

S P R I N G 2 0 1 7

FIELD BOTANISTS OF ONTARIO

NEWSLETTER

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President's Message

It's April 2 - a sunny, warm Sunday afternoon. The maples along my street are budding. Snow Drops, Siberian Squill, and Crocuses dot the lawns. It's that time of year, and I'm once again drawn into the woods. New to the London area, I do an online search for local conservation areas and see that Coldstream Conservation Area is not too far. Based on the aerial image in Google Earth, the park appears to be mostly Sugar Maple forest, which is promising for some potential early sightings of spring ephemerals. So I make the drive to the small park located just northwest of the city. I start out on the trail, which loops through a lowland deciduous forest of Sugar Maple, Black Maple, Black Cherry, Green Ash, and the occasional towering Cottonwood along the East Sydenham River. The trees lining the creek hang on for dear life with tangles of long, snaking roots clinging to the banks. As I survey my surroundings, I realize it's too early, and the spring wildflowers are taking their time. I have to look closely, pushing leaves away here and there. These mesic woods seem ideal for the likes of Squirrel Corn and Dutchman's Breeches, but none are to be found today. Occasionally, I uncover the mottled green and brown leaves of Yellow Trout Lily, and spot the slender, lance-shaped leaves of Spring Beauty poking through the duff. Other strands of green look familiar, but are not yet recognizable. Signs of things to come. The trail continues along a crooked boardwalk through a swamp of White Cedar and Yellow Birch. Hundreds of fetid purple hoods dot the seepy ground, a few accompanied by bright green pointy cones of skunky leaves, just emerging. Along the creek, the kidney shaped leaves of Marsh Marigold are unmistakable and a few early yellow blooms pop against the leaf litter. I like this place, and make a point to return in a few weeks to see how things progress.

The onset of spring means that the FBO field trip season is imminent. We've put together another excellent program this year, offering a variety of botanical field trips across Ontario. The field trip list and registration package will be coming soon. I'm looking forward to another great year of field botany in Ontario.

Dan Westerhof

On the cover: Professor Kamstra and his students in Backus Woods, as captured by Ryan Godfrey.

Sidebar artwork: Broad-leaved Arrowhead (*Sagittaria latifolia*).

Trip location maps generated using NatGeo Mapmaker software.

The suggested standard source for scientific and common names is the Database of Vascular Plants of Canada (VASCAN): (<http://data.canadensys.net/vascan/search>).

Field Botanists of Ontario website: www.trentu.ca/fbo

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Editor's Note

Botany can be studied in many ways. The molecular level was never appreciated by your editor as a true window into the nature of things: too small and too biochemical. The real world is out there - in the field, where organisms interact with each other, form communities and can be observed *in vivo*. Most of our trips offer such experiences, when we see the plants in their natural environments, when we identify species, and note their habitats and distributional patterns. The latter may be at the familiar scale of sites that we visit: take the classic accounts from our contributors - Andrew Dean's Morris Tract and Ryan Godfrey's Backus Woods.

The other way can, well, combine the disciplines botany, geography and history. Bill McIlveen's forensic investigation of the relationship between the present sightings of pine stumps and the original distribution of pine forests in the Region of Halton is an example of that other kind of scale. Bill and Dilys Bowman have meticulously assembled and analyzed these patterns and produced a fascinating article for botany, geography and history buffs all in one incarnation.

To continue President Westerhof's final thought for 2017 - wish we all have a great botanical year. So, sign up on our trips and ... those who were selected to voluntarily write a trip report, please do so right after you are back home when the memory is fresh. We are, unfortunately, in urgent need of submissions. Considering how many trips we have had over the years, few have ended up as accounts in our newsletter. The editor is waiting - for your "stuff"!

Chris Zoladeski

Field Trip Reports

Trekking the Morris Tract

6 June, 2015

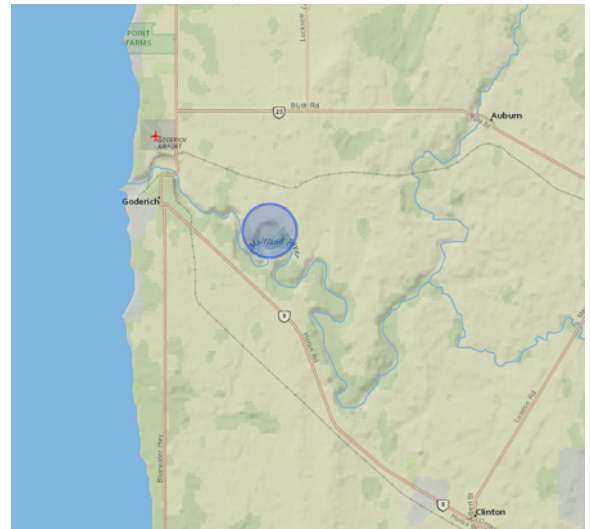
By Andrew Dean

The Morris Tract Provincial Nature Reserve, located east of Goderich, is owned by the Nature Conservancy of Canada and managed by Ontario Parks. Management initiatives are mostly focused on invasive species. The entire reserve is roughly 60ha in size, although upon airphoto review, the contiguous habitats appear more extensive than the reported size would suggest. The property boasts unique and sensitive ecological features, such as floodplain forest, older-growth forest, limestone cliffs, and several provincially rare plant species. Extensive upland forests, steep ravines and lowland forests characterize the lands, and there is frontage onto the Maitland River. Within the ravines, a sheltered microclimate allows for more Carolinian species to persist outside of their typical range, such as American Sycamore (*Platanus occidentalis*).

The outing began along an upland forest trail at the top of the valley slope. Field botanists appeared to be licking their lips in anticipation as they peered into the rich Sugar Maple (*Acer saccharum*) dominated forest while combing through the more common species along the trail; these included Germander Speedwell (*Veronica chamaedrys*), Woodland Sedge (*Carex blanda*), Hooked Crowfoot (*Ranunculus recurvatus*), and Bluegrass (*Poa alsodes*). A good diversity of sedges were seen as the

group meandered along the main trail and into the valley: Handsome Sedge (*Carex formosa*), Loose-flowered Sedge (*Carex laxiflora*), Plantain-leaved Sedge (*Carex plantaginea*), Long-stalked Sedge (*Carex pedunculata*), Fibrous-root Sedge (*Carex communis*), Wood's Sedge (*Carex woodii*), and Hitchcock's Sedge (*Carex hitchcockiana*), the latter with its sparse female spikes and leaf sheaths strongly hispidulous. Several species were unidentifiable due to the seasonality of the hike, such as White Lettuce (*Prenanthes* sp.) and Shorthusk grass (*Brachyelytrum* sp.).

As the group hiked down the valley into the rocky lowland forest they were met with an interesting challenge: an unfamiliar grass



species growing vegetatively in a patch next to the trail. It was suggested that the species was provincially rare, however in its vegetative and indistinct form, heads were being scratched. With its long, thin, and wispy panicle of flowers, Slim-flowered Muhly (*Muhlenbergia tenuiflora*) proves difficult to identify out of flower, although the knotty, rhizomatic roots are a diagnostic feature of the genus.

The rocky lowland forest had abundant Black Maple (*Acer saccharum* ssp. *nigrum*) and noticeable Bitternut Hickory (*Carya cordiformis*) dieback which was effectively

opening up the canopy. Notable species included: Canada Waterleaf (*Hydrophyllum canadense*), Nipplewort (*Lapsana communis*), Twinleaf (*Jeffersonia diphylla*), Black-fruited Rice Grass (*Oryzopsis racemosa*), Hairy-nerved Carrion Flower (*Smilax lasioneura*), Golden Alexanders (*Zizia aurea*), Pubescent Sedge (*Carex hirtifolia*), and False Melic Grass (*Schizachne purpurascens*). A new species to most field



Carex laevivaginata, against the background of Jewelweed (*Impatiens capensis*), in full fruit within floodplain forest. Photo: P. Deacon.

botanists was shown by Mike Oldham, the trip leader - Perfumed Cherry (*Prunus mahaleb*). This *Prunus*

species was introduced, likely escaped cultivation and is becoming locally established. It was at this point on the hike that members were graced with a spectacular vista view of the Maitland River with a Bald Eagle (*Haliaeetus leucocephalus*) soaring overhead. During this leg of the trip, Mike pointed out that the tornado that wreaked havoc on Goderich in 2011 moved through a portion of the Morris Tract which effectively severed access along the trail into the more specialized habitats dominated by calciphiles, or calcium-loving plants. Species such as Butterwort (*Pinguicula vulgaris*), and Bird's Eye Primrose (*Primula mistassinica*) are known from these habitats. Ebony Sedge (*Carex eburnea*), a calciphile, was observed while in transit to the rocky river flats where members ate lunch. During the lunch break, Giant St. John's Wort (*Hypericum ascyron*), a provincially rare species, was observed with its square stems and distinct *Hypericum*-like form.

Following lunch, botanists sifted through the floodplain forests in search of vascular goodies. We were met with Bottlebrush Grass (*Elymus hystrix*), with its diagnostic purple auricles; Smooth-sheathed Sedge (*Carex laevivaginata*), with tight and smooth leaf sheaths; Clinton's Fern (*Dryopteris clintoniana*), with sori in the centre of pinnules and more robust than *D. cristata*; Black Maple, which attendees learned must have hairy leaves and petioles, otherwise it is known as 'hairy sugar maple'. Other notable species included Jumpseed (*Persicaria virginiana*), Carpenter's Figwort (*Scrophularia marilandica*), Bladdernut (*Staphylea trifolia*), Canada Germander (*Teucrium canadense*), False Mermaidweed (*Floerkea proserpinacoides*), Hitchcock's Sedge, and Spreading Sedge (*Carex laxiculmis*), with its droopy culms. Most members were delighted to have been shown the elusive Green Dragon (*Arisaema dracontium*),

which can often be obscured among the surrounding vegetation making detection challenging.

To conclude the outing, Mike offered up a brief exploration of habitats adjacent to a tributary ravine, having first whetted our palates with mention of Goldie's Wood Fern (*Dryopteris goldiana*) in a remote area of the habitat. Due to the difficult terrain, Goldie's Wood Fern

was not seen, however the relatively uncommon Golden Saxifrage

(*Chrysosplenium americanum*) and Drooping Sedge (*Carex prasina*) were observed.

Many thanks to Mike Oldham for leading the outing and sharing his vascular plant wisdom in the outstanding venue of the Morris Tract. ✨

References:

<https://www.ontarioparks.com/park/morristract>

<http://www.natureconservancy.ca/en/where-we-work/ontario/faces-of-ncc/marylo-graham.html>

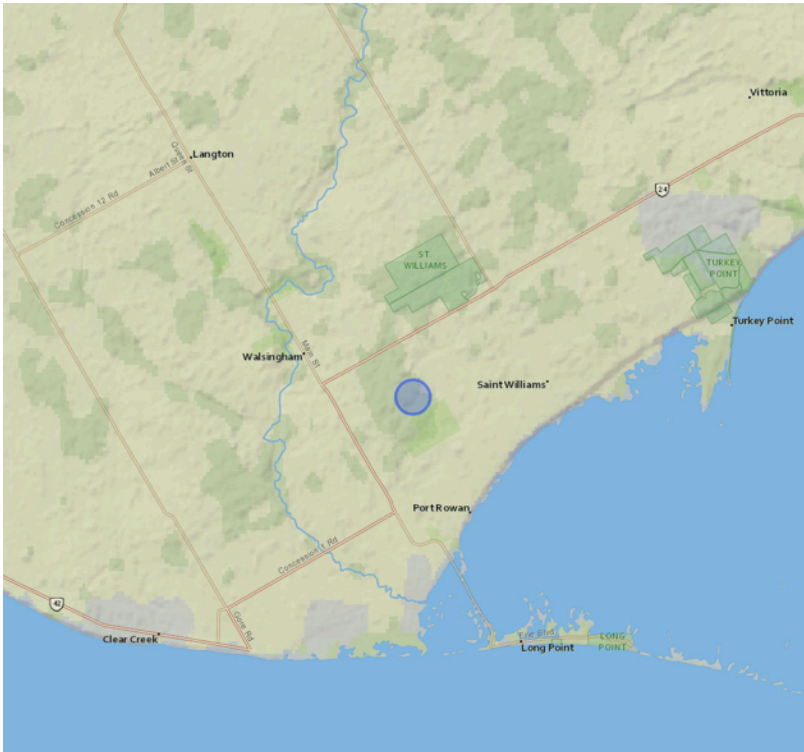
Michigan Flora Online. A. A. Reznicek, E. G. Voss, & B. S. Walters. February 2011. University of Michigan. Web. June 7, 2016. <http://michiganflora.net/species.aspx?id=2522>.

A report from Backus Woods

10 September, 2016

By Ryan Godfrey

On a drizzly Saturday morning, we intrepid botanists met at the parking lot just outside of Backus Woods. Early fall was an ideal time of year to be observing the site, as many woody species would be in fruit and the asters and goldenrods would be blooming while graminoids would still be somewhat identifiable. And, James Kamstra was equally an ideal guide for the walk with his vast botanical knowledge,



Sassafras (*Sassafras albidum*). Photo: R. Godfrey.

delightful charisma, milk-bag full of field manuals and physical dimensions that made him easy to spot from a distance.

As the rain thankfully cleared up and we headed out at botanist-pace (that is to say about 100m every dozen or so minutes) through the forest, we encountered a number of excellent examples of closely related species that resembled each other. Growing virtually, and sometimes actually, side-by-side made it easier to compare the identifying characters of these plants. Examples included: Lance-leaved Wild Licorice (*Galium lanceolatum*) vs. Licorice Bedstraw (*Galium circaezans*) and Cinnamon Fern (*Osmundastrum cinnamomeum*) vs. Interrupted Fern (*Osmunda claytoniana*).

Over the course of the day we made a large loop through impressive assemblies of plants, including dense and mature broad-leaved forest with an understory of Spicebush (*Lindera benzoin*), disturbed forest-edges and a sandy-soiled open patch with dogwoods (*Cornus* spp.), goldenrods (*Solidago* spp.) and grasses like Big Bluestem (*Andropogon gerardii*), Little Bluestem (*Schizachyrium scoparium*) and Nodding Fescue (*Festuca subverticillata*). Some of the impressive diversity of canopy tree species included Sassafras (*Sassafras albidum*), Tulip Tree (*Liriodendron tulipifera*), Common Hackberry (*Celtis occidentalis*) and Black Gum (*Nyssa sylvatica*).

Perhaps the highlight for me was when we came across an odd, 2-3m long, linear shaped discoloration in the leaf litter under an American Beech (*Fagus grandifolia*). It only took a moment to look up and see, just at about eye level, a vast, quivering colony of white-feathered Scale Insects (*Cryptococcus fagisuga*), the famous causes (along with *Nectaria* fungus) of the Beech Bark Disease. The Scale Insects were seen to be piercing the sapwood of the Beech with their mouth-parts while, from their posterior ends, they ejected what was apparently the highly pressurized sap from the tree's phloem. The sticky liquid fell from the branch to the ground, creating the observed discoloration essentially in the shadow of the branch. Tiny white feathers were thence forward seen crawling on the trunks of many more large Beech trees nearby: a frightening omen for the fate of Beech far and wide, to be sure.

Many thanks on behalf of all of the participants to James Kamstra for a lovely walk through the woods and to the FBO for organizing the event. ✨



Scale insects on beech tree. Photo: R. Godfrey.

Distribution of pine stump fences in relation to original pine forests in Halton

By W.D. McIlveen and Dilys Bowman

Introduction

Driving through the Halton area and elsewhere in southern Ontario, one can see occasional but impressively large pine stump fences on some rural property lines (Fig. 1). They are a visible remnant of the White Pine trees, many of them 200+ years old, that were prominent in the landscape when it was first surveyed in the early 1800s. This paper attempts to show the connection between the pine stump

fences remaining today in Halton, the pine forests of two centuries ago, and the agricultural corn fields tended by aboriginal groups (AKA First Nations people) in southern Ontario for centuries before that.

The earliest humans arrived in what is now Ontario around 11,000 BC as the last glacial period was coming to an end [Storck]. Over time, after the ice retreated, the vegetation cover gradually changed from Arctic flora to boreal and then to forest that generally resembles the type that we might recognize as native to much of Southern Ontario in current times. Over the same period, the human inhabitants shifted through different cultural periods identified as the Archaic Period, the Woodland Period and the Late Woodland Period. Around 500 AD, agriculture was added to the hunting and foraging activities. The Late Woodland Period saw the development of the distinct Princess Point Culture. This cultural group is believed to have introduced the growing of corn as a staple food [Smith], an activity that figures significantly in the interpretation of the present report.

Endemic warfare had persisted in the Halton area since as early as the 11th Century [Finlayson]. The warfare lasted for six and a half centuries interspersed with periods of peace brought about by various alliances between groups. The rivalries between these different groups were exploited by the competing interests of the French and English as they extended the fur trade in the general area. The full story is complex [Riley] but the net result was that the Iroquois exterminated or drove out the tribes that had occupied southern Ontario. About 1700, some of the Mississauga people from Northern Ontario moved south to take up the unoccupied space. While they prospered for a time, they too were ravaged by diseases introduced to North America by the European explorers. In a destitute state, they signed two treaties with the British crown. The first was signed in 1805 covering the southern portions of Trafalgar and Nelson Townships. The second was signed in 1818 and covered the northern portions of Trafalgar and Nelson as well as Nassagaweya and Esquesing.

In the years immediately following each treaty signing, surveyors were hired to lay out the properties that became the lots and concessions for each township. After the lot boundaries were established, the settlement process could begin. The arrival of European settlers soon led to the removal of the forest canopy in order for the newcomers to establish crops to sustain themselves, their livestock and to generate income. This removal of forest trees represents the greatest environmental change that the land had seen since the retreat of the glaciers. Some 164,000 acres within Halton had been cleared within about 60 years by the time the information was obtained for a report prepared by the Ontario Agricultural Commission of 1880 [Province of Ontario, 1881] (Table 1).



Fig 1 - Pine Stump Halton 026 6th Line S of SR 10, 2016 02 23. Photo. W. Mellveen.

Table 1. Progress in land clearing in Halton in 1880.

Township	Date Surveyed	Total Acres	Cleared Acres	% Cleared
Esquesing	1819	67,000	44,578	66.5%
Nassagaweya	1819	44,800	24,497	54.7%
Nelson	1806, 1819	45,474	35,000	77.0%
Trafalgar	1806, 1819	66,656	60,000	90.0%

Wood, S.C. 1881 Ontario Agricultural Commission, 1880

The 1880 Agricultural Commission [Province of Ontario] also took an interest in the completeness of the clearing process. Apparently, land was considered cleared if the tree canopy had been removed. Removal of the stumps of the trees was a different matter for that required another huge investment of time and labour. The settlers grew their first crops in the spaces between the stumps. Because harvesting was done by hand, the presence of stumps was tolerable at first. As larger types of machinery and animal power were deployed, any stumps remaining became a problem. For most

species, the stumps would decay in place after a few years. But pine (essentially 100% Eastern White Pine in Halton) was a much greater problem because the stumps of this species are highly resistant to decay and did not burn well. The roots of the pine therefore had to be removed by hand or mechanically (Fig. 2). This issue is reflected in the data collected by the 1880 Agricultural Commission regarding the status of land clearing in Halton (Table 2).

Table 2. State of pine stump clearance from farmland in Halton in 1880

Township	Proportion Clear of Stumps	Proportion Still with Pine Stumps	Remaining Timber
Esquesing	4/5	1/10	1/3 - Hardwood, Pine nearly exhausted
Nassagaweya	2/3	All	10% - Hardwood, cedar, pine, tamarack

Nelson	39/40	9/10	15% - Pine and hardwood
Trafalgar	All	0	10% - Pine, oak, hardwood

Wood, S.C. 1881 Ontario Agricultural Commission, 1880

Methods

As well as defining the lot locations, the surveyors were required to make notes on the type of land in each lot and, fortunately for us, to record the dominant tree species in order of abundance for each kind (Fig. 3). Staff from OMNRF [McLean and Bakowsky] translated from the surveyors' notes and entered it on outline maps. The current authors converted these data to digital format to facilitate the



Fig 2 - Stump pulling on the Moore Farm EHS 14410.

creation of distribution maps for each of the species recorded. For our present purposes, only the original survey records referring to 'Pine' were used out of the original species recorded. Where the forest cover was listed as pine only or pine was the first tree species listed, then pine was considered to be dominant. If pine was the second (or third, fourth, etc.) species listed, it was deemed to be a secondary species. The distribution of White Pine at the time of the original surveys is therefore based on these two basic abundance categories.

For the second part of this project, we were interested in the presence of the remaining pine stump fences in Halton. Such fences

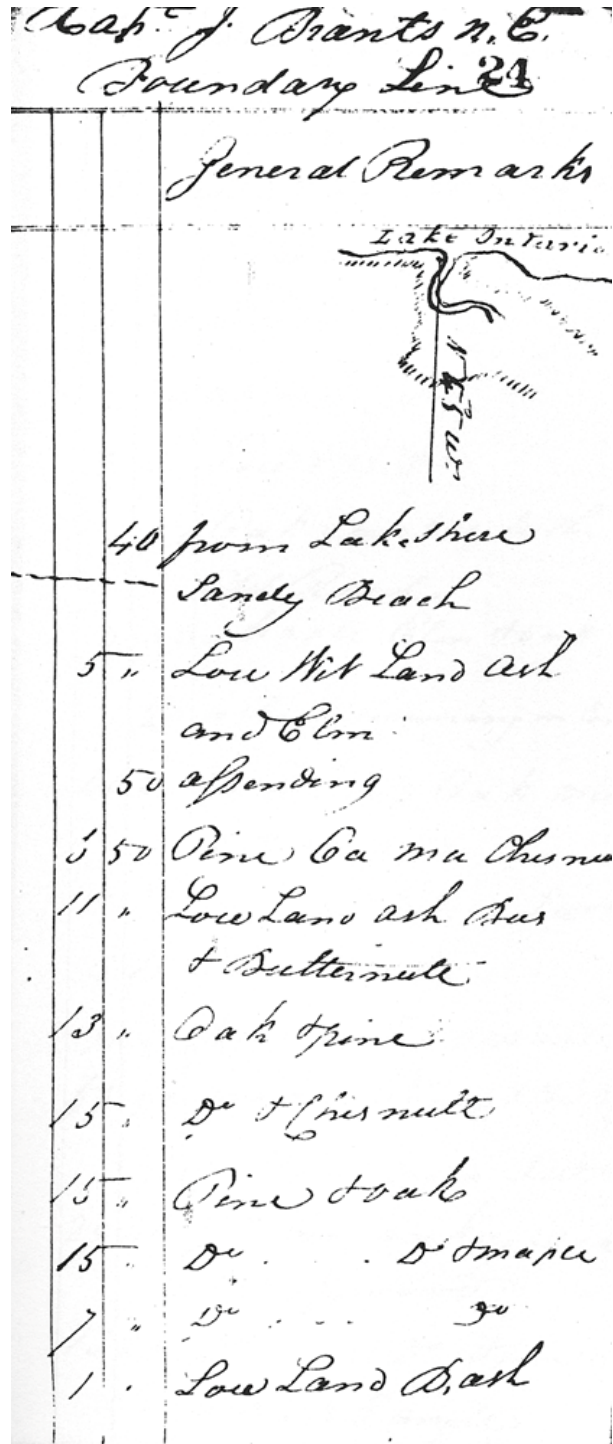


Fig 3 - Original Survey Notebook 539 Page 24 rev.

were created by transferring the extracted roots of the pine tree to the edges of fields and property lines along roadsides. Such placement provided not only a site to place the stumps but the stumps also provided a serviceable fence that defined the property, prevented cattle from straying and helped satisfy the stipulation that a fence had to be built before a final deed for a property could be issued. As well, the longevity of the roots meant that they did not

require as much maintenance as some other types of fencing.

In February and March, 2016, the senior author travelled all of the roads in Halton north of Highway 5 to search for evidence of pine stump fences. The area south of Highway 5 was considered as extremely unlikely to have any remaining fences as much of the area has been converted to some form of urban use. When evidence of pine stumps was noted, the location, stump number, fence length, general condition and general site characteristics were recorded. It was apparent that some stumps had been recently placed for landscaping purposes (e.g. at entrance gates) therefore an assessment was made of whether a particular section of fence was in the original position or had been transported there. As well, a few fences that were known to have existed previously in the literature or through personal observation were included in the inventory. The location information was used to create a relevant map (Fig. 4).

Results and Discussion

The historical records for Halton collected by the early land surveyors distinguished 20 tree species or groups of species. We can be confident that ‘Pine’ referred to Eastern White Pine (*Pinus strobus*) for that is the only native species to be found in natural situations in Halton with the exception of a very few Red Pine (*Pinus resinosa*) that may be native. The other species are of interest in their own right but do not figure into the present discussion. The pines accounted for 11.7% of all of the tree records (Table 3). They were well represented in all four townships but after accounting for differences in township size, the numbers were substantially higher in Esquesing. Pines often occurred in concentrated areas and were frequently described as

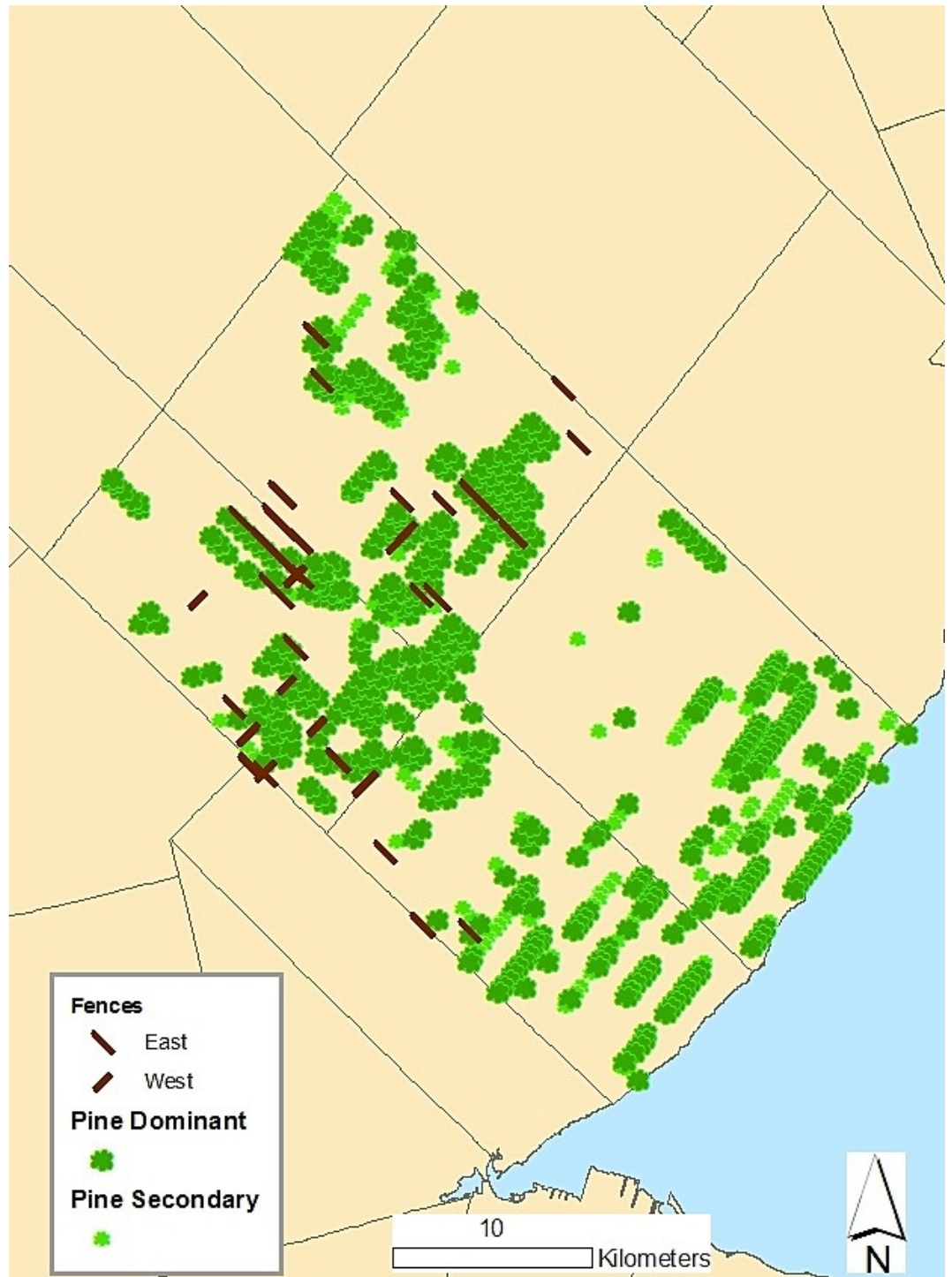


Fig 4- Stump Fences And Pine Stand Map.

‘tall’ suggesting that they were already of a substantial age at the start of the 1800s. Of the 778 units noted with pine in Halton, 234 (30%) were listed as having only pine. We cannot realistically expect that such geographic units contained pine to the exclusion of all others. We can, however, understand how the history of these sites caused the pine to become so dominant.

White Pine in undisturbed sites commonly lives for 200 years, although may live up to 450 years. It can tolerate a wide variety of soils, moisture and climatic conditions, but prefers sunny, dry sandy sites [Horton and Bedell]. Most information about regeneration of the species is provided in the context of managed forests, but under natural situations pines are pioneer species that would have readily

several dozen known Iroquoian villages in Halton. Villages and agricultural fields were abandoned after about 30 years when the soil nutrients and accessible firewood resources were depleted. Several such villages could co-exist at any given time. But if we take the median date as 1368 AD for field abandonment, any pines that might have developed into stands on those fields could have been



Fig 5 - Pine Stump Halton 011 SR 15 E of 6th Line 2016 02 20 1. Photo: W. McIlveen.

colonized the open, former agricultural fields abandoned by First Nations People in Southern Ontario [Bowman].

The best proof of corn and other agricultural crops being grown in Halton comes from the pollen records available from the sediments of Crawford Lake. Dates for that location indicate that corn was grown in proximity to the lake from 1435 to 1459 AD [Finlayson and Byrne]. Subsequent studies indicate that the dates for corn cropping were likely earlier, perhaps within the period 1268-1468 AD [McAndrews and Turton]. The precise date of the corn growing at Crawford Lake is not critical since that is only one location of

about 450 years old at the time that the land surveys were carried out. The belief that the stands of pine developed on former cornfields at such a time is therefore quite plausible. The presence of corn pollen to as recently as 1534 [Finlayson and Byrne] could still also account for the presence of the stands of large pine trees at sites in Halton as reported by the early surveyors.

Finlayson *et al.* [1998] have reported an association between former stands of White Pine, Iroquoian villages, and the presence of stump fences in Halton. The date at which the stump fences were examined was not provided but is presumed to have been carried out about 20

years before the present. The resolution of their maps is somewhat limited and their coverage was restricted to watersheds managed by Conservation Halton. Some of the more northerly fences were therefore not included in that Finlayson report. Despite these limitations, they were able to show a reasonably good correlation between the earlier and the present effort to map the fence locations.

Table 3. Frequency of White Pine stands in Halton as reported during original land surveys

Township	Dominant	Secondary	Total
Esquesing	156	168	324
Nassagaweya	109	14	123
Nelson	94	72	166
Trafalgar	102	63	165
Total	461	317	778

The presence of stump fences is largely predicated by the existence of pine stands in the area. The second factor is whether or not the landowners at the time chose to create a fence with the excavated roots. It is quite possible that such roots were piled or burned, perhaps to save and sell the ashes. But if the roots were used to create a fence, then this would establish the initial inventory of fences. It is not clear when the full or maximum inventory of stump fences in Halton would have been achieved. As Table 2 indicates, land had been largely cleared of stumps, with the exception of pine stumps, by 1880. Some pine stumps had been removed before this date but it would seem reasonable that farmers would turn their hand to stump removal shortly after the land had been cleared as they tried to improve the quality of their farms. By this logic, considerable pine stump removal would be underway in the period 1880-1900. The stump removal machine shown in Fig. 2 was still operating just after 1900 though the background of that photograph does show that a stump fence was already in place at that time. The ages of specific fences could possibly be determined with additional sleuthing and various dating techniques but it is reasonable to expect that many of the stump fences have been *in situ* for about 125 years.

Stump removal was certainly a major physical undertaking [Burnett]. Sometimes ‘stumping bees’ were organized where a group of neighbours might gather to make a joint effort to aid in the removal of stumps on a given property. While stumps would have been removed by such activities, quite often the ‘bees’ were not much more than excuses to have a rowdy drinking party. It is uncertain if the ‘Stump Act’ of 1800 was ever applied in Halton but in a type of reversal of the drunken stumping bee activities, a magistrate could sentence someone convicted of public drunkenness to a public

service that entailed the removal of a certain number of stumps from a road. Some of Yonge Street was cleared in this manner.

There appears to be little likelihood that any stump fences would have been created after the main period of land clearing had been completed. From that point on, the number of fences would have started to decline. Several factors could have contributed to the disappearance of the fences. Decay via different wood rotting fungi has no doubt played a role but that process is slow. Some fences may have been burned in grass fires. Human involvement is likely a major factor. In some cases, stumps have been moved to form some landscaping feature on lawns or driveways. It is not always clear if some of these placements came from stumps already on the property or were transported from elsewhere. Some fences were removed by individuals who considered them unsightly. Other land owners, by contrast, would be quite protective of their fences. Some would use stumps, or portions of stumps in floral designs incorporating ‘driftwood’. There is one example of a recently rebuilt fence on Sideroad 15 between Speyside and Moffat (Fig. 5) [Enright]. Some stump fences were also likely removed in order to install a more modern form of fencing. Finally, some were removed due to changes in land use; examples of this include the Moore farm on the north side of Georgetown (Fig. 2) that was converted to residential use or the development of an industrial park on the north side of Milton. It seems inevitable that the stump fences will all disappear, though if left undisturbed, the more intact stumps should persist for many years yet. The present effort to document the locations of the fences should serve as a good historical record of the fences that were still present in 2016. ✱

References

- Bowman, I.** 1974. Part II. The Draper Site: White Pine Succession on an Abandoned Late Prehistoric Iroquoian Maize Field. North Pickering Archaeology. Research Report 4. An Archaeological Survey for the North Pickering Project. Ontario Ministry of Natural Resources.
- Burnett, R.** 2016. Stump Fences in Esquesing and Ontario. Esquesing Historical Society Newsletter 40 (5) pp. 8-10.
- Enright, J.** 2004. Nassagaweya Resident not Stumped by Pioneer Techniques. North Halton Compass July 2, 2004 pg. 15
- Finlayson, W.D.** 1998. Indian Peoples of the Land of Rocks and Water, A.D. 1000-1650: A Study in Settlement Archaeology. London Museum of Archaeology, Special Publication 1. London, Ontario.
- Finlayson, W.D., and R. Byrne.** 1975. Investigations of Iroquoian Settlement and Subsistence Patterns at Crawford Lake, Ontario - A Preliminary Report. Ontario Archaeology 25: 31-36.
- Finlayson, W.D., M. Brown and C. Turton.** 1998. Pine Stands, Pine Stumps and Iroquoian Landscape Modification in the Crawford Lake Area. Pp 139-143. In: Finlayson, W.D. 1998. Indian Peoples of the Land of Rocks and Water, A.D. 1000-1650: A Study in Settlement Archaeology. London Museum of Archaeology, Special Publication 1. London, Ontario.

Horton, K.W. and **G.H.D. Bedell.** 1960. White and Red Pine Ecology, Silviculture, and Management. Bulletin 124. Department of Northern Affairs and Natural Resources, Forestry Branch, Ottawa. 185 pp.

McAndrews, J.H. and **C.L. Turton.** 2005. The Goosing of Crawford Lake with Prehistoric Corn Pollen. Canadian Association of Palynologists Newsletter 28(1):5-7.

McLean, P. and **W.D. Bakowsky.** 1999. Presettlement vegetation map of Halton County based on original land survey field notebook notes. Unpublished. Natural Heritage Information Centre, Ontario Ministry of Natural Resources.

Province of Ontario. 1881. Ontario Agricultural Commission. Report of the Commissioners. Third Edition. C. Blackett Robertson, Toronto.

Riley, J.L. 2013. The Once and Future Great Lakes Country: An Ecological History. McGill-Queens University Press, Montreal – Kingston. 488 pp.

Smith, D.C. 1997. Archaeological Systematics and the Analysis of Iroquoian Ceramics: A Case Study from the Crawford Lake Area, Ontario. London, Ontario: London Museum of Archaeology.

Storck, P.L. 2004. Journey to the Ice Age: Discovering an Ancient World. Royal Ontario Museum, Toronto. 356 pp.

Another Honour for Jim Pringle

Botanists in Ontario will be pleased that one of their number has received another recognition for his life-long work. This fact was first brought to our attention in the Spring 2016 issue of *Paradise Found RBG*. That article noted that during a 2014 floristic study of the Lhonak valley of the Himalaya Mountains in North Sikkim District of India, two plant taxonomists discovered and described a new species of gentian [Dey and Maity, 2015]. They named the species *Kuepferia pringlei* with the specific epithet recognizing Jim Pringle's life-long contribution to our understanding of the Gentianaceae. Jim is the Plant Taxonomist at the Royal Botanical Garden in Burlington.

Kuepferia pringlei is a small cushion or rosette-type plant, only 2-4 cm tall. The authors were able to determine that the species had a geographic range of only about a half square kilometer in area. The combined three small populations discovered contained only 20 to 22 plants. Based on this very small distribution, the species was recommended to be designated as Critically Endangered under the rules of the IUCN conservation status assessment. With this as a proposed designation, the species warrants conservation measures to ensure that it can be saved.

Dey, S. K. and **D. Maity.** 2015. *Kuepferia pringlei* (Gentianaceae), A New Species From the Eastern Himalaya. Edinburgh J. Botany 72: 429-436.

Notice of Proposed Change in Wording to Article 6 of the FBO Constitution

Members who attended the business portion of the 2015 Annual General Meeting will recall that there was a discussion about the discrepancy between the number of board members currently active and the number permitted by Article 6 of the FBO Constitution. The matter was referred to the board for further discussion. At the board meeting held on November 27th this year, there was consensus that the current wording in the constitution is unnecessarily limiting. Additional board members can be useful by taking on special roles, contributing to discussions, allowing a smooth transition to positions such as treasurer, vice-president and president, and by increasing the number of members able to act as board representatives on field trips. There appears to be no downside to allowing flexibility upwards in the number of board members. For these reasons, a motion was made, and supported by the board, to change the wording of Article 6 of the FBO Constitution as follows:

“The Board shall consist of the officers of the FBO and additional members as required (which may include the Past-President, Membership Secretary, Newsletter Editor, Field Trip Coordinator, Webmaster and additional members-at-large.)”

Officers of the Board include the President, Vice-President, Secretary and Treasurer. A motion to make the change to Article 6 will be presented at the 2017 AGM, and members will have a chance to vote on the motion.

FBO Board

With great sadness, the FBO informs of the death of Paul Rothfels, our long-time member and trip leader.

Those who knew him, remember a good-humoured, generous, and entertaining man. He was a teacher-naturalist and cabinetmaker.

Paul died unexpectedly, on 9 February 2017, just after his 70th birthday.