



Forestory

Volume 10, Issue 1, Spring, 2019

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The Agreement Forest Program, Caterpillar Tractors, Wild Turkeys and Much, Much, More



A black and white photograph and glass negative of two lumbermen working in the bush, squaring timber. Date is unknown.

Lake of the Woods Museum Collection.

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Request for Content

Do you have an interesting story to tell about some aspect of forest history in Ontario? Or are you prepared to write an article for the newsletter on some aspect of forest history? Do you know of interesting photographs, documents, web sites or other items that would be suitable for inclusion in the newsletter? If so, please contact the editor to discuss the possibility of publishing your information in the newsletter.

Please provide your comments to the editor on items or themes you would like to see in the newsletter.

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Chair's Message

By: Rob Galloway, R.P.F. (Ret.)

Hello from your new Chair!

As of our AGM in February I (Rob Galloway – old Forester living in Timmins) am the new Chair of the Forest History Society of Ontario. I am glad to take on this task as we continue to proceed with enhancing the knowledge of our Forest History and **Forestory**.

I would like to thank our Past Chair Mark Kuhlberg for the work and projects that he accomplished for all of us and how he also facilitated many other valuable recoveries for archiving of important historical forestry documents. I am sure that Mark plans on staying very involved and also having some of his students continue to look into Our Forest History.

We have some areas of interest that we would like to follow up on this year, for example: The Forest Ranger School at Dorset, review of past interest generated from our *Forestory*, linking with the Ontario Professional Foresters Association, and any other ideas that folks bring forward.

We have volunteers looking into repeating a historical tour this fall through areas that had a **“Forest and Conservation Tour in 1939” . A very interesting comparison I am sure.**

We are also trying to link with the Canadian Institute of Forestry meetings in Pembroke this year and Sault Ste. Marie in 2020. These meetings are a wonderful place to link with many forest businesses and practitioners.

Enjoy this edition of our *Forestory* and if you have any ideas for potential stories or items you would like to bring forward please let us know.

Editor's Message

By: Caroline Mach, R.P.F.

This issue of *Forestry* starts off with an article by Ed Borczon, R.P.F. on Ontario's Agreement Forest Program - a subject dear to my heart, as I have spent my career managing on of those former Agreement Forests. Sherry Hambly delves deep into black locust - and comes up with many interesting facts about this tree. I have one to add - apparently, the flowers make excellent fritters. Many other topics are covered, so dive in and enjoy.

We want to hear from you!

If you have articles, photographs or images, interesting facts, web links, personal reflections or events that would be suitable for this newsletter, please contact Caroline Mach, R.P.F. at carolinemach@hotmail.com. Deadlines are April 1 and October 1.

News About FHSO Media

By: Sherry Hambly, FHSO Webmaster

Web Page: <http://www.ontarioforesthistor.ca/>

The FHSO webpage received a refresh in 2018. The front page was redesigned to better reflect our mission statement of Discover, Preserve and Inform. A few page tabs were reorganized to match these changes.

In addition, 400 records representing all of the articles published in *Forestry* to date have been imported into the webpage publications database. This database is searchable by title, author, key word and subject category. The results are presented in citation format. The results can be downloaded in a tab-delimited format, suitable for import into Microsoft Excel and other spread sheet programs. In addition, these 400 records have been published in pdf format on the *Forestry* page, sorted by volume, issue and page number and presented in citation format. Information from new issues of *Forestry* will be added to the database and pdf document once they are published.

Facebook Page: <https://www.facebook.com/forest.history.society.of.ontario/>

The FHSO Facebook page has been active for a few years now. We have close to 900 likes. If you have not visited the page, we encourage you to take a look and like it as we are aiming to reach 1,000 likes. And please share it on your Facebook page to get your friends to like it as well! People who follow the page are from all over the world.

Twitter Account: (@FHSOntario) <https://twitter.com/FHSOntario>

The FHSO has a Twitter account but we have not been active over the past several months. We are planning to reactivate our "twittering" soon.

Agreement Forests - The Challenge and the Accomplishment

By: Ed Borczon, R.P.F.

Background

The Agreement Forest program was established under The Reforestation Act of 1921 (subsequently replaced by The Forestry Act) and was in operation from 1922 to the mid 1990s. The program was very successful in helping reforest fragile lands and protect and restore forest cover. The program was a partnership arrangement whereby patented lands (mostly in southern Ontario) were managed by what is now the Ontario Ministry of Natural Resources and Forests (MNRF) on behalf of the owners. The operational aspect of the program involved the lease and management of approximately 109,000 hectares of patented lands by MNRF for forestry purposes under 20 to 40 year contracts. Under the terms of the contract MNRF was responsible for all financial, planning and operational activities. Participants in the program included 25 Municipalities, 23 Conservation Authorities, the National Capital Commission, and Domtar Inc.

As a result of the redefinition of the MNRF's role in private land forestry in the 1990s, it was decided that MNRF would establish a new business relationship with the Agreement Forest owners. Management Board Secretariat (with subsequent Cabinet ratification) accepted a submission in December, 1999 to allow all outstanding management costs associated with the Agreement Forest program to be viewed as sunk costs in exchange for early termination of these agreements. MNRF had tracked management costs and produced Annual Financial Statements. Final financial statements were produced showing the accumulated management costs as 'nil' and Termination Agreements were signed with the owners. MNRF also de-registered its interest on all the former Agreement Forest properties. All but two agreements were terminated by the end of 2002.

Clearing Forests for Agricultural Colonization of Southern Ontario

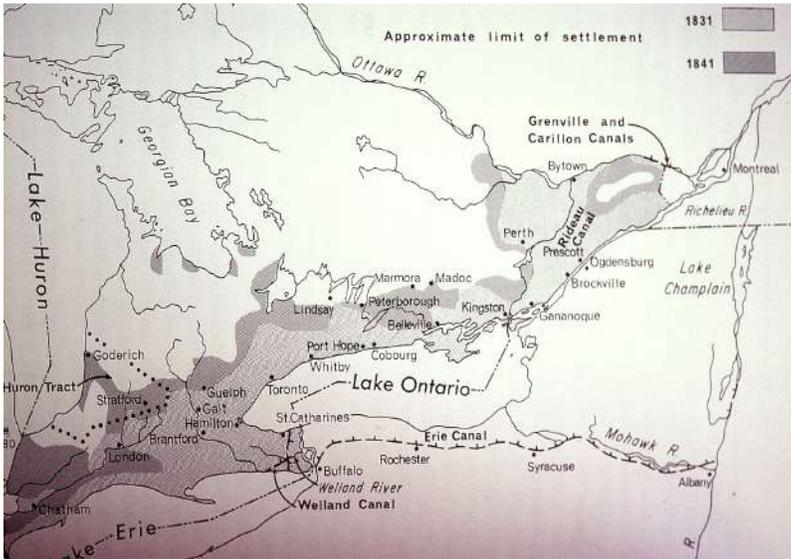
Land clearing in southern Ontario by European settlers began at a significant level in the early 1800s. Forests were cleared so that settlers could grow agricultural crops. The demand for squared timber exported to Great Britain also contributed to the removal of pine and oak. Due to the relatively underdeveloped road network the ability for settlers to transport cut trees to market was limited except where small local sawmills were established. As a result many of the cut trees during this time were burned. The ash from the burned trees did provide the settler with some revenue through the creation of potash which was used in the manufacturing of soap and other products.

By the 1850s transportation opportunities for moving goods were enhanced. Railway lines began to be built across southern Ontario, steamships plied the Great Lakes and roads were expanded and improved. This allowed timber to be moved to markets at a greater distance, including markets in the United States. Larger and a greater number of sawmills became established. By the late 1800s there were over 1,500 sawmills while land clearing continued into newly surveyed townships.

Gone With the Wind and Water

Most of the open and cultivated land in Southern Ontario we see today had already been cleared by the late 1800s. The removal of extensive forest cover through logging and land clearing had brought settlement. It also brought some unforeseen problems.

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Approximate limit of settlement 1831 and 1841.



Dwelling and surrounding area being cleared - Mckellar 1871. Archives of Ontario.



Removing pine stumps, Metcalf farm, Innisfil, 1882. Pine stumps could be transported by wagon to Collingwood for the production of turpentine. Uprooted stumps were also placed on their side, creating fencerows that contained the movement of livestock. Simcoe County Archives.

(Continued from page 5)

In some parts of Ontario, the trees, the soil and man's livelihood were gone with the wind by the early 1900s. Large tracts of land that once supported thriving farms had turned into empty wastelands. Too much land had been cleared. Areas of sandy soil that previously grew magnificent trees could not sustain the agricultural practices of the day. At first settlers attempted to grow crops, but as large areas of land were cleared and, as the nutrients of the soil became depleted, something happened. The open fields of sandy soil gradually turned into barren deserts.

Winds sweeping across vast open spaces picked up the light sands and deposited them elsewhere. Great blow pits up to three metres in depth were dug out by the wind. These shifting sands became large drifts. A bank of sand 2.5 metres in height could be blown out onto a farmer's field over a period of four to five years. The blowsand might initially cover an area of seven to ten acres, but in time the wind would carry the sand over a larger area; some farms had pits and banks of blowsand covering 75 or more acres. Farmers who experienced loss of agricultural land due to the wind erosion referred to their land holdings as "flying deeds".

In certain areas, conditions got so severe that even a light breeze would begin lifting sand into the air. During strong gusts, dark clouds of sand would move across the horizon like a threatening rain storm. Along roadways, fences became just rows of stubs sticking out of the sand drifts. Soon farmers had to build new fences on top of the old buried ones. Even roadways became impassable at times for horse and buggy.

Clearing of too much forest also resulted in another form of soil erosion. In hilly areas, precious nutrient-rich topsoil exposed by clearing and ploughing was washed down the hillsides by the rain. The rain-water also carved deep gullies. The light topsoil thus made its way down the gullies, streams and rivers to be deposited finally in the lakes, leaving the soil impoverished and fish spawning areas covered in silt.

The lack of forest cover in the upper reaches of the river valleys, coupled with the loss of topsoil on the farmlands, led to serious problems. Watershed lands lost much of their ability to store water. As a result, many farmlands were stricken with drought and villages and towns along the river suffered from spring flooding.

The loss of topsoil through wind and water resulted in reduced productivity of many farms, and ultimately in the loss of them. The challenge....how to restore these lands.

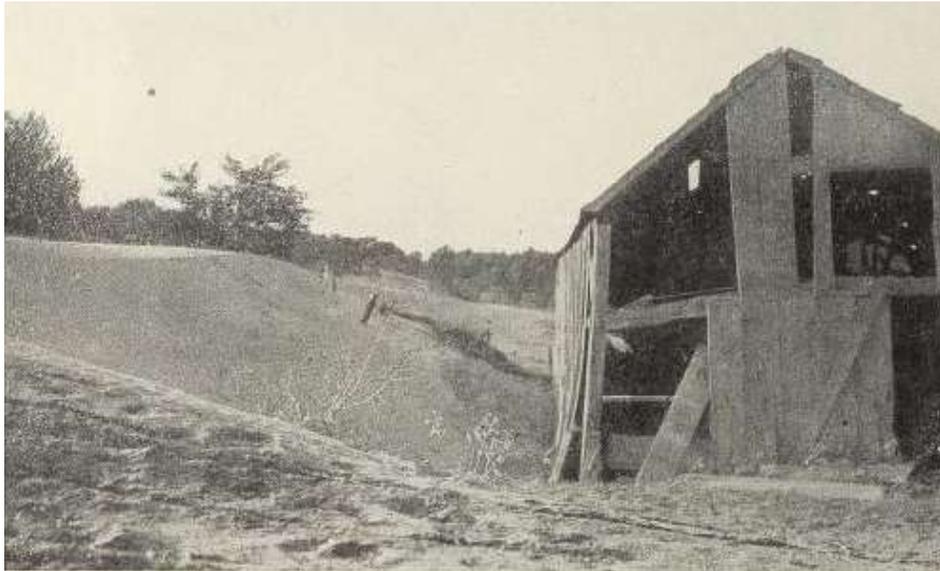
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Desert-like wasteland, Ontario County c. 1910. Archives of Ontario. E.J. Zavitz.



Deep gullies caused by water erosion, Ganaraska watershed c. 1910. Archives of Ontario. E.J. Zavitz.



Abandoned farm showing effects of drifting sand. Forestry in Southern Ontario. Photo by E.J. Zavitz O. A. C. Review Volume 22 Issue 3, December p. 126 1909 Ontario Agricultural College.

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Men of Foresight

Foresters, farmers and politicians. It was an odd mix. But over the years, men from these disciplines became engaged, in their own ways, in promoting the belief that trees had to be brought back to cover southern Ontario's denuded landscape, to stabilize the eroding soil and rejuvenate the land. But the return of the trees would take many years as well as tremendous efforts by these men of foresight.

Political momentum started in 1871 when the Ontario Legislature, recognizing the importance of trees, passed "An Act" to encourage the planting of trees along highways. Twelve years later, the government replaced this Act with *The Ontario Tree Planting Act*. Municipalities were authorized to pay landowners up to 25 cents a tree for reforestation along highways. The province would reimburse them up to 50 percent.



(left) Planted roadside trees along Bill Hunter farm, The Maples, Dufferin County c. 1900.

(right) Trees along Hunter farm, 1982. Photo E.L. Borczon



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The Ontario Fruit Growers Association, in their 1879 annual report, expressed concern about the vanishing forests and referred to their value in protecting soil from wind and water damage. By the 1880s others were concerned, as a conservation movement swept across the United States and Canada. Feeling that the timing was right, in 1883 the Department of Agriculture created a new position and appointed R.W. Phipps as "Clerk of Forestry" in Ontario.

In 1895 the Clerk of Forestry issued a report *The Forestry Problem in Old Ontario* stating, "there is a large area forming the watershed of Lakes Huron, Erie, Ontario and the St. Lawrence River, that is already alienated from the crown and in the hands of individual owners and which has begun to feel the evil effects of a too liberal use of the woodsman's axe". He further stated, "in order to bring back the former and better conditions, the proper proportion of woodland cleared area must be restored. In other words we must resort to replanting."

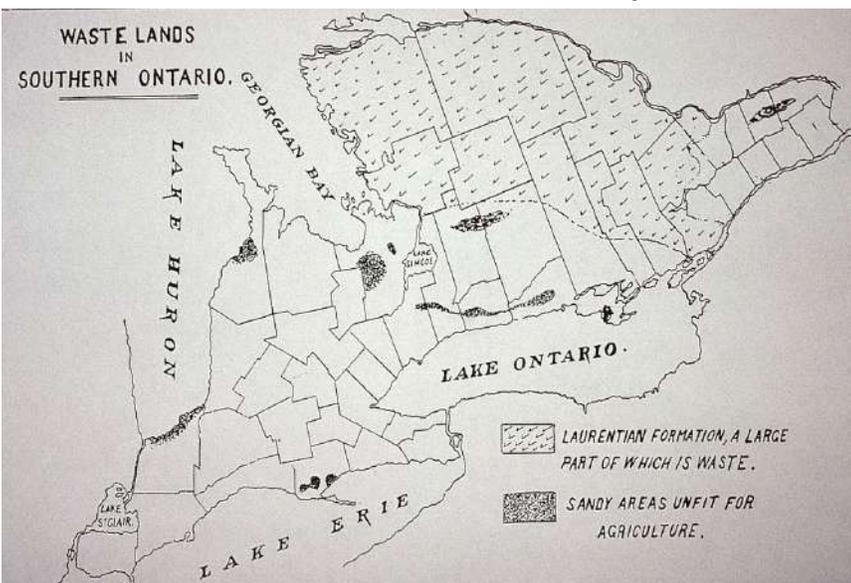
In 1897 the Clerk of Forestry Report indicated 30 counties had less than 25 percent forest cover and woodland, in one county only 5 percent. By 1910, the continual depletion of wood from the landscape necessitated that a large number of farms in southwestern Ontario resorted to burning coal.

In 1902, the Forestry Committee of the Ontario Agricultural and Experimental Union (an organization interested in improvement of crops and agriculture) took up the reforestation challenge. This organization sent the government a resolution which read: "The Experimental Union, recognizing the urgent necessity for action in reforestation of wastelands throughout Old Ontario, would recommend that the Department of Crown Lands be requested to provide material sufficient to reforest areas sufficiently large to provide forest conditions in typical situations throughout Ontario, the Union undertaking to supervise the distribution."

Two things about this are worth noting. The mover of this resolution was Nelson Montheith of Stratford. He would later become Minister of Agriculture in 1904. The seconder was Ernest C. Drury, of Crown Hill, who became the Premier in 1919.

The chain of events that would eventually lead to the Agreement Forest program was now started.

In 1904 the government established a small forest tree nursery at the Ontario Agricultural College at Guelph. A year later a young forester named E.J. Zavitz was appointed Lecturer in Forestry with responsibilities of giving classes in farm forestry, producing trees from the nursery, and undertaking extension work with landowners. That same year Zavitz oversaw the free distribution and planting of



Lands located within the "sandy areas unfit for agriculture" in Figure 1 of Zavitz's report became a priority for acquisition and enrollment into the Agreement Forest program.

10,000 trees on two farm sites that were in need of tree restoration. This was the official start of a tree planting program that would grow exponentially. In 1907 the Faculty of Forestry at the University of Toronto was established, where E.J. Zavitz also gave lectures to forestry undergraduates.

During the years 1905 to 1908 E.J. Zavitz toured and documented the location and extent of the wastelands of southern Ontario. In 1909 Zavitz produced a government report entitled *Reforestation of Waste Lands in Southern Ontario*. He concluded that there were "8,500 square miles (of land) which is suited only for forest growth". Reforesting these areas would

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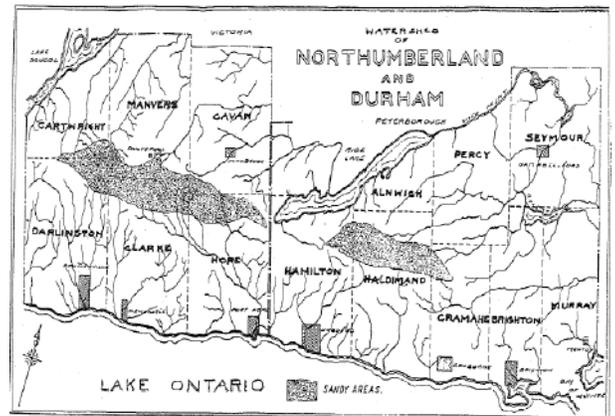
rehabilitate these sites as well as produce a financial benefit to society.

As a result of Zavitz's report a larger provincial nursery that would grow a greater number of trees was established at St. Williams.

In 1910 municipal representatives from the Counties of Northumberland and Durham went to Queen's Park, encouraging the government to restore the blowsand areas that occurred along the Oak Ridges Moraine. The delegation stated that within their counties there were some 14,000 acres of wasteland, and this area was spreading rapidly. The situation was becoming increasingly serious. Streams were drying up and farms were experiencing droughts. The delegates asked the government to advance them the money required to reforest these problem areas. In return, the counties would pay the government interest until the trees became marketable. At that time the principal would be repaid and a profit made. The government turned down the proposal but took a look at how the counties' problems might be solved.



Delegation from Counties of Northumberland and Durham, February 1910.



Map showing watershed of Northumberland and Durham in relation to sandy areas located along the Oak Ridges Moraine.

The government knew the extent of the wasteland problem from Zavitz's study. The main areas of concern were the sand plains along the north shore of Lake Erie, the sand plains of Simcoe County, the sands of Prescott and Russell Counties and the interlobate moraine running in an east-west direction through the Counties of York, Ontario, Durham and Northumberland.

On the basis of Zavitz's report, reinforced by resolutions of Counties that straddled the Oak Ridges Moraine, the province passed *The Counties Reforestation Act* of 1911. The Act authorized counties and townships in districts without county organization to pass by-laws for acquiring land suitable for reforestation purposes. The by-law provided for the planting and management of the land and authorized the issue of debentures of up to \$25,000.00 for the purchase of such lands. Individual townships were not given the authorization to issue debentures, but were allowed to levy, by special rate, a sum not exceeding \$200 in any year. Unfortunately, no action resulted.



E. C. Drury, Premier of Ontario, 1919-1924.



E. J. Zavitz, Forestry Pioneer, 1904-1957.

In 1919, E.C. Drury became Premier. By this time the young and energetic Zavitz had become Provincial Forester. That unique mix of forester and farmer-politician finally gelled. Together these two men set the wheels in motion for the beginnings of the Agreement Forest program.

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Drury's first move was to make *The Counties Reforestation Act* of 1911 more attractive. This was done in 1921 with the passing of *The Reforestation Act* which enabled the Minister of Lands and Forests to enter into agreement for reforestation, developing and managing lands held by the counties. Counties could now call upon the government to do all of the work at its expense on lands that were covered by an agreement.

It was Drury's home county - Simcoe - that set the example. In 1922 the county was first to enter into agreement. County officials bought the land and the government planted and managed the trees.

Finally the Agreement Forest program was officially underway.



Warden Banting planting the first tree at Simcoe County's Hendrie Forest, May 8 1922. The infant is J. Patrick Kerns, six weeks old. Archives of Ontario. E.J. Zavitz.



The same location with J. Patrick Kerns amongst the pines, 16 years old. Archives of Ontario E.J. Zavitz.

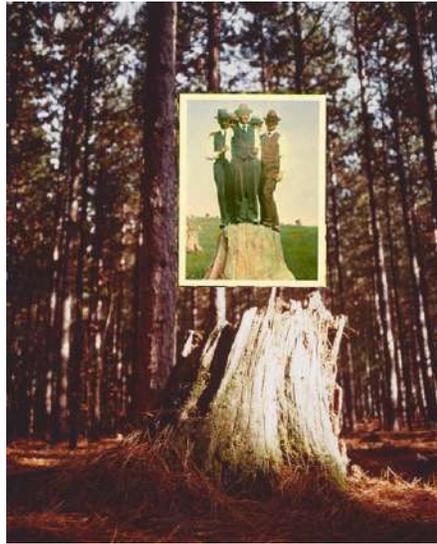


The same location in 1982 with J. Patrick Kerns amongst the pines, 60 years old. Photo E.L. Borczon.

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Growth of Agreement Forests

Following Simcoe's lead, three other counties joined the Agreement Forest family by buying land and signing an agreement with the government, which, in turn, planted and managed those lands. By 1926 about 4,000 acres of land was under agreement. These areas included Hendrie Forest in Simcoe County, Vivian Forest in York County, Northumberland Forest in Northumberland County and Uxbridge Forest in Ontario County.



Inset - York County Reforestation Committee members on site to be planted at Vivian 1924. Archives of Ontario E.J. Zavitz.

Background - Pine stump amongst reforested red pine at Vivian, York Regional Forest 1982. Photo E. L. Borczon.

The *Reforestation Act* of 1921 was replaced with the *Forestry Act* of 1927 and the following changes were made:

- "reforestation purposes" was changed to "forestry purposes".
- the Minister, as well as controlling, protecting and managing the land under agreement, could now sell and dispose of timber from these lands.
- lands could now be held by firms, corporations, as well as by persons.

In 1931, Simcoe County, as well as Durham and Northumberland Counties, were busy expanding their efforts by establishing Orr Lake Forest and Durham Forest. In addition, three more counties had bought wastelands and began planting - Prescott and Russell Counties (Larose Forest); Victoria County (Victoria Forest); Dufferin County (Dufferin Forest).

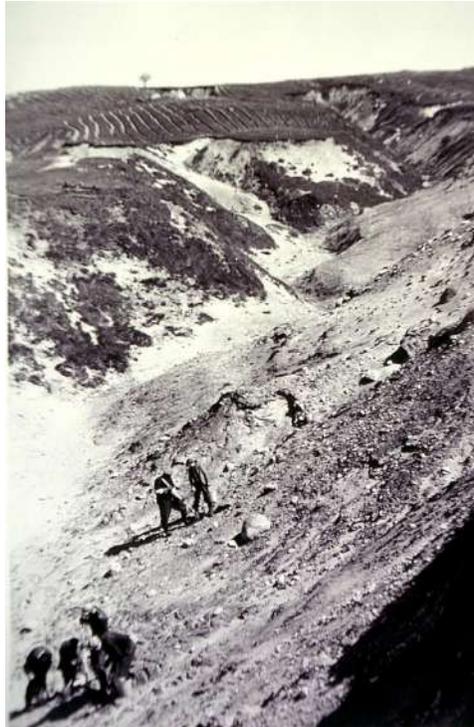
By 1940 four more counties had purchased land for reforestation and entered into agreements, namely, Bruce County (Sauble Forest); Grey County (Grey Forest); Lanark County (Lanark Forest); Leeds and Grenville Counties (Limerick Forest). In addition Simcoe County had created two new forest units - Angus and Tosorontio.

In 1946 two major acts were passed - the *Trees Conservation Act* (enabling tree cutting by-laws) and The *Conservation Authority Act*. The *Conservation Authorities Act* created local watershed management agencies, mandated to ensure the *conservation*, restoration and responsible management of *Ontario's* water, land and natural habitats. In 1947 the Ganaraska Conservation

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Authority was the first Conservation Authority to enter into the Agreement Forest program. The Ganaraska's entry into the Agreement Forest program was a welcome event in Durham County, which had difficulties coming up with money for land acquisition after the Depression and following the Second World War. Since the Authority qualified for a provincial grant under the Agreement Forest program, land acquisition by the Ganaraska Authority surged ahead.



Tree planters at work in eroded gully in Ganaraska Forest. In the background, furrows created by ploughs and planted with trees. May 14, 1947.

The Ganaraska Authority set an example for other Authorities to follow. And follow they did. Eventually twenty-two Conservation Authorities joined the Agreement Forest program with over 92,000 acres under agreement.

In 1946, 8 million trees were planted on Agreement Forests and private lands, 350 million trees to date since the first trees were distributed in 1905. Trees were now grown at four provincial nurseries located in St. Williams, Midhurst, Orono, and Kemptville.

In addition to the Agreement Forest program, E.J. Zavitz also supported an extension program that consisted of distribution of trees to landowners, farm foresters giving forestry advice, a Demonstration Woodlot Program (500 signed sites promoting proper forest management) and a Demonstration Forest Program (promoting tree planting).

By 1960, additional legislative changes were made. Now for the first time municipalities could qualify for grants when purchasing land. And finally, the door was opened for towns, cities or townships with a population of 10,000 or more to purchase land for forestry purposes.

The term "forestry purposes" soon came to mean more than just planting trees. It stood for the production of wood and wood products. It also included secondary purposes such as the creation of proper environmental conditions for wildlife, protection against flood and erosion, recreation, and

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protection of water supplies.

This new definition stimulated the interest of a fourth organization. The National Capital Commission, the federal department responsible for beautifying federal lands in and around Ottawa, decided to sign an agreement in 1961. Part of Ottawa's greenbelt was put under the Agreement Forest program.

In 1970, a major change was made to the *Forestry Act*. "Forestry purposes" was redefined to give equal status to all elements - that is, wood production and products, environmental conditions for wildlife, protection against flood and erosion, recreation, protection and production of water supplies. The various forestry purposes were on an equal footing.

Finally, in 1975, the first corporation entered into an agreement with the Ministry of Natural Resources. Domtar Incorporated, interested in securing a wood supply close to their Cornwall mill, signed a 25 year agreement.

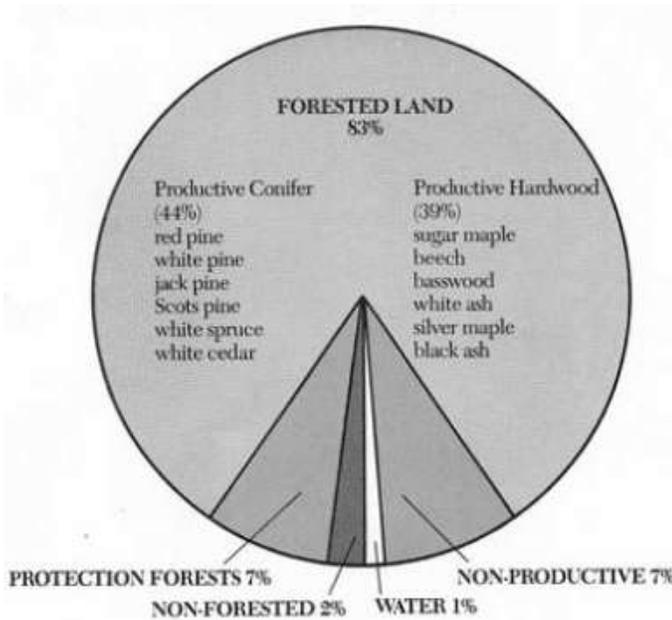
Composition of Agreement Forests

The lands and the trees that grew on those areas varied tremendously. In southwestern Ontario, the majority of the forests were on shallow sites in Bruce County or on gravelly drumlins and poorly drained lands in Grey County and the Thames watershed. Yet in some of the smaller areas bordering Lake Erie and southern Lake Huron owned by the Conservation Authority the soil was excellent for producing any number of tree species.

In south central Ontario, many of the Agreement Forests were situated on sand plains (e.g. Simcoe County) or on the Oak Ridges Moraine (York Regional Forest, Durham Regional Forest, Ganaraska Forest and Northumberland Forest).

In southeastern Ontario, the sites ranged from large areas of sand (e.g., Larose Forest) to the Canadian Shield (e.g. Lanark Forest) as well as the very shallow soils over limestone (Limerick Forest and Napanee Region).

By 1982, most of the forested land was composed of conifer cover rather than hardwood (i.e., deciduous trees). Many of the conifers were planted, whereas the hardwoods occupied the sites when the lands were entered into agreement. Conifers afforded greater survival and lower costs, hence the reason for this choice.

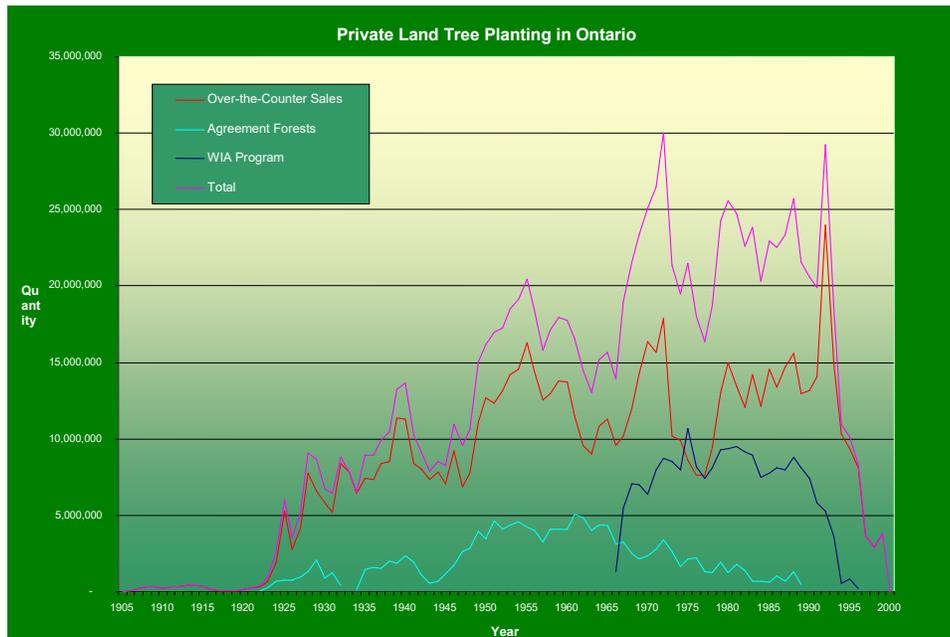


Change in Partnership Arrangement

The 1990s brought a change in government direction, partnerships for planting and managing forests through the Agreement Forest program and the *Woodlands Improvement Act* of 1967 (partnerships with individual landowners) were terminated. In addition the four provincial nurseries were closed (two nurseries were taken over by private enterprise) and in 2018 the Ontario Tree Seed Plant at Angus (that processed and stored conifer tree seed) was shuttered. Starting in 2007 a

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Source: Composition of Agreement Forests, 1982. *Evergreen Challenge: The Agreement Forest Story*



MNR Nurseries - Private Land Seedling Production. Total trees produced - all programs (top line) including breakdown by Over-the-Counter Sales (individual landowners and Conservation Authorities), Agreement Forests and Woodlands Improvement Agreements (planting agreements with private landowners). Puttock, G.D. 2001.

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significantly reduced, yet subsidized, government tree planting program (50 Million Tree Program) was delivered by Forests Ontario until 2019, when it was terminated. The planting program on private land continues to be supported by the Conservation Authorities, Forests Ontario, and municipalities. However, future funding is a concern and a challenge.

The Changed Landscape and Accrued Benefits

Under the Agreement Forest program the lands that were originally degraded were stabilized, restored and made productive. These forests are now primarily managed by the municipalities and



Main Tract Uxbridge Forest 1927, prior to reforestation. Blowsand wasteland (white) and farm fields.



Main Tract Uxbridge Durham Regional Forest 2016. Tree cover (green) has stabilized the site.

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Conservation Authorities.

There were other benefits of the reforestation program. Long term tenure agreements enabled foresters to adopt various silvicultural techniques for tree establishment, growth, composition, health and improved tree quality in order to meet diverse needs and values. Growth and yield plots established by forest researchers provided practicing foresters with pertinent scientific measurements that could be used to optimize tree growth and economic return for the agreement holder. A silvicultural guide for managing red pine (one of the most common trees planted in the restoration effort) was produced.

Forest stands (mostly conifer) planted at the beginning of the Agreement Forest program are approaching maturity. Past silvicultural thinnings not only provided a revenue for the agreement forest holder but also increased spacing between trees which promoted accelerated growth of individual trees and allowed for better light penetration into the stand. The opening of the stands over time allowed shade tolerant deciduous tree species to grow. As a result, the tree species composition of many of the original pure conifer stands is changing to a mixture of tree species.



Ten year old planted red pine stand (left) and Larch (right), 1935, Vivian Forest E.J. Zavitz.



Same location - 93 year old red pine (left) and Larch (right) Planted larch stand currently contains 60% deciduous tree species. Eldred King Tract - York Regional Forest Photo 2018. E.L. Borczon

As in the past, forest management is carried out according to forest management plans that promote sustainability. Currently fifteen of the former agreement holders have their managed forests certified under the [Forest Stewardship Council®](#) (FSC®). To achieve certification, a forest must meet FSC's principles and criteria for responsible forest management, and it must be demonstrated that the forest is managed according to sound environmental, social and economic principles.

Recreational use of these former agreement forests by recreationalists continues and, in fact, has intensified, especially near urban areas (e.g., over 500,000 visits per year in the York Regional Forest).

Concluding Remarks

The purpose and proposed goals of the Agreement Forest program can be best summarized by the original statements made by E.J. Zavitz in his report *Wasteland of Southern Ontario*.

"The policy of putting these lands under forest management has many arguments in its favour. It will pay as a financial investment; assist in ensuring a wood supply; protect the headwaters of streams; provide for wild game; provide for object lessons in forestry".

E.J. Zavitz realized his dream of land restoration. The success of the Agreement Forest program as well as the success of other programs that he championed is the reason he is considered the "father of reforestation" for Ontario.

References

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Puttock, G.D. 2001. Critical Review of Historical and Current Tree Planting Programs in Ontario. Ontario Ministry of Natural Resources. 42 p.

Zavitz E.J. O. A. C. Review Volume 22 Issue 3, December p. 126 1909 Ontario Agricultural College <https://archive.org/details/oacreviewvol22iss3>

Book Review: Away Back in Clarendon and Miller by Charles Armstrong

By: Sherry Hambly

Away Back in Clarendon and Miller by Charles Armstrong
General Store Publishing House, 2004 3rd edition
Chapter XI, Timber Industry, Pages 37 - 44

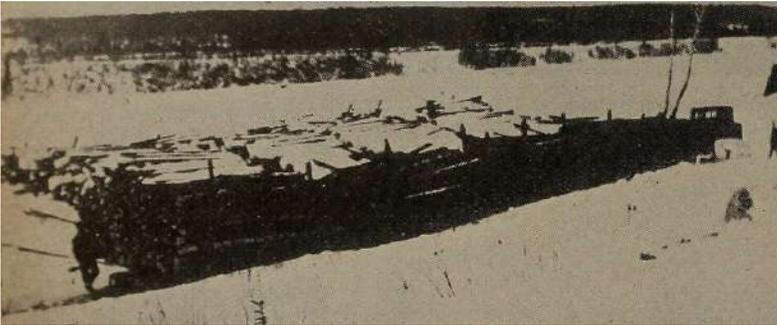
After retiring from a career in the Air Force, life insurance and real estate, Charles Armstrong moved to Plevna and wrote books on local history. One of those books, *Away Back in Clarendon and Miller*, was on the history of Clarendon and Miller Township, now known as North Frontenac. In this book, he devotes a chapter to the timber industry. Armstrong describes the industry from the days of square timber, starting in the 1840s, to post-World War Two cutting of hardwoods and poplar, and all the changes in between. The chapter covers control of the industry, markets, limits, shanties, manpower, tools and river driving/transportation. Each of these sections contains interesting detail on the topic at hand. Armstrong is an excellent writer and his book is easy to read.

The book is available from the Clarendon and Miller Community Archives for \$25.00, of which \$20.00 is donated to the archives.

The Archives website can be accessed here: <https://clarmillarchives.wixsite.com/home>

The Caterpillar Tractor Comes to Newfoundland: An Ontario Forester's Role in One of the First Major Uses of the Holt Caterpillar Tractor in Eastern North America

By: Bryan C. Marsh



Sleds loaded with pulpwood being hauled by Holt 10-Ton, from the Canada Lumberman.

John Douglas Gilmour was born in the Parry Sound District of Ontario in September of 1886. He earned both a B.Sc.A (1908) and a Bachelor of Forestry (1911) from the University of Toronto. He began his career with the Forestry Department of the Canadian Pacific Railroad and the Dominion of Canada Forestry Branch¹. In 1912 he joined the British Columbia Forest Service. In B.C he worked as district forester in Cranbrook and at head office in Victoria². In January of 1917 Gilmour came to Newfoundland to take on the position of

General Logging Superintendent with the Harmsworth owned³ Anglo-Newfoundland Development Company at Grand Falls, Newfoundland.

Gilmour arrived in Newfoundland at an interesting and difficult time for the fledgling A.N.D. Company⁴. The war in Europe was causing great difficulties in shipping and in obtaining and maintaining manpower. Many staff members had volunteered for service overseas. Within a few months of Gilmour's arrival a considerable number of the senior woods staff would go overseas as part of the Newfoundland Forestry Corps, to cut timber for the war effort in the forests of Scotland.

The first years of Gilmour's tenure in Newfoundland would bring adversity and obstacle in the procuring of pulp wood for the mill at Grand Falls. There was difficulty in obtaining loggers and supplies, in addition, after over a decade of logging, most of the easily accessible stands of timber had been cut over. The war and the immediate post-war years no doubt led to difficulties in obtaining horses for hauling operations, on an island where horses were already difficult to obtain. In order to exploit the thousands of square kilometers of timberlands located farther and farther away from the main water bodies, woods staff at A.N.D had to adapt and innovate.



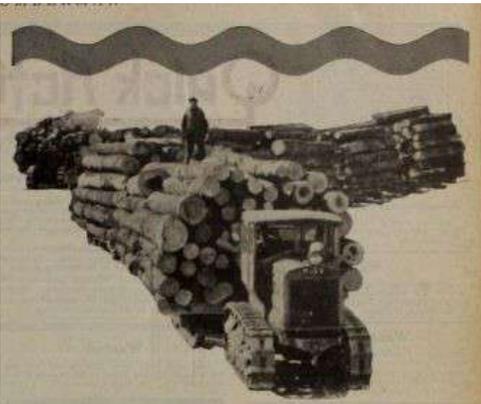
A Holt 10 Ton operating at a later date. Note the layout and size of the wood compared to previous pictures. The Anglo-Newfoundland Development Company switched to shorted 5foot 2inch wood in the late 1920s.

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In looking towards solutions to deal with long hauls Newfoundland became one of the first places, if not the first place, in Eastern North America where tractors were used in the hauling of pulpwood.

In his treatise on the Mechanization of Forest Harvesting East of the Rockies, Ross Silversides boldly mentions that: "The first crawler-tractor sleigh haul, the Holt tractor, appeared in eastern Canada in 1922."⁵



POWER!

The "Caterpillar" Logger has no equal for power, sure traction, rugged endurance, and low cost of operation. Its design and construction are the result of Holt's long experience and exact knowledge of all the different conditions and requirements encountered in hauling logs and pulpwood over snow and ice roads, and all other conditions in Northern lumbering.

The "Caterpillar's" record for actual accomplishment is of vital interest to every Northern lumber and pulpwood manufacturer. On the operations of The Abitibi Power & Paper Company, The Mount Murray Woodlands Corporation, The Anglo-Newfoundland Development Company, The Great Northern Paper Company, and many others, the "Caterpillar" Logger has proved its ability to continuously haul heavier loads and at lower cost than can be hauled by any other machine or method.

The Anglo-Newfoundland Development Company, Grand Falls, Newfoundland, 1929—

"Your Mr. Davis is about to return after being with us during the winter months in charge of our 2 "Caterpillar" Tractors, and I am unable to let him go without a few lines thanking you for sending a type of man such as Mr. Davis.

"No doubt he has reported to you the very successful tractor operations just finished in which we hauled 11,000 cords with our 2 "Caterpillars", and with only a 2 1/2 hour holdup for any trouble from December 19, 1928, to April 14, 1929. Our tractors averaged 25 hours per day, and we only lost 1 day, Sundays included, because of bad weather.

"On one trip over a snow and plowed road, the "Caterpillar" Logger hauled 9 sets of sleds containing 87 cords and 1 cord horn. The "Caterpillar" pulled the load over 4 miles without any help, took all the curves, and tracked very well, time 2.15 hours, and kept back all loads going down grade. Total weight 130 tons including sleds."

The latest "Caterpillar" Logger contains new features of strength and operating convenience, making it farther in the lead than ever before. Our unequalled service facilities are at the instant command of every Canadian owner. Investigate the "Caterpillar" Logger now and plan for your 1933-1934 operations.

There is but one "Caterpillar"—Holt builds it

CANADIAN HOLT COMPANY, Limited
1109 St. Catherine St., W. Montreal, P.Q. Telephone Uptown 1504
Complete service stocks in all principal lumbering districts.

**CATERPILLAR
H O L T**

Advertisement featuring a glowing report of the performance of the two 10-Ton Holts used by the Anglo-Newfoundland Development Company in the winter of 1922-23. Note that the machines were used 15 hours a day!

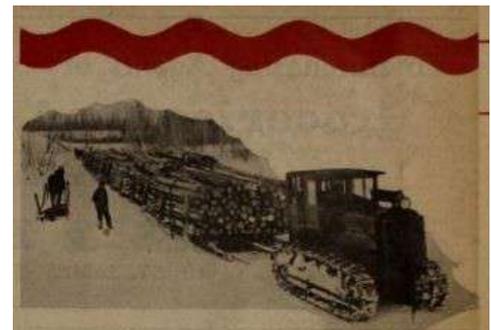
Seeing this it might be hard to believe that tractors were used in little old backwards Newfoundland two years before this date. Maybe it was because Newfoundland was a separate British Dominion at the time. But in 1920, somewhere between Grand Falls and Badger, tractors were first used to haul pulpwood.

It was noted in a history of the Anglo-Newfoundland Development Company that:

*"Tractors were first used during the winter months of 1920 at Badger. This was due to a wood shortage at the mill and it was necessary to haul logs to the railway several miles away, too far to be hauled by horses. Two years later tractors were used to haul fire-killed wood at Millertown. It was not until 1934 that tractors came into general use for hauling, due to the increasing distance the wood had to travel to the streams or railway and also to the growing expense of maintaining horses."*⁶

With regard to the first instances, two types of tractors were first experimented with; the Linn and the Holt. Two of each were acquired by the A.N.D. Company during this era. I don't know which type was used in 1920, however, I am inclined to believe that they were Holts. It is very likely the machines were used in the vicinity of Cassandra, Langsdown's or Aspen Brook, if they were used for hauling to the railway. Many years later, in 1963, it was recorded that two 5-Ton Holts were used in 1921 on a long haul of some seven miles along the Black Duck Valley near Badger. These two machines were reported to have been

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Holt "CATERPILLAR" northern logger hauling train of logs on the operation of Abitibi Power & Paper Company, Iroquois Falls, Ontario

"Repeat" Orders are Proof!

The numerous repeat orders placed by satisfied "Caterpillar" users in the northern woods as in lumbering regions all over the world, are the strongest possible proof of the practical value of the "Caterpillar" as compared with any other method. Winter work is always emergency in character; short logging seasons demand continuous operation and maximum output. The "Caterpillar" has established convincing records for dependable performance on the operations of many of the largest lumber and pulpwood manufacturers, as well as on the operations of contractors and loggers of smaller tracts.

The Anglo-Newfoundland Development Company says:

"Last winter our two "Caterpillars", operating an average of 110 1/2 days each, hauled 10,884 cords of green pulpwood over ordinary snow roads. We are convinced that "Caterpillars" provide great economy in this country and are reducing our hauling costs approximately 30%.

For their 1923-24 operations, the Anglo-Newfoundland Development Company have purchased six additional "Caterpillars."

The Mt. Murray Woodlands Corporation, St. Fidele, Quebec after highly successful "Caterpillar" operations last winter, including comparative tests with other methods and machines, have adopted "Caterpillar" Tractors exclusively and purchased an additional fleet of four loggers for this winter's work.

The Abitibi Power and Paper Company, Iroquois Falls, Ontario, had highly satisfactory results last winter, reporting a reduction of 30% over their previous hauling costs.

We can give you convincing facts and figures about "Caterpillar" operations in Canada. We are prepared to make immediate delivery of Northern "Caterpillar" Loggers which contain many new and important improvements.

There is but one "Caterpillar"—Holt builds it

CANADIAN HOLT COMPANY, Limited
468 LaGauchetière St., W. Montreal, P.Q. Telephone Main 1589
Complete service stocks in all principal lumbering districts.

**CATERPILLAR
H O L T**

Additional advertising used by Holt. The Anglo-Newfoundland Development Company (here erroneously listed as being at Bishop's Falls, Newfoundland) is listed as owning 10 Holt Caterpillars. (Canada Lumberman)

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A Holt 10-Ton tractor hauling pulpwood in Central Newfoundland during the winter of 1922-23.

returned to Holt due to numerous mechanical issues⁷. It was also noted that two 2-Ton Holt Machines were used at Billy Pope's camp at Black Duck in Badger Division in 1922. Little was recorded at the time of these trials, however, there is much more evidence of the successful introduction of Holts a short time later.

In the winter of 1922-23 two Holt 10 Ton tractors were used in Millertown Division. Two 10-Ton Holt "Caterpillar Logger" tractors were brought in to haul pulpwood in the Victoria River area. The distance between the cutting operation and the river was four to five miles. The machines appear to have been purchased from the Canadian Holt Company of Montreal, who sent down a Mr. Davis to maintain the machines and instruct in their operation^{8,9}.

Between December 19, 1922 and April 14, 1923 the two 10-Ton Holts operated an average of 110 days each and in total they hauled 10,984 cords of pulpwood an average of 5.38 miles (Canada Lumberman, 1923). On each trip the tractors hauled an average of 24.68 cords of wood. The bragging rights went to the haul in which nine sleds containing 57 cords of wood was hauled four miles by one tractor. This load was so big that the sticks used as horns to keep the loads in place accounted for an additional cord of wood! This massive haul over four miles of winter woods road took 2.15 hours.

I can picture it now, Mr. Harry S. Crowe, the divisional superintendent from Millertown and Mr. J.D Gilmour, Woods Manager from Grand Falls, standing in the snow with Mr. Davis from Holt, and one of them says: "let's see what she can do!" Holt took full advantage of this stunt and used it over the next year in their advertising.

I think it would be understated to say that the woods staff of the Anglo-Newfoundland Development Company was impressed with these tractors. J.D Gilmour, Woods Manager and Director with the Company, noted that they would be looking into incorporating some of the smaller 5-ton machines into operations for shunting together trains of tractor sleds. Gilmour also stated that on hauls of three miles or more the tractors reduced hauling costs by at least 50%¹⁰. True to the words of Mr. Gilmour, an additional six Holts were purchased for the 1923-4 haul-off. An advertisement from that time period notes that the A.N.D Company owned ten Holt tractors, which leads me to believe that they either bought two more or had two machines prior to 1922-23 as noted above. Around 1960 it was noted that "The Company at one time had the largest fleet of tractors of any company in the world."¹¹ If the advertising is to be believed their ten machines in 1923-24 were double the number of the next largest Holt owner.¹²

Special sleds were built for the operation as it was noted that horse sleds were "altogether unsatisfactory for the job." The sleds were 12 feet long and approximately 11 feet wide, the space between the runners was 6 feet 8 inches. To test their strength loads of some 40,000 pounds were tested on the sleds.¹³

Unfortunately, there isn't much information on how well things turned out the next year. I would venture to say that they probably turned out pretty well. By 1946 the Anglo-Newfoundland Development Company would own some 77 Caterpillar tractors¹⁴ and would continue to use them in

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their hauling operations before phasing out tractor hauling in the late 1960s.

Gilmour would remain with Anglo-Newfoundland for another few years. In 1921 he was offered a professorship at the University of Toronto, but turned it down when Lord Rothermere offered him the then staggering salary of \$7500.00 a year to stay with A.N.D.¹⁵. At some point he was also given a directorship with the same company. He left to take up a similar position with Anglo-Canadian Pulp and Paper at Quebec around 1927, which was another operation associated with the Harmsworth family, namely Lord Rothermere. While Gilmour was with Anglo-Canadian that company would be one of the first in Canada to experiment in the use of powersaws when, in 1929, a German Dolmer was purchased for trials on their timber limits in Quebec¹⁶.

Endnotes

¹The Forestry Chronicle March 1956 pg 105 <http://pubs.cif-ifc.org/doi/pdf/10.5558/tfc32105b1-1>

²Daily Colonist Victoria B.C Thursday November 30, 1916. Leaves Forestry Branch <https://archive.org/details/dailycolonist58y304uvic/page/n5?q=%22Anglo-Newfoundland+Development%22>

³Alfred and Harold Harmsworth, Lords Northcliffe and Rothermere respectively, owners of the Daily Mail in Great Britain. The Harmsworths had built a large pulp and paper mill at Grand Falls on the Exploits River between 1905 and 1909. To supply this mill they had acquired thousands of square kilometers of timber limits in the central interior of the island. Prior to and during the time when Gilmour was with the company they would acquire additional timber limits.

⁴The company had been incorporated in January of 1905 and the pulp and paper mill went into production in October of 1909

⁵Silversides, C. Ross Broadaxe to Flying Shear: The Machanization of Forest Harvesting East of the Rockies, 1997

⁶Anglo-Newfoundland Development Company, Unpublished History, Circa 1955 Archives and Manuscripts Division Memorial University

⁷A.N.D Co News-Log 1963

⁸"Has Effectuated Big Savings with Tractors" Canada Lumberman October 15, 1923 Pg. 44

⁹Canada Lumberman July 1923

¹⁰Canada Lumberman

¹¹Anglo-Newfoundland Development Company News-Log

¹²Canada Lumberman, November, 1923

¹³Ibid

¹⁴A.N.D Co News-Log 1963

¹⁵Kuhlberg, Mark One Hundred Rings and Counting: Forestry Education and Forestry in Toronto and Canada, 1907-2007, University of Toronto Press 2009 pg.77

¹⁶Silversides

Chapter 17, The Bruce: The Lumber Business

By: Robin Hilborn

The following is excerpted from Robin Hilborn's *The Bruce*, companion book to the documentary "The Bruce". To order the book, DVD or Blu-ray, see Bruce County Historical Society, www.brucecountyhistory.on.ca.

Logging the Bruce Peninsula

By 1850 lumber companies had cut their way from the Maritimes to the Ottawa River valley. They did not stop, but rolled westward across southern Ontario until all that was left were the primeval forests of the Bruce Peninsula.

The pine went first. Pine was the industry's major species and the Bruce had fine stands. When the government announced it would sell the right to cut timber on Crown land the Cook brothers of Barrie—Henry, Hiram and Simon—bid on the peninsula pineries. They dominated the business by winning licenses in 1870 and 1871 to cut pine on 118 square miles of Crown land in Lindsay and St. Edmunds townships.

Part of the demand came from overseas. The tallest and straightest pine were shipped to England where they became masts for the ships of the Royal Navy. Other timber was squared for export. Aboard schooners, logs took up less space when first hewn square with a broadaxe. However squaring was wasteful: up to one-third of the wood was wasted. Nevertheless square timber was a major staple of the wood industry.

Soon enough the lumbermen had cleared pine off the peninsula. They turned their saws on the maple, beech and white cedar. Hemlock gave up its bark for the leather tanneries. Sawmills turned trees into telegraph poles, railroad ties, paving blocks, shingles and boards for frame buildings.

In Amabel township lumber was shipped out by rail on the Grand Trunk's new line, which reached Wiarton in 1881. In November 1889 the *Port Elgin Times* reported on the shipments from one station, Hepworth, over the previous year: 11 million feet of sawn lumber, 9,000 telegraph poles, 7,000 cords of tanbark, 10,000 cords of cordwood and 2,000 cords of cedar block paving. This amounted to 25 carloads every day of the year.



Turning trees into shingles at the Willis Kent shingle mill, Dyers Bay.

It took only 30 years to undo centuries of growth—by the turn of the century clear-cut logging stripped the peninsula bare of all trees, both desirable and undesirable species. But the destruction wasn't over. Left behind was the combustible legacy called slash: wood chips and branches, the debris of tree felling.

The slash fuelled vast bush fires which swept across the peninsula in 1907, 1908 and 1912. Nothing was left but square miles of bare rock and a few stunted trees. Even the soil was consumed. The bush fires of the early 1900s marked the end of the profitable lumber industry.

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A burned-out peninsula

Forest fires were unfortunately not rarities. The summer of 1871 was very dry and large fires broke out, burning many barns and farmhouses across the county. In the four northern townships a poor harvest and bush fires in 1884 impoverished many a settler.

Warton, with its large number of frame buildings, had a narrow escape on Aug. 31, 1881. The summer had been very dry. The smoke of destructive bush fires was seen in every direction. A strong wind blew the fires nearer and nearer the village and the air filled with suffocating smoke. The villagers turned out to fight the flames and lost only one house, that of E.C. Jones. A fortunate wind blew away from the saw and grist mills, but much of the timber around was burned off, along with all the soil.

In 1963 historian Bruce Krug visited Gordon Hepburn and asked about the summer of 1912. Gordon recalled a big forest fire on the Bruce Peninsula. It started in the Eastnor Swamp when they were trying to clear the land and spread eastward toward Hope Bay, burning much good timber, and also northward and southward. In the whole of July he couldn't see the Hope Bay schoolhouse because of the smoke, though it was only a short distance from the farm. At night it never got dark because of the glow in the sky from the fires. During the day the sun appeared as a copper disc. A layer of silt and ashes kept falling on everything. Afterward the ground was bare rock—not even any moss left.

But the fire which Gordon would always remember happened in 1908. Though he was five years old at the time it was forever "emblazoned on my mind". The fire burned across the north half of Amabel, Albemarle, Eastnor, Lindsay and the south half of St. Edmund. It came in from the west, starting near the Lake Huron shore and crossed to the waters of Georgian Bay.

In those days the peninsula was much different. It had no centre road, just one up each side starting at Warton. There were no cars, only horse-drawn vehicles. The bush for many miles grew right up to the gravelled part of the road, in many places forming a canopy over the head of the traveller. A bush fire could easily traverse the peninsula.

In August 1908 a fire started in the slash left from winter timbering operations at the Eastnor Swamp. A hot summer breeze started driving the fire toward the Hepburn home five miles to the east at Hope Bay. Around 10 a.m. they noticed a rising column of smoke which quickly rolled over the whole of the western horizon. Gordon said, "Our parents realized this was going to be a bad fire and began to make hasty preparations to fight it and save what they could. The men rushed to remove portions of log and rail fences close to our buildings, got all animals and persons out of those structures, readied containers of water and instructed all the children to stay in one specified spot with our mother and older sister in the yard."

At about 11 a.m. their home became engulfed in an acrid pall of blinding smoke and they could feel the heat. "Our mother put wetted cloths over our faces and had us lie flat on the ground in the dooryard. We could hear timber crashing, occasionally a frenzied animal rushing madly by in the smoke. As the heat and smoke increased until it was almost unbearable, with embers falling around, firing our clothes at times, we began to have difficulty in breathing."

The family was saved by a breeze. "At this time a very peculiar happening took place. A wave of cold air rose off Georgian Bay, confronted the wall of fire to the west of us and rolled back the heat and smoke." The fire returned with less intensity and jumped over their clearing. "The fire crowned over us, leaping forward as in an explosion, travelling over the clearing and racing toward Georgian Bay."

Gordon Hepburn recounted how the children would often step in hot embers as they rushed over burned areas in bare feet. Before putting them to bed their mother would rub their blistered feet with

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grease.

Lost to the fire were many haystacks, some buildings, many animals, and most serious, pasture for the surviving animals. And the fences were gone, so grain and root crops needed for the winter had to be protected from starving, roaming animals. Many animals, while running in the smoke, had plunged over the escarpment, to die on the rocks below.

The Hepburns survived the winter by feeding the cows with saplings cut down in a glen which had escaped burning. In spring the pasture did not grow up; it produced only mullein, which the animals could not eat. In the second spring Canada thistles grew everywhere, equally inedible except when young. Only in the third spring did a fine crop of raspberry bushes sprout. The cattle feasted on them and Mrs. Hepburn preserved 200 quarts in large sealers to store in the basement. Finally in the fourth spring countless baby trees of many species appeared.

Lynn Watson of Tobermory said that his grandmother Martha Watson survived the great fire of 1908. She lived in a lumber and fishing camp at Johnston's Harbour when the fire started. They escaped onto Lake Huron in a wooden-hulled fishing boat with four-year-old Louis and two-year-old Myra and some supplies, the smoke so thick it was difficult to breathe. They soaked blankets in water and covered the children, fearful of venturing far from land, as sudden winds could swamp their overloaded boat. Martha saw deer, bears, foxes and wolves outrunning the fire, jumping into the water and swimming out to rocky points of lands and shoal. It took two days before it cooled down enough to return to land.

In the lumber camp

Wherever the lumber companies obtained leases lumber camps grew. Winter was the best time for logging, because trees were easier to cut when the sap had stopped flowing, and dragging logs was easier over frozen ground. For farmers, lumbering was an attractive off-season occupation. They would hire on with one of the companies to work at a lumber camp deep in the forest, to earn the cash needed to pay for the Crown patent on their land.

The heart of the camp was the camboose, or bunkhouse, a spacious log cabin which was dormitory for up to 40 men and also kitchen and recreation hall. The lumbermen had bunks to sleep in and made whatever other furniture they needed on the spot, from trees in the surrounding forest. A log fire burned around the clock in a central hearth, smoke exiting through a roof hole. Here the camp cook made tasty stews, bread, and pork and beans, in large pots hanging over the fire.

The lumberjacks used timber axes and crosscut saws to fell the trees. Oxen and horses dragged the logs over snowy trails to the nearest frozen stream or lake. At spring thaw the men floated the logs down to the sawmill, or to the lakeshore to be formed into rafts. These rafts could be of enormous size—in 1895 the *Warton Canadian* reported that the largest lumber raft ever seen at Warton carried over one million board feet.



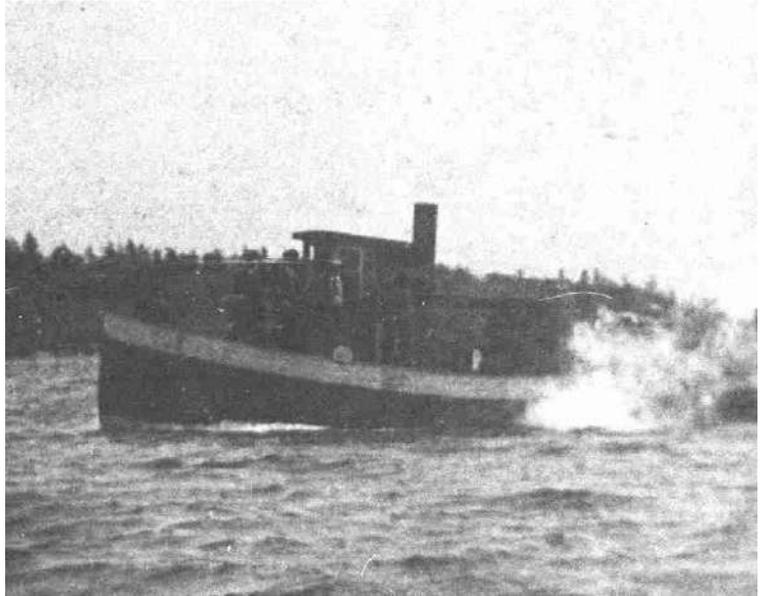
Skidding logs at Glamis.

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Hiram Lymburner

From the start, lumbering was the main industry in Lindsay township. Here Hiram Lymburner owned a timber lease centred on Gillies Lake, at the edge of the Niagara Escarpment. The waters of the lake drain over the escarpment into Georgian Bay just south of Cabot Head. In 1881 Lymburner chose to place his sawmill at the base of the escarpment, where the overflowing lake could feed a millpond supplying water power for the mill. Each time he needed more power he would widen and deepen the little creek flowing from the lake.



Steam tug *Gertie*.

Lymburner's men dragged logs from the surrounding forest into Gillies Lake. The company's little steamer *Gertie* rounded them up and towed them in rafts to the lip of the escarpment. (*Gertie* was the second steamboat used on the inland waters of Bruce County. The first was *Waterwitch*, on the Saugeen River in 1880 and on Boat Lake in 1883.)



The flume carried logs down to Lymburner's mill; offshore, a raft of logs.

However when the logs went over the edge they dropped straight down, damaging many when they hit bottom. Lymburner decided he needed a gentler downhill slope, so he cut a channel into the edge of the cliff and let water erode the limestone. Rock piled up below, forming a ramp down which logs could slide undamaged, to be cut at the mill or else floated into Georgian Bay and towed in rafts to other centres.

Lymburner had estimated that there were enough trees to keep the mill running about 25 years, and he was right. The mill closed in 1905 when the old-growth trees ran out. For a generation the Lymburner mill and lumber camps had provided much-needed employment for settlers who had a hard time making a living at farming on the peninsula.

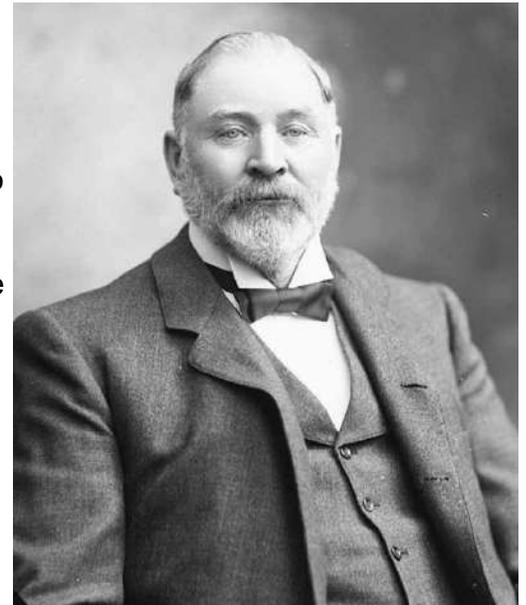
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Cargill's swamp empire

Whenever possible settlers drained swamps to convert them into productive farmland. The Eastnor Swamp on the Bruce Peninsula disappeared in this way. But when they tried to drain the Greenock Swamp, in south Bruce, they couldn't eliminate the last 20,000 acres, which remain as southern Ontario's largest forested wetland. Judged impassable by surveyor Allen Park Brough in 1849, the swamp hid a rich source of timber: vast stands of white pine, cedar, soft maple, elm and some hard maple.

In this soggy landscape Henry Cargill built a logging empire. Born in 1838, Cargill studied at Queen's College, Kingston and took over his father's lumber business in Halton County. In 1871 the government auctioned 8,400 acres of the Greenock Swamp at \$4.66 per acre. Cargill was one of seven buyers and over the



Henry Cargill

years he bought out the others.



The wooden railway of Greenock Swamp.

In 1879 Cargill moved to the swamp and began cutting trees on a grand scale. He created a personal fiefdom, building the camps, the houses for the workers, two sawmills (one steam powered), a planing mill, a stave mill, a heading mill, a woollen mill, a general store and nearly all the buildings in the town of Cargill, named after him. (Surveyor James Warren helped Henry Cargill survey his town site in 1884.) About 1900 Cargill put in a power plant to provide electricity to his house and to the people of Cargill (who were charged 25 cents per light bulb). His swamp empire made Cargill the richest man in Bruce County.

The source of the swamp's value was its white pine, highly prized for ship masts and construction. Henry Cargill had 100 people cutting pine in the swamp alone, and many more in his sawmills. His men worked 12 hours a day and six days a week in the lumber camps. To get the pine logs out to the sawmills, Cargill built corduroy roads and dug canals deep into the swamp.

The logs were floated via the Yokassippi (Teeswater) River to the mills at Cargill. (The site of Cargill was originally an Ojibway village called Yokassippi.)

The *Port Elgin Times* of Feb. 14, 1895 reported, "The log business in Greenock Swamp is booming just now, about 100 men and 30 teams being employed there. Should the sleighing season last six weeks longer it is estimated Messrs Cargill and Son will get about 7 million feet."

Interviewed by Bruce Krug, John Bechberger of Walkerton remembered when his father Joseph Bechberger cut pine in the swamp around 1900. "The men working in the bush were mostly from the Chepstow area while the men at the sawmill were mostly from Cargill. The men went into the swamp in October and remained there until the beginning of April. They stayed in bush camps and would come out to Chepstow on Sundays. The logging camp known as Camp #1 was built of logs. There were double-deck wood bunks with straw for mattresses. Food was poor, being sow belly, potatoes and blackstrap. This camp was in operation from about 1900 to 1910. Camp #3 was new and quite

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A dinkey locomotive hauled logs from the swamp.

up to date. There was a dining hall which held 50 to 55 men and over the dining hall were the sleeping quarters with steel beds with springs and mattresses. Food was good. Beef and pork carcasses were brought in by farmers. There were lots of pies."

For 25 years the Cargill operation cut down old-growth white pine at the rate of 5 million board feet a year. In an interview with Bruce Krug, Alfred Garland of Brant township said that lumber cost Cargill \$6 per thousand feet and he sold it for \$40 at the Cargill railroad station. Henry Cargill made a fortune. He spent money on himself—he had race horses named Toledo and Driveless Wonder—and also on his town, installing such luxuries as sidewalks and gas lanterns.

Henry Cargill served as postmaster of Cargill from 1880 to 1887; reeve of Greenock Township from 1884 to 1886 and M.P. for Bruce East from 1887 until his death in 1903 in the House of Commons after giving a speech. His son Wellington David Cargill inherited the business.

By the time W.D. Cargill took over, most of the white pine had been harvested and he focussed on other species. He decided a railway was needed to reach inaccessible timber in the swamp. Built in 1916 at great expense, the narrow-gauge line from Cargill to the Greenock Swamp ran along the 8th Concession. Branch lines followed old pine skidding roads. The locomotive was an 11-ton dinkey powered by a gasoline engine, pulling about ten cars of logs. Uniquely, the rails were initially of hardwood, which lasted barely two years under the heavy loads. Iron rails were installed but the track had a habit of sinking into the mire. Running a train over swampy land turned out to be not an ideal solution and Cargill tore out the track and closed the business in 1922.

John Bechberger said that the last winter they worked in the swamp they skidded logs to the railroad track for 50 days without a break, except for Sundays. That was 1921 and it marked the end of bush operations.

In the 21st century some logging of the swamp continued in limited quantities. Bester Forest Products harvests trees selectively and uses all of the logs it cuts. Foresters mark trees ready for cutting and special machinery designed for swamp work goes in.



The dam at Cargill.

Turkeys and Trees: The Relationship Between North America's Largest Ground Bird and the Forests They Call Home

**By: Jenn Baici, MFC, PhD Candidate, Trent University and
Elizabeth Adey, MSc Candidate, Trent University**

The History of Wild Turkeys in Ontario

Turkeys are now a common sight in many southern and central Ontario landscapes. It is not uncommon to see groups of fifty or more marching across a field or stopping traffic to leisurely cross a busy road. However, the return of wild turkeys to Ontario is relatively recent. In the early 1900s these birds were declared extinct from the province and were only reintroduced in the mid 1980s with the help of wildlife managers here in Ontario and in the United States. Birds were trapped from healthy populations south of the border and released in a number of different locations across the province with the hope that they would establish a healthy population on their own, and we think they have¹!

Although their extirpation was primarily a result of overharvesting, as European settlers realized quickly that wild turkeys are delicious, habitat loss, and more specifically the loss of forest habitat, is also believed to be an important contributing factor².

Turkeys and Forests

Throughout their range, turkeys rely on forests. They sleep in trees to avoid ground predators, like coyotes^{3,4}, but may also congregate in communal roosting trees as part of important social dynamic processes, like the sharing of information about local food sources⁵. However, not all trees and forests hold the same value for turkeys. Throughout their range, wild turkeys tend to select larger, taller trees in more mature forests^{6,7}. They also tend to prefer sites where trees grow on a slope, as they typically fly into the tree from the uphill side, minimizing the amount of energy they need to expend to lift their large bodies up into the tree. There is even evidence to suggest that they are more likely to roost in sites that have eastern exposure, we think, because they enjoy the warmth of the sun in the morning⁸.

In Ontario, we are seeing that turkeys tend to spend most nights in the same tree, or the same set of trees and that they rely heavily on one or two important roosting sites, or 'hub' roosts, within their home range. Identifying characteristics of these hub roosts, like tree species and size, may help us to better understand why turkeys select particular roosts. In addition to hub roosts, we are also learning that they use a handful of 'satellite' roosts within their home range. These satellite roosts tend to be used by the birds only once or twice over a season. We are still trying to understand the importance that these sites have for wild turkeys as they almost always return to their 'hub' roosts even after being away for a few nights. Exploring this interactive network of roosts will help to improve our understanding of roost tree selection and will allow us to identify important turkey habitat in Ontario.

Wild turkeys not only sleep in trees, but the birds can also turn to forests as a reliable source of food. They have incredibly diverse diets and have been found eating anything from grass and berries to beetles and grasshoppers². Although turkeys can subsist on a wide variety of food sources, hard mast seeds such as acorns, beechnuts, cherry pits and ash seeds have been found to be important

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Figure 1. A typical wild turkey nest in an open field.

components of their diet, particularly in northern parts of their range where other natural food sources become scarcer during the fall and winter seasons⁹. During pre-settlement times, the American chestnut is thought to have been an essential turkey food¹⁰. Legend has it that at one time a squirrel could travel from Georgia to Maine on an unbroken chestnut tree canopy¹¹. Chestnuts were wiped out by blight in the early 1900s, coinciding with the decline of the wild turkey¹².

Forests can be important for wild turkeys during the nesting season, as well. Turkeys are ground nesters and will nest in a variety of different habitats throughout their range.

Turkey nests have been found in hay fields, shrubs, at the base of trees, and in forests¹³. The hens we study in central Ontario typically choose to nest in an open field surrounded by tall grass and forbes for cover (Figure 1). However, sometimes they surprise us

and will forego their typical nesting habitat to nest in a forest instead. For example, one of our study hens chose to nest in a young eastern white cedar stand last summer even though there appeared to be ample field habitat nearby (Figure 2).

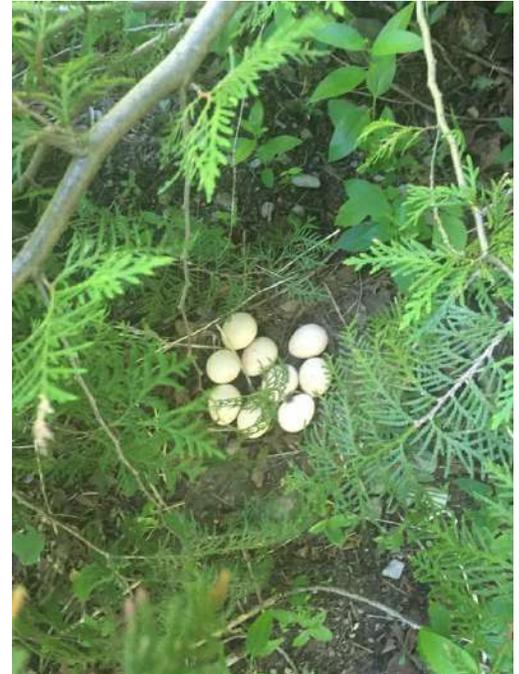


Figure 2. A wild turkey nest in a young cedar stand.

Ongoing Research

We have a sense that wild turkeys are thriving in Ontario since their reintroduction, and that their success is inherently linked to the availability of forest habitat; however, there are still many unknowns when it comes to understanding why some trees and woodlots seem to be more appealing than others, and how changes in the landscape may be influencing their social structure, behaviour and distribution.

Our research at Trent University aims to address some of these unknowns. By studying various aspects of turkey ecology and behaviour, like the possibility that turkeys are selecting roosts for particular thermodynamic properties or that their nesting success may be influenced by nearby grazing livestock, we hope to gain a better understanding of the factors that are driving population changes in this species and the factors that will allow them to persist into the future.

To learn more about our ongoing research you can visit <https://jennbaici.weebly.com/> or <https://elizabethadey.wordpress.com>.

You can also check out www.wildturkeycount.wordpress.ca for details about a citizen science survey we've just completed that will help us estimate how many wild turkeys there are in the province today.



Figure 3. Wild turkey preening itself while perched in its roost for the night

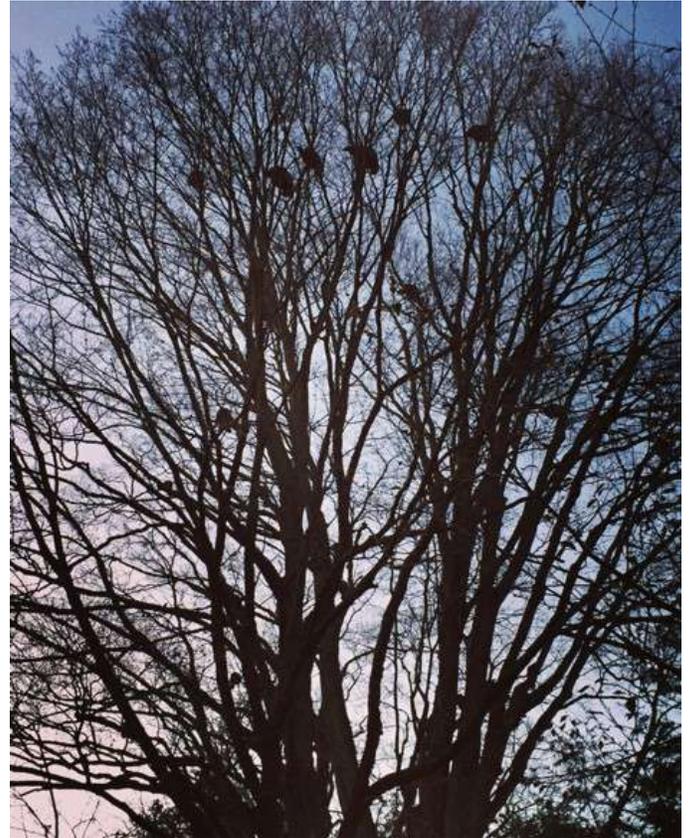


Figure 4. A flock of turkeys in a large maple tree



Figure 5. A turkey making its way up the tree to find the perfect perch for the night.



Figure 6. A group of turkeys settling into their desired location high up in the roost.

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Dryden & District Museum's Forest Industry Collection

By: Bethany Waite, Cultural & Tourism Coordinator



Aerial view of 3000 cords being towed in by tugboat from Durional Depot Camp, 23 miles, in the early 1960s.

When settlers began coming to the Dryden area they had a hope that industry would come to utilize the water power of the Wabigoon River. The first attempt to obtain permission for its use was in 1899, by Charles Wright for a Stamp Mill. However, this didn't come to be.

In 1900, Mr. Wright tried again with Charles Campbell and Mr. Gordon, hoping to build a Board and Paper Mill. However, little progress was made over six years and in January 1906, the municipality advised that if no progress was made they would try to take possession of the water power. In September 1906, Mr. Gordon was given permission to cut all timber north of the park road for construction purposes and given a conditional lease of the park. The company was now organized as Gordon

Pulp & Paper Co.

However, the partially completed mill burned down in 1909 and its assets were purchased by the Dryden Timber and Power Company (later the Dryden Pulp and Paper Company, and then the Dryden Paper Company).

Since the 1950s, ownership of the mill has changed hands a few times: Anglo-Canadian, Reed, Great Lakes, Canadian Pacific, Avenor, Bowater, Weyerhaeuser, and Domtar.

The mill has been in operation for over 100 years and the Dryden & District Museum's archival collection has many items which tell its history.

Some of these items include:

- An extensive photo collection
 - ◇ logging camps
 - ◇ construction of the Dryden Mill
 - ◇ operations of the Dryden Mill
 - ◇ construction of the powerhouse
 - ◇ the Dryden Mill staff house



Aerial view of the mill.

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- ◇ Oshequinn Mill by Ignace
- ◇ McLennons Saw Mill in Wabigoon
- ◇ Wabigoon Tree Nursery
- logging camp ledgers
- maps

The Museum also has various tools related to the forest industry as well as many artifacts that were in the mill staff house, known as The White Elephant.

Additionally, the Museum's collection includes the plan for the Swanson Logging Camp and a model of the buildings. These replicas were built by James Milne, Swan Swanson's grandson. This camp was located near the village of Dinorwic by Milne Lake. Swanson immigrated to the United States from Sweden in the late 1800s. He worked as a railroad contractor cutting ties; this brought him to Canada, to British Columbia and Eastern Ontario. In the early 1900s, he settled in Dryden.

Swanson started a logging camp near Dinorwic, operating at full capacity with approximately 40 workers in the 1920s.

In 1933, Swanson passed away and the camp was no longer in operation. The camp was taken over by James Milne's parents and operated as a farm. When the Second World War broke out, James and his father enlisted leaving the farm until the war was over. When they returned, they decided the original camp needed to be taken down and replaced with three log buildings.



The Mill Staff House.



Mill employee felling trees, early 1960s.

The Dryden & District Museum is open Tuesday to Friday, and the last Saturday of each month.

Visit <https://www.dryden.ca/en/explore/collections.aspx> to book an appointment for research or to email research inquiries.

Forestry Resources at Lake of the Woods Museum

By: Braden Murray, MA
Lake of the Woods Museum

The Lake of the Woods Museum in Kenora, Ontario is home to extensive records and holdings related to the forestry industry on Lake of the Woods and in the surrounding area. The collecting mandate of the museum includes all of present day Kenora, Lake of the Woods, as far west as the Manitoba border, and as far east as Vermillion Bay. The museum's archival holdings include, but are not limited to, material related to the Keewatin Lumber Company, the Rat Portage Lumber Company, the Kenora paper mill (in all its iterations), and life in the bush/lumber camps. The following is a brief explanation of some of our larger holdings. It is not an exhaustive list, but rather meant to give the reader an idea of what is available for research and further study. If there is something included here that you'd like to learn more about



A black and white photograph of the Keewatin Lumber Mill on the Winnipeg River. Taken in 1881 by F. Jay Haynes.



A black and white photograph of seven men loading logs onto a sled with the use of a pulley system.

please contact the Lake of the Woods Museum at 807-467-2105.

Kenora, formerly called Rat Portage, was formally established as a municipality in 1882. The town's economy was based on building the transcontinental railway, natural resources development, and tourism. Before the town was even formally founded, industrialists from Winnipeg and from the east began opening lumbering operations. The railway needed ties, the west needed lumber, and these industrialists were keen to meet that demand.

The largest saw mill in the area was run by the Keewatin Lumber Company. Founded in 1879 by Ottawa's John Mather, it was a bustling operation by 1884. Around the same time D.C. Cameron started the Ontario & Western Lumber Company, which was later renamed the Rat Portage Lumber Company

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in 1892. These two saw mill and wood finishing operations worked in competition. The Lake of the Woods Museum's collection of photos and archival material includes the following information related to the Keewatin Lumber Company and Rat Portage Lumber Company:

- Rat Portage/Kenora & Keewatin mill operations (pay ledgers, price lists, images etc)

- promotional material

- The Norman Dam development (including step by step images of the construction)

- records of company steam boats, alligators, and other equipment on Lake of the Woods!

- memos and reports written by long time executive Dan McLeod

- diaries and accounts of men who worked in the bush

The paper mill in Kenora had several iterations and owners. The founder, American industrialist Edward W. Backus, began consolidating local saw mills and wood lots around the turn of the century eventually buying the Keewatin Lumber Company, the Rat Portage Lumber Company, and several smaller saw mills in the area. Though he was delayed by the First World War, work picked back up in 1919 and by 1922 construction had begun on a pulp and paper mill in Kenora. Operations began

in 1924. Over the years the paper mill in Kenora operated under several companies including:

- Backus-Brooks

- Minnesota-Ontario Paper Company (Mando)

- Boise-Cascade Inc

- Boise Cascade Canada Inc

- Abitibi Consolidated Inc

Kenora's paper mill ceased operations in 2005. During the demolition of the paper



One of the earliest images of the Backus-Brooks Paper Mill in Kenora. Image is from 1924.



Black and white image of a crew posing with a Keewatin Lumber Company truck.

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mill site a number of boxes of paper mill documents were donated to the Museum. These boxes have been sorted through and organized with finding aids. The photos and archival documents of the 20+ cubic feet of material includes, but is not limited to:

- mill construction & various expansion projects
- Norman Dam & Kenora Power House construction
- area forestry operations including forest fires, blow downs, etc
- Keewatin saw mill operations
- area logging camps & logging operations
- photos and archival material related to the paper mill in Fort Frances
- mill staff member head shots & social events
- VHS tapes with news clips, promotional material, corporate training, and clips meant for internal consumption
- Union and documents related to the labour unrest in the 1980s

This is not an exhaustive list of the forestry related archival and photographic holdings of the Lake of the Woods Museum, rather it is a brief look at what the museum has to offer. If there is anything in this document that you would like to know

more about the staff at the Lake of the Woods Museum is committed to helping researchers, students, and the general public learn about the history of our lake and community. The Museum is staffed year round, and would be delighted to help with any research requests. For academic works there are no fees associated with research or use of museum photos, but we do ask for a copy of the finished work for our own archives.

Thanks you for this opportunity to give a brief view of our collections. If you have any questions or comments please call the Lake of the Woods Museum at 807-466-8767 or email museum@kmts.ca.



A black and white photograph of a team of horses pulling a large load of timber for the Keewatin Lumber Co. The man on the left is John Walls.



A large colour photograph showing an aerial view of the Abitibi Pulp and Paper Mill on Ninth Street North, and the surrounding residential area in Rideout. Picture from August-September 1979.

The History of Black Locust (*Robinia pseudoacacia* L.)

By Sherry Hambly

Author's Note

In my travels around Peterborough County I often see black locust trees – usually in small groves but sometimes singly. There is one particular grove that I see every time I travel up Highway 28 from Port Hope. It is on the west side just south of Bailieboro. Several old black locust trees grow on the south side of the old farmhouse and barn. This scene is especially striking in the winter at dusk when the setting sun gives it a lovely glow. The awkward, chaotic branches of the black locust stand out in the dimness. One day I will stop and take a photo. For some reason I have been paying more attention to this species in my travels lately and began to wonder about its history. This article is what I found.



A small stand of black locust trees just south of Lakefield and east of the Otonabee River. Photo by Sherry Hambly.

Introduction

There is voluminous literature on black locust. This article just touches the surface.

Charles Sprague Sargent, the esteemed American botanist of the late 1800s, who authored *Silva of North America*, described black locust thusly:

Robinia pseudoacacia is surpassed in beauty by few American trees. In no other lightness and grace of foliage combined with such massiveness of trunk and spread of branches. Few trees produce more abundant, beautiful, or fragrant flowers, or afford more pleasing contrasts of color in the light green of the youngest leaves with the darker hues of those of the earlier part of the season, and between the different shades of color of the upper and lower surfaces of the leaflets as they rise and fall with the slightest breath of air.

Sargent provides a very complete description of black locust in his seminal book, and includes notes from several sources of literature published about this tree to the date of his publication in 1891.¹

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Biology/Ecology

While Sargent provides a very complete description of this species, other books have been published on the biology and ecology of the trees of North America. Unless otherwise referenced, the information in this article is compiled from:

- Modern version of *Silvics of the Trees of North America*²
- *Fire Effects Information System*³
- *Trees of Canada*⁴
- *Ontario Trees and Shrubs*⁵

Black locust has a natural range in the United States concentrated along the east and west sides of the Appalachian Mountains and on the Ozark Plateau. Outside of these concentrations it is also found in scattered spots across the central and eastern United States.

Black locust is a medium to tall, spindly tree with dark, coarse, ridged bark. The alternate branching habit creates a crown with a distinctive, lacily disjointed appearance in silhouette. The leaves are pinnately compound and are 20 to 30 cm in length. Each node is protected by two short spikes (or stipules). The flowers form a 20 cm long, white, trailing raceme in spring, after leaf out. They have a very pleasing aroma. Seedpods are about 5 to 10 cm in length and about 2 cm in width and contain several individual seeds. The pods remain on the tree overwinter. The roots tend to be moderately shallow and spreading but can grow to a fair depth. Black locust is fast growing in its young age. It is a genetically variable species, and many cultural varieties have been created.⁶

Black locust is a very intolerant tree that grows on a wide variety of site types except wet or very dry sites. It does best on moist, deep, well drained loamy, limestone soils. As an intolerant it is often a pioneer on disturbed sites. Upon maturity this species is usually overtaken by more tolerant species and is usually infrequent and solitary in closed forests. In its natural range it is most often associated with the cove or mixed-mesophytic forest type. This species is a prolific seed producer but reproduces primarily from root suckering.

The black locust is affected by insects and disease to a greater degree than almost any other native species. Its primary pest is the locust borer, which is specific to this species. The borer is very destructive, riddling the wood with holes. Damage from other pests, including twig borers, leaf miners, aphids, cankers, and heart rot, is less severe than that of the locust borer. The twigs are brittle and break off easily in the wind, providing entry points for fungal pests.

Black locust is a valuable tree for a variety of wildlife. It is used as a source of food and a place for nesting, roosting and warmth. Standing dead black locust trees persist longer than most other species and thus provide good cavity habitats. The flowers produce nectar that is attractive to bees. All parts of the tree except the flowers contain a chemical called 'robin' (a glycoprotein similar to ricin) that can be toxic to humans and animals, especially horses.^{7,8}

Wood Properties

Black locust is a very hard and strong wood, competing with hickory as the strongest and stiffest domestic timber. It is noted for its extreme rot resistance. The wood is dense and straight grained. It has one of the highest BTUs of eastern hardwoods. The sapwood has a yellowish green to darker brown hue that can turn russet with age. It has a wide heartwood to diameter ratio.⁹

Commercial Value

The wood qualities of black locust make it suitable for a variety of products, such as fence posts, railway ties, ship building, wood nails, firewood and many other products where strength and durability are important.

In some parts of the world, especially where it has been transplanted, it is also a source of lumber, animal fodder and nectar for honey production. It is also being investigated as a source of biofuel.¹⁰

Despite its excellent characteristics, it is not a valuable commercial tree in North America because of its scarcity in mature forests and its susceptibility to damage by the locust borer. Black locust has been so successful in other countries because of the lack of this destructive pest, which is only found in North America.

It is postulated that the American navy won the 1814 battle of Lake Champlain over the British because American ships were constructed using black locust wood nails, and were able to withstand the pounding of the British cannon balls. The British ships, made of oaken nails, disintegrated at a faster rate.¹¹

Native Use

Early European immigrants and travelers to the Virginia coastal area reported that some native settlements had black locusts growing near their living quarters, and that the species had probably been transplanted from its native habitat in the Appalachians. Black locust was one of the preferred woods for making bows and arrows. Apparently the native communities also used this tree sparingly (due to its toxicity) for medicinal purposes, preparing emetics and strong laxatives from the bark.¹²

Post Settlement History

Black locust was a popular tree with settlers to America because of its rot resistance, strength and beauty. Catesby noted that the settlers used black locust as the main sill posts for building their initial home, and that the posts were still standing many years later.¹³ It was later used extensively in landscape plantings and in windbreaks across North America, which led to its widespread dispersion and naturalization across the continent.

The first mention of black locust in America is by William Strachey (an English writer) describing his trip to Virginia in 1609:

“By the dwellings of the savages are ... and a kynd of low tree, which beares a cod like to the peas, but nothing so big, we take yt to be locust.”¹⁴

Many European naturalists came to America to explore, usually returning to their home country with specimens from the new world.¹⁵ Black locust was the second species transplanted from North America to Europe, sometime in the early 1600s.¹⁶ There are varying accounts as to where it arrived first – England or France. Most authors indicate it arrived in France first, possibly even brought there by Jacques Cartier or Samuel de Champlain. Even these accounts vary, but the most reliable information indicates that it was first planted in France by Jean Robin, herbalist and gardener to the King of France, or his son Vespien (also a gardener), sometime between 1623 and 1635.¹⁷ Apparently the original tree died but an offshoot is supposedly still living in downtown Paris.¹⁸

It has also been postulated that the Vespiens obtained the seeds from John Tradescant The Elder, a well-known British botanist, or his son, John Tradescant The Younger, also a botanist, who imported seeds into England from Virginia in the early 1600s. John The Elder was friends with Jean

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Robin.¹⁹

Black locust initially became established in England and France primarily as a landscape tree. Its popularity in England increased substantially in the early 1800s when an English miscreant, William Cobbett, discovered the tree while on a forced stay in America. Upon returning to England he wrote a book extolling its virtues, which led to millions of seeds being imported into England. As with most over-hyped products, the result did not match the initial zeal and interest in the species fell off.^{20, 21}

It was first planted in the Netherlands in 1646, in Germany in 1672, and it was introduced into Hungary between 1710 and 1720, primarily as a landscape tree. In the mid 1700s F.A.J. von Wangenheim, a German forester, who had spent time in America and realized its potential for various products, wrote a book encouraging its use, especially as firewood. German forest resources were depleted at this time and wood for fuel was scarce.²²

The species was promoted again in Britain in the 1840s by William Withers, who felt it was under appreciated in Britain, and extolled its virtues in a 400 page plus book. He preferred the name "Acacia". Withers quotes extensively from M. Francois de Neuchateau, a Frenchman who had promoted the virtues of the species in France during the times of the great French revolution at the end of the 18th century.²³ Withers' book provides an immense amount of information on what was known about black locust at the time. He includes the contents of a talk on the American Acacia that Michel-Guillaume-Saint-Jean de Crève Coeur gave to the Agriculture Society of Paris in 1786. M. St. Jean de Creve Couer was a Frenchman who lived in America for some years and wrote several books about his experiences. He was knowledgeable of the characteristics and use of this species in the new world.

Since its early introductions as a landscape tree, black locust has been widely transplanted for both landscape and commercial forest purposes throughout temperate and Mediterranean biomes around the world.²⁴ By the end of the 20th century there were more than one million hectares of land planted to black locust worldwide. It is now the second most planted species across the globe after eucalyptus.²⁵ It has a mixed legacy, being both loved and despised in its new environments.²⁶ Originally established in these environments for economic reasons, it came to be valued for social reasons. In many jurisdictions it is now considered an invasive.²⁷

Naming and Describing the Species

This species has several common names but is primarily known as black locust.²⁸ The common name 'locust' was chosen by religious immigrants to America who thought the seed pods resembled the pods of the European Carob tree that kept John the Baptist alive in the wilderness.²⁹ These pods apparently resemble the locust insect.³⁰ Early on it was called Virginia locust, acacia or yellow wood, along with other names.³¹ A common name in Europe was, and still is, false acacia because of the resemblance of its leaves to the leaves of the acacias in Europe.³² The origin of the name 'black' is unknown but it could be because of the dark colour of the bark. It was also mistaken at times for honey locust (which is in the same taxonomic family), and also has thorns and grows in the same general geographic location.³³

The first "scientific" reference to black locust comes from J.-P. Cornut, a French physician and botanist, who published *Canadensis Plantarum* in 1635, a treatise on the plants that Jean and Vesprien Robin established in the King's garden in France in the early 1600s, many of which came from the new world (known generally as Canada). Cornut designated this species *Acacia Americana Robini*.³⁴ Five years later (1640), the famous British botanist/herbalist, John Parkinson, produced his monumental work *Theatricum Botanicum*, in which he compares the Robins' black locust with the English Tradescants' locust from Virginia and declared that they were the same type of tree, but not

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Acacias. He designated them *Pseudo-Acacia Americana Robini*.³⁵ Half a century after these two authors completed their works, the famous French botanist, J.P. de Tournefort, agreed with Parkinson and placed black locust in a genus he termed *Pseudoacacia*.³⁶ In 1753 Linneaus published his seminal work on genus/species and placed black locust into the *Robinia* genus, and designated black locust as the species *PseudoAcacia*.³⁷

During the 150 years from Cornut to Linneaus, many different botanists gave black locust many different “scientific” names, too numerous to mention here. Even after Linneaus designated it as *Robinia PseudoAcacia*, the species name was often misspelled.³⁸

The first long description of black locust as a forest tree came from Francois Michaux, a French botanist (the son of the famous French botanist, Andre Michaux), who produced *Histoire des Arbres* in 1813, which was translated into English as *The North American Sylva* in 1819, the most famous version of which was published in 1853. The description of the tree and its use is four pages long and includes coloured plates of the key distinguishing features.³⁹ In 1832 an American botanist, Daniel Browne, produced a book of trees called *Sylva Americana*, which described indigenous trees from a botanical and practical perspective.⁴⁰ Starting in 1880 and ending in the 1890s the famous dendrologist, Charles Sprague Sargent, wrote several publications on the forest trees of North America. His most famous publication, in several volumes, is *The Forest Trees of North America* (which included a long passage on black locust).⁴¹ The United States government included black locust in its comprehensive books on the *Silvics of North America*.⁴²

The photographs below show some of the unique characteristics of the black locust species.^{43, 44}

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interest. According to these two databases, the taxonomic classification of black locust is as listed in the table below.

IT IS Database

UNIProt Database

Kingdom <i>Plantae</i> Subkingdom <i>Viridaeplantae</i> Infrakingdom <i>Streptophyta</i> Superdivision <i>Embryophyta</i> Division <i>Tracheophyta</i> Subdivision <i>Spermatophytina</i> Class <i>Magnoliopsida</i> Superorder <i>Rosanae</i> Order <i>Fabales</i> (13404)	Family <i>Fabaceae</i> (originally <i>Leguminosaea</i>) Subfamily <i>Fabaceae</i> (originally <i>Papilionaceae</i>) Super Clade Level 1 <i>50 kb Inversion Clade</i> Super Clade Level 2 <i>NPAAA Clade</i> Super Clade Level 3 <i>Hologalegina</i> Sub Clade Level 4 <i>Robinoid</i> Tribe <i>Robinieae</i> Genus <i>Robinia</i> Species <i>pseudoacacia</i>
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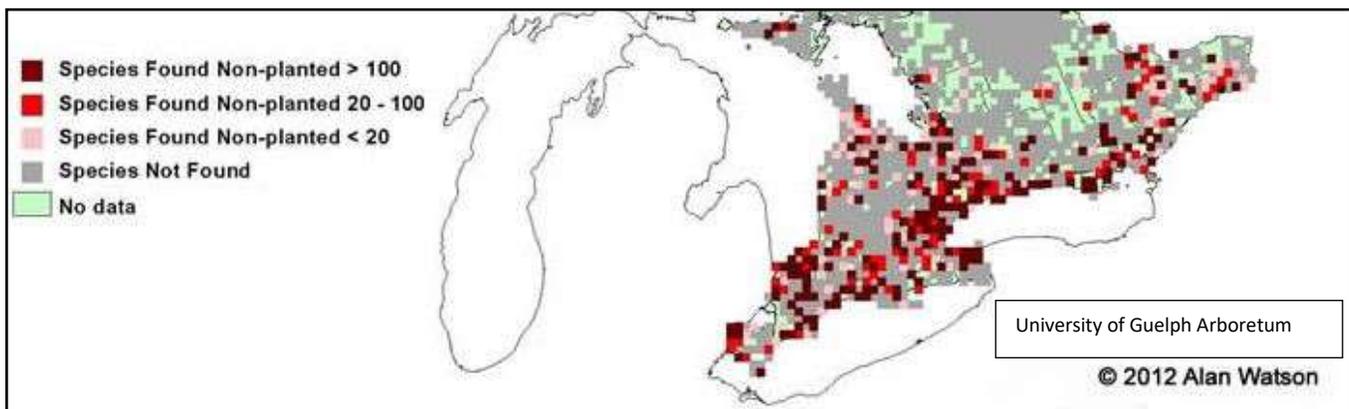
Scientific Name: *Robinia pseudoacacia* Linn. 1753

Common Name: Black Locust (False Acacia, Yellow Locust) (French - Robinier faux-acacia)

History of Black Locust in Ontario

Black locust was part of the southern Ontario biome during the last Pleistocene interglacial period – about 125,000 years ago. Fossil remains of *R. pseudoacacia* were found in Don Valley sediments in the first half of the 1900s.⁵³

Early settlers to the Americas found black locust to be a useful tree for a variety of reasons and it was seeded and planted all across the eastern United States and Canada. David Michener provides an excellent overview of the establishment of black locust in Massachusetts.⁵⁴ His observations no doubt reflect the history of introduction of this tree in Ontario. The first post-settlement mention of black locust (acacia) in Ontario that I could find comes from a history of the St. John's Anglican Church in York Mills. Apparently the 'acacia' trees planted around it were transplanted from Long Island by an early settler, Cornelius Von Nostrand, who came to the area in the late 1700s.⁵⁵ These trees are still standing today. James McNab, a Scottish gardener, described seeing 'healthy specimens' of black locust trees as he and his party arrived by ship in Toronto in 1834.⁵⁶ An unknown editor of the *Canadian Farmer*, on a trip to the west of Ontario in 1847, describes Sandwich (a small town a mile east of Windsor) as the most beautiful town he had ever seen, with its locust-lined streets.⁵⁷ The spread of black locust across Ontario from these early plantings and seedings is remarkable and is shown on the map below.⁵⁸



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A review of several historical publications produced mainly in the late 1800s (*Ontario Fruit Growers Association, Canadian Journal of Forestry, Canadian Lumberman, Canadian Horticulturist*) finds several references to black locust over the years. The references relate to a variety of topics including the species as a landscape tree, its properties of strong and rot resistant wood, appropriate uses, nursery stock and plantation establishment among others).⁵⁹ One article, written in 1877, described the arrival of the locust borer in Montreal in 1855 and its westward movement to London, 18 years later. The writer noted how destructive this pest was, destroying most trees it attacked.⁶⁰ Another article was on the efficacy of black locust on dry sandy sites in Norfolk, outperforming all other species planted.⁶¹ The Experimental Farm in Ottawa established a black locust in its arboretum in 1890, along with several hybrid *Robinia* varieties.⁶²

The Archives of Ontario holds a photo taken by E.J. Zavitz of black locust growing beside Scots pine in a Norfolk nursery.⁶³ The archives also have a reference to Zavitz standing beside a black locust tree in Niagara Falls.⁶⁴

Fred Von Althen, a researcher with the Canadian Forest Service, wrote several articles on the use and performance of black locust in plantations in southern Ontario.⁶⁵ In one paper he writes “(*Black locust has been*) planted occasionally, mostly in the form of shelterbelts around farms or fields or for erosion control on steep slopes or land of low fertility.”⁶⁶ In a later paper Von Althen noted that 143,800 black locust trees were planted in 1975.⁶⁷ A field review of Althen’s work three decades later showed that while black locust outperformed most other species at a young age, by the time of the review they had been overtaken by most other species.⁶⁸

The University of Guelph has undertaken a variety of research on black locust in honey production, agroforestry and climate change.^{69, 70, 71} Others have investigated the planting of black locust to ameliorate aggregate sites.⁷² The *Forestry Chronicle* has published several papers on black locust in Ontario.⁷³ Black locust is included in Elliott’s description of southern Ontario forests.⁷⁴ Lee includes black locust in a table of site types in southern Ontario.⁷⁵ A book on the history of gardening in Ontario includes information on black locust.⁷⁶ Black locust is listed in the Ontario Poison Centre plant database.⁷⁷

Ken Armson noted that he remembers the Ontario Department of Highways planting black locust on highways with steep embankments, especially along Highway 27 between Nobleton and Cookstown. He also remembers that the cross arms of telephone line poles were made of black locust because of their hardness and durability.^{78, 79}

Two arboretums contain black locust trees – University of Guelph⁸⁰ and Queen’s University.⁸¹ High Park in Toronto notes that it has black locust.⁸² Canadian Tree Tours lists black locust as a tree to see in two places in the City of Toronto.⁸³ Several organizations have designated large, old black locusts as heritage trees (the best example is in Huron/Perth County).⁸⁴ The species is mentioned in a publication listing the trees of Point Pelee Park.⁸⁵



Black locust in Appleton, from Google Maps.

Neil Carleton has written about several old black locust trees that line Wilson Street in Appleton near Carleton Place.⁸⁶

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Black locust, locust and acacia are commemorated in several Ontario place names, including street names (Locust Street – Burlington, Kitchener, Port Colborne, St. Thomas, Toronto, and Welland; Locust Lane – Beamsville, Kirkfield, Locust Hill and Tamworth; Locust Drive, Brampton; Black Locust Drive, Markham; Black Locust Way, Brantford; Locust Hill Drive, Innisfil; Locust Hill Lane, Minden Hills; Acacia Ave, Ottawa and Toronto; Acacia Rd, Toronto).⁸⁷ Apparently Acacia Avenue in Ottawa, a boundary street for Rockcliffe, was once named Butternut Avenue. Rockcliffe insisted on a name change to Acacia Avenue. Charlotte Whitton, the soon to be mayor of Ottawa, did not take kindly to this action and wrote about the elitist Rockcliffers in her newspaper column.⁸⁸

Perhaps the most famous locust place name in Ontario is Locust Hill, just northeast of Toronto. It was named after a locust grove growing on the homestead of William Armstrong, who was the son-in-law of Peter Reesor, one of the early settlers of Locust Hill. This homestead and the locust trees still stand.⁸⁹

Several heritage buildings are associated with black locust including Locust Lodge, Burlington,⁹⁰ Locust Mount, London,⁹¹ Locust Grove, Niagara Falls,⁹² Inga-va, Perth⁹³ and Locust Grove Farm, Lansdowne.⁹⁴ One of the most interesting heritage estates is “The Acacias” Heritage House in Oakville, named for the several “Acacia” trees, or black locusts, planted around it. It was originally owned by Willis Norman Millar, an American forester who was a professor of forestry at the University of Toronto from 1914-1932.⁹⁵



Reesor mill in Locust Hill showing black locust in the background.

Some Ontario companies market black locust honey.⁹⁶ Although not commercially important, some Ontario wood workers seek this species out for their projects due to the hardness and rot resistance of the wood.⁹⁷

Google the words Ontario nursery and black locust and many hits are returned.⁹⁸ The species is still popular in the province as a landscape tree. On the other hand, the black locust tree has been identified as an invasive in Ontario and a manual has been written for its management and control.⁹⁹ And that is the history and dichotomy of the black locust tree in Ontario.

Author's End Note

Well I must say, researching and writing this article was a bit of a slog. There was so much literature to review, much of which was produced in the 1600s and 1700s and was in Latin, French, German or old English. But thanks to Google translate, I was able to pick out enough words to make sense of the material. I learned so much about a tree I knew virtually nothing about. I also learned about the exciting times of early North American settlement and the botanizing that occurred then, and the advances in taxonomic classification that resulted in the Linnaeus system. And the advances in DNA analysis more recently that has resulted in huge gains in understanding the phylogeny and ancient history of legumes. On a personal note, I discovered black locust trees growing almost in my back yard. As I was walking home from picking up my mail one day, steps I have taken countless times over the past 25 years, I looked up and began to pay attention to the crowns of trees behind my house. Sure enough, they turned out to be black locust trees – just peeking over the crowns of the other trees. Upon further investigation I discovered five black locust trees growing on my neighbour's property behind my house! A most interesting project indeed.

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⁸⁹Locust Hill, Ontario. https://en.wikipedia.org/wiki/Locust_Hill,_Ontario.

⁹⁰Locust Lodge Heritage Impact Study, Burlington. https://www.burlington.ca/en/services-for-you/resources/Planning_and_Development/Current_Development_Projects/Ward_2/Riepma-Consultants/Revised-Heritage-Impact-Study.pdf.

⁹¹London Public Library, Locust Mount Plaque (9). <http://www.londonpubliclibrary.ca/research/local-history/historic-sites-committee/locust-mount-plaque-no-9>.

⁹²Locust Grove, Niagara on the Lake. Ontario Heritage Trust. <https://www.heritagetrust.on.ca/en/oha/details/file?id=1538>.

⁹³Inga-Va, Ontario Heritage Trust. <https://www.heritagetrust.on.ca/en/properties/inge-va>.

⁹⁴The Corporation of the Township of Leeds and Thousand Islands, By-Law 10-008. <https://leedsthousandislands.civicweb.net/document/28952>.

⁹⁵Heritage Research Report, The Acacia, Oakville, Ontario. <https://securepwa.oakville.ca/sirepub/cache/107/knuwtersgqa3xzznebwmlkio/33577904232019092005277.PDF>.

⁹⁶The Honey Bee Store. <https://www.thehoneybeestore.ca/Black-Locust-Honey-Acacia-p/123581.htm>.

⁹⁷Canadian Woodworking and Home Improvement, Black Locust. <https://forum.canadianwoodworking.com/forum/woodworking/woodworking-aa/8593-source-for-black-locust>.

⁹⁸Results of Goggle search using the following terms: "Ontario nursery, black locust", <https://www.google.com/search?q=ontario+nurseries+black+locust&oq=ontario+nurseries+black+locust&aqs=chrome..69i57j69i64l2.7699j0j8&sourceid=chrome&ie=UTF-8>.

⁹⁹Warne, Amanda. 2016. Black locust (*Robinia pseudoacacia* L.) Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON. http://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/06/Black_Locust_BMP.pdf.

Art in the Park

The Art of Black Locust

by: Sherry Hambly

There are many distinctive attributes of black locust trees both singly or in groups that are attractive to artists. The angular branches and spindly crown of the black locust tree provide a distinct silhouette across the landscape. The beautiful racemes of white trailing flowers in the spring are a favourite subject, especially when they are framed by the lacy, palmate leaves. The furrowed bark of older trees, the dangling seed pods and the shallow spreading root system have all been captured in art. The grain and colour of the wood and close ups of the wood pore pattern catch the eye of the artist including wood turners and furniture makers. It is a tree of many attractions for paint artists, textile artists, photographers and wood turners.

An internet search using the key words “art, black, locust” returns several pages of hits of art with black locust as the subject matter. The interesting thing about the results of this search is the diversity of aspects of black locust represented in the art – virtually all aspects of the tree. There is also a fair bit of botanical art drawing showing the characteristics of various aspects of black locust.

I found only one piece of art by an Ontario artist, Robert Holmes, whose painting “Black Locust”, resides in the Art Gallery of Ontario. Canadian artist, Aleta Karstad, has also painted black locust. Ontario photographer, Larry Towell, has taken photos of black locust.

Below are some examples of the art of black locust trees.



Locust Trees in Spring by Marjorie Phillips (https://www.phillipscollection.org/collection/browse-the-collection?id=1513&page=4&_id=153446400000)



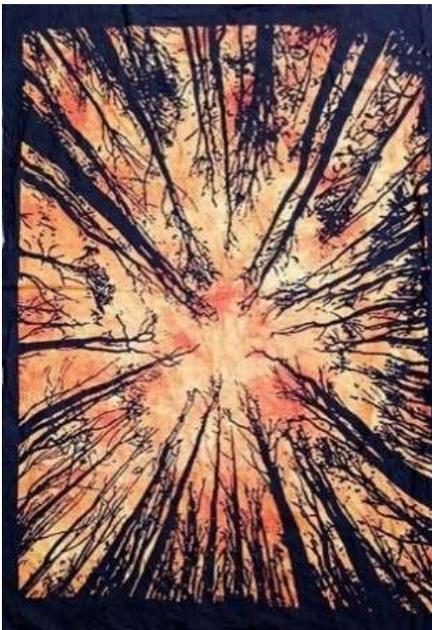
Black locust of my heart by Kendall Cox
(<http://kendallwcox.blogspot.com/>)



Black locust by Robert Holmes (<https://ruthbakerdesign.com/search?q=black+locust+robert+holmes>)



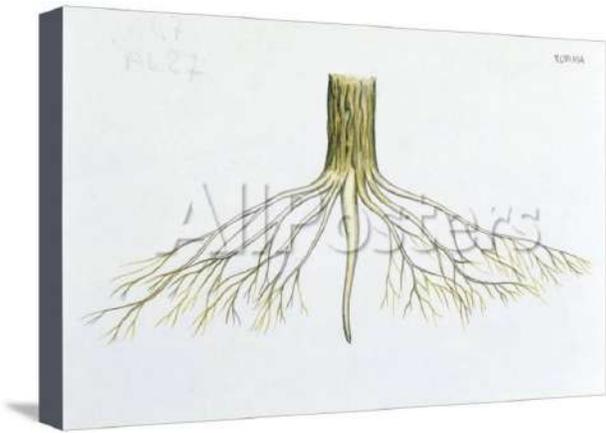
Black Locust Flower, Leaf and Fruit by Masumi Yamana (<https://sequinsandcherryblossom.com/2015/06/04/the-art-of-trees-masumi-yamanaka-at-kew/>)



Sophia Art Exclusive Forest Tree Tapestry Cotton Poster Tie Dye Locust Tree of Life Ethnic Hippie Wall Hanging Bohemian Decorative Posters (<https://www.amazon.ca/Sophia-Art-Exclusive-TreeTapestry-Decorative/dp/B075KJP4Z3>)



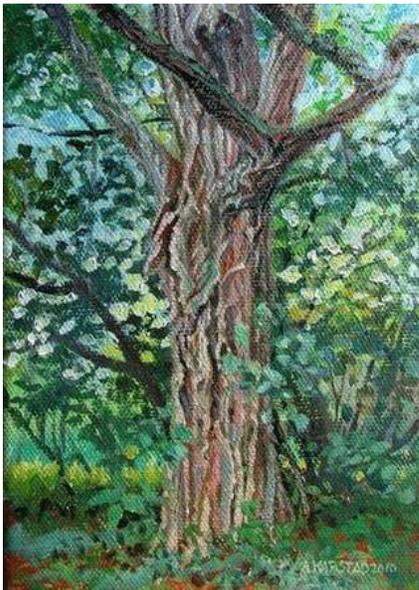
Quilt - Inside Wood by William M. Harlow (<https://doughtydesigns.com/projects/wood-series/black-locust/>)



Roots of Black Locust Robinia pseudoacacia – no author (https://www.allposters.com/-sp/Roots-of-Black-Locust-Robinia-Pseudoacacia-Posters_i13616920_.htm)



Black locust seed pods by Mary Jo Hoffman (<https://stillblog.net/>)



Old Black Locust by Aleta Karstad (<https://karstaddailypaintings.blogspot.com/2010/09/old-black-locust.html>)



Black locust tree, Lambton, Ontario by Larry Towell (<https://www.bulgergallery.com/artists/110-larry-towell/works/6430-larry-towell-black-locust-tree-lambton-ontario-canada-1990/>)



Sweet fragrance of black locust by andrijana (<https://steemit.com/art/@andrijana/art-by-andrijana-sweet-fragrance-of-black-locust>)



Black locust tree vessels by James M. Bell (<https://fineartamerica.com/featured/1-black-locust-tree-vessels-james-m-bell.html?product=poster>)



Black locust wood – The three sisters by Fred Bivens (<http://vinecroft.com/>)



Locust by Bryan Nash Gill (<http://www.bryannashgill.com/woodcuts#/woodcuts/locust>)

Note: All internet sites were accessed on April 1, 2019

Sylva Recap

The Ontario Department of Lands and Forests published for many years a journal known as “Sylva”. The purpose of this journal was to highlight changes in policy, individuals, and the comings and goings of staff. Sylva contains nuggets for forest history that will be selected for each edition of the journal. The following was provided by Sherry Hambly.

The Land is a Future to be Saved by Arthur Carey

Reprinted from Sylva Volume 1 (1): 39-41, 1945

200,000,000 acres plus, is a lot of land, but it is the total extent of the area administered by the Department’s Lands Division. It is thus no small nor simple task for which the Division is responsible, and it is one very close to the welfare of the people of this Province. However, in the past the very vastness of the land areas in their trust seems to have frightened our administrators from serving the welfare of our people fittingly.

For about a century and a half, until 1942, land administration in Ontario was, to state it bluntly, more or less permitted to “run itself.” The Lands Branch of the Department was never arranged, until recently, in a manner or on a scale to even begin to cope with the manifold duties and problems which fall to Lands administration. Only now is the situation beginning to right itself.

Let us, for a moment, take a peek into the past. An idea of the worth at which our land was originally held may be realized from the fact that, in 1670, when the Hudson’s Bay Company received its vast territories in Canada, which included parts of Ontario, it was called upon to pay the vast sum of “two elks and two black beavers” to His Majesty or his Heirs should they ever happen to enter the territories!

After 1800, petitioners for lands in Ontario were given 200 acres upon proving their ability to improve and cultivate the land. All minerals and timber on the land, however, became the property of the Royal Navy. This was a fair arrangement for the times, but snags soon began to appear: One seventh of the lands of Ontario were reserved for the use of the Protestant Clergy; preferred applicants received 1,000 or more acres instead of the usual 200; for payment of small sums of money, certain individuals could acquire nearly 50,000 acres of land. These inequalities led to the further similar injustices and all kinds of manoeuvres and tricks were used with success by the wily and the privileged to extend their land holdings.

This state of affairs resulted in the genuine settler becoming dominated, shouldered out, or discouraged. The erection of schools, hospitals and building of roads was made difficult. Eventually, popular opinion was outraged to the point where the “Family Compact” was obliged to cease all free grants, except to soldiers and loyalists, by the passage of a new Land Act in 1838. This Act also specified that Public Lands were not to be sold privately until first being offered publicly at a substantially fair price. This was to discourage sales of Public Lands to “friends” at a nominal fee.

Then, in the following year – 1839 – Lord Durham’s famous recommendations included: “Abolition of the Clergy Reserves and a revamping of the land disposal system to remove favouritism and give the People a chance” ... The eventual adoption of this recommendation rang the death-knell of land privilege in this Province.

In 1859, the price of Crown Lands was set at 70 cents per acre cash, or a dollar in installments to be paid in four years. At this time, too, the first written requirements of settlement and cultivation were

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set forth. Henceforth, "idle lands" were to be discouraged.

Immediately following Confederation, in 1868, the Act to Secure Free Grants and Homesteads was passed. Through it, the Lieutenant-Governor-in-Council could appropriate lands not valuable for timber or minerals for free distribution to proven settlers. This substantially encouraged settlement and bred a new feeling of confidence in the common men of the time that they were beginning to receive a fairer opportunity to enjoy the wealth of our land.

Between 1868 and 1942 few advances in Land Administration were made. Then, in 1942, the first important re-organization since early Victorian days was undertaken. A complete review of land administration as it had been carried out hitherto was made. The results of these explorations was to re-create the Lands Division on a more uniform and simpler basis. Unnecessary and hampering overlapping was removed, and a policy of decentralization was begun. On the whole, this new settlement is functioning very well and kinks in it are being ironed out and improvements made continually.

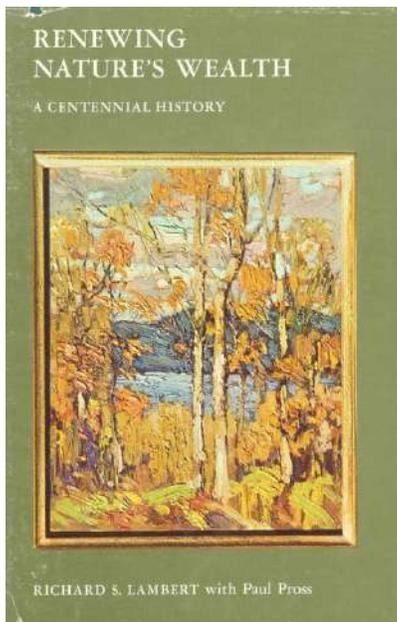
A much closer contact between the Head Office and the staff in the field by means of circulars, correspondence and conferences has wrought fruitful results. Individual members are now informed about Departmental affairs as they had not begun to be previously. As a result, every member of the Lands staff is now in a position to extend to interested persons information relative the selection, cost and applications for land grants. Through this "education" of members in the field, inter-departmental correspondence has dropped appreciably in bulk. However, the general bulk of the Division's work has increased substantially. Under the new regulations, all lands must be inspected before being granted or sold. And, apart from taking up old slack, the bringing up to date of old titles and the new assessment duties have extended the tasks in the field and at the Home Office.

Decentralization has meant increased administrative functioning for the thirteen district offices. It has effected better land use since district officers are now called upon to acquire a more intimate knowledge of the land under their jurisdiction. Through this closer knowledge, land area can be more wisely allocated than before to farming, resort use, pasture, fuel wood, reforestation or for whatever it appears most fitting. From now on there is to be a great deal less of "hit-or-miss" about our distribution of Crown properties.

The 1942 overhauling is by no means a cure-all for Land Administration problems, but it is a big step in the right direction. It cleared the way for better things. With adequate increases in staff we should eventually be in a position to administer the lands of our Province in the manner they deserve.

As members of the Lands Division, we are proud of the fact that, though our Division shows a deficit of 50 per cent in actual cash revenue received, through its assistance to agriculture, resorts and the tourist industry, in general, Lands administration bring in a vast, if exactly unaccountable, annual wealth to the Province of Ontario. As long as we retain a full awareness of this, we need never again undervalue the worth or underestimate the immensity of our trust.

Renewing Nature's Wealth



(Lambert, Richard S. and Paul Pross. Toronto: The Ontario Department of Lands and Forests. 1967). The book cover describes this book as: “*Renewing Nature's Wealth*, the exciting story of Ontario's natural resources, is described by Premier John Robarts, in his Foreword to the book, as “much more than a history of one of the Departments of the Government of the Province of Ontario: it is a vital component of the history of Ontario”, reaching back nearly 200 years to the days of the first surveyor General of Upper Canada in 1794. The book describes the impact made by a civilized people upon the primitive forest that originally covered the land, and the development of its natural resources under public administration from an early state of confusion and waste down to the modern era of conservation and scientific management.”

We will provide a précis of one chapter of this book in each edition of the journal.

Chapter 18: The Reorganized Department

The provincial forests/lands programs had been rife with political interference and patronage since their beginnings. The government decided it was time to clean up the organization and move it to a more professional footing. Minister N.O. Hipel was charged with this task. Frank MacDougall had caught the eye of the government and was asked to join Hipel as his Deputy Minister to set the organization on this new path. Both men were strong, competent leaders. MacDougall had proved his ability during his 20 year field career as a forester and Superintendent of Algonquin Park, where he often met politicians. He was known to be intelligent, an excellent planner who was forward thinking, and he was great with staff.

MacDougall assumed his new position in 1941. The department was suffering from a shortage of staff due to WWII and low moral from assaults on the organization by the previous government. It was the aim of these two men to develop a fully professional work force that that provided sound and competent forest management.

MacDougall's thinking on the new organization was influenced by the US Forest Service and an American book: *Governmental Problems in Wildlife Conservation* (1935) by Robert H. Connery. The structure of the organization in 1941 was complicated and rife with silos, patronage and redundant services. Most issues landed on the minister's desk. It was MacDougall's plan to have those issues solved at the local level. His mantra was to “always make the minister look good”. To achieve this result he had two aims: to decentralize and to develop standard policies and procedures that produced controlled management of resources.

The new division had 10 departments: Accounts, Operations and Personnel, Law, Reforestation and Conservation, Timber Management, Forest Protection, Land and Recreational Areas, Air Services, Research and Surveys. MacDougall took a go-slow approach. It took several years to fully implement the changes. MacDougall focused on the development of technical manuals and a communications structure that involved local staff to achieve his goal. He insisted on team work and regular meetings.

The new organization had five regions and 13 districts from Parry Sound north. A Southern Ontario district structure was eventually added with a focus on reforestation and extension. The kingpin

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positions in this structure were the regional and district foresters. These positions coordinated and managed the operational field programs. The District Forester managed approximately 75 permanent staff, a number that grew to 300-400 in the summer. This position was on call 24/7 during the summer with up to 40 days of travel outside the district. Holidays were taken in the winter.

After a fierce battle with land agents, the lands program became part of the district structure, and the Game and Fisheries group was merged as well. Later, a Parks Branch was added. Eventually the Regional Forester position was superseded by the Regional Director position.

Shortages of staff (noted in the 1947 Kennedy report), especially properly trained staff, led to the hiring of many immigrants who had been trained elsewhere. Over a 20 year period from 1943-1962 staffing increased fourfold from 861 to 3640. The professional forester cadre grew from 56 to 231 and biologists from 18 to 68. A standard uniform was required clothing from 1947 on to provide better identification of staff to the public, to increase morale and develop a more standard level of behaviour.

The department had always had a high number of temporary staff – both temporary permanent and casual. The high number (562) of temporary permanent staff in 1947 was reduced to 189 by 1962 due to government concerns.

The Junior Ranger program was developed in 1944 to introduce young men to forestry work and life in the bush. A secondary benefit was that it provided relief for senior staff to work on fire fighting. It was a resounding success and grew from 83 in 1947 to 1300 in 64 camps by 1963.

Expanded duties and an emphasis on professionalism of the ranger positions led to the development of the Forest Ranger School training facility at Dorset (in conjunction with the University of Toronto) for forest ranger staff. The school opened in 1945. In 1960 it became a technical vocational school open to the general public. Ranger positions were renamed Forest Technicians in recognition of their expanded roles. Non-technical training for all staff was an important aspect of the new organization, which led to the growth of professionalism ranks.

The Kennedy Report of 1947 noted that wages were far below the average. Classification of positions began after WWI and greatly increased after WWII. A professional review of forestry positions was conducted in 1960 to provide a more standard approach to classification. During this time the Ontario Government brought in programs such as a grievance board and worker's compensation to better manage staff issues across the government.

In Memoriam: Forrest Buckingham

BUCKINGHAM, FORREST MORGAN Passed away peacefully at the age of 95 on December 7, 2018. Predeceased by his wife Leila (nee Mackenzie) of almost 70 years. Survived by his children Nancy (Tilt), John, Andrea (McKay) and Cheryl (Brownlie); seven grandchildren and three great-grandchildren. Forrest served as an officer in the US Navy during WWII, then found his calling as an educator, serving as a highly respected Forestry Professor at both the University of New Brunswick and the University of Toronto, retiring in 1988. Forrest loved his family and particularly enjoyed classical music and the outdoors. Even during his last year, he was happiest when family would take him for walks along the Lake Ontario waterfront. Many thanks to all the staff at Lakeshore Lodge for their exceptional care and kindness to both Forrest and his family. A Celebration of Life will be held in Spring 2019. Memorial donations may be made to the Canadian Cancer Society and the Nature Conservancy of Canada.

A Memory of Forrest Buckingham

By: Caroline Mach, R.P.F.

If there is only one person responsible for my decision to pursue forestry as a career, it is Forrest Buckingham. When I was trying to decide what to pursue in my post-secondary studies, I wrote to the University of Toronto (back then, this written on an actual piece of paper with an electric typewriter, put in an envelope, stamped, and mailed) asking if they had any programs that would allow me to study “trees and plants”. Needless to say, high school guidance counsellors were of little help, so I had resorted to this approach.

Somehow, my letter landed on the desk of Forrest Buckingham and, although I no longer have his response, I remember it as being encouraging and supportive and essentially saying, “Welcome to forestry, we’d love to have you.”

How could I resist such an invitation? And once I met him, he was just as kind and helpful as he had been in his letter; the jokes about the inevitable link between his name and his destiny were an added bonus.

In Memoriam: Willard Arnold Grey Thurston

By: Kate Thurston Heron

Willard Arnold Grey Thurston passed away peacefully at Meaford, ON on Wednesday December 19, 2018, in his 100th year.

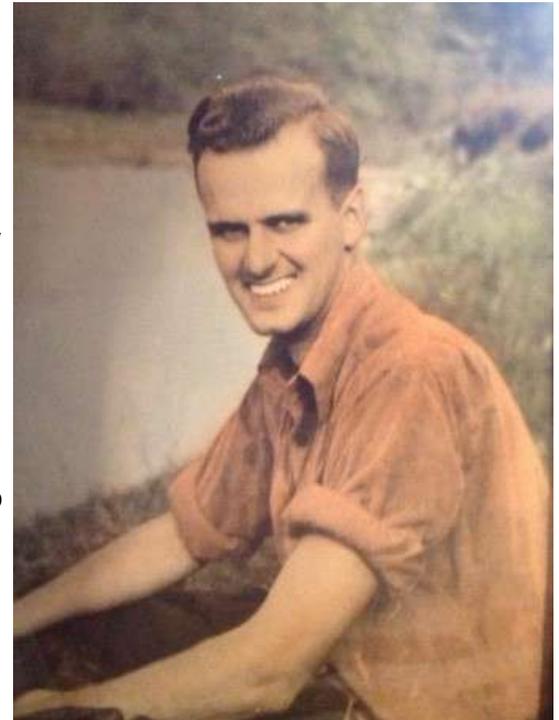
Willard was born in Toronto on September 20, 1919, son of longtime Meaford residents Stanley and Tillie Thurston. He attended Meaford High School where he met the love of his life, Gwen Knight, with whom he walked hand-in-hand for nearly 80 years. They observed their 74th wedding anniversary on Dec. 15th back in their much-loved Meaford on Georgian Bay.

Willard (or Bill, depending on when you knew him) enjoyed his career as a Professional Forester for 35 years. In 1943 Bill graduated with a degree in Forestry from U of T, having also spent four years in the Canadian Officers Training Corps. He was directed by the Wartime Bureau of Technical Personnel to work in forestry rather than to go overseas. Thus began his forestry career in Kapuskasing with the Spruce Falls Power and Paper Company, where about half of his time was spent living in the bush summer and winter.

Before long, Bill wrote to L & F Deputy Minister Frank MacDougall looking for a job in reforestation, a timely choice as Ontario was just then directing considerable resources to reforestation. Edmund Zavitz, the father of Ontario's reforestation surge, hired Bill as a Zone Forester, or Extension Forester, providing forestry advice to landowners as well as promoting and developing Agreement Forests with Municipalities and Conservation Authorities. After eight years, Bill was promoted to District Forester. His career took the growing family to Toronto, Stratford, Galt, Lindsay, Kemptville, and finally Queen's Park, retiring in 1978 as Supervisor, Advisory Service Section for the Forest Management Branch of MNR. Numerous county forests and farm woodlots resulted from Bill's forestry management skills. It was a rich time in Ontario Forestry.

In retirement, the Thurstons earned their Bruce Trail End-to-End, while Bill served in an executive position and maintained diligent landowner relations in the Beaver Valley, earning him the prestigious Golden Boot. Willard was a dependable, generous, loving husband and father with a wry sense of humour, always with Gwen at his side. They enjoyed spur-of-the-moment adventures, nature, long walks and sunsets, particularly the beautiful sky on Willard's last evening on Earth.

A dear friend of youngest daughter Kate offered her condolences with these words: "Prayers aloft for his smooth trip off the launching pad and onward to his next celestial adventure. Where there will be, no doubt, bountiful and verdant forests waiting."



Forest History Society of Ontario

Membership Form

Thank You For Your Support!

<p>The mission of the Society is: "To further the knowledge, understanding and preservation of Ontario's forest history" and to accomplish this with the following objectives:</p> <ul style="list-style-type: none"> To preserve forest and forest conservation history; To encourage and further the development and recognition of forest history; To support research and studies of forest history; To support the archival preservation of records and materials relating to forest history, and To promote the better understanding of forest history through public education. 		<p>The Society has two ongoing projects, both available on our website:</p> <p>www.ontarioforesthistor.ca</p> <p>The first is a catalogue of publications dealing with all aspects of Ontario's forest history. Members can submit contributions on our website.</p> <p>The second is the identification and listing of collections and materials relating to Ontario's forest history. The Society works with established archives such as the Archives of Ontario and several university archives to facilitate the preservation of significant collections.</p> <p>The Society publishes a newsletter, Forestory, twice a year – Spring and Fall - containing informative articles on Ontario forest history.</p>
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You can initiate or renew your membership online by clicking on the link below:

<http://www.ontarioforesthistor.ca/index.php/membership>

Or, by filling out and submitting the form below, with your cheque, to the address listed below:

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<p>Membership Type – Please Check One</p> <p><input type="checkbox"/> FHSO Annual Membership - \$45.00</p> <p><input type="checkbox"/> FHSO Student Membership - \$15.00</p> <p><input type="checkbox"/> FHSO Institution/Corporate Membership - \$100.00</p> <p><input type="checkbox"/> FHSO Membership for OFA / OWA / OHS Members - \$30.00</p>	<p>Please Make Cheque Payable To:</p> <p>Forest History Society of Ontario 144 Front Street West, Suite 700 Toronto ON M5J 2L7</p>
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