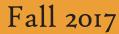
# The Leaflet

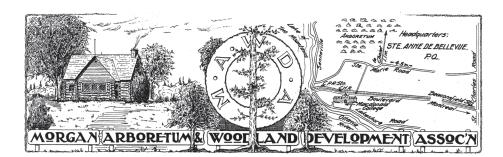
Inside, find out how the new Canada 150 Trail ties past and present into a smart loop



A Voyage through Time

The Birches

The Garden in the Forest 4



### Canada 150 Trail Inauguration

Sunday, September 24, 2017, 1 - 3 pm

To honour the 150th celebration of Canada, the Friends of the Morgan Arboretum have uncovered Dr. W.H. Brittain's historical Canada Birch Trail planted in 1967 and featured it as part of a newly created Canada 150 Trail.

Come and behold these birches originating from across Canada and learn about the newly created copse and branchery along the trail in addition to some other surprises... such as the newly discovered birch species with its unique red and white colouring.

As space is limited for the trail's inauguration tour, registration is required, please register at 514-398-7811 by Thursday, September 21.



## Celebrating Canada: A Voyage through Time

By Anne Godbout, Liaison Officer

The Canada 150 celebration this year is an opportunity to revisit the history of our country, and reflect on how the past has shaped our present and might affect the future. Zooming in, a country's history is also made out of local exploits. This issue of The Leaflet takes a look at the Arboretum's role in the scheme of national events.

Macdonald College Dean W. H. Brittain's first endeavours after McGill acquired the Arboretum in 1945 was to build a handsome cabin of hemlock logs and stones harvested on the premises, the aptly named Chalet Pruche (pruche means hemlock in French). Seventy odd years later, people still make use of local resources to feel part of the land where they live.

Probably one of Brittain's most ambitious enterprises was his studies of the paper birch. This work led to the dedication of the Arboretum's Centennial Birch Trail in 1967, as described in Jenny's article on page 3. To Dr. Brittain, the paper birch is a true national emblem: because it is one of our native tree species with the widest transcontinental distribution; like Canadian landscapes and people, it is physically diverse; and it is the essence of the native birch bark canoe, a light and portable craft, key to an amazing system of inland water transportation permitting communication between all parts of the vast continent.

In 1955, Dr. Brittain, together with his young colleague Professor A. R. C. Jones, created the McGill Faculty of Agriculture's Department of Woodlot Management. One of its main objectives was to find novel ways to increase the value of the woodlots often found in the back of the region's farmland. From the inception of the Department



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Chalet Pruche was built in 1947 by Macdonald College staff led by Layton Burnett. Hemlock logs from the forest were used to erect the building on top of the foundation of a former sugar house.

of Woodlot Management to the opening of the Department of Natural Resources forty years later, the emphasis has shifted from an economic perspective to a conservation-based approach. Therefore, the Arboretum's value now lies in the ecological services it provides to the local community.

In anticipation of Canada 150, a group of volunteers, The Friends of the Arboretum, led by Jenny Anderson, Carolyn Fletcher, Richard Gregson, Rosita Pollock and Chick Taylor, was inspired to revitalise the Centennial Birch Trail in honor of the Arboretum's founders (see Jenny's article). They also established nearby areas offering food and shelter to wildlife, to encourage biodiversity and improve visitors' experiences. Chalet Pruche serves as the landmark for the start of the new Canada 150 Trail loop. It is also a hub within The Garden in the Forest, enhancement created by volunteers, linking Blossom Corner with the paper birch collection, the copse and the branchery. These accomplishments by The Friends of the Arboretum are described in the following two articles.

We can only speculate about the Arboretum's project for Canada's Bicentennial in 2067. We can hope that, thanks to the foresight of its leaders, the satisfying experience it will provide will be as grounded in the epoch's zeitgeist as the previous ones. For a number of us, generating a project for 50 years from now means leaving it to the next generation. Whatever the Friends of the Arboretum of 2067 come up with, it will likely be built on the premises of the past and in tune with their present. Like a tree, history sprouts from its roots and unfurls, feeling out the trends in the air of a changing environment.

#### The Birches

By Jenny Anderson of the Friends of the Arboretum

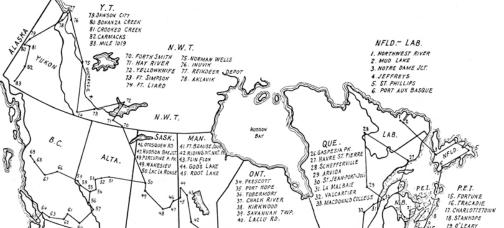
Well before Canada's Centennial in 1967, Dr. W. H. Brittain, founder of the Morgan Arboretum, had an idea for a Centennial project that fit in well with the Arboretum's purpose. Dr. Brittain, who was Dean of Agriculture and Vice-Principal of Macdonald College (1934-1955), envisioned an avenue of trees of the same species representing

every province and territory of Canada. One species, Betula papyrifera (white, or paper, birch), met all his criteria: it lines roadsides and waterways from coast to coast, is attractive in all seasons and is of some historical and economic value.

When he retired, Dr. Brittain, who continued to serve as

wide quest to collect birch seeds from different regions in late summer and early fall. His

Dr. Brittain in the birch nursery



CANADA BIRCH TRAIL - CENTENNIAL PROJECT, MORGAN ARBORETUM

Locations from which originate the paper birch seeds collected by Dr. Brittain

the Arboretum's Scientific Advisor, started on a Canada-

most adventurous trip was undoubtedly his 1963 journey, which began in Fort Smith, NWT and ended in White-

horse, Yukon. During this trip, he and his close collaborator Professor A. R. C. Jones covered 10,000 miles by plane, barge, diesel tug, small riverboat and car, collecting from at least 14 places en route.

Dr. Brittain took charge of the subsequent cultivation, care and planting of the birches, with essential support provided by the Arboretum's foreman R. J. (Bob) Watson and his wife, N. A. Watson, and their five

> children. When the seedlings were robust enough, they were transplanted to an area along the present-day Blue Trail. From this stand, 83 specimens were chosen as representative trees for the new Canada Birch Trail.

This was not iust a Centennial project, but also involved research

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BRIER ISLAND 11. NEW ALBANY 12. SOUTH BERWICK

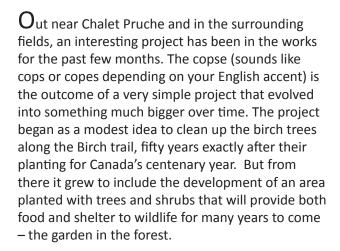
13. COLDBROOK

14. PICTOU.

UPPER VAUGHANS BRIDGEWATER

## The Garden in the Forest

By Sarah Dixon, Naturalist





On that note, the copse will demonstrate an aspect of ecology often forgotten by many people: time. Some of the shrubs chosen for the copse will grow quickly, providing habitat almost immediately, whereas other plants (mainly trees) will take much longer. This mimics the forest succession that is seen in nature as habitat changes over time.

As always, please don't harvest any fruit in the Arboretum. However, take inspiration from the copse and learn the different kinds of fruiting trees that you can plant in your own gar-den to attract birds etc., and those from which you can harvest the fruits to make jams and jellies.

#### American black cherry Prunus serotina Cerisier tardif

Starting as a small and unremarkable plant, the black cherry will become a medium sized tree in about 20 years' time. Then you'll be able to see the stunning obsidian black, scaly, bark and appreciate the derivation of the tree's name. The fruit is produced between August and September. Despite being on the bitter side, you can use the fruit to make jams either alone or combined with other fruit, such as the sweeter wild strawberry. Wild berries can also be made into a thick liqueur with a bottle of gin, fruit equivalent to half the gin's volume and one third the volume sugar. Richard provided the exact proportions of fruit to sugar in this recipe, as well as the final instructions to "shake and stir daily for a couple of months. Strain and then bottle the liquid. Drink after a cold day's skiing."

Canada serviceberry Amelanchier canadensis Amélanchier du Canada

This tall and generous shrub is truly the gift that keeps

on giving. In April, the tree is awash with delicate white flowers that

are beautiful to see and to photograph. In July, the flowers become a delicious small fruit that isn't too bitter, or too sweet, it is spot on perfect. Cedar waxwings seem to agree as they'll make short work of the Serviceberry fruit

while hiding among the numerous

small branches.

Thanking Bruce Manning for his donation of geotextile for the Cananda 150 Trail project



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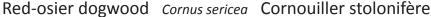
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This shrub is very bushy with its numerous, brightly coloured branches that satisfy my soft spot for anything red. Combined with their white flowers which are seen in May to early July, they are a beautiful sight. Birds eat the small fruits that appear in late August through September. As with the Alternate-leaf dogwood, the fruit tastes really unpleasant.

#### Winterberry Ilex verticillata Houx verticillé



This plant is found in wet soils. The flowers can be seen in late spring, but are small and un-remarkable. The berries, however, are bright red and persist on the branches until the birds eat them, typically after the first few snowfalls. Therefore they are a food source for winter birds, and also provide a dab of colour during the autumn and a nice contrast against the white snow. I don't know if they're edible, but they should be left for the birds.

#### American mountain ash Sorbus americana Sorbier d'Amérique



This good-looking tree also provides late summer fruit clusters that persist through the winter and are an important food source for wildlife. As with other species on the list, their flowers can be seen through May into June. Despite its name and appearance, this shrub is in the rose family and has contributed to the learning experience of many students when learning to identify wild trees.

#### Canada Elderberry Sambucus canadensis Sureau blanc



This small shrub produces clusters of small flowers in June which become clusters of small berries by late summer. They're great for making jams and wine, if you can pick them before the birds do.

#### Alternate-leaf dogwood Cornus alternifolia Cornouiller à feuilles alternes



This tough little shrub produces many small branches that provide excellent shelter for small songbirds. As with the other species on the list, it also provides an excellent food source. Small fragrant flowers can be seen throughout May and June, followed by fruit at the end of summer. The fruit is extremely bitter so don't eat it, as it tastes really unpleasant.

Continued on page 8



Prof. A. R. C. Jones (right) and Nova Scotia Premier Robert Stanfield (left) planting the birch seedling from his province

seedling from their respective provinces during a ceremony on McGill's downtown campus. These seedlings grew into an arching avenue of birches in the field below Chalet Pruche, as Dr. Brittain had envisioned.

Over time, the woods on both sides of the Birch Trail have overtopped and shaded the birches and the drainage pattern has changed; winter storms, the lack of adequate field staff, and perhaps even the birch leaf miner pest have also contributed to the demise of many of the birches. Other trees and undergrowth were crowding the remaining 39 birches.

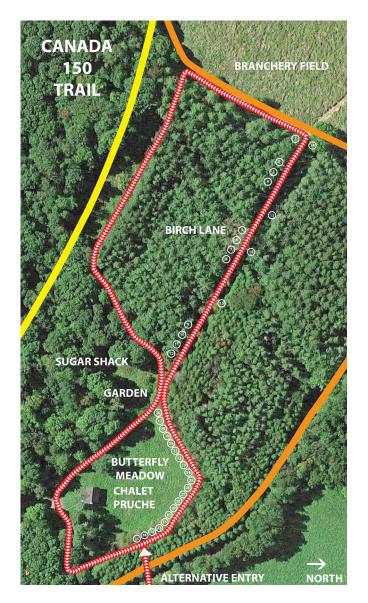
In 2016, the Friends of the Morgan Arboretum decided to make the restoration of the Centennial Birch Trail a priority. It would also be an opportunity to create a dedicated conservation area with varied habitats Continued from page 3 detailing cytological and morphological observations of white birch in both field studies and from the stand of seedlings derived from the collected seeds. The research results were published in over a dozen papers co-authored with Dr. W. (Bill) Grant. Dr. Grant's



cytological findings were essential in elucidating the taxonomical problems that Dr. Brittain encountered while identifying the seedlings.

The Canada Birch Trail (also known as the Centennial Birch Trail) was to be inaugurated in 1967 and, although invitations were sent in advance to all the provincial premiers of the time, Dr. Brittain did not expect them to attend. Serendipitously, the premiers were gathered at McGill University in October 1967 to receive an honorary degree, so they or their representatives were able to symbolically dedicate a birch





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and to provide a central place for the Arboretum's educational activities for years to come.

Over the summer of 2017, the Friends, along with a handful of other volunteers, pruned trees, removed invasive saplings and rampant undergrowth, created a copse of native fruit-bearing plants and shrubs, and established a branchery from all the pruning. As an added bonus, a bench was fashioned from the

Continued on page 8



Saturday, September 16, 2017, 10 am - 4 pm

**Naturally, Sainte-Anne** 

A day of exploring Sainte-Anne-de-Bellevue
No reservation

Many English and French sessions are offered on weekend evenings from Friday, September 29 to Friday, October 27, 2017

#### **Northern Saw-whet Owl Migration**

Research in action with MBO's monitoring program
Please reserve

Saturday, October 7, 2017, 10 am - 1 pm

#### **Wilderness Skills Outdoor Workshop**

Learn to live in the great outdoors
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Saturday, October 14 or Saturday, October 21, 2017 In French 10 – 11:30 am In English 12 – 1:30 pm

#### The Arboretum's Fall Forests

Explore the natural phenomena of leaf color change Please reserve

Saturday, October 28, 2017, 4 - 10 pm

#### Halloween in the Haunted Forest

Dress up and visit the dark side of the forests

No reservation

Visit <u>www.morganarboretum.org</u> for complete up-to-date info

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nities to

quietly

pause and

#### Continued from page 7

stones which served as the original base of the sign that showed the provenance of the trees making up the Birch Trail.

The original Centennial Birch Trail and the new elements catering to wildlife have been incorporated into a larger loop. It is a short trail, accessible to everyone, that offers



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#### THE LEAFLET

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Canada 150 Trail map based on *Google Map* by **Richard Gregson** and **Isabella Zeliger** 

contemplate our forest. Due to the trail's conservation vocation, it has been designated dog-free. The trail will be inaugurated on Sunday, September 24 as the Canada 150 Trail, in honour of Canada's 150th birthday. See the front page for details.

The Friends acknowledge the generous support of the Holland Family, the Arbo 50 Fund, and the current Arboretum staff in this undertaking. We endeavor to realize Dr. Brittain's charge to us: "to maintain it in full health and vigour for the next centennial of a united Canada." Volunteers for this ongoing commitment are ardently welcomed. Please contact the Gatehouse for details.

#### Continued from page 5

The copse will be not only a place where people can see wildlife, but also a place to find inspiration as to what to grow in their own natural spaces. It will be a place where people can learn about some varieties of plants in our ecosystem and how they can be grown to-gether to create a habitat in our own neighbourhood. At the copse, you will see the trees and shrubs grow and change over time, much like ourselves. This is why trees are great friends: they grow over time as you do; they don't talk, but they are great listeners.

The diligent work of the Friends of the Morgan Arboretum cannot be emphasized enough! Many long and dedicated hours went into the planning, planting and maintenance of the copse. This commitment doesn't end with the official opening on September 24, 2017 as new plants will be added, new ideas will grow and there will be new things to learn in the coming years. Furthermore, the work is just beginning for the butterflies, bees, and other pollinators without whom the berries could not develop. The copse is a beautiful place, and highlights the best of what is a collaborative, and cooperative, relationship between peo-ple and Nature.

I'd like to thank Richard Gregson for providing me with the information needed for this piece (as well as a few good recipes!).







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