

SPRING NEWSLETTER

The Friends of the Petawawa Research Forest Newsletter



**Forest Capital of Canada 2018
PRF**

Message from our Chair

It has been quite a while since the last edition of the Friends Newsletter, so there is a lot to report, especially given that 2018 was the centennial year of the Petawawa Research Forest. In fact, that really is a large part of the reason why we have been a bit remiss in getting a new edition published until now – there has just been so much going on, and although we are proud of all that we do as dedicated volunteers, there is only so much time in a day.

To say that the PRF has been humming lately would be an understatement. There has been a succession of great activities including the usual events like the Spring Bird Hikes last May, the Teachers' Forestry Tour in the summer, and the University of Toronto Winter Field Camp this past February. In early March the Friends partnered with the Algonquin Section of the Canadian Institute of Forestry to celebrate International Forestry Night, something that was started right here with the staff of PFNI back in the 1950's. There were also quite a number of special events and activities held throughout 2018 that allowed celebrations of 100 years of leading edge forest science research, knowledge exchange, and tech transfer, of which we are all privileged to be a part!

The Friends of the PRF have also been practicing our usual good governance, with regular Board meetings, our annual general meeting last November in Deep River, and also working with the staff to help promote the PRF in any way we can. Our Board was formally confirmed for another year recently, with new Director Jake Wakelin, a student at Algonquin College, joining our enthusiastic team.

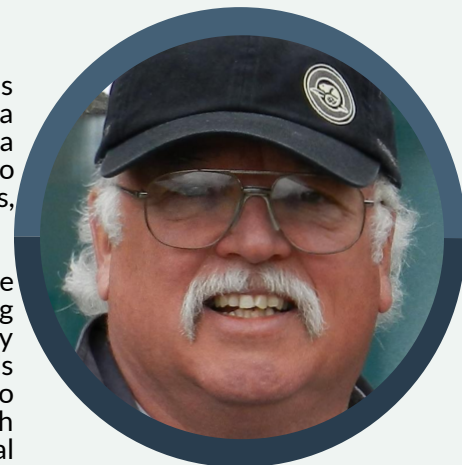
The months ahead are going to be busy as well, with Maple Fest scheduled for April 28th and the upcoming Batesville Living Memorial Tree Plant on May 11th. The next Teachers' Forestry Tour is scheduled for August, and the Friends will be helping out with a major national event in October – the Canadian Institute of Forestry's annual conference, which will be held in Pembroke this year. The PRF will be featured prominently not only on the conference agenda, but also as a major field tour destination, which the Friends will help to organize and lead. Also, we should not forget that the PRF is into the final year of its designation as the Forest Capital of Canada, a wonderful recognition received from the Canadian Forestry Association and the Canadian Institute of Forestry for 2018 and 2019.

As always, I invite you to have a good read through our newsletter to get more detail on what I've quickly skimmed through above, and I invite you to support us and become involved. We can always use more help. Please contact me or any of our members if you are interested in joining the Friends, and please redistribute this newsletter to your family, friends and colleagues. We also invite everyone to visit our Friends Facebook page; members are welcome to post photos of their experiences at the PRF on Facebook at: <https://www.facebook.com/FriendsofPRF/>

Robin Cunningham

Chair

Friends of the Petawawa Research Forest



Robin Cunningham

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2018 FRIENDS AGM RECAP

The Friends of the Petawawa Research Forest (PRF) held our Annual General Meeting (AGM) on November 28th, 2018 at the Deep River Library. The AGM saw the affirmation of the Board's members for 2019, with Robin Cunningham (Chair), Frank Knaapen, Tom Moore, Hilary Veen, Jordan MacMillan, Melissa Vekeman, Dave Lemkay, John Pineau and Ronnie Huang all remaining on the Board from 2018. Jake Wakelin (Algonquin College) was also elected as the student representative on the Board for 2019. Attendees at the AGM were treated to a number of presentations during the event, including Robin's President's Report, an update on the recreational trail system at the PRF from Frank Knaapen and an update on the operations and activities occurring at the PRF from Melissa Vekeman.

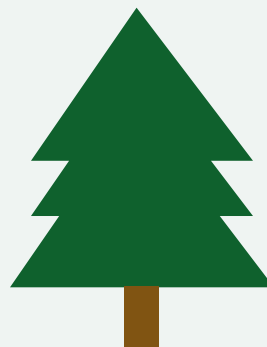
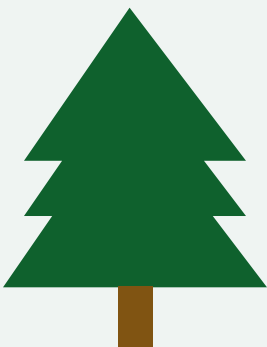
To conclude the evening, Friends of the PRF Director Dave Lemkay, presented his talk "Making Tracks - Making Waves; Innovation in the Forest", which touched upon the history of the Ottawa, Arnprior and Parry Sound Railway constructed by Ottawa Valley timber baron J.R. Booth, and the development of the Alligator Steam Warming Tug Boat. The talk included some rare historic photos which told an engaging story of our forest history in the area. We are all looking forward to an exciting 2019 at the PRF, and hope to see you at some events this year!

NEW MEMBER OF THE BOARD: JAKE WAKELIN

I couldn't be happier to represent Algonquin College's Forestry Technicians as a member of the Friends of the Petawawa Research Forest. This institution's value for the future of Canada's forest industry extends beyond the pioneering research taking place here—the forest and staff also offer boundless opportunities for practical, in-the-field learning for the next generation of forest practitioners. We visit the forest on a near-weekly basis to sharpen our skills and share in the collective passion for innovative and sustainable forestry. I look forward to being a part of the community that makes the PRF a true hub of forest knowledge.



Jake
Wakelin



PETAWAWA RESEARCH FOREST CELEBRATES 100 YEARS!

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An array of special events took place over 2018 to celebrate 100 years of the Petawawa Forest Experimental Station, Petawawa National Forestry Institute, and the Petawawa Research Forest. Representatives from the Friends participated in these activities.

A PRF Partners' Day was held in July, with local stakeholders from various levels of government, industry, academia, and non-profit organizations joining PRF staff to celebrate past successes and collaborate on future endeavours.

Natural Resources Canada Staff also visited the PRF in September. Staff members from non-forestry departments in Ottawa visited the PRF to learn more about the research forest's history and possible collaborations between departments.

The Petawawa Research Forest Centennial Bridge Naming Ceremony was held in October. The PRF's new, state-of-the-art engineered-wood bridge is located on the south side of Meridian Road. It was officially named, commissioned and celebrated for the example it sets for sustainable wood construction projects.

The Ontario Woodlot Association's Renfrew County Chapter celebrated Woodlot Day in October at the PRF, which saw community members celebrate the PRF's history and hear about ongoing research and operational activities, while learning more about proper woodlot management.



Above: Friends Director Dave Lemkay addresses the crowd during the Woodlot Day at the PRF.

UNIVERSITY OF TORONTO WINTER FIELD TOUR

The Canadian Institute of Forestry (CIF), hosted the University of Toronto's Masters of Forest Conservation class for their annual Winter Field Camp on February 22-24th, 2019. The tour included a full day visit to the Petawawa Research Forest (PRF) and was attended by many members and Directors of the Friends of the PRF. The group of students and facilitators, which numbered close to 40 participants, toured the recently constructed PRF Centennial Engineered Wood Bridge, PSP 1 and 2, an active harvest operation and a guided walk through the White Pine Silviculture trail from Frank Knaapen.

One of the highlights of the tour was the traditional lunch that includes maple syrup infused baked beans and maple taffy prepared by long-time PRF employee Ian Miller. During the lunch, the Friends presented Ian with a wood carving to commemorate his longstanding support of the Winter Field Camp and other events at the PRF throughout the year.

The Friends of the PRF were proud to support this annual event through participation from the Board and financial support to ensure that the next generation of forestry leaders have the opportunity to visit and experience the world class research that takes place at the PRF.



Above: Ian Miller with his commemorative wood carving.

Arboretum Update

The PRF Arboretum has grown from a personal collection to a useful and enjoyable site. In the spring of 2018 we planted 37 trees of 10 species, including some species at risk: Butternut, Hop Tree, Kentucky Coffee Tree, and American Chestnut. Our goal has been to have specimens of every forest tree species in Ontario that can possibly grow at the PRF. As well, we are including species of interest to forestry from the eastern U.S., western North America, Europe, and Asia. We now have a total of 76 species planted.

Students can see the Arboretum as an outdoor library. This past summer we had classes from Algonquin College Forestry Technician, Arboriculture, and Environmental Technician programs visit to study dendrology. We also had secondary school teachers from the Canadian Institute of Forestry's annual Teachers' Tour in August, getting a lesson in tree identification that we hope will be brought back to their students.

We are wondering how well some of the southern tree species will do. We expect that some are not hardy in our shorter and cooler growing seasons and longer, colder winters. Conditions might improve for them in years to come with climate change. We are observing winter damage in a few species now, but we are having encouraging results overall. Will this year's deep snow insulate the small trees and protect them from deep cold?

But this winter's snow might be harbouring mice which may find some exotic tasting barks. Life can be challenging for young trees. We are glad that the November deer hunters help us out by thinning the herd and thereby reducing browsing damage. High deer populations elsewhere in Renfrew County are very hard on young trees. As well, we are fortunate we don't have cottontail rabbits in our area.

We have been able to get away with planting small trees in the Arboretum. We didn't have to plant expensive larger landscape specimens as is normally needed in urban 'grass and tree' parks. With our relatively low visitation there is much less risk of trampling and vandalism. And with little mowing done here, our smaller trees will not get run over or scraped by lawn maintenance equipment. Young trees can get a good start with their root development.

However, we do have to control grass, weeds, and woody vegetation. Young trees, especially hardwoods, are sensitive to competing vegetation, the difference in growth rates between weedy and weed-free environments can be dramatic. For each tree we plant, we put down a mulch mat, and place some organic mulch on top. We should probably be maintaining larger weed-free circles. This is and will be an on-going maintenance task.

Our Arboretum site is a former residential street that had lawns, ornamental shrubs and flowers, as well as natural and planted trees. The lawns have been let go, and some of the ornamental plants have gone wild. We can see the formerly open lots naturally filling in with tree seedlings from the surrounding forest. Our plantings are becoming crowded. We will be working to give individual trees room to grow into mature specimens, and you will see our volunteers using saws and other implements to weed and thin.

Plan to come out this summer, have a leisurely walk, and enjoy the diversity of trees in the Arboretum.

Trails Update

Friends of the PRF Director, Frank Knaapen, has been leading a dedicated group of volunteers in maintaining the snowshoe trails over the winter and in preparation for the upcoming seasons. Frank and Meagan Southward performed maintenance on the HSA, Acer Loop and Snowshoe trails, while Frank along with George Dought, Stuart Craig and Ray Metcalfe completed the Maunsell and Hawk trails. One issue this winter was the constant removal of the trailhead signs by snow plows. A new crescent shaped trail is planned for development in the summer/fall of 2019, which will provide hikers and snowshoe enthusiasts with more options for travel at the PRF.

With special thanks to Kyle Harbin, PRF Research and Operations Technician, a GPS enabled geo-referenced map of the entire trail system at the PRF is now available through a mobile app. The map can be found on Avenza, which is a mobile based application that allows users to download maps and utilizes your mobile phone's internal GPS system to locate where you are in the PRF at all times.



Research and Operations Update

The staff of the Petawawa Research Forest are reporting another active year for 2018. During the year, PRF staff facilitated over twenty research initiatives, maintained many existing research projects and have begun talks for many more new projects in the coming months. An exciting new development has been the creation of a database repository for the PRF's many permanent sample plots, which will help in organizing the data for easy retrieval and sorting for any inquiring researchers.

From October 2017 until March 2018, a uniform shelterwood harvest took place along Orange Rd near Racehorse Rd. In May 2018, 34,000 white pine were planted mostly along Clouthier Rd by a contract planting company. Throughout the summer and early fall, the PRF monitored for the presence of Emerald Ash Borer with pheromone traps as part of a larger local network. And lastly, during the period of October 2018 until March 2019, two harvests were completed by local contractors – one along Racehorse and another along Wasp Lake Rd.

The PRF also continued to support educational groups through tours and activities in 2018 and early 2019 that focused on topics of forestry, forest ecology, and the PRF's ongoing research initiatives. These groups included: grade 12 biology class groups from the Canadian Ecology Centre, Fleming College co-op students, various programs from the Algonquin College, the Canadian Institute of Forestry's (CIF) University of Toronto Masters in Forest Conservation Tour, and the CIF Teachers' Tour. The PRF also hosted two major research-based tours, one with a group of scientists studying effects of a changing climate, and another of foresters from the United States and Mexico.

On the community side, the PRF supported the Friends of the PRF Bird Hike day in May 2018, the annual Kitchissippi Run in September 2018, and the CIF Algonquin Section International Night event in March 2019. Lastly, in May 2018, 5,000 seedlings (white pine, red pine, and white spruce) were planted along Clouthier Road by volunteers made of community members of the Friends of the PRF, members of the Canadian Institute of Forestry, Algonquin Section, and a local Boy Scout troop.

International Night at the PRF

The CIF Algonquin section held its 66th Annual International Night at the Petawawa Research Forest (PRF), near Chalk River, Ontario, on Saturday, March 2nd, 2019. The nationality of focus for this year's event was South African. The event was held in collaboration with the Friends of the Petawawa Research Forest, and included approximately 30 members from both organizations, including a large contingent of Forest Technician students from nearby Algonquin College in Pembroke.

The pre-dinner portion of the day included snowshoeing and various site tours led by PRF staff. Site visits included both Permanent Sample Plots (PSPs) 1 and 2, two of the oldest continuously measured forestry research plots in the country, and the newly installed and innovative PRF Centennial Bridge that utilizes engineered wood in place of traditional concrete and steel beams.

Following the snowshoeing and site visits, guests were entertained by the musical talent of CIF Algonquin's Director John Pineau by the campfire, and then were treated to authentic South African cuisine for dinner. To wrap up the evening's events, CIF Algonquin section member Dr. Margaret Penner described her experiences working with enhanced forest inventory technology in South Africa and her travels throughout the country.

The CIF Algonquin Section's International night is an annual event and has included ethnic themes such as Icelandic, Brazilian, Chinese and of course South African in recent years. The event typically includes a presentation from a section member on their work or travels to a unique part of the world, followed by a meal featuring dishes from that culture. This year's event went back to its original roots by returning to the PRF, as the original International nights were organized by Petawawa National Forestry Institute's (the former name of the PRF) employees and featured cultures that were visited during their travels or their native homelands.



International night participants visit PSP 1 at the PRF.



Post dinner presentation from Dr. Margaret Penner.

New PRF Centennial Bridge Installed to Rave Reviews!

The construction of the Centennial Bridge has been recognized across Ontario as an exciting leading edge initiative, and a potential game-changer. Installed on Meridian Road, an important access road within the PRF that leads to research, forest management, and recreational sites, it replaced a multi-cell culvert system at Young's Creek which had failed. The crossing needed large-scale maintenance to allow the continued movement of logging trucks, vehicles, and research teams. The culvert failure also negatively impacted water flow and habitat. To rectify these issues, it was decided that a modern, single-lane engineered wood product bridge would be installed and built by Corington Engineering Inc., based in Renfrew.

Two types of EWPs were used in the construction of Centennial Bridge:

- Glued-laminated timber (glulam) - composed of several layers of dimensional timber glued together with moisture-resistant structural adhesives to create a large, strong, structural member that can be used as a vertical column or horizontal beam. Glulam can also be produced in curved shapes, offering extensive design flexibility.
- Nail-laminated timber (NLT), a solid-wood structural element consisting of dimensional lumber on edge with the individual laminations fastened together with nails. It is an older but effective method of construction that is gaining renewed interest.

The centennial bridge is the first engineered wood forest access road bridge installed in Ontario, and this has resulted in significant interest by sustainable forest license holders who are interested in trying the same materials and approaches. As well, a number of municipalities are also considering similar solutions for their aging transportation infrastructure. The PRF's leadership with engineered wood use in the Centennial Bridge is to be commended. The potential benefits are many including carbon storage, aesthetics, and lower lifecycle maintenance and costs vs. steel. A number of monitoring and durability studies on the bridge are being planned, that will further add to our knowledge and understanding.



Newly installed PRF Centennial Bridge.



PRF Centennial Bridge naming event on October 2nd, 2019.

Donation from Kitchissippi Run Greatly Appreciated!

The Friends would like to acknowledge the continued support of the organizers of the Kitchissippi Run. This past year's donation will help us to continue to do the important work of promoting the legacy and future of the Petawawa Research Forest. Thank you for your generosity and support!

For more information about the Run: <http://www.deepriver.ca/events/kitchissippi-run-2168.html>

New PRF Swag Available!

Friends of the PRF sweaters and baseball caps are now available! Sweaters featuring the original logo are a heavy blend of cotton/polyester with sizes ranging from S to XL (\$40) and baseball caps featuring the PRF 100 logo (pictured above) are 100% cotton structured caps (\$25).

Contact any members of the Friends if you wish to order any of the items available.



Batesville Living Memorial Tree Plant - May 11th

The third annual Batesville Living Memorial Tree Plant will be held on Saturday May 11th from 9 a.m. to 2 p.m. at the PRF. All levels and ages of planter are welcome, and refreshments and lunch will be provided. To register, please contact John at john.pineau@fpinnovaitons.ca or 705-845-6310. A legacy partnership program of the Canadian Forestry Association, every tree planted helps a family to remember a loved-one who has passed, and also helps contribute to the important work of the PRF.

For more information:

<https://www.batesville.com/why-batesville/honoring-lives/>



111th Conference of the CIF - October 2019

The Canadian Institute of Forestry will be holding its 111th Annual General Meeting and Conference at the Best Western in Pembroke this October. The conference theme is 'River through the Pines - Still Flowing... Still Growing', and will feature an exciting agenda of local, regional and national speakers. Two in-conference field tours are also planned, in both Renfrew County and the Petawawa Research Forest. The Friends and the staff at the PRF will be working together to organize and deliver the PRF field tour component.



Canadian Institute of Forestry
Institut forestier du Canada

For more information: <http://www.cif-ifc.org/2019-annual-general-meeting-conference/>

Petawawa National Forestry Institute (PNFI) Former Employee Social Media (Facebook) Group

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Former employees at PNFI are invited to catch up on what is going on with your friends and colleagues and to share what you have been doing, where you are, how your family is... Pass this group link on to others that you are still in touch with, so they can join our little group too.



- Friends of the Petawawa Research Forest
- PNFI Alumni Group

Donations to the Friends of the Petawawa Research Forest

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The Friends of the Petawawa Research Forest welcome your donations. We will be able to continue to lead and support many projects, activities and events - through your generosity.

Please print and detach this form if you would like to make a donation and become a member of the Friends.

Name _____

Postal address _____

Telephone _____

Please make your cheque payable to:

"Friends of the Petawawa Research Forest"



Mail to:

Treasurer - Friends of the Petawawa Research Forest,
PO Box 2000
Chalk River, ON | K0J 1J0



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