

PETRIE ISLAND TREE INVENTORY

YEAR 3 REPORT- 2021

By Sherry Nigro with major contributions from Kyra McKenna- Tree Inventory Lead

This report is the third installment of the Petrie Island Tree Inventory, sponsored by the Friends of Petrie Island. This year's work builds on inventories done the summers of 2019, which focused on the central part of the Island and 2020, which covered the east side of the Island. The focus this year was the conservation area west of the Bill Holland Trail. This area is not open to the public and has not previously been developed. Unusually low water levels allowed access to the shoreline on foot. This project is an ongoing collaboration between the Friends of Petrie Island (Al Tweddle, Sherry Nigro), the Ottawa Stewardship Council (Janet Mason) and the Ottawa Field Naturalist Club (Owen Clarkin).

The purpose of the inventory is to establish a baseline measure of the health of the trees on Petrie Island. This is undertaken by physically observing individual trees and documenting the following attributes: location using GPS coordinates, species, Diameter at Breast Height (DBH) as calculated by measuring circumference (cm), tree characteristics (healthy, dead branches, cracks, cavity/rot, disease), whether the tree is wire wrapped, and if there is beaver damage. As per the 2019 inventory, trees less than 1 metre in height and/or less than 5 cm in diameter were not recorded. Dead trees were recorded, identifying species if possible. Shrubs were not recorded. Attempts were made to capture all trees in the study area although willows were exempted as they were previously captured in a 2019 exercise. Measurements with photographs were recorded using the Inaturalist app on the Friends of Petrie Island Tree Inventory project. Each observation was tagged to provide detail on the characteristics. Species identifications were verified by partners through the Inaturalist project.

Observations were made by a lead staff person with assistance from volunteers. Kyra, our summer staff, had been responsible for the entire 2020 Tree Inventory, was very comfortable and knowledgeable with the project parameters. However, she had additional responsibilities this year so was assigned the Tree Inventory as a volunteer project. Volunteers were solicited through social media; three volunteers were oriented to the project (Vanessa Hum, Shanleigh Kirk, and Lucia Culen). Due to scheduling challenges, only two two-hour sessions were undertaken, July 19 (29 trees recorded) and August 3 (97 trees recorded). The surveys were done with the staff accompanied by volunteers. Kyra did revisit the site on August 25 to mark the use orange flagging tape to demarcate the boundary of the inventory.

Results: A total of 126 trees were recorded this summer.

The most abundant species in the 2021 study area (west of Bill Holland Trail) is Silver Maple (approx 80%). Notably, most are multi-stemmed and with many large trunks. One trunk was measured at over 100 cm in diameter. It is likely the trees were coppiced by beavers but that the trees survived and developed the multiple trunks. It is surprising to only record five instances of beaver damage.

The remaining trees surveyed are elm, basswood, hackberry and a number of dead green and black ash.

Going east from where the study area was located (back towards the end of the Bill Holland Trail), species change to Hackberry and Butternut, this area should be focused on next summer. There is also a considerable area still unsurveyed at the west end of Petrie Island. As well, surveys of the surrounding islands may be considered for the future.

Summary of data, organized by year

	2019	2020	2021	Total
Number of observations	443	629	125	1,197
Number of species	20	22	6	Overall 26
Trees between 50 – 74.99 cm in diameter	80	162	28	270
Trees between 75 – 99.99 cm in diameter	7	0	5	12
Trees greater than 100 cm in diameter	4	0	1	5
Trees that have been wire wrapped	65	143	0	208
Trees that have beaver damage	42	76	5	123