



Ancient Forest Exploration & Research

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SITE VISIT REPORT #6

An Old-growth Forest Assessment for
Big (Boyd/Chiminis) Island, a Kawartha Land Trust Property
 Peterborough County, Ontario

Written November 6, 2019 and revised November 12, 2019 and March 5, 2020 by Carling Dewar

Site information

Date of visit:	Tuesday, September 24, 2019				
Property name and location:	Big (Boyd/Chiminis) Island 44.535443, -78.498354				
Attendees:	AFER staff Dr. Peter Quinby and Carling Dewar and three Kawartha Land Trust (KLT) stewards/staff.				
Start time:	12:00pm	End time:	3:00pm	Duration:	3 hours
Purpose of visit:	Assess condition of forests in the southern quarter of the island along the 2.5km loop and identify opportunities for old-growth forest restoration.				
Weather and terrain conditions:	Sunny, high of 20°C, low of 4°C				
Notes:	We hiked the south loop.				

Site Description

Several tree species and forest types were observed in the southern portion of Big Island, which is almost entirely young to mature forest. Forest types are described broadly in by KLT's Ecological Land Classification map (Kawartha Land Trust, 2017a). On the southeast side of the island, most eastern hemlock appear stunted or stressed, and many white pines appeared to be affected by the white pine weevil. Several shagbark hickory trees were observed and are a unique feature. Butternut trees were not observed during this visit. Regeneration of understory plants and trees is limited.

Description from Kawartha Land Trust, 2017b:

"The island is 496 hectares (1226 acres) in size and lies in the north half of Pigeon Lake, east of Bobcaygeon, in the northern portion of the County of Peterborough, Ontario. Big Island (figure 1) sits in the southern region of what is widely referred to as The Land Between. This broad ecotonal corridor extends southeast to northwest, from the Kingston region to Georgian Bay. It encompasses the southern margin of the Precambrian Canadian Shield along its interface with the northern limits of Paleozoic limestones. Correspondingly, Big Island consists predominantly of limestone bedrock with occasional overlaying deposits of glacial till, although exposed granite outcrops are evident at its northern extremity."



Figure 1. Map of Big Island (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)	Notes
18	Or	107	Trunk splits around 8 feet. PQ estimated that this tree could be over 250 years old. Should also note that a red oak from Jeffrey-Cowan Forest Preserve measured 90.6 DBH and is estimated to be around 122 years old based on tree core. GPS: 44.52483, -78.49879

Old-growth features

1. **Species present and forest age:** Species observed include eastern hemlock, northern white cedar, ironwood, white pine, basswood, sugar maple, red maple, red oak, white birch, white ash, American beech, shagbark hickory. See Kawartha Land Trust 2017 for full list of tree species. Ages variable.
2. **Coarse woody debris** (*none, uncommon, common, abundant*): Common.
3. **Snags:** (*none, uncommon, common, abundant*): Abundant. Several cavities observed.
4. **Supercanopy trees present?** Yes
5. **Pit and mound topography present?** Yes
6. **Evidence of human disturbance?** Yes. We observed old wells and abandoned equipment, as well as some litter.
7. **Wildlife observations:** Mink, osprey, and den site observed.

Photos



Figure 2. A dead eastern hemlock. Several other hemlocks nearby were in a similar condition.



Figure 3. 107cm DBH red oak.



Figure 4. A white cedar snag with coarse woody debris in the background.



Figure 5. Example of open understory found throughout the southern part of island.

Forest designations¹

Young

Mature

Old

Old-growth

Notes: See notes regarding limited regeneration. Some areas could benefit from active management to enhance old-growth condition (e.g felling select trees to allow shade tolerant trees to grow more quickly/have access to more resources).

References and Resources

Kawartha Land Trust, 2017a. Big (Boyd/Chimnis Island): Ecological Land Classification.

Kawartha Land Trust, 2017b. DRAFT Kawartha Land Trust BIG ISLAND (BOYD ISLAND/CHIMINIS) PROPERTY BACKGROUND REPORT. 47 pages.

Kawartha Land Trust. N.d. Big (Boyd/Chimnis Island). Retrieved March 5, 2020 from https://kawarthalandtrust.org/?post_type=property&p=95

Acknowledgements

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¹ Definitions for designations are in progress.