



# Forestory

Volume 12, Issue 2, Fall, 2021

## Contents

Chair's Message .....	3
The History of Roadside Tree Planting in Ontario .....	4
Early Monitoring of Mining Industry Impacts to Forests Around Sudbury .....	13
200 Million Trees Planted— Hearst Forest Management Inc. ....	18
Deforestation and Denial of Native Political Rights....	19
First-Hand Account of a Forest Fire Near Gravenhurst, 1913.....	24
Sylva Recap.....	26
Renewing Nature's Wealth .....	29
Spring, 2022 <i>Forestory</i> Preview.....	31

# ***The History of Roadside Tree Planting in Ontario***



A roadside tree planting along what is now an unopened road allowance between a provincial park and a County Forest in the Town of Mono in Dufferin County.

***...and much more...***

## ***Board of Directors***

### **Chair**

Jim Farrell

### **Vice-Chair**

Fraser Dunn

### **Past Chair**

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

### **Treasurer**

Brooke McLelland, Forests  
Ontario

### **Secretary**

Fraser Dunn



Member, Ontario Historical Society  
[www.ontariohistoricalsociety.ca/en/](http://www.ontariohistoricalsociety.ca/en/)

### **Members**

Faye Johnson, R.P.F.

Paul Kallioinen, R.P.F.

Bill Thornton

Mike Willick, R.P.F.

Dolf Wynia

## ***Contact Information***

Forest History Society of Ontario  
15 Maple Ave., Unit 103  
Barrie, ON L4N 2N6

416-646-1193 or 877-646-1193

**Website:** [www.ontarioforesthistorystory.ca](http://www.ontarioforesthistorystory.ca)

**Facebook:** [www.facebook.com/forest.history.society.of.ontario](https://www.facebook.com/forest.history.society.of.ontario)

**Twitter:** <https://twitter.com/FHSONtario>

**General Email Address:** [info@ontarioforesthistorystory.ca](mailto:info@ontarioforesthistorystory.ca)

**Journal Editor:** Caroline Mach, R.P.F. [carolinemach@hotmail.com](mailto:carolinemach@hotmail.com)

**Webmaster:** Amy Howitt

## ***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, websites or other items that would be suitable for inclusion in the newsletter? Do you have a comment about something you read in a previous issue? If so, contact Journal Editor, Caroline Mach, R.P.F., at [carolinemach@hotmail.com](mailto:carolinemach@hotmail.com).

## ***Copyright and Use Permissions***

It is the author's responsibility to ensure that copyright ownership is acknowledged and appropriate use permissions have been obtained and are acknowledged for all materials published in this document.

## ***Reprint Permission***

Requests to use material published in *Forestry* should be directed to the Editor at [carolinemach@hotmail.com](mailto:carolinemach@hotmail.com).

# Chair's Message

**By: Jim Farrell**

I am very pleased to welcome you to our *Forestry* Volume 12, Issue 2, the Fall 2021, edition. Since our last issue vaccine rollouts have accelerated dramatically, infection cases have dropped, kids are getting back to schools and travel has become less fraught. While measures remain in place, there seems to be a tentative but growing confidence to engage in behaviours we took for granted for so long. After many months of carefully monitoring domestic and international stats, requirements and forecasts, my wife and I took the plunge on a long overdue three-week trip to Austria to visit our daughter, her hubby and our grandkids. An excellent anti-COVID tonic.

Despite the limitations imposed by COVID the Board continues to focus on our three priorities: transition to a Working Board; increased membership and engagement; and re-vamping our internet presence. As a Working Board, Directors have taken on: Secretary; membership; outreach; and social media/communications roles. The Board is developing guidelines for recruitment including a matrix that identifies the key skills, competencies, experience, gender and lived experience to create a more diverse and representative Board that best serves our needs for the future. Our focus on membership continues to yield results with over 70 members at last count and we have started early planning for a more engaged program for members in 2022. We are also refining our 'legacy' fund, the Frank M MacDougal Fund, with plans to strengthen fundraising for this very effective investment mechanism.

After over 10 years of committed service as FHSO webmaster Sherry Hambly is taking some well-deserved time off and is replaced by Amy Howitt who has volunteered for this role. Welcome Amy. Our social media presence is also growing in quantity and quality of posts and number of followers and Faye Johnson, R.P.F. has our gratitude for all the work she has put into this endeavor.

While we continue to explore opportunities to strengthen the value of the Society, *Forestry* will continue to be the centerpiece of our engagement with members. I encourage all of us to contribute articles and stories for our Journal and post freely and often on our social media accounts.

## **Facebook**

<http://www.facebook.com/forest.history.society.of.ontario>

## **Twitter**

<https://twitter.com/FHSOntario>

## **Journal**

If you have articles, photographs, 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](mailto:carolinemach@hotmail.com). Deadlines are April 1 and October 1.

# The History of Roadside Tree Planting in Ontario

By: Terry Schwan, R.P.F.

## The Need to Beautify Old Ontario with Roadside Tree Planting

*"In journeying lately through many of the northern and southern States ... no contrast was more striking, none more pregnant with reflection than the difference between the deforested and the partially wooded farms on the route. Numbers of the former, numbers of the latter, were passed.*

*..., the roadside fence, the long side fences as well, east, west, and south faces, would have their row of closely growing trees a dense extended wall of fragrant cedar, or lightsome larch, or, it may be, a continuous line of clustering maple branch and stem, their multitudinous leaflets bright in the sun of early June.*

*Screened from the wind in some quiet corner, the branches of the orchard rose. However poor the mansion, backed by such surroundings, it looked respectable, the fields rich, the farmer opulent. The comments of the travelling passengers invariably took this direction. "How much better a farm looks for the trees!"... I'd give two thousand dollars more for this than one of those others, anyway. The man who owns a place like this is somebody. This is a residence, sir."<sup>1</sup>*

Driving through rural Ontario we often see rows of trees, mostly sugar maple, along roadsides. They are here and there and when you see a particularly spectacular one you are enthralled. That is what William Phipps described above, as he travelled through Ontario and North America.

The legislative history of roadside tree planting in Ontario goes back 150 years with the first Act passed in 1871. For some decades before, the clearing of the forest by the settlers was causing some concern in Old Ontario among progressive farmers and conservation minded men. These men worried about the loss of forests, of water in the soil, with the resultant drying of springs, soil erosion from the spring melt and from unobstructed winds, as well as the clearing of soils unsuitable for agriculture. Demands were made by a few lonely voices about the need to reforest and protect farm woodlots and to stop the clearing of more forests, especially on the headlands and higher slopes. And in fact, many of these forward-thinking farmers had done this and then later had seen the error of their ways. Probably the first group to sound the need for trees for protection and aesthetics was the Ontario Fruit Growers Association.<sup>2</sup>

Members of the Association recognized that tree replacement along roadsides was one of the solutions. Four years after Confederation, Ontario passed its first law to encourage roadside tree-planting: *'An Act to encourage the planting of trees upon the highways in this Province, and to give a right of property in such trees to the owners of the soil adjacent to such highways.'*<sup>3</sup>

In the preamble to the Act, the Province recognized it was expedient to encourage the planting of trees, shrubs and saplings upon highways, as well as provide protection, from injury and damage to those already growing there. The Act allowed trees, shrubs and saplings presently growing along the highway to be the property of the owner of the land adjacent to the highway. Landowners could plant trees bordering the highway as long as they were not a nuisance and every tree was deemed property of the owner. Municipalities could remove trees for highway improvements, and reimburse the owner. Any tree cut or injured had to be approved by municipal council. There was a fine not exceeding \$25.00 plus costs upon conviction for removing or injury to a tree or tying an animal to a

*(Continued on page 5)*

(Continued from page 4)

tree that caused injury to the tree. Half the fine went to the person laying the information and half to the municipality. The municipality could spend money to plant and preserve trees along a highway or grant money to persons or associations to do the same. A highway was defined as almost any public road, place or square.

Did the act succeed in its goal of having more trees planted? It is not clear if there was any promotional program similar to what will be described below. There is no record to any great degree of the number of trees planted. Certainly, some progressive farmers understood the ecological and aesthetic advantage of having trees planted along the highway, around their homestead and farm lane. Figure 1 illustrates an example of this from 1878. The Beldon Illustrated Atlas's for Ontario counties have many such illustrations.<sup>4</sup>

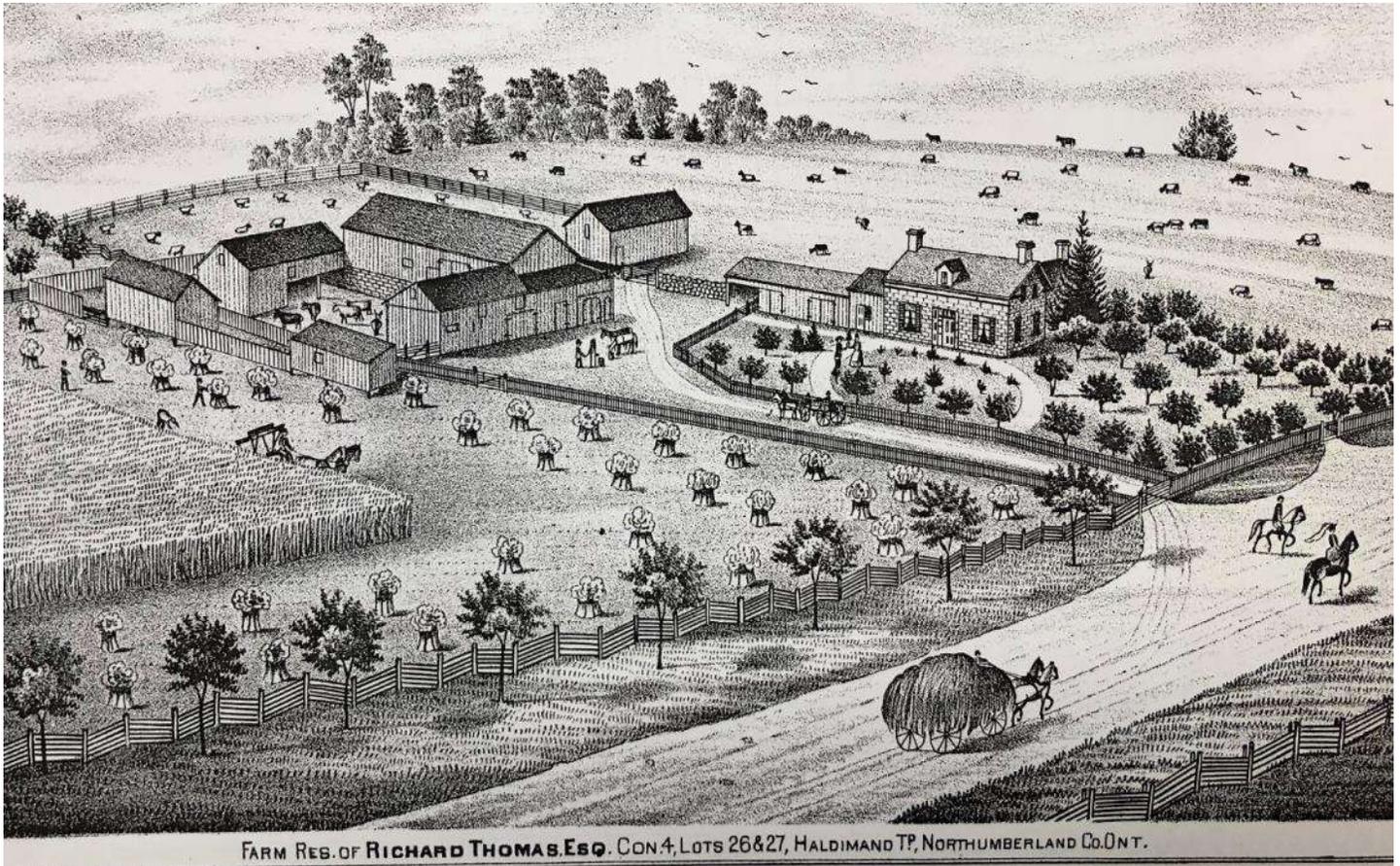


Figure 1. A fanciful drawing of Richard Thomas Farm showing roadside trees, homestead, orchard and fields.

### ***The Ontario Tree Planting Act of 1883***

Interest in forestry was growing through the 1870s. This whole growth of forestry in Ontario is well documented in *Renewing Nature's Wealth*<sup>5</sup>. The American Forestry Congresses in Cincinnati and in Montreal, in 1882, were a large impetus to move the fledgling forest movement forward. Over 100 speakers at the two conferences presented and discussed forestry across the range of topics. Following these Congresses, Ontario delegates made a number of recommendations on a number of forestry topics relating to Ontario. One of those in particular concerned roadside trees:

*That encouragement be given to farmers to plant and maintain shade trees along public*

(Continued on page 6)

(Continued from page 5)

*highways and the boundary lines of farms, by granting out of the Provincial treasury, a sum of ten or twelve cents for each tree so planted and maintained in a healthy and growing condition for a period of five years, provided the municipal council of the municipality in which they are growing shall have granted a like sum*<sup>6</sup>.

As a result, two important events happened in 1883. First, the Ontario legislature repealed the 1871 Act and passed a new Act entitled *An Act to encourage the Planting and Growing of Trees* or short title, *The Ontario Tree Planting Act, 1883*.<sup>7</sup>

How was the new Act different? The main difference, and the one expected to produce more interest in the 1883 Act, was that "any municipality may pass a by-law paying out of municipal funds a bonus or premium not exceeding twenty-five cents for each and every ash, basswood, beech, birch, butternut, cedar, cherry, chestnut, elm, hickory, maple, oak, pine, sassafras, spruce, walnut or whitewood tree" that was planted on any highway, boundary line or within six feet of such boundary. Municipalities paid this sum to the landowner and the Province reimbursed one half that amount to the municipality. It allowed any landowner, with the consent of an adjoining landowner to plant trees on the boundary of their farm, and that any tree planted on the property line was deemed common property of the two owners. General provisions for planting and ownership of highway trees remained the same. Prohibitions and penalties continued the same as the 1871 Act. The 'Ontario Tree Planting Fund' was established with \$50,000 apportioned<sup>8</sup>. The Act allowed municipalities to pass by-laws:

1. To regulate the planting of trees on public highways;
2. To prohibit the planting on the public highway of any species of trees which they may deem unsuited for that purpose; and
3. To provide for the removal of trees which may be planted on the public highway contrary to the provisions of any such by-law.

The municipal by-laws provided: for the appointment of an inspector of trees; for tree protection against injury or removal by anyone, except by resolution of council; for conditions on which bonuses may be paid; and generally, for regulations as authorized by the *Municipal Act*. The inspector was to report annually to council, the number of trees planted by species, the names of those who were entitled to the bonus and the amount. The inspector had to certify "that the distance between any one tree and the tree nearest thereto is not less than thirty feet, that the trees have been planted for a period of three years and that they are alive, healthy, and of good form and upon adoption of such report the bonuses or premiums shall be paid".

A key amendment to the Act was made the following year, 1884. The provision that allowed the landowner to own trees on the highway was repealed. The following substitute was made – "Every tree now growing on any Highway in this Province shall upon, from and after passing of this Act, be deemed to be the property of the municipality within which each highway is situate".<sup>9</sup>

The second event of 1883 was to appoint a Clerk of Forestry for the purpose of informing the public on forestry matters. This was Robert W. Phipps (quoted above) and until 1892 he was attached to the Department of Agriculture. Phipps was described as a short, stocky man full of energy and rapid movements.<sup>10</sup> He had no formal forestry training but a strong interest in farming and forestry. And he was a prolific writer. He travelled widely through Ontario, the United States and Europe to gather opinion and forestry articles to include in his reports. His annual forestry reports to the legislature were lengthy and covered the entire array of forestry topics and, of most interest here, promoted the planting of roadside trees. His first report on the Necessity of Preserving and Replanting Forests in 1883 had 8,000 copies given away in 1885.<sup>11</sup>

(Continued on page 7)

(Continued from page 6)

In his Forestry Report for 1884 Phipps recounted numerous farmers expounding on the need for trees following the earlier destruction.<sup>12</sup> Farmers themselves who cut down the forest and left little or nothing, now see that the landscape must have trees. Farmers talked about planting windbreaks and yard trees 20 and 30 years ago. Below are just two of dozens of accounts.

*Mr. Clark has planted many trees in this vicinity (Scarborough). He points out one row of maples by the roadside, only three years planted, a full mile in length: they are now twelve to fourteen feet in height and seem to be in every way successful. "Trees I plant", said Mr. Clark, "rarely fail to grow. My method is - in June to go to the bush, select such young trees as appear most fit for my purpose, and, with a sharp spade, cut a circle round the tree, about eight inches from the stem. I tie a string round the tree to know that its (sic) roots are cut, and mark a red chalk cross on the south side, to plant it as it stood. I then leave it till fall, when I take the waggon and go for my trees. By this time the summer's growth has started fresh roots inside the circle, and the young tree, properly lifted with a spade, will come up a mass of earth and roots which will cling together, and grow without fail. Some say, cut a rather larger circle when you take them up, to save the little roots that sprout at the ends. This is needless, for the original roots will die back an inch or two, and all new roots will grow inside that. Then, taking all the earth I can, and planting at once after digging, filling up with soft loam, not hard chunks, and mulching well afterwards, the trees will grow if mice and cattle can be kept away".*

*Not far off is a splendid row of young maples, planted by Mr. Macklin, Jr. These are set out but five years, and have made twice the growth of many for the time. They are twenty feet in height, nearly fifteen in spread, many six inches in stem and present a splendid appearance, extending the full length of the lot along both concession and sidelines, as well as forming a long double avenue from the road to the house. His success was attributed to mulching an area six feet in diameter with pea straw and stones - the stone to keep the cattle away.*

*Along the road in front of Mr. Gould's house (near Oshawa) is nearly a mile of roadside maples twenty feet apart doing excellently well. Between one and two hundred of these were planted seventeen, the rest thirteen years ago. Of these one hundreds, not one has missed to grow and flourish.*

Phipps wrote of numerous accounts of farmers' techniques of selecting trees, preparation for transplanting, then transplanting, spacing, mulching and fertilizing. But there were failures too, from wind, drought, mice, trampling by cattle. Many farmers noted that survival was much better with mulch and manure.

R. W. Phipps continued promoting and reporting until 1892. He died in 1894 at age 59 and the province lost its greatest promoter of replanting trees and forests.<sup>13</sup> In his job, Phipps was tireless and dedicated to advancing the cause of tree planting in Ontario.

## **Changing Regimes and *The Ontario Tree Planting Act of 1896***

Following the death of Phipps in early 1894 the Clerk position was filled for three months by the Hon. C. F. Fraser. Unfortunately, he died after three months in office. The position remained unfilled until Thomas Southworth was appointed as Clerk of Bureau of Forestry in 1895. The position was moved to the Crown Lands Department from Agriculture.<sup>14</sup> One of Southworth's first duties was to

(Continued on page 8)

(Continued from page 7)

review and provide a detailed analysis of the effectiveness of the 1883 Act. The Act had been in full operation from 1886 to 1894. (Three years were required to pass before any payment of bonuses.) Southworth had sent letters to 433 townships and 228 other municipalities to gather information with regard to tree planting. A large proportion did not reply and many could not provide accurate information. Only 49 municipalities, including 42 townships, had taken advantage of the program. During that time \$4,808.78 was paid out, less than 10 percent of the original \$50,000 allocated for the Ontario Tree Planting Fund.<sup>15</sup>

As well, 17 townships, and 21 cities, towns and villages had adopted a by-law but no claims for bonuses had been forwarded. Southworth reported, however, a "good deal" of planting had been done in these municipalities. Based on these reports, he estimated about 75,000 trees had been planted as a result of the Act. He compared this to the state of Kansas where about a million and a half trees were planted annually.

Southworth asked municipalities to describe their satisfaction with the system and if they would continue to make use of the Act. Thirty-eight of townships responded. Eleven had repealed their by-law. Some stated the Act was unpopular, ten were indifferent and not likely to continue and nine were satisfied and anticipated further claims under it.

Southworth identified a number of reasons why the Act was not generally adopted and why it failed to work to the satisfaction of the municipalities. Reasons were many and various and with many similarities to today's attitudes. They included:

- The delay of three years which must elapse between planting and the receipt of the government bonus;
- Objections on the part of those who do not propose to take advantage of the Act, to the outlay of public money in what they regard as a private benefit;
- The discouragements sustained by many who have planted trees on the highway from the destruction by cattle and the want of adequate protection;
- The desire of many landowners to retain full control of the trees planted by them, with power to cut them down as they see fit, which they would lose by accepting the bonus;
- The preference among many who set out trees, for location, modes of planting, etc., not in accordance with the Act;
- Lack of information in many cases as to the details or even the existence of the Act;
- The extent of roadside planting carried on irrespective of legislation, which in many localities renders the Act superfluous, and
- Objections to roadside trees, more especially in localities where the roads are narrow and the soil heavy, on the grounds that their shade keeps the road wet and injures the crops.

Southworth concluded the objections as indicative of public opinion. He stated the 1883 Act had 'fallen far short of realizing the expectations entertained at its adoption'. He further recommended that the Province repeal the section that paid one-half the bonus.

In 1896, another Act was passed named *An Act revising and consolidating the Acts to Encourage the Planting and Growing of Trees*, or in short, *The Ontario Tree Planting Act, 1896*. Southworth's recommendations were included (he may have drafted the text), based on his analysis of why the 1883 Act was not widely accepted.<sup>16</sup>

The 1896 Act allowed the landowner to have ownership of planted roadside trees. Recall that the previous acts also allowed landowners ownership of trees but the 1883 Act was amended a year later to have municipalities own the trees. But more importantly, the new Act determined that all roadside trees Province-wide (not only trees planted under the legislation) be owned by the landowner. In

(Continued on page 9)

(Continued from page 8)

other changes, the province removed the clause paying municipalities one half of the bonus; municipalities had the right of refund for bonuses paid under the former Act; municipalities no longer had to report to the Province; and they were not required to pay bonuses where trees were planted less than 15 feet apart. Otherwise, many provisions were repeated word-for-word from the earlier Act. Penalties for injuring planted trees continued as before. The Act allowed municipalities to pass by-laws similar to the 1883 Act including allowing them to pay out bonuses not more than 25 cents.

The program carried on to 1901 with retroactive payments, although in decreasing numbers with none in 1897. There were 43,858 trees planted in 51 townships in 23 counties under the Program. As indicated in Table 1, \$5,482.22 was reimbursed to the municipalities for one half of the value of trees planted<sup>17</sup>.

Pilkington in Wellington County (now one half of Centre Wellington) was the single largest municipal subscriber with 3,620 trees reimbursed. Pilkington passed a by-law in December 1884 and appointed the township clerk, Robert Cromar, as "inspector of tree planting" at the rate of two dollars per day while employed.<sup>18</sup> The most subscribers by county were in Lincoln County (see note in Table 1) with 6,653 trees, followed by Oxford, Ontario (now Durham Region) and Brant. Every county in southwestern and central Ontario had at least one municipality involved in the program. In eastern Ontario, only Oxford Township in Grenville and Kingston participated, and only to a small degree.

**Table 1. Top 17 municipalities with more than 1,000 subsidized trees.**

<b>Municipality</b>	<b>County</b>	<b>Payment by Province (\$)</b>	<b>Number of Trees*</b>
Pilkington	Wellington	452.48	3620
Pickering	Ontario**	444.73	3558
Chinguacousy	Peel	379.90	3039
Thorold, Town	Welland***	332.87	2663
Zorra, East	Oxford	243.60	1949
Niagara	Lincoln****	223.62	1789
Hope	Northumberland	210.75	1686
Dereham	Oxford	196.11	1569
Gainsboro	Lincoln****	174.49	1396
Brantford	Brant	173.59	1389
Burford	Brant	169.61	1357
Louth	Lincoln****	162.24	1298
Oakland	Brant	146.00	1168
Grantham	Lincoln****	144.73	1158
King	York	140.37	1123
Warwick	Lambton	133.98	1072
Whitby	Ontario**	128.99	1032
34 others	13 others	1624.00	12994
<b>Total</b>		<b>5482.00</b>	<b>43858</b>

\*Number of trees is calculated based on Payment by Province divided by 12.5 cents.

\*\*Ontario County (now Durham Region)

\*\*\*Welland County is now part of Niagara Region

\*\*\*\*Lincoln County (now Grimsby, Lincoln, West Lincoln, St. Catharines and Niagara-on-the-Lake)

(Continued on page 10)

(Continued from page 9)

Southworth also surveyed those municipalities where tree planting had occurred independent of the Provincial inducements, whether "trees been planted along highways, ... and with what success", and "what species flourished best..."<sup>19</sup>. He found that planting of forest trees along highways and on farm boundaries "has been undertaken to a fair or considerable extent in 152 townships, and to a small extent in 73 others. Fifty-four other municipalities reported no planting of that kind had been done. Some of this is due to newly settled areas or areas with heavy natural growth of trees along roadsides. He found planting failures amounted to a small percentage and usually due to drought in the season of planting. Most municipalities were satisfied with the result of tree planting. There were some concerns that crops would not grow under the shade of mature trees. In the large majority of cases, maple was the most popular species, and soft maple was slightly more popular than hard maple. Elm was also used. Spruce, then cedar were the popular evergreens.

The countryside was changing. Southworth, in his 1898 report, stated "The appeals made to farmers... has not been unheeded. Though but few plantations of any size have been laid out, yet, in innumerable instances windbreaks and lines of forest trees along roads and fences are seen.... The traveller... can hardly fail to note the pleasing effects of extensive farm and roadside planting in restoring something of the charm of a well wooded country".<sup>20</sup>

In 1904, the first nursery was established at the Ontario Agriculture College in Guelph under the supervision of E. J. Zavitz, newly hired by the Department of Agriculture. Its expressed object was to provide planting stock to farmers interested in improving their woodlands.<sup>21</sup> In the same document Judson Clark, the newly appointed Provincial Forester, noted the "unprecedented" demand for suitable trees for planting. He stated that due to this demand "exorbitant prices" were asked for planting stock by the few nurseries able to supply seedlings - for white pine \$15 to \$45 per thousand for three year-once-transplanted stock - that he calculated could be produced on a large scale for \$3 per thousand. Nurseries at the time produced stock that sold in the dozens or hundreds rather than in the thousands. He wrote a long essay on "The propagation of trees by farmers". He described the process from collecting, care and planting of tree seed, and the transplanting and after care of small quantities for farm purposes. Clark provided special guidelines for shade trees similar to what had been described earlier.<sup>22</sup>

However, it was always noted that trees from the Forestry Department were to be used for forest plantations on waste lands or poor agriculture land and not for roadside or ornamental plantings. As well, Norway spruce for hedges or windbreaks was not supplied by the Department.<sup>23</sup>

In 1913, *An Act to encourage the Planting and Growing of Trees* and its short title *The Tree Planting Act* was passed. It was more of a housekeeping Act with basically the same language as the 1896 Act but modernized to reflect other new legislation<sup>24</sup>. However, in 1927 the Act was rewritten under the same title with two clauses to include only boundary trees and the penalty for damaging them<sup>25</sup>.

Sadly, many roadside trees have been lost to reasons other than age. Modernization of roads has taken its toll. Roads have been widened from one chain (about 20 metres), ditching built, and hydro infrastructure has deformed the shape of trees.

While *The Ontario Tree Planting Act of 1883* may not have had the initial desired success, it, and with it, the promotion by Phipps, started a successful progression and demand for trees on the destroyed, once treeless, landscape in southern Ontario. The majority of the trees that were planted through the *Ontario Tree Planting Act*, and subsequent programs, were probably locally sourced native trees and therefore well adapted to the conditions at the time and may be the reason for high survival rates.

(Continued on page 11)

Government and municipal incentives for planting trees continue on to the present. While there is no similar focused program that is funded by the provincial government for roadside planting in Ontario today, some municipalities have rejuvenated roadside planting programs. The Ministry of Transportation plants roadside trees.

As described by Phipps in the opening paragraph roadside trees contribute to the beauty of the landscape and have become part of our cultural and natural heritage.

*Terry Schwan, R.P.F. Terry is a semi-retired forest consultant. Born in Hanover, he served as District Forester in Guelph for the Ministry of Natural Resources for 17 years. One of his current projects involves researching and delivering forest history tours.*

*This paper was commissioned by Maple Leaves Forever and appears on their website ([www.mapleleavesforever.ca](http://www.mapleleavesforever.ca)).*

## Endnotes

<sup>1</sup>Ontario. Forestry Report 1884. R. W. Phipps. Sessional Paper #4 of the Ontario Legislature. 1885. p. 5 <https://archive.org/details/n01ontariosession17ontauoft/page/n555/mode/2up>

<sup>2</sup>Coons, C. F. Reforestation of private lands in Ontario. Forestry Research Group, Armson Private Land Forestry Review. 1981. p5

<sup>3</sup>Statutes of Ontario. VIC 34. CAP 31 *An Act to encourage the planting of trees... adjacent to such highways.*1871.<https://babel.hathitrust.org/cgi/pt?id=mdp.35112204260568&view=2up&seq=94&q1=trees>

<sup>4</sup>H. Beldon & Co. 2001 Edition of Illustrated Historic Atlas of the Counties of Northumberland and Durham Ont. Toronto 1878.

<sup>5</sup>[Lambert, R. S., \*Renewing Nature's Wealth\*. Ontario Department of Lands and Forests. 1967.](#)

<sup>6</sup>Beadle, D. W. et al. Report of Committee appointed to attend the American Forestry Congress at Cincinnati, Ohio. Appendix to Sessional Paper No. 3. p 139. Authors were D. W. Beadle, Secretary and Treasurer of the Ontario Fruit Growers Association, Wm. Saunders, future first Director of the Dominion Experimental Farm, Prof. Wm. Brown Founder of Ontario Agricultural College, P. C. Dempsey and Thos. Beall.

<sup>7</sup>Statutes of Ontario. VIC 46. Chap. 26. *An Act to encourage the planting and growing of trees.* 1883. <https://babel.hathitrust.org/cgi/pt?id=mdp.35112204263950&view=2up&seq=384&q1=trees>

<sup>8</sup>*Ibid.*

<sup>9</sup>Statutes of Ontario. VIC 47. Chap. 36. *An Act to Amend "The Ontario Tree Planting Act. 1883".* 1884. <https://babel.hathitrust.org/cgi/pt?id=mdp.35112204261061&view=2up&seq=129&q1=trees>

<sup>10</sup>Lambert, R. S., *Renewing Nature's Wealth*. Ontario Department of Lands and Forests. 1967.

<sup>11</sup>*Ibid.*

<sup>12</sup>Ontario. Forestry Report 1884. Sessional Paper #4 of the Ontario Legislature. 1885. P. 35-36 <https://archive.org/details/n01ontariosession17ontauoft/page/n555/mode/2up>

<sup>13</sup>LATE R. W. PHIPPS: Death of a Man Who Played an Active Part in More Than One Role in Life The Globe (1844-1936); Mar 20, 1894; ProQuest Historical Newspapers: The Globe and Mail pg. 8

<sup>14</sup>Lambert, R. S., *Renewing Nature's Wealth*. Ontario Department of Lands and Forests. 1967.

<sup>15</sup>Ontario. Report of the Clerk of Forestry 1896. Sessional Paper No. 40. 1896. <https://archive.org/details/n07ontariosession28ontauoft/page/n729/mode/2up>

<sup>16</sup>Statutes of Ontario. VIC 59. Chap. 60. *The Ontario Tree Planting Act.* 1896.1896. <https://babel.hathitrust.org/cgi/pt?id=mdp.35112204260626&view=2up&seq=227&q1=tree>

(Continued on page 12)

***(Continued from page 11)***

<sup>17</sup>Public Accounts were referenced from the years 1885 to 1901 inclusively to complete Table 1.

<sup>18</sup>Pilkington Twp. By-laws 1867-1897, 1971. County of Wellington Archives. Microfilm A1982.73.

<sup>19</sup>Ontario. Report of the Clerk of Forestry 1896. Sessional Paper No. 40. 1896. <https://archive.org/details/n07ontariosession28ontauoft/page/n729/mode/2up>

<sup>20</sup>Ontario. Report of the Clerk of Forestry 1898. Sessional Paper No. 34. 1898. p. 2. <https://archive.org/details/n08ontariosession30ontauoft/page/n395/mode/2up>

<sup>21</sup>Ontario. Annual Report of Bureau of Forestry. 1904. Sessional Paper 4 1904. p. 7. <https://archive.org/details/n01ontariosession37ontauoft/page/n705/mode/2up>

<sup>22</sup>*ibid.* p. 55-56.

<sup>23</sup>Ontario. Report of the Minister of Lands, Forests and Mines for 1913. Circular #8. 1914. p 96.

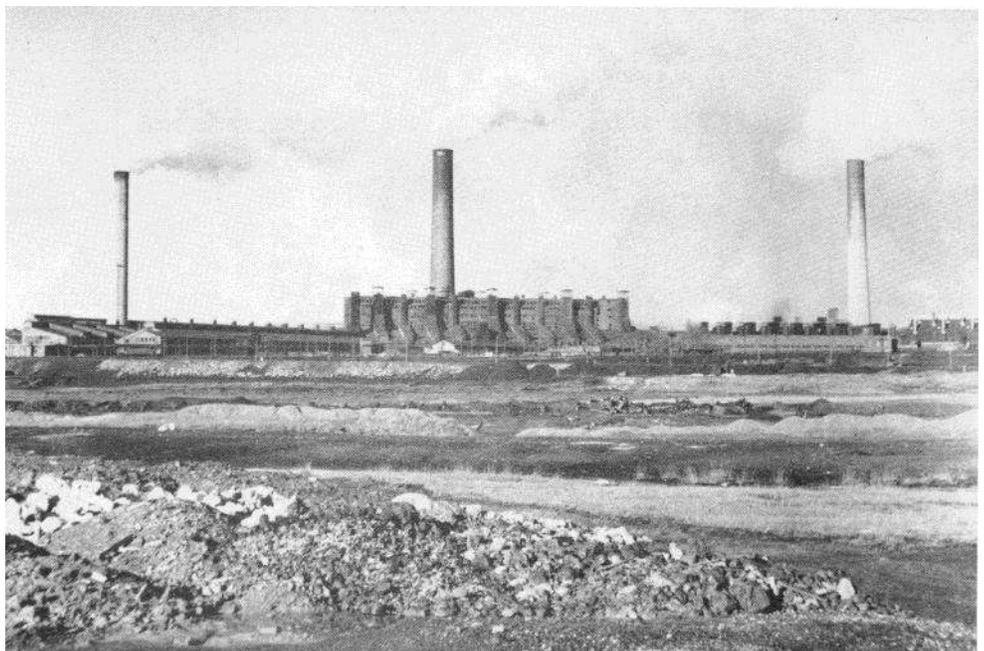
<sup>24</sup>Revised Statutes of Ontario. Chap. 213. *An Act to encourage the Planting and Growing of Trees.* 1914 <https://archive.org/details/v2revisedstatute1914ontauoft/page/2842/mode/2up>  
<https://babel.hathitrust.org/cgi/pt?id=coo.31924016981304&view=2up&seq=1008&size=125>

<sup>25</sup>Revised Statutes of Ontario. *An Act to encourage the Planting and Growing of Trees.* 1927 <https://archive.org/details/v3revisedstat1927ontauoft/page/3284/mode/2up>

# Early Monitoring of Mining Industry Impacts to Forests Around Sudbury

By: W.D. McIlveen

The mineral ore deposits at Sudbury were first discovered in 1883 despite indications of ore in the area as early as 1856. As soon as the mining industry commenced operations around Sudbury, environmental impacts were visible. The mines themselves had minor environmental impact but when the roastyards began to operate as very primitive forms of smelting, the well-known impacts around Sudbury caused by sulphur dioxide began. The first roastyards were constructed in 1888 and these were followed by several others in the next decade. The impacts of the sulphur smoke around Copper Cliff began at the earliest date. The damage around Coniston did not start until 1913 when the roastyards and smelter were relocated there from Victoria Mine. Over time, the operations generally grew ever larger leading to even greater and more widespread damage. With the larger operations, taller smokestacks were needed to disperse the smoke further away from the workers and local inhabitants (Figure 1).



**Figure 1. Smokestacks at Copper Cliff, 1958. From Linzon report.**

At the time that the mining operations began, the Sudbury area was still almost entirely virgin forest. Shortly thereafter, in addition to the development of the mining operations, there was also a start in agriculture on farms under the Free Grants Act of 1906. The early crops

were soon damaged by the toxic sulphur fumes. Naturally, this led to inevitable conflicts between mining interests and farming interests. Some action to deal with these disputes was undertaken but that topic, despite being interesting all on its own, falls beyond the scope of the present report. Surveys of damage to crops and forests were conducted by the Ontario Agricultural College and the Canada Department of Forestry beginning as early as 1938.

While the various survey teams could report reasonably accurately on the visible damage to the various types of vegetation, they generally lacked a means of measuring the air quality that was being blamed as the cause of the damage. It was largely due to the scientific investigations being undertaken at Trail, B.C. that suitable equipment became available [Anonymous]. The smelter at Trail had the distinction of being a significant source of sulphur dioxide that damaged vegetation. Its particular situation led the sulphur fumes to follow the Columbia River valley south into the United States. The international ramification of that air pollution was greatly significant. Although there are still many ongoing concerns of an international and environmental nature, the case did a great deal to explain the effects of sulphur dioxide on vegetation and to introduce a new ambient air quality

*(Continued on page 14)*

(Continued from page 13)

monitor. That monitor known as the Thomas Autometer is highly primitive by current standards (Figure 2).

Although methods had been in place to assess the impacts of the sulphur fumes on vegetation under various Government of Ontario legislation for about two decades, the impacts of the fumes became evermore severe. Possibly the situation at Trail had also spurred additional alarm but the health of the forests surrounding Sudbury became an increasingly important concern. Efforts to act on this problem were delayed because of the great need for nickel and other metals during the years of World War II. Despite this, some efforts to evaluate forest damage were initiated by the Special Sulphur Dioxide Committee organized by the Ontario Department of Lands and Forests and carried out by the Ontario Agricultural College and the Canada Department of Forestry. At first, there was no air quality data to back up the assessed vegetation damage and there were no air quality monitors in Ontario to measure the amounts of sulphur dioxide in the air.

In the absence of equipment to measure air quality, the Sulphur Dioxide Committee did what it could. In the first year which was 1944, they called on assistance from the rangers who were operating the fire towers around the province. The network of towers in Ontario was rather extensive as the map indicates (Figure 3).

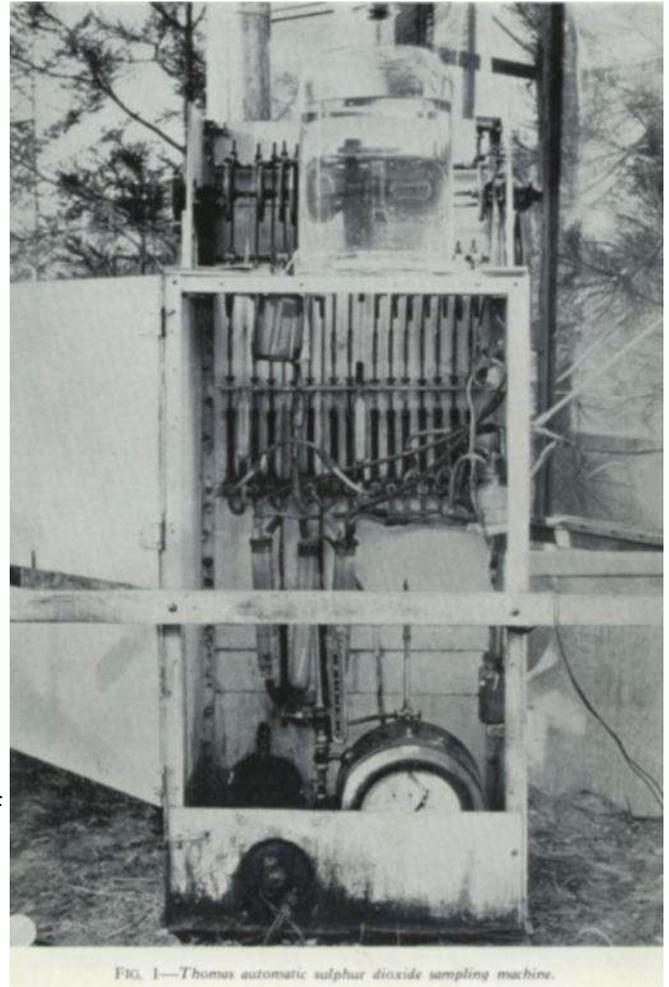


Figure 2. Thomas Autometer, Trail Report, 1939

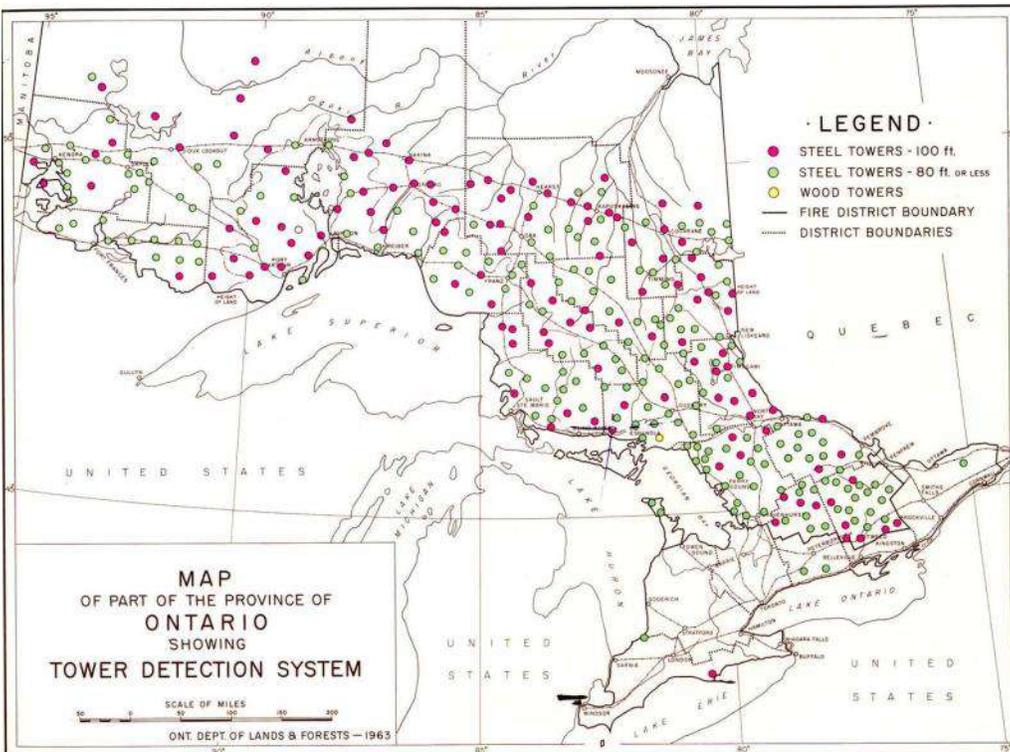


Figure 3. Locations of Fire Towers in Ontario, 1963

Between the 1920s and 1962, the number of fire observations towers increased to 317. It is uncertain how many towers were called upon to report but the rangers were asked to note when they could smell sulphur dioxide in the air. Thus, the human nose was used as the first network of sulphur dioxide detectors in Ontario.

In 1945, the network of fire tower rangers was called upon once more to assist in the monitoring. This time though, the monitoring was much less subjective. At least some towers were supplied with a very simple device referred to as a 'bubbler'. The bubbler was a

(Continued on page 15)

*(Continued from page 14)*

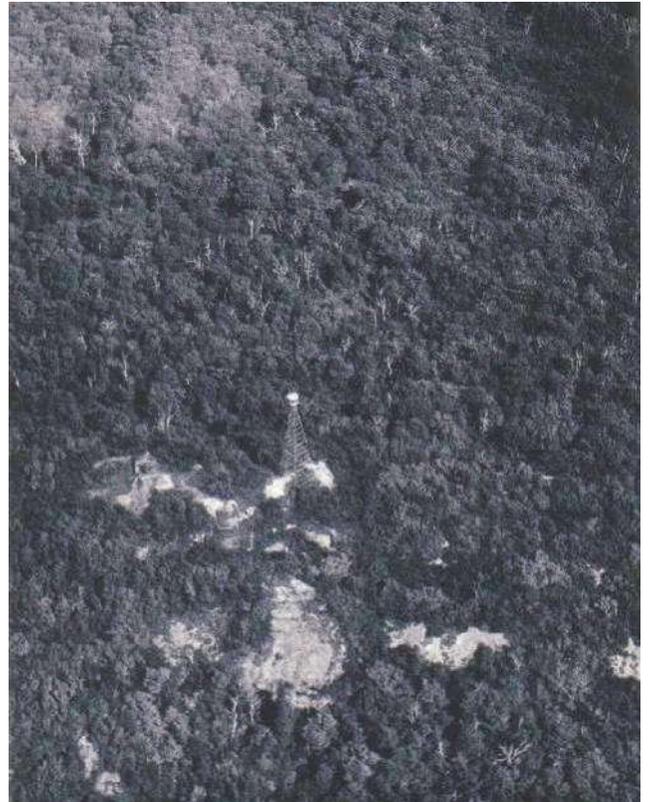
small glass vessel containing a special solution. It was arranged in such a way that when a ranger detected sulphur fumes, all he had to do was empty a pail of water. That pail was arranged in such a manner that the volume of water poured out displaced an equivalent volume of air which was drawn through the bubbler. If there was sulphur dioxide in the air, it reacted with the solution in such a manner that the change in the chemistry (i.e., change in pH) could be used to calculate the concentration of sulphur dioxide that passed through it. This system represented the first network of air quality monitors in Ontario directly measuring the sulphur dioxide concentration in the air. Logistics dictated that any sample solutions from the bubblers would take some time to be transported from the tower sites to a laboratory capable of the analysis. Such samples may not have been delivered unless a visitor came to the tower or possibly at the end of the season when the ranger could leave his observation post.

It is uncertain how many fire towers were supplied with the bubbler devices. The data may exist in reports to the Special Sulphur Dioxide Committee and such reports likely reside in the Archives of Ontario. Those towers that were supplied with such equipment or that were likely to have reported the odor of sulphur dioxide are those that were closest to Sudbury or downwind from the smelter stacks that existed at the time. It should be understood that, at the time, the sulphur fumes were being released from three separate smelter operations, namely Copper Cliff, Coniston and Falconbridge. As well, the older smoke stacks were about 500 feet tall in contrast to the iconic 1250-foot superstack that was not built at Copper Cliff until 1970. The much taller stack could disperse the smoke over a much greater distance.

Two of the fire towers that most-likely reported positive test results were those at Chiniguchi (Figure 4) and Kukagami (Figure 5) as these sites are located to the northeast of the Sudbury smelters. Under the right conditions, the sulphur dioxide plume could reach as far as Lake Temagami but this was more probable after the taller Sudbury superstack was brought into operation. Nearly all of the fire towers that once existed have disappeared from the landscape. If weather and time did not cause their demise, they were dismantled due to safety considerations. A few towers such as the ones at Parry Sound, at Dorset, and on Caribou Mountain near Temagami have been revamped as tourist attractions.

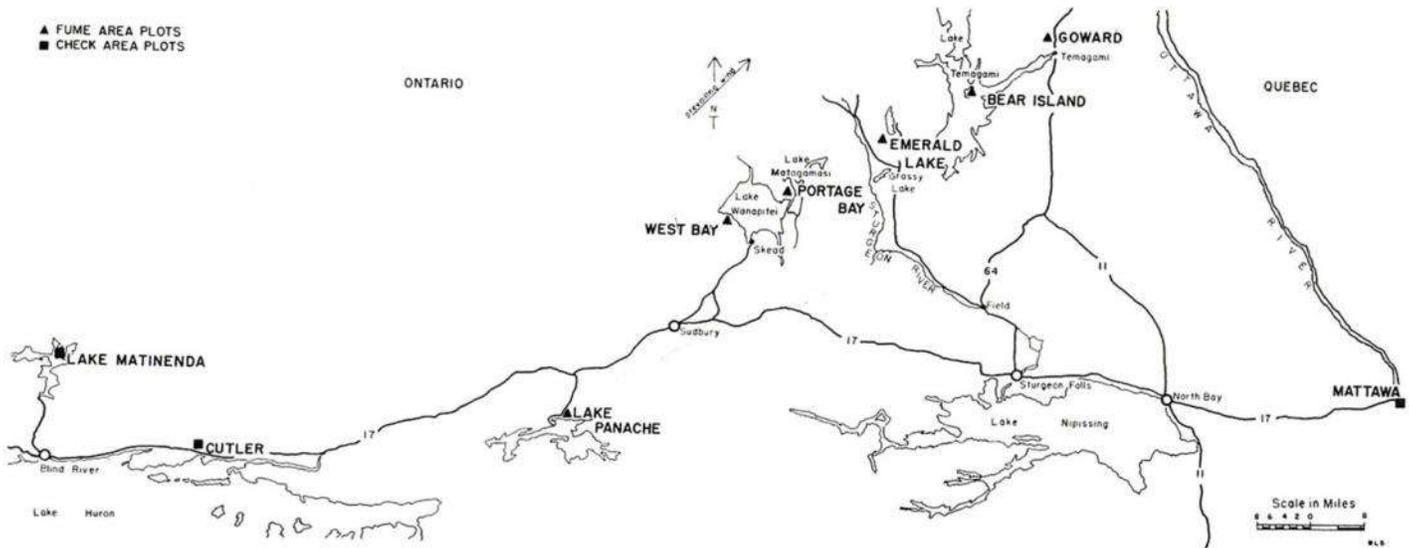


**Figure 4. Former fire observation tower at Chiniguchi Lake northeast of Sudbury.**



**Figure 5. Former fire observation tower at Kukagami Lake, northeast of Sudbury.**

*(Continued on page 16)*



**Figure 6. Locations of forest monitoring plots established by S.N. Linzon, 1949.**

*(Continued from page 15)*

The full history of the air quality monitoring around Sudbury is extensive and most of that story postdates the period of concern for this report. A few parts of that history are still worthy of mention. Studies of the impacts of the smelter fumes were undertaken in 1949 by Dr. Samuel Linzon under the auspices of the Ontario Department of Lands and Forests and Ontario Department of Mines [Linzon]. He set up a network of 43 forest plots both upwind and downwind of Sudbury at nine locations (Figure 6). The plots covered one acre and all trees were monitored until at least 1954. In total, nearly 16,000 trees were monitored, of which 43% were white pine, an important species that is particularly sensitive to sulphur dioxide. Detailed records were made of the trees including various health parameters, tree growth and the presence of symptoms of sulphur dioxide injury (Figure 7). Within that study period, direct air quality monitoring for sulphur dioxide was first introduced at only two selected sites, namely Skead and Grassy Lake.



**Figure 7. Sulphur dioxide injury to white pine northwest of Copper Cliff 1968. Photo by Linzon.**

After this, a small network of air monitoring stations was set up around Sudbury. The network consisted of Thomas Autometers that were in operation from 1954 to 1968 and field observations were made to assess injury to nearby sensitive vegetation species. Based on this, Dreisinger [1970] was able to develop the concept of a Potentially Injurious Fumigation (PIF). His work was instrumental in establishing air quality standards that can protect vegetation against sulphur dioxide across Ontario.

In conjunction with the first attempts to assess the air quality as it was influenced by the Sudbury operations, the Special Sulphur Dioxide Committee wished to know the sulphur content of impacted

*(Continued on page 17)*

*(Continued from page 16)*

vegetation. In 1944, an extensive project to sample foliage of trembling aspen, paper birch, and white pine was undertaken. Sampled sites extended as far as 100 miles to the east, west and as far south as Northumberland. Some of the sites appeared to be associated with the then existing roads but others appeared to have been done near railroad stops. The unpublished analytical results were eventually placed in the Province of Ontario Archives. In 1989, a follow-up sample survey was undertaken at many of the 1944 sites. Species, locations, and sample month and day were matched as closely as possible to the original survey. The laboratory analytical procedures for sulphur in foliage had changed in the 45 years between sampling dates but hopefully those did not affect the results too greatly. There had been some indication that the samples collected in 1944 showed higher sulphur content at sites closer to Sudbury. By comparison, the later samples were generally similar across the province indicating that at least the local sources of sulphur at Sudbury were not great enough to change the foliar chemistry with respect to sulphur in more recent times [McIlveen].

It should be no surprise to anyone that over time the methods for monitoring many forms of air pollution across the province have vastly improved. From the first network employing the human nose, the monitoring has gone through several types of wet chemistry monitors to pulsed UV light analysers. The monitoring has gone from seasonal monitoring recorded on paper charts to continuous monitoring where the data are transmitted by telemetry to a central station. Also gone are the chances that forest trees and other vegetation might be damaged by recurring fumigations of sulphur dioxide. Such chances will never be zero due to upset conditions like accidents or fires but acute injury to vegetation of a more chronic nature is really a thing of the past.

## **Literature Cited**

**Anonymous.** 1938. Effects of Sulphur Dioxide on Vegetation. N.R.C. Report No, 815. Report prepared for the Associate Committee on Trail Smelter Smoke of the National Research Council of Canada, Ottawa. 447 pp.

**Dreisinger, B.R.,** and **P.C. McGovern.** 1970. Monitoring Atmospheric Sulphur Dioxide and Correlating its Effects on Crops and Forests in the Sudbury Area. Proceedings of Conference on Impact of Air Pollution on Vegetation, Toronto, Ontario.

**Linzon, S.N.** 1958. The influence of smelter fumes on the growth of white pine in the Sudbury region. Published jointly by [Ontario Department of Lands and Forests, Ontario Department of Mines](#) 5 - 45p.

**McIlveen, W.D.** 1998. Changes in foliar sulphur of tree trees in the Sudbury area, 1944 to 1989. Report No. SDB-006-3511-1998. Standards Development Branch, Ontario Ministry of the Environment.



# ***Deforestation and Denial of Native Political Rights***

**By: John Bacher**

The problem of deforestation and the denial of Native political rights from 1857 to 1960 were inextricably entwined. This was a dark period of Canadian history that was sparked by the effectiveness of Native political leaders in using the legal tools available to them to defend predominately forested ecosystems that were under their control.

In both Upper and Lower Canada there were no restrictions on Native political rights when the first elected assemblies were established following their creation through British legislation in 1793. Under the laws which were established for these colonies, and the successor Province of Canada established in 1840, there was one Native band member, John Brant, who was elected to a legislature.

Two Native Canadians were important figures in the colonial public service, working in senior positions for the Indian Department. One was John Brant, who served as Superintendent of the Six Nations. George Martin served as a "Confidential Interpreter." [1]

Before the conclusion of the War of 1812 in Upper and Lower Canada conflicts over loss of forest cover were not present, as even in fertile agricultural areas most of the landscape remained in woodlands. Although much of Lower Canada had been earlier deforested in colonial New France, substantial forested areas remained. The best example is the Oka region which, following the removal of Native political rights in 1959, became a lightning rod for conflict over forest cover which endures today. [2]

In both the Canadas Natives played an important role in repelling American invasion, having militia units under the command of their own officers. One such officer John Smoke Johnson, played a major role in the destruction of the strategically important American city of Buffalo, New York. Martin played an important role in Upper Canada in aligning with officials in the Indian Department who sought to protect Native communities from the intrigues of land speculators. [3]

Conflict over Native communities' efforts to protect forest cover was critical to the emergence of political debate between Native communities and other residents of the Canadian colonies. This resulted in the political battles around the first Native Canadian holding band status to be elected to a colonial legislature in British North America. This was achieved in 1831 by John Brant, who was seated in January of that year as the member of the legislature from the Riding of Haldimand. At the time he was also a condoled Mohawk Confederacy Chief of the Turtle Clan.

What propelled Brant to seek and win election to the Upper Canadian Assembly was conflict with canal schemes that flooded predominately forested Haudenosaunee lands along the Grand River. The canal's flooding also disrupted Mohawk day schools that he had established. The project, a creation of the Grand River Navigation Company, in whose stock Confederacy funds were invested without their consent, also served to facilitate the plunder of Native lands for illegal logging. After the Grand River valley was stripped of most of its forest cover, shipping on the canal collapsed and the company became bankrupt. The Trust funds of the Haudenosaunee were considerably depleted.

Following Brant's election to the Upper Canadian Assembly an intense battle in the courts erupted. The courts overturned his election based on the procedures of the day where electors were recorded before the secret ballot. While some of Brant's votes were upheld based on property owning outside

*(Continued on page 20)*

(Continued from page 19)

of Grand River land, those within the Haldimand tract that remained in Native tenure were rejected. The court then rewarded the seat to his opponent, John Warren, a supporter of the Grand River canal schemes that Brant opposed. After both Warren and Brant died in a cholera epidemic, the leading champion of the Grand River Navigation Company, William Hamilton Merritt, became the member for Haldimand in a by-election. [4]

Battles over Native political rights and forest cover also intensified from the tactics used by the Lieutenant-Governor of Upper Canada, Francis Bond Head, to secure victory in the assembly general elections of 1837. Prior to the elections Bond Head pressured Native communities to make massive land cessations. This prompted a trip to Great Britain by the Reverend Peter Jones, an Ojibway leader. In England, Jones' influence over the British cabinet, and good impression on Queen Victoria, caused Bond Head to be recalled. Jones' power came from his ability to draw crowds of several thousand supporters in British churches. [5]

After Bond Head's recall he was replaced by Sir George Arthur. The new Lieutenant-Governor was given detailed instructions by the Colonial Secretary to address Jones' concerns about alienation of Native land. The result was the Crown Lands Protection Act of 1839. This was one of the last laws passed in Upper Canada. For the first time this defined Indian lands as Crown Lands to be protected from encroaching white squatters. Jones continued to be politically active and effective in a time when Native people retained political rights. The result of his lobbying was the *Indian Act* of 1850 of the Province of Canada. It defined Indian status and had enhanced protections for reservation lands from trespass. [6]

In 1848 Jones spearheaded the establishment of the New Credit Reservation through lands donated from the Haudenosaunee from their contiguous Grand River reservation. Jones, a cabinet maker and wood carver, believed in the careful sustainable use of the reservation woodlands for finished products as the basis for the prosperity of Native communities. He was also outraged at the increased Ojibway deaths from alcohol gained from shady deals for timber. His opposition to such exploitation was shared by a close friend, the Mohawk Confederacy Chief, George Johnson. The two developed a permit system to protect reservation forests administered by wardens and assistants paid by seized illegally harvested timber. [7]

Jones' death in 1856 triggered an assault on Native political rights by the Parliament of the Province of Canada. While he had helped train some remarkable Native political leaders, such as his three sons, all of whom became successful educated professionals, and Johnson, none of those who succeeded him had the ability to arouse through personal speaking tours, public opinion in Great Britain. His absence encouraged amendments to the *Indian Act* which were passed in 1857 when the Parliament of Canada was meeting in Quebec City. [8]

Unlike the earlier 1839 and 1850 Indian legislation, which had been passed through Jones' effective lobbying efforts, the 1857 legislation came from entirely different sources. One of the legislators who supported the amendments was William Hamilton Merritt. He had earlier clashed with John Brant and was involved in the judicial machinations which removed him from the Upper Canadian legislative assembly. [9]

The amendments stripped status band members of their ability to vote and seek elected office. Band members who became under the act enfranchised, lost their band membership. They were rewarded by land in freehold tenure and cash from band funds. The act turned Indian reservations into slums. The educated and wealthy were encouraged to leave. Such trends were encouraged through an amendment in 1896 which provided for compulsory enfranchisement of those with university degrees and related professions. In the 1920s these provisions were harshly enforced and around 5,000 band members lost their band status as a result. [10]

(Continued on page 21)

(Continued from page 20)

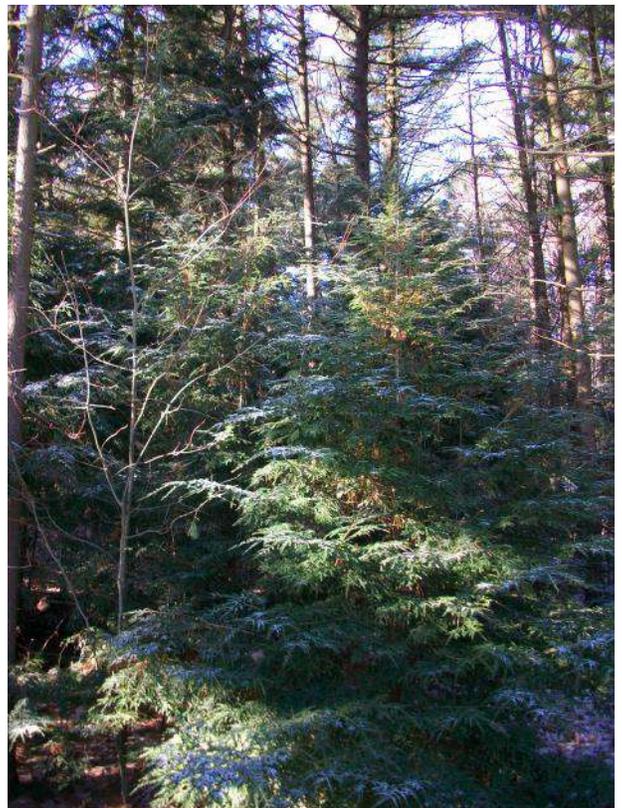


Unlike the earlier 1839 and 1850 acts which Native leaders welcomed, the 1857 law was universally condemned by Native chiefs. A conference of Native chiefs from both Canada West and East was held at Chiefswood, the home of George Johnson, organized by his father, John Smoke Johnson, the Speaker of the Haudenosaunee Confederacy. The chiefs who arrived from the most distant locations were Mohawks from Canada East. A petition of protest was sent to Queen Victoria. The failure of the protest came from the lack of a delegation to Great Britain to send speakers to arouse public opinion as had been earlier employed by Jones. [11]

Some of those who protested in 1857, notably the organizer of the protest, John Smoke Johnson, were alive when finally, in 1884, the Canadian government repealed for eastern Canada the enfranchisement provisions of the *Indian Act*. In 1896, however, this was repealed with new harsher provisions for compulsory enfranchisement of the educated and professional. The changes in 1896 came after the Haudenosaunee had effectively used their voting rights to defeat an advocate of the elimination of reservations because of their excessive forest cover, William Patterson. He organized a committee of the House of Commons in an attempt to prohibit George Johnson's system of forest protection on reservation lands. [12]

In complex ways the loss of political rights, only restored in 1960, crippled the ability of Native communities to protect forests. It had a major negative impact on the residential school system, immediately about the model for the system, the Mohawk Institute. Five years after political rights were abolished the school became fashioned in a punitive way on the model of British reformatories, dealing with criminal youth, through harsh discipline and compulsory uniforms. Encouraging professionals to abandon Native status discouraged education in scientific disciplines such as forestry, botany and ecology related to protecting forests, on and off reserves. Band members could not argue to defend forest cover in courts, which themselves, like the legal profession itself from which their members were selected, were barred to status Indians.[13]

The impact of the loss of Native political rights on Canada's forest is seen in the Mohawk community of Oka, Quebec. While the segeneurial tenure of this community was complicated, non-Mohawk farmers were kept out until Native political rights were stripped away in 1857. Within two decades, grazing by farm



(Continued on page 22)

(Continued from page 21)



animals in woodlands destroyed tree succession and created a desert. Consequently, landslides buried much of Oka. Gradually, by planting pine seedlings, the Mohawks were able to turn the wasteland into a coniferous forest. In 1959, through a bill in the Quebec legislature, at a time when Natives could not vote, some of the restored Oka forest was converted into a golf course. Although sponsored by the then Premier of Quebec, Paul Sauve, the bill was pushed by local interests in his riding, in a situation where Mohawk residents who opposed it could not vote. The golf course on Canada's first reforestation project was opposed by the elected *Indian Act* Mohawk council in the courts. It was at a time when status band members could not serve as

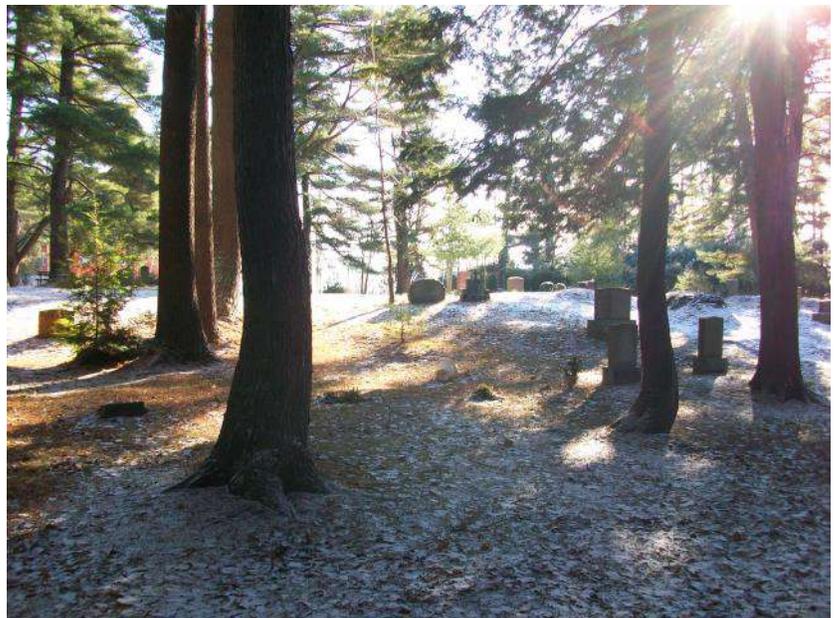
lawyers, or by extension, judges. [14]

An attempt to expand the Oka golf course to 18 holes in 1990 triggered a national political crisis. The crisis was typical of the poisoned legacy of the denial of political rights to Native people. It is also reflective of the harm to Native interests from the stripping of forest cover where reserve communities have an important stake in its protection.

One way to promote reconciliation with Native people is to recognize the harm done to their communities by the stripping of woodlands through reparations payments created to restore forest cover. One example of a community that can be assisted through such a program is the Moravian (Delaware) First Nation in the municipality of Chatham-Kent.

Chatham-Kent is Canada's most severely deforested rural region, having only 4.5 per cent of its landscape in forest cover. The community's leader, Chief Greg Peters, has observed that this situation clashes with "the aboriginal right to hunt and fish". This is triggered by such impacts as the sedimentation of the Thames River through erosion on treeless banks, which degrades fish habitat. [15]

At a meeting of the Brodie Club, John Riley, a former senior Ontario public servant and Chief Scientific Advisor to the Nature Conservancy of Canada, expressed concern to me about the challenges for the federal government to meet the objectives of its Two Billion Tree planting program. One way to remedy this situation, caused by the lack of private landowners to plant sufficient trees, is to alter the program to have a component to provide funds to expand Native reservations to increase forest cover.



(Continued on page 23)

*(Continued from page 22)*

## **Photos**

The photos accompanying this article are of a Native graveyard at Oka that was threatened by the golf course development, or of the golf course itself, which was to be expanded as part of a residential development proposal. The white pines in the photos were all part of the original coniferous plantation that took about 40 years to complete, between 1880 and 1920. The plantings were undertaken by Oka area Mohawks, under the direction of their Catholic priest, Father Lefebvre, who had become exposed to the practise of professional foresters during part of his career when he served as a priest in France. It was the first reforestation project in Canada using conifers in rows, and was properly thinned, to function as a natural forest.

## **Endnotes**

- 1) David T. McNab, "Martin, George", (1767-1853) in Dictionary of Canadian Biography, Volume 8, University of Toronto Press, Universit e Laval, 2003, accessed December 2013.
- 2) Canadian Broadcasting Corporation, "The Oka Legacy" Broadcast, September 23, 2017. The area vulnerable to erosion in Oka only began to be sold to non-native farmers in 1859. By 1880 severe desertification from the impact of grazing livestock had taken place.
- 3) McNab, loc.cit.; Douglas Leighton, "Johnson, John in Dictionary of Canadian Biography, Volume 11, University of Toronto Press, Universit e of Laval, accessed, November 28, 2020.
- 4) Isabel T Kelsay, "Tekarhogen, John Brant", in Dictionary of Canadian Biography, Volume 6, University of Toronto, Universit e Laval, accessed May 2, 2021.
- 5) Donald B. Smith, "Sacred Feathers: The Reverend Peter Jones and the Mississauga Indians", (Toronto: University of Toronto Press, 1987), pp. 216-220.
- 6) Ibid,
- 7) Ibid., John A. Noon, "Law and Government of the Grand River Iroquois", (New York: Viking Fund Publications in Anthropology, 1949), pp. 92-94.
- 8) Anthony Hall, "The American Empire and the Fourth World" (Montreal: Queens/McGill University Press), 2003, pp. 481, 482.
- 9) Ibid. Kelsay, loc.cit.
- 10) "History of Native Franchise", Website Elections Canada.
- 11) Hall, loc.cit, pp. 481, 482.
- 12) Report of the Select Committee of the Affairs of the Indians of the Six Nations" Journals of the House of Commons, 1875.
- 13) Elections Canada website, loc.cit.'
- 14) CBC, loc.cit.
- 15) Chatham Kent Department of Parks, Cemeteries and Horticulture, "Trees, Forests and Woodlots: A Review of the Literature", July, 2013, pp 1-15.

# ***First-Hand Account of a Forest Fire Near Gravenhurst, 1913***

## **Introduction**

I found a letter written on August 22, 1913 to my grandmother, Margaret Little Dunham, from her sister, Edith Little. My grandmother lived in Evanston, IL. Edith and another sister, Helen, were on vacation in Gravenhurst, Ontario. Edith wrote to Margaret about a huge forest fire that occurred, while they were visiting. The text of the letter follows.

*Tricia Hagenah*

To: Mrs. William. H. Dunham, 1419 Judson Ave., Evanston, Ill. USA.  
From: Edith Regina Little, Gravenhurst, Ontario, Canada.  
August 22, 1913.

Friday

Dear Grete,

If I were a newspaper reporter I could make my fortune for I have the most thrilling story imaginable to write. The day before yesterday smoke was pouring over here in clouds and we thought that the fires must be coming nearer. I went over to Sutherlands to mail some letters and Jessie said that the men had been out fighting all night that the fire had jumped their guard and that Mrs. Parker's barn was threatened. That is a long way down the road and there are open fields between it and the Sutherlands and they can always stop it in the open so there was no cause for alarm. But a regular gale began to blow from the east and a woman who lives back of the Sutherlands up the road came running down to say that the fires had jumped the road up there and her house was in danger and that her husband was trying to fight it all alone. None of the men dared leave this end of the fire so they couldn't go there. The wind kept blowing harder and harder and news came that the Walkers had taken all their furniture out of their house and were waiting for it to burn. About five o'clock the wind died down and they thought they had it pretty well under control, but at seven when it began to grow dark you could see a terrible glow in the sky back of us. It looked as if miles of bush was burning and of course we knew that they were terribly anxious but didn't want to show it. But when the wind calmed down they had a very good chance to check it. About nine the wind began to rage furiously again and Helen and I thought we would be on the safe side and take out suits out of the trunk and pack a suitcase with necessary things so that if we should have to leave suddenly we would have things ready. I said to her then wouldn't Grete's hair just stand on end if she could see us packing up preparatory to flying from the fire. Of course, we are right on the waters edge and there are so many islands near by that if the worse came to worst we could have gotten to one of them. Helen of course had to be under the weather, and naturally felt pretty mean so wanted to partly undress. Well I just had a feeling that I mustn't take my clothes off but did take off a few. We hauled our cots in and the mattress off of our swing and put that on the floor in our little living room and both of us tried to rest. Of course sleep was just impossible for the wind was howling furiously and the glow from the fire was shining in the windows. I lay down for about half an hour and just couldn't stand it another minute and so hopped up and put all my clothes on again and lit the lamp and went out to see what I could see outside. I came back again and tried to lie down again. In a little while I heard the dogs bark and Will Sutherland came over to calm our fears and tell us that they were going to haul water to Mrs. Guerney's that's Dr. P's cottage only a stone's throw away. He is very calm and tried to assure me that there was little danger but that they had to be ready in case sparks flew near. Of course we knew that he would never have come if there hadn't been danger so Helen got the rest of her clothes on and in a little while Mrs. Guerney and Jessie Sutherland came to

*(Continued on page 25)*

*(Continued from page 24)*

tell us that they thought it best for us all to be at the Sutherlands together for they hoped to save the cottages but didn't want to run any risks. We put our suits over our khaki dresses and put on our hats and carried our coats over our arms and took the suit case and Helen's bag and then put all the blankets and odd clothes in sheets and shut up all the windows and started out. Our little maid had her things packed and ready so the three of us started over stumbling through the woods with our lantern. Forgot to say that old Mrs. S. came in and the minute I saw her face knew that they had little hope of saving much. Poor old lady she looked the picture of despair. When we reached the gate we were horrified to see how near the fires was. It had reached the Sutherlands back fence and the woods back of it was one sheet of flame. It was a wonderful sight but a very terrible one for the wind was blowing furiously and the roar of the fire and crackling was frightful. The horses were so terrified that they were running wildly around the house and it certainly looked as if the house and barn and everything would go. In the glow of the fire you could see those poor men with their shovels digging desperately and watching to put out the sparks. Luckily the wind shifted to the south and blew the fire back and about two o'clock died down a great deal. The fences burned but they had plowed a wide path in front of them and it stopped there. We all sat in the Sutherland parlor and watched and waited until 3:30. Then Jessie put a bear skin robe on the floor and four of us laid down on it in a row and slept for about an hour and a half.

In the morning we came back to the cottage for the wind was blowing it away and they had it under control again back of us. We packed our trunks so that we could save them if possible should the wind suddenly shift. The wind blew furiously all day long and kept on raging until almost midnight when a little rain fell enough to check the fire and this morning torrents are coming down and all the danger is over. I am so glad for those good people. I have never seen such heroism, and such wonderful pluck and courage. Cheerful through it all each waiting to help the other fight first in one place then another. It is terrible work their eyes get so sore with the smoke that they get so sick that they can just stagger about. They had three nights and three days of it. Will S. had just 20 minutes sleep one night and an hour the night before.

Mrs. S. and Jessie have almost killed themselves working to feed the men. They send them meals when they can't come to get them. We gave them all the meat and bread we had and some baked beans and ginger ale. I was so sorry that we didn't have more. We couldn't possibly have been looked after better and I certainly felt like a useless nincompoop when I saw Jessie S. haul pails of water, fighting the fire, raking up the leaves, and running her feet off taking meals and water to the men. We tried to help them by making sandwiches and washing dishes etc. I wished that I could have gone out to fight the fire myself. We have the greatest admiration for them for it meant the loss of everything that they own in the world and we never heard a word of complaint from one of them. Always hoping for the best and keeping up the fight. I am so glad they lost no more than they did for it would have been so dreadful to have the buildings go. At six last night a little boy came running to tell them that their other farm was in danger and Will hitched up and drove furiously down there to try and save the barn. He said this morning that three quarters of a mile was one solid sheet of flame and of course had to come back with out doing anything but luckily the rain came in time to save them. They say the stores have been closed for two days in Gravenhurst and all the men out fighting for they were afraid the whole town would burn. This rain is the most welcome one I have ever known. Dr. Critchard [?] is not coming at all. I think he is too sick to come. Poor fellow. I'd like to choke a few of our Asheville [NC] friends for they are responsible for it.

With lots and lots of love,

Ede. [Edith]

# Sylva Recap

*The Ontario Department of Lands and Forests for many years published a journal titled "Sylva". The purpose of this journal was to highlight changes in policy, ecology facts, information about the activities of the Department, contributions of individuals and the comings and goings of staff. "Sylva" contains nuggets of Ontario forest history. One "nugget" from "Sylva" will be selected for each edition of the Journal. The following was provided by Sherry Hambly.*

## Names of Topographical Features

by W.A.C. Barnard

### Reprinted from Sylva: 1951 Vol 7 (6): 13-16

When traveling in unfamiliar territory you are dependent on the detail found on a map which shows the various topographical features. The numerous lakes, streams, islands and settlements are not only shown in accurate detail, but are also named.

The names of features adopted to be printed on the maps must be approved by the Canadian board on Geographical Names. This Board is composed of members of various departments in Ottawa, along with representatives appointed by the provinces. The Board meets monthly and considers the recommendations of names that have been submitted by the Provincial representatives. Before a name of a feature is recommended, a study is made of all the available data relative to the names of that feature and, if possible, the name appearing in the earliest records is recommended. Care is taken to avoid duplication of names for similar features and, in many cases, the names of features now appearing on maps differ from those by which features may be known locally or those which appeared on maps many years ago.

In 1826, Lieutenant Briscoe of the Royal Engineers, was sent to reconnoitre the land between the Severn and Ottawa Rivers to ascertain if there were suitable waterways for canal puposes between these rivers. David Thompson, on of the famous explorers and geographers of Canada, also traversed the Muskoka and Madawaska Rivers in 1837. Both of these men outlined the topographical features, but their records show very few names of the numerous lakes and tributaries to these rivers that were encountered along their routes. Provincial Land Surveyor J.A. Snow made a traverse of the Madawaska River in 1854 and 1855 and his maps show many of the names of the prominent features, some of which appear on the present maps.

In the southerly portion of Algonquin Park are a group of lakes constituting the headwaters of teh Madawasa River and their proximity to the highway and Park Headquarters has made these lakes very popular. It is interesting to search the records of explorers and surveyors, noting the descriptoins of the features and the name by which they were known years ago in comparison with the names which are now designated to those features. Brief descriptions of some of the names that have been adopted will illustrated the changes that have occurred in the past one hundred years. Rapid Lake - This was the names given by Mr. Snow in 1854. This is the first lake above the rapids on the Madawaska River on his journey upstream from the Opeongo Road.

Galeairy Lake - This lake was designated as Long Lake on Mr. Snow's map. It is still known locally as Long Lake. The name was changed to eliminate the confusion relative to the duplication of such a comm name. It is now called Galeairy, as the lake is partially in the townships of Nightingale and Airy.

Rock Lake - This is the name designated by Mr. Snow from a rock cliff approximately 200 feet high on the west shore of the lake. David Thompson in 1837 had designated this as Falcon Lake.

Whitefish Lake - This name appears on Mr. Snow's map and although duplicated many times

*(Continued on page 27)*

*(Continued from page 26)*

throughout the province, it is the only lake in that vicinity known as Whitefish Lake.

Lake of Two Rivers - In Mr. Snow's report he describes a view of the surrounding country from a high hill near the shore of Rock Lake - from this hill he could see two branches of the Madawaska River joining at the head of this lake - hence the name given to the lake by him.

Cache Lake - This lake was designated as "The Lake of the Islands" by Mr. Snow. The name given by him was more glamorous than that which is now used. The name "Cache Lake" appeared on later maps and with the establishment of Algonquin Park Headquarters on the north shore of this lake, is one of the best known lakes in the Park.

Tanamakoon Lake - No doubt this name is of Indian origin. This lake was designated by Mr. Snow as "Mistake Lake". Later it was known as White Lake. "Tanamakoon" was a name given to a girls' summer camp on the shore of the lake and later approval was granted for the same name to be adopted for the lake.

Source Lake - This is descriptive of the largest lake at the headwaters of the main branch of the Madawaska River. This name has continued since 1893. Mr. Snow designated this as "Caroline Lake".

Little Island Lake - This name has been used for the past sixty years. It is sometimes known locally as "Island Lake". Mr. Snow designated this lake as "Henry Lake", possibly after Harman Henry, who was one of his assistants on the survey.

Smoke Lake - This lake is, in reality, the headwater of the Muskoka River. Mr. Snow designated this as "Lake Traverse", possibly from the French, meaning "to cross over" in reference to his crossing from the Madawaska watershed to the watershed of the Muskoka. The surveyor who later subdivided the township in which the lake is situated designated this lake as "Smoke Lake", which name has continued since.

Ragged Lake - The name is descriptive of the irregular shoreline and has been used since 1893. "Lake Chikan" was the name given this lake by Mr. Snow.

Big Porcupine Lake - By the construction of a dam, the present lake comprises what was formerly two lakes. These were named "Porcupine" and "Black Bear". "Black Bear Lake" was named "Muskoka Lake" by Mr. Snow. His records show that an Indian advised him that this was the headwaters of the Muskoka River. He was unaware that the name "Muskoka Lake" had been established for the larger lake to the west which is so well known now.

Bonnechere Lake - This name appears on the earlier maps of Algonquin Park. It had been designated as Manitoo Lake by Mr. Snow.

Lawrence Lake - This lake was originally designated as "Retreat Lake" by Mr. Snow. Later it was known as Crooked Lake. In the elimination of common names which caused so much confusion, the lake was re-named "Lawrence Lake", being the name of the Township in which it is situated.

Head Lake - This name was given by the surveyor who subdivided the township. Mr. Snow had designated this lake as "Turtle Lake".

Louisa Lake - This name was given by Mr. Snow after one of his relatives. The name still exists and the stream flowing from it was known in early days as the Black River Branch of the Madawaska River. This stream is now known as "Louisa Creek".

*(Continued on page 28)*

*(Continued from page 27)*

These examples will show the changes of nomenclature of features in a relatively small area during a period of one hundred years. Efforts are made to avoid duplication in the names of similar features and to avoid confusion to those using the maps.

At the bottom of this article this information was included:

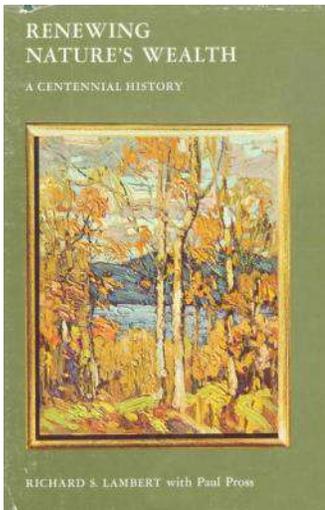
**Fickle Fire Facts**

On August 14th of this year, a survey party attempted to establish their position in the field by the use of Very pistols.

We do not know if this method of signaling was satisfactory, but we do know that four embryo forest fires were caused as a result.

Very pistols should not be used in bush country during hazardous periods because the flare on returning to earth still holds sufficient fire to ignite inflammable forest fuel.

# 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 *Forestry*.

## Chapter 22 The Expansion of Parks and Recreation

After the Second World War the province realized that there was a need for parks, primarily for recreational use. The population was expanding, it was younger, and it had more disposable income. Thus, in 1953, the province sent seven foresters to tour the United States parks to glean ideas for park expansion in Ontario. They presented their findings to the annual conference of foresters held early in 1954.

Later that year, the province passed a new *Parks Act*, bringing management of different kinds of parks under one organization. The management of parks was split among different departments with the Department of Lands and Forests responsible for parks created from Crown lands in the north and some larger parks in the south. Other parks in southern Ontario were administered through commissions, mostly to avoid causing expense to the government.

The *Parks Act* was revised in 1958, with larger southern parks being moved from administration by commission to being managed by the Department of Lands and Forests. All new provincial parks were to be administered by the Department of Lands and Forests.

To coordinate the management of parks administered under different organizations (highways, municipalities, Conservation Authorities etc.) the legislature created the Ontario Parks Integration Board in 1956. Membership was comprised of ministers from a variety of different departments and organizations. The advisory committee functioned until 1960, at which time it became ineffective, mostly because promised funds to manage parks had not materialized. At the writing of the book the board's primary function was to review major parks policy changes and to approve the purchase of new park areas.

Quetico Provincial Park, whose detailed history is described in Chapter 14 of this book, has its own special history. The United States wanted to protect the Rainy River watershed from logging exploitation through the development of an international peace park, and engaged Canada and Ontario in this effort. After much back and forth and several different proposals, the United States suggested a treaty to identify and manage parklands on both sides of the international border. In 1959 Ontario said it could not sign such a treaty as it would mean loss of sovereignty over the land within the park. Instead, Ontario agreed to participate on the Quetico Joint Advisory Council, created in 1961. This group met regularly to discuss issues of mutual concern in preserving this area of unique wilderness.

(Continued on page 30)

(Continued from page 29)

A Parks Division within the Department of Lands and Forests was established in 1954. The number of parks that were open to the public increased from eight in 1954 to 90 in 1965. Additionally, there were 54 more areas being held in reserve for parks creation.

The department concentrated on developing parks larger than 500 acres. Most parks in the south were located along beach areas of the Great Lakes. In the north the parks sites were located primarily along the major highway routes and positioned approximately 150 miles apart.

Parks were managed by the local district, which had to develop a plan for their management. While the main focus was on recreation, a large multitude of uses was considered in developing the plan. In 1931 a nominal fee was charged for park entry. This system was eventually replaced by an annual fee. Commercial enterprises were allowed where warranted but the province did not want to take away from external private enterprise. To this end, parks were not advertised in a formal sense but through the provision of educational materials such as "The Raven" published by Algonquin Park. Initially fishing was allowed, but hunting was not until 1954 under a multiple use strategy.

Intensive development of nature interpretive programs began in 1954 and was highly successful. From 1958 to 1965 visitor numbers grew from 2.1 to 9.1 million, with almost 30 per cent from the United States. During this period parks generated income of 7 million dollars, while expenses were almost double that at 13 million. While parks were a money sink, their value for recreational purposes was noted as being extremely important.

In 1962 the functions of conservation authority management were transferred to the newly created Conservation Authorities Branch in the Department of Lands and Forests. Conservation Authorities were municipally run, initially to manage flooding and water levels. But their span of activities gradually increased, including the provision of recreational activities, an important source of recreational sites closer to larger municipal areas. In 1964 the Branch was transferred to the Department of Energy and Resources.

In the late 1950s it was realized that the initial purpose of parks - nature conservation - was being lost. The *Wilderness Areas Act* was passed in 1959 with a view to place more emphasis on conservation. All parks were to be zoned for various uses. This act allowed the possibility of prospecting and hunting in wilderness areas greater than 640 acres in size. By 1965 40 wilderness areas had been proclaimed.

Parks began to be managed under the multiple use principles. The main use was recreation. The other primary uses included conservation, water management, wildlife management, and timber and other resource production.

The use of parks for services other than recreation and conservation led to public policy conflicts - especially the use of parks for timber production. In response to these policy conflicts the government developed the concept of "recreation reserve" - large areas outside of parks with the main purpose of recreation. The first such designated site was Killarney Recreation Reserve. In 1964 the area covered by the recreation reserve was expanded and the Killarney reserve grew to some 4500 square miles between Parry Sound and Algoma. The idea was to get ahead of the need for large, multipurpose recreational areas away from urban centres.

Here is the last paragraph of this chapter:

"Thus the original concept of conservation formulated by Alexander Kirkwood in his plan for Algonquin Park over eighty years ago, has taken on new life and meaning in today's multiple land-use planning".

## Spring, 2022 Forestry Preview

### In Celebration of Erik Jorgensen – the Inventor of Urban Forestry

October 28, 2021, marks the 100<sup>th</sup> anniversary of the birth of Erik Jorgensen, one of Canada's greatest innovators, the man who coined and popularized the term "urban forestry". Jorgensen assumed a leadership role in forestry by expounding the benefits of maintaining and managing trees in cities, a concept that was considered revolutionary at the time. He authored over 60 articles and scientific papers on tree diseases and urban forestry and developed studies and techniques to control the spread of tree diseases, especially Dutch Elm Disease (DED).

To mark this occasion, Michael Rosen, R.P.F., Cert. Arb., Adjunct Professor, UBC has written a tribute to Erik Jorgensen. Readers can look forward to the full tribute and accompanying photos in the Spring, 2022 issue of *Forestry*. For now, an excerpt:

In 1965 Bill Morsink, a graduate student at the Faculty of Forestry, approached Erik expressing an interest in studying aspects of the trees in the City of Toronto. As Morsink put it "Erik Jorgensen had to devise a name for my graduate program other than Forest Pathology; the term had to include Forestry and because my municipal tree studies would be in urban Toronto, Erik devised the catchy term "Urban Forestry" (Morsink 2000). In fact, the term was mentioned as early as 1894 (Cook, 1894) but this usage shared little with the philosophy embodied by Jorgensen. Cook wrote: "...urban forestry, an art requiring special knowledge, cultivated taste, and a natural sympathy for plant life... Good taste demands the observance of two rules as essential in street tree planting. First, that but one variety of tree shall be planted upon a street, and second, that the trees shall be planted at uniform distances." Kenney even surmised that, "Perhaps Cook's two rules of "good taste" ultimately aided in the spread of DED!" (Kenney, 2010).

Conversely, Jorgensen (1974) clearly defined urban forestry as: "A specialized branch of forestry that has as its objectives the cultivation and management of trees for their present and potential contribution to the physiological, sociological and economic well-being of urban society. These contributions include the over-all ameliorating effect of trees on their environment, as well as their recreational and general amenity value." Ricard (2009) suggests that Jorgensen probably never saw Cook's use of the term as it was published in an obscure report 73 years earlier.

# Forest History Society of Ontario

## Membership Form

The mission of the Society is :

“To further the knowledge, understanding and preservation of Ontario’s forest history” and accomplish this with the following objectives:

1. To preserve forest and forest conservation history;
2. To encourage and further the development and recognition of forest history;
3. To support research and studies of forest history;
4. To support the archival preservation of records and materials relating to forest history, and
5. To promote the better understanding of forest history through public education.



### Projects of the FHSO

**Catalogue of publications:** available on the website, this catalogue includes all aspects of Ontario’s forest history and members can submit contributions.

**Collections listing:** Collections and materials relating to Ontario’s forest history are identified and listed on the website. The Society works with established archives such as the Archives of Ontario and several university archives in facilitating the preservation of significant collections.

**Forestry Journal:** The Society publishes a journal available to its members, the *Forestry*, twice a year – Spring and Fall - containing informative articles on forest history in Ontario.

**Frank A. MacDougall Forest History Trust Fund:** This Fund provides financial support for projects and activities that can further the knowledge and understanding of Ontario’s forest history in all aspects. All cheques should be made out to “Forests Ontario” and noted with ‘Frank A. MacDougall Forest History Fund’

Please return this portion to the FHSO with your payment to the address listed below.

Name					
Address					
City		Province		Postal Code	
Phone		Email			

\*Please note that the FHSO only accepts credit card through the online PayPal system. Cheque or cash only by mail- please make membership cheques payable to the Forest History Society of Ontario.

Frank A. MacDougall Trust Fund cheques should be made payable to Forests Ontario to be eligible for a charitable tax receipt.  
Charitable No. 89857 2862 RR 0001

### Payment Information:

- FHSO Annual Membership: \$45.00
- FHSO Student Membership: \$15.00
- Institution / Corporate: \$100.00
- Forests Ontario/ OWA / OHS / ISA Member \$30.00

#### Please make cheque payable to:

Forest History Society of Ontario  
15 Maple Ave Unit #103  
Barrie, ON, L4N 2N6

Visit [www.ontarioforesthistor.ca](http://www.ontarioforesthistor.ca) to join or renew  
[info@ontarioforesthistor.ca](mailto:info@ontarioforesthistor.ca)