natural Resources and Natural Resources Canada.

This map is illustrative only. Do not rely on it as being a precise indicator of privately-owned land, routes, locations of features, nor as a guide to navigation. This is not a plan of survey.

© Kawartha Land Trust, 2017.

Figure 1. Stony Lake Trails map, including JCFP (red). Note: many side trails are not shown. From Kawartha Land Trust (n.d.).

Tree measurements

Table 1. List of old or large (>40cm DBH) trees on site (if tree is a snag or log, threshold is 30cm).

Tree ID	Tree spp.	DBH (cm)	Height (m)	Snag, log (decay class) or stump (modern, historic)?	Notes*
1	Poplar	-	-	Snag (3)	Yellow-bellied sapsucker observed feeding on this tree. GPS: 44.56123, -78.12566 (1km accuracy)
2	White pine	56.3	-	-	GPS: 44.56980, -78.10973 (8m accuracy)
3	White pine	58.2	-	-	GPS: 44.56984, -78.10889 (7m accuracy)
4	White pine	73.2	-	-	GPS: 44.57005, -78.10892 (9m accuracy)

*: coordinates recorded using iNaturalist.

Photos



Figure 1. Tree 1 (poplar snag in mid-ground)



Figure 2. Laura with tree 2 (White pine, 56.3 DBH)



Figure 3. Tree 3 (White pine, 58.2 DBH)



Figure 4. Coarse woody debris and pit-and-mound topography (left) and snag (right) in stand adjacent to Northey Bay.



Figure 5. Eastern hemlock-white pine forest surrounding man-made pond



Figure 6. A younger hemlock forest near the centre of the property

Old-growth features

1. **Species present and forest age:** hemlock, white pine, beech, white oak, red oak, ash spp., striped maple, sugar maple, red pine, paper birch, yellow birch.
2. **Coarse woody debris:** (*none, uncommon, common, abundant*). Uncommon in some places, common in others.
3. **Snags:** (*none, uncommon, common, abundant*). Take note of any tree cavities/crevices. Uncommon in some places, common in others. Observed several trees with multiple cavities and woodpecker holes (figures 1 and 4).
4. **Supercanopy trees present?** Yes
5. **Is regeneration occurring?** Little, if any
6. **Pit and mound topography present?** Yes (see figure 4)
7. **Evidence of human disturbance?** Yes, lots of trails and infrastructure.
8. **Wildlife observations:** Wild turkey (and nest with eggs); raccoon seen; deer tracks, hair and scat observed (likely left behind by a hunter as no bones were found). Heard/saw several yellow-bellied sapsuckers, chickadees, white-throated sparrows, and winter wrens. Looked for salamanders and Five-lined Skinks along the way but none were observed.

Forest designations¹

Young

Mature

Old

Old-growth

Notes: AFER recommends taking steps to reduce deer browse and trampling by hikers (e.g. fencing, trail closures, etc.) to promote the old-growth forest rehabilitation/regeneration.

¹ Definitions for designations are in progress.

References

Kawartha Land Trust. N.d. [Jeffrey-Cowan Forest Preserve](#). Accessed May 7, 2019.

Keillor-Faulkner, H. 2018. Managed Forest Plan for Kawartha Land Trust: Property Conc. 6, Pt Lot 2, Township of North Kawartha, County of Peterborough.

Acknowledgements

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