

OUR FOREST



ForestsCanada.ca

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The Right Tree in the Right Place

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Letter from the CEO

On target this year to plant our 50 millionth tree

This planting season is shaping up to be a special one for Forests Canada, as we're on track to plant almost **4 million trees** in communities across the province and country this year – the highest annual number in our history.

Even more special to us is the fact that those trees should bring us within reach of having supported the planting of **50 million trees** since we began this journey more than 20 years ago. Be sure to follow us on social media and sign up for our e-newsletter, *TreeLine*, so you can stay up to date with all the exciting news as we wrap up our planting season this fall.

Celebrating these milestones makes me think about the power of collective action and the fact that we could have never reached this stage without the support and partnership of so many people. We owe a debt of gratitude to every conservation authority, planting partner, nursery, seed collector, and field advisor we have worked with over the past 20 years, as well as every property owner and manager, donor, corporate partner, member, Indigenous community, and government who has ever supported our work.

The relationships that we have built over the years have helped us to reach these special milestones while also sharing knowledge, challenging us to be better, and enabling us to have critical impact on the ground. **Thank you** for being part of this journey and I look forward to the future and continuing to **grow together**.

Another moment to celebrate happened back in May, when Forests Canada Education Manager Allison Hands and I were presented King Charles III Coronation Medals by Lieutenant Governor of Ontario Edith Dumont. We were told that recipients of this honour have “made a significant contribution to Canada or to a particular province, territory, region of, or community in, Canada, or attained an outstanding achievement abroad that brings credit to Canada.”

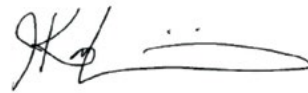
We received this honour for our distinguished work in forest restoration and education. I'd like to take this moment to again thank Lieutenant Governor Dumont and His Majesty

King Charles III, and congratulate all the other recipients of this honour. I would also like to give a special shout out to Allison, who has been with Forests Canada for over 14 years now and has helped thousands upon thousands of budding environmental leaders explore education and career paths in the natural sciences.

Finally, I would like to mention that we believe it is important to foster a lifelong connection with our forests, and this means developing and providing interactive learning opportunities for all ages. Please be sure to visit our website, **ForestsCanada.ca**, often to find out more about our upcoming webinars, workshops, resources, and learning tools that are accessible year-round.

We wish you a safe and happy summer.

Sincerely,



Jess Kaknevicus
CEO, Forests Canada



Jess Kaknevicus, CEO, Forests Canada (left) and Allison Hands, Education Manager, Forests Canada (right), being presented King Charles III Coronation Medals by Lieutenant Governor of Ontario Edith Dumont (centre).

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OUR FOREST

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On the cover: **Earlier this year, Forests Canada supported the planting of white pine, red pine and red oak on this restoration planting site just outside of Renfrew, Ontario, that was devastated by the 2022 derecho storm. Photo: Forests Canada**

Our work takes place on the original, treaty, and unceded territories, nations and homelands of Indigenous Peoples. As we work to conserve, restore, and grow Canada's forests to sustain life and communities, we are committed to ensuring our efforts are informed by natural laws that recognize the inextricable kinship between Indigenous Peoples and the lands we call home. We are striving to find new ways of enhancing the agency and autonomy of Indigenous Peoples to meaningfully collaborate and uphold their responsibilities to the lands, forests and landscapes. Our intent reflects the need to build respectful relations and listen to the advice and needs of Indigenous communities.

STAY IN TOUCH

Forests Canada is a registered national charity on a mission to conserve, restore, and grow Canada's forests to sustain life and communities. Subscribe to our monthly e-newsletter and follow us on social media for the latest news and updates on our restoration, community and education programs.

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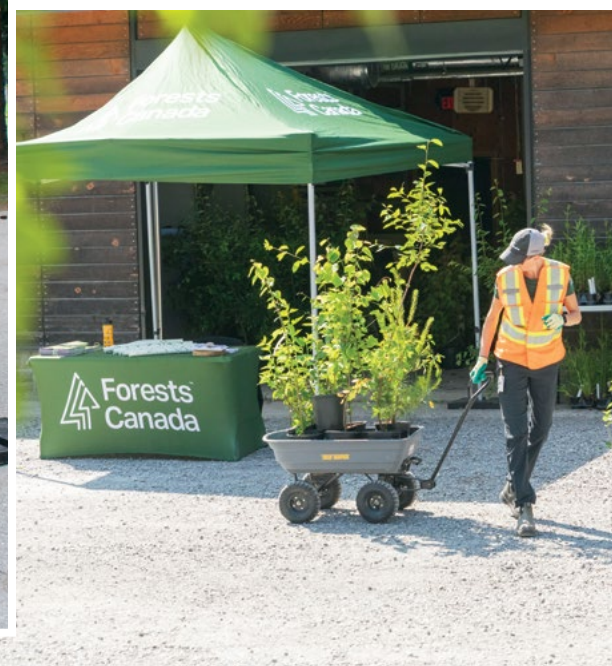
Take Root Grows in York Region

More than 1,000 native trees and 500 wildflower blooms find new homes

BY BRITTANY HAINES

Following a successful pilot program in 2024, Forests Canada's Take Root program returned to York Region this spring with strong community support and a new three-year commitment that will bring the program back annually through 2027!

Earlier this year, 1,000 native trees and 500 wildflower blooms sold out before registration even closed! Two distribution events were held in Markham and Whitchurch-Stouffville, where residents picked up their trees and wildflowers, chatted with York Region and Forests Canada staff on-site, and learned more about proper planting techniques and the native species in their area.



Photos: Forests Canada

Expanding urban tree canopy is an important part of building climate-resilient communities. Trees provide much-needed shade and help manage stormwater, improve air quality, and provide crucial habitat for local wildlife. Take Root offers a practical and accessible way for residents to contribute to these goals by planting native trees and plants in their own yards. With continued support from municipalities, we hope to grow Take Root's impact even further!

If you are a resident who wants to see Take Root in your community, please reach out to your local council and invite them to explore the program. Municipalities interested in joining the initiative can learn more or get in touch by visiting the Take Root website at **TreesTakeRoot.ca**.

Together, we can all Take Root for a better future!

Donor Spotlight: Cam Krempulec

Finding joy in every adventure nature has to offer

BY BROOKE MCCLELLAND

Cam Krempulec has always loved the outdoors and the sense of adventure that comes with exploring the wilderness. An avid outdoor enthusiast, Cam finds joy and fulfillment in every adventure nature has to offer, whether it's hiking through local forests with his family, or going deep into untouched parts of the country to camp and fish.

Starting in his teenage years, Cam would embark on canoe trips in Northern Ontario, surrounded by hundreds of kilometres of pristine forests and winding waterways. These cherished and unforgettable memories in our forests inspired him to take part in their protection and growth.

Cam was looking for a way to give back to the planet and support initiatives that restore and conserve our natural world. He wanted to contribute to an organization that matched his enthusiasm and passion for the outdoors and found Forests Canada. With a focus on the long-term health and resilience of our forests today and for future generations, Forests Canada perfectly aligned with his values and passion for the great outdoors.

"I want future generations to have the same opportunities I did, to experience their beauty and serenity. Forests are the lungs of our planet, and every tree we plant makes a difference," Cam says.

Cam's desire to make a difference even carried over into his work. As the National Region Director at Midmark, he helped the company assess its annual holiday gifts to clients. Midmark, a global manufacturer and supplier of healthcare products, equipment and diagnostic software for medical, veterinary, and dental markets, wanted to do something meaningful that would help make the world a better place. So instead of gifting material goods, they started donating to Forests Canada each year on behalf of their clients.

"Our planet is facing some harsh climate change realities. It can feel like a daunting challenge. People may not know how to help or where to start. Supporting an effort that helps put millions of trees in the ground every year is an effective way someone can act and make a difference," Cam says.

Forests Canada would like to thank Cam, Midmark and all our donors and business partners for their valued support. Contributions to Forests Canada make an impact in conserving, restoring, and growing our forests. Discover the many ways you can make a donation today at [ForestsCanada.ca](https://www.forestscanada.ca).

Cam Krempulec with family and friends visiting his local forests in Ontario. Photos: Cam Krempulec



The Right Tree in the Right Place for the Right Reason

Maximizing the benefits of forest restoration for the climate, nature, and people

BY MATTHEW R. BROWN

At The Forest Conference in February, Elizabeth Jarrett, Forests Canada's Chief Operating Officer, welcomed Ronnie Drever, Senior Conservation Scientist with Nature United, for a conversation based on a recently published research paper they had both worked on.

The research paper, "Restoring Forest Cover at Diverse Sites Across Canada Can Balance Synergies and Trade-offs," discussed how to maximize the benefits of tree planting for the climate, nature, and people. Along with Elizabeth and Ronnie, its co-authors include Val Deziel, Director of Restoration Programs at Forests Canada, and Steve Hounsell, a biologist and former chair of what is now Forests Canada.

Published in the February 2025 edition of *One Earth* magazine, the authors theorized that while tree planting is a cost-effective strategy to mitigate climate change and biodiversity loss, many initiatives do not fully achieve their potential.



Left to right) Ronnie Drever, Senior Conservation Scientist, Nature United, and Elizabeth Jarrett, Chief Operating Officer, Forests Canada, at The Forest Conference in February 2025. Photo: Forests Canada



These connected forested landscapes are thriving on a Forests Canada planting project site near Ottawa, Ontario. Photo: Forests Canada, October 2024



Above: Growing healthy new forests on a Forests Canada 2020 planting project near Ottawa, Ontario. Inset: Forests Canada's Amber Brant visits the same planting project in 2024 to inspect the health and resilience of the trees planted. Photos: Forests Canada

Poorly planned plantings can lead to reduced biodiversity, lost local livelihoods, or short-lived success from inadequate maintenance, drought, or subsequent land clearing.

"Canada has approximately 19.1 million hectares available for planting, so with so much space, significant forethought must be given to select sites that achieve multiple objectives," Elizabeth says.

"For example, we need to balance synergies between at-risk species' habitat needs and high-tree-growth areas while managing trade-offs like high land costs or limited overlap with areas supporting freshwater provision or nature-based recreation," Ronnie adds.

The research paper mapped restoration scenarios that prioritize different objectives to amplify synergies and minimize trade-offs. Planting programs with diverse goals need tailored and site-targeted investments to simultaneously and rapidly meet different outcomes.

"The value of this research is that it can help guide us on the priority areas to focus on," Jess Kaknevicus, Chief Executive Officer, Forests Canada, says.

"Because Canada is so vast with some of the Earth's

most diverse natural landscapes, there are many opportunities to restore forests, but understanding where our investments are going to provide the greatest ecological value is crucial."

In fact, Forests Canada's planting projects have already produced positive impacts in high-value areas such as those with biodiversity or watershed value.

"When we assessed what was recommended against where we actually planted over the past 20 years, there was an overlay of millions of trees in identified priority areas that we've contributed to, in particular in southern Ontario," Elizabeth notes.

Many of Forests Canada's tree-planting projects have been located near communities, where these new forests provide social and economic benefits in addition to the environmental gains.

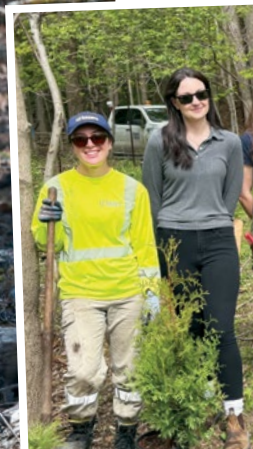
"Forests are a critical habitat for various species but are also critical for people," Jess adds. "We don't always remember that healthy forests help clean our air and water and support pollination services, while also providing places for us to enjoy, sustain employment and materials for building homes, and so much more."

Restoring Forest Cover at Diverse Sites Across Canada

2025 marks our biggest planting year yet!

This year's planting projects are shaping up to be one of our biggest yet **with almost 4 million trees** planted across the country! Here are just a few of the photos we have received from our planting partners, as well as those taken by Forests Canada staff at recent planting projects.

A special **thank you to our incredible planting partners, nurseries, seed collectors, and property owners and managers** who are taking action to help conserve, restore, and grow healthy, thriving forests today and for generations to come.





'Simply Put, Canadians Want to Help'

Why people plant: A Q&A with Forests Canada's Val Deziel

BY VAL DEZIEL AND PETER KUITENBROUWER

After completing her degree in restoration ecology from Fleming College/Trent University, Val Deziel began her career in 2008 as a tree planter working in Eastern Ontario, with the Ganaraska Conservation Authority, increasing forest cover mainly on private and corporate lands.

In over a decade with the Nature Conservancy of Canada, Val worked to protect and enlarge forests next to large partner blocks of public forests. She also restored tallgrass prairies, turning remnant, degraded patches into healthy expanses of native habitat.

Today, as Director of Restoration Programs at Forests Canada, Val heads a team that works with the charity's various network of seed collectors, nurseries, tree planting partners and restoration professionals across the country. She sat down with Peter Kuitenbrouwer to discuss Forests Canada's restoration programs, its growing data sets, and new ideas to increase landowner engagement using tools such as iNaturalist.

Question: Why do people plant trees with Forests Canada?

Val Deziel: I think landowners choose to plant with us because they know that we take great care with the forests that we create. We start with source-identified seed collections. Then we work with nurseries to grow the stock. We understand the full gamut of the tree planting process.

Forests Canada's Val Deziel, Director of Restoration Programs, and Dan Beausoleil, Restoration Programs Coordinator, plant pine seedlings in Renfrew County, Spring 2025. Photos: Forests Canada

We have a growing reputation across the country, not just for our success in fostering new forests, but also as a reliable source of information about the forest communities that we enhance. These days, we are very sophisticated in our science-based approach to tree planting as well as the data behind the science.

Q: Forests Canada has a long history with roots going back to the Ontario Forestry Association which merged with Trees Ontario to form Forests Ontario (in 2014). Last year, the charity broadened its national focus and is growing its capacity for planting and stewardship programs across the country. What is the strength of this long track record?

A: The roots of our organization go back more than 75 years, so that focus on improving forest health, supporting fundamental ecosystem services, and fostering a community connection with nature continues to be a big part of what we do today. With that in mind, we have also continually broadened our scope and capacity to build a wealth of knowledge and experience in other integral areas. For example, we planted our first trees in Ontario 20 years ago. With 20 years of planting projects behind us, we are able to meaningfully evaluate the work that we've done and identify impacts, synergies, improvements, and so much more with the science and data we now have available to us.

Q: In its analysis of 20 years of planting data, Forests Canada learned that most of the sites it plants can be considered small, under two hectares. Do these small, new forests still matter?

A: They absolutely matter - small sites can equal big impact. Landowners may not have an opportunity to realize the collective impact of their decision to plant trees. They may think that their plot of two hectares doesn't mean a whole lot to anyone other than themselves, but the fact is, it does have a huge impact across the province, the region, and the country.

When you add it all together, the 50 million trees we have planted through over 10,000 forest restoration projects in 10 provinces to date has contributed to more than 900,000 hectares of connected forest





landscapes. All these smaller plots help to stitch forests together, create interior forests, and enlarge wildlife corridors for birds and mammals. Landowners are doing something incredibly valuable, and we want them to know and understand just how much they are contributing to their communities.

Q: As you continue to find new planting projects as well as grow your network of experienced planting partners across the country, what do you think is driving people to get involved?

A: Well, simply put, I think Canadians want to help. I think Canadians see we're in a crisis and I believe that there are many good people out there that really want to make a difference in their communities, whether it be on their own land or whatever they can do to contribute. We are providing the opportunities for them to do just that. We have tried to make our planting programs accessible for those who have room to plant at least 500 trees, or about half an acre, however, the minimum quantity does vary per region, soil type, planting objective, and so on. What we are doing is making planting trees and connecting forested landscapes more obtainable for private landowners so that their environmental impacts go beyond their own borders and contribute to the greater benefit of their communities.

Q: What other tools can Forests Canada use to engage landowners and those who wish to help conserve and restore the natural world?

A: We have produced a new Landowner Guide that is now available to download through our website at: ForestsCanada.ca/LandownerGuide. Over the past several years, we have collected questions and topics of interest from landowners and planting

partners, including how best to transition from newly planted trees to healthy, resilient forests. We also specifically heard from the farming community that they wanted more information on each stage of managing their growing forests, so we took all the information we have gathered from our decades of experience and created a free Landowner Guide to help those interested in learning more, and will be updating the resource on a regular basis.

We will also be launching an iNaturalist project over the coming months. Anyone interested in participating can identify the tree species on their land by sharing photos and information taken on their properties and/or in their communities.

We're going to start with trees, because that's a little bit easier. Participants in our planting program have told us that making space for wildlife is one of the primary reasons why they plant. Now we want them to share their stories with us and the community at large so that we can learn more about how our projects are supporting biodiversity, creating and enhancing wildlife habitat, including species at risk, and so much more. This goes back to why people plant... I think it's because Canadians want to help.

Q: You talked about the importance of research using the last 20 years of tree planting data you have gleaned so far with Forests Canada. What can we expect for the next 20?

A: Having 20 years of planting data is an incredible opportunity to really assess where we've had an impact historically, which will then help inform our work over the next 20 years. We want to ensure our impact is more pointed, not the result of chance, but by design. This means we will continue to gather forest-related analytics to help quantify our planting program results, identify sector trends, and inform project planning with transparent and up-to-date information. This critical data also means we can improve the survivability rates of planting projects and carbon sequestration, continue to identify priority restoration areas of notable environmental interest and support the economic growth of the communities we work in.

After the Smoke Clears

Forest recovery post-wildfire requires mix of resilience and adaptation

BY THOMAS HANEY

Wildfires are an ancient force of nature that have shaped ecosystems since time immemorial and, in many cases, sustained them. Likewise, First Nations have practiced cultural burning for millennia to maintain healthy forests. Fire in the landscape is as natural as the forest itself.

In 2023, however, Canada experienced the worst wildfire season on record, with 15 million hectares burned—seven times the historical average.

Canada's 2025 wildfire season is already the second-worst on record. Wildfires are growing more frequent and severe, forests are struggling, and communities face growing fire risks. Climate change has upended traditional approaches to tree planting and fire management, calling for new adaptation strategies.

Two recent events focused on this complex challenge: Reforest Canada Collective's (RCC) webinar series, *After the Smoke Clears*, and FireSmart Canada's presentation at Forests Canada's annual conference earlier this year. While the RCC's webinars focused on restoring forests, FireSmart emphasized protecting communities. Together, they painted a clear picture: successful wildfire recovery requires a combined approach—building resilient forests and creating fire-adapted communities.

Key Insights from the RCC Webinar Series

The RCC, led by registered charity Forests Canada, has a goal of bringing together the planting community to improve collaboration, relationship-building and knowledge sharing. Fresh off its launch in December 2024, the RCC wasted no time assembling forestry experts and practitioners across Canada to broach the issue of post-wildfire recovery. In early 2025, the RCC undertook its first initiative – a three-part webinar series entitled *After the Smoke Clears*.

Spearheaded by Forests Canada's Tree Planting Resource Manager, Amber Brant, and facilitated by the charity's Director of Restoration Programs, Val

Deziel, the series featured nine experts from across Canada who discussed the science, logistics, and future of post-wildfire tree planting.

Although strides are being made in reforestation, speakers acknowledged that many knowledge gaps remain – particularly around predicting regeneration failure, selecting species for future climate conditions, and understanding how restoration actions influence future fire behaviour. Hence the importance of forums that assemble experts nationwide to share insights and best practices.

Here are five takeaways from the series:

1 Wildfires are intensifying and changing the landscape.

Fires are growing more frequently and severely and are occurring earlier in the season and in historically low-burn areas. The consequences of these shifting dynamics are profound. There was consensus among speakers that regeneration processes are being disrupted, and seedbanks destroyed. Species like Black Spruce are failing to regenerate after high-severity burns, and human intervention is therefore often necessary.

2 Restoration must be adaptive and site-specific

Restoration strategies vary depending on ecological context, burn severity, accessibility, and community priorities. What works in British Columbia to recover a burned landscape may not apply in Alberta. In some cases, the best restoration decision may involve doing nothing and letting nature take its course.

3 Species selection and planting techniques are evolving

Species selection is evolving based on shifting wildfire regimes. For instance, British Columbia's Williams Lake First Nation has experimented with planting Ponderosa Pine instead of White Spruce, given the former's ability to withstand fire and drought and the latter's shifting distribution due to climate change.



Aftermath of the Harding Fire that scorched northeast Saskatchewan in July 2021. Photo: Joanne Francis

Other shifting approaches include adding more deciduous trees, including Trembling Aspen and alder, to planting prescriptions and exploring the possibility of using larger, deeper-rooted stock. As speaker Jordan Todd of Folklore Contracting noted during his presentation, some nurseries are experimenting with niche stock, including different plug sizes with longer, more developed root systems to help seedlings become established in drought-prone areas.

4 Operational challenges and knowledge gaps persist

Burnt landscapes present barriers to restoration – including dangerous terrain, standing dead trees, and smoke – that require specialized training. Many restoration efforts lack long-term data, and more research is needed on survival rates, soil recovery, and firebreak effectiveness.

The discussions also touched on wildfire and its unknown impacts on wildlife and biodiversity. For instance, what happens when fires increase water

temperatures and decrease oxygen levels in lakes and rivers?

5 Wildfire and cultural values must be integrated

Central to the webinar series was the question of Indigenous-led restoration strategies, such as cultural burning and Traditional Ecological Knowledge, and how they can be integrated into post-wildfire forest management.

“If we aren’t proactive in restoring the ecosystems to how First Nations historically managed these areas, there will be nothing to prevent the catastrophic fires,” John Walker, Stewardship Forester with British Columbia’s Williams Lake First Nation, says.

For thousands of years, Indigenous communities have used fire as a land management tool – restoring grasslands, maintaining biodiversity, and preventing fuel buildup that leads to uncontrollable wildfires.

However, in the wake of colonization and fire suppression policies, as John noted, these traditional practices were marginalized, contributing to today’s volatile conditions.



In 2022, landowner Richard S. held a prescribed burn at his 52-hectare property in the Oak Ridges Moraine region in Baltimore, Ontario (60 kilometres east of Oshawa). The landscape quickly regenerated healthier than before.

John has been involved in the community's recovery efforts in the wake of the 2017 mega-fire that forced the City of Williams Lake, British Columbia to evacuate. His approach is rooted in consultation with Elders, walking the land, and applying cultural insight to restoration planning. The community's plan includes preserving areas of natural regeneration, creating wildlife corridors with gaps to act as firebreaks, and restoring grasslands through fire.

In 2025, the First Nation plans to plant 300,000 trees, including Douglas Fir, Lodgepole Pine, and Ponderosa Pine. The species were selected to align with Traditional Knowledge, future climate conditions, and wildfire resilience.

Incorporating Indigenous knowledge into wildfire recovery is not simply a matter of restoring ecosystems—it's a step towards reconciliation and long-term resilience. "Only by listening to the land, as First Nations have done for millennia, can proper management be completed pre- and post-fire," John added.

FireSmart Canada: Building Resilient Communities

Attendees at Forest Canada's The Forest Conference in February 2025, heard a presentation from Lisa Walker, then Director of Resiliency and Partnerships at the Canadian Interagency Forest Fire Centre (CIFFC), a non-profit corporation whose mission includes providing operational support to member agencies and coordinating fire prevention and mitigation across Canada.

Lisa Walker reminding the audience at Forest Canada's 2025 The Forest Conference: "Please don't feed the wildfires!" Photo: Forests Canada



Lisa spoke about FireSmart, one of CIFFC's national programs that helps Canadians increase neighbourhood resilience to wildfire and mitigate its impacts. She noted that longer fire seasons and drier conditions have expanded the wildland-urban interface, making more communities vulnerable to fire than ever before: "With our changing climate, the threat of wildland fire has increased significantly across Canada," Lisa says. "The good news is that there are actions we can take to reduce our shared risk and create more fire resilient communities."

She emphasized that the danger often isn't the flames themselves but windblown embers. As a result, homes with non-combustible roofs and 1.5 metres of non-combustible clearance are much likelier to survive a major wildland fire.

Lisa highlighted strategies that homeowners can use to mitigate fire risk, such as reducing flammable materials near homes, using fire-resistant landscaping, and educating communities on emergency preparedness and evacuation planning.

Although large-scale forest management plays a crucial role in wildfire prevention, Lisa adds that homeowners and communities can influence outcomes at the neighbourhood level.

The message from both events was clear: wildfire recovery must go beyond planting trees. It is a complex, climate-informed, culturally grounded process that requires long-term vision, science, and deeper engagement with Indigenous-led practices. As one presenter noted, "We're still students of this process." Success depends on our willingness to learn from every burn, collaborate across knowledge systems and communities, and adapt as climate and fire regimes evolve.

The full webinar series can be viewed in English and French at:

<https://ReforestCollective.ca/knowledge-hub>

For wildfire resources, please visit:

ForestsCanada.ca/Wildfire

For more information on FireSmart Canada, please visit:

FireSmartCanada.ca

With support through Canada's 2 Billion Trees program, the Reforest Canada Collective (ReforestCollective.ca) works to increase the scale and quality of tree planting and forest restoration projects in Canada by addressing current and anticipated challenges related to access to information, best practices, training, regional and sectoral capacity gaps, and navigating the impacts of climate change.

Roots, Resiliency and... Secrecy?

Hundreds descended on Alberta in July for the NCF-Envirothon

BY PETER KUITENBROUWER

Preparations by the host committee in Alberta to welcome more than 500 high school students, teachers and volunteers from across North America, China and Singapore for an international Envirothon competition were complex.

The National Conservation Foundation (NCF) Envirothon is the largest high school environmental education competition in North America. Getting everything ready for these students involves creativity, money, organization, and another detail: secrecy.

The hosts welcomed teams from over 50 high schools including Canadian teams from Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia and PEI. All stayed at Mount Royal University in Calgary. Prior to the competition, I asked the organizers where would the actual competition, involving evaluation of soil, forests, wildlife and aquatic ecosystems, take place?

"I can't tell you, because those are top secret locations," said Valerie Miller, PhD, who sits on the organizing committee for the NCF-Envirothon competition, which took place July 20-26 in southern Alberta.

Chantelle Bambrick, head organizer for this Envirothon competition, chimed in that, in preparing for the annual competition each year, teams try to scout the host location ahead of time. "These teams are quite ambitious," Chantelle, a forest technologist, says. "They want to get whatever advantage that they can. So, those are very confidential locations that we can't disclose ahead of time."

That said, the opportunity for students, teachers and volunteers to explore the beauty of the province was arranged by local organizers so teams could take a break from the competition and experience the sights, sounds and tastes of Alberta.

The local organizers were also making strides to incorporate Indigenous views, knowledge and perspectives into the Envirothon program. The theme this year was **Roots and Resiliency: Fostering Forest Stewardship in a Canopy of Change**. "We are blending forestry with Indigenous knowledge systems," says Chantelle. "Moving towards truth and reconciliation is important to us and our board. We invited Elders and Knowledge Keepers, and incorporated Indigenous culture, teachings and ceremonies throughout our week-long event."



Above: Chantelle Bambrick in September 2024 working with the Aseniwuche Winewak Nation in west-central Alberta recording culturally significant sites within their Traditional Territory. Photo: Chantelle Bambrick

Below: Valerie Miller on Akimiski Island, Nunavut, studying Canada Geese in 2010. Photo: Valerie Miller

Valerie and Chantelle were also eager to showcase the beauty of Alberta to all their guests. "Alberta is not just a resource extraction environment," Valerie adds. "It is very much a place that cares about the environment. Alberta had some of the earlier land reclamation laws and procedures. There are some amazing stories of success in our resource use and our industries, and we also have some of the most beautiful ecosystems in the country."

Forests Canada was a proud sponsor of the 2025 NCF-Envirothon in Calgary, Alberta, and congratulates all the teams that competed in this year's event, including Team Ontario (from University of Toronto Schools) for placing 14th out of 51 international teams, making them the highest-ranking Canadian team at this year's competition.

Becoming “That Bird Guy”

Brendon Samuels hopes to change the way we think about birds and sustainability in the built environment

BY MATTHEW R. BROWN

How does a self-described “city kid” born in Richmond Hill without much exposure to ecological knowledge end up with a PhD in the Department of Biology at Western University where he studies strategies for preventing bird-building collisions? In the case of 32-year-old Brendon Samuels, it is a combination of a natural fondness for animals and nature, supportive parents, a strong desire to better the state of the natural world, and a bit of luck that earned him the nickname of “that bird guy” in his current home of London, Ontario.

Growing up, Brendon recalls being drawn to animals, including pets and wildlife. This led him to working at a pet store as a teenager, where he grew fond of a parrot that was on display and eventually came home with him.

“I got to experience companionship with a bird that taught me a great deal about how much our species have in common,” Brendon says. “I was fortunate that my parents valued travel and exposed me to different landscapes – like beaches and forests and deserts and lakes – and experiencing those places also introduced me to some of the intersections of environmental and social issues affecting animals and nature.”

Being interested in animals, Brendon completed a Masters degree in neuroscience at Western University that focussed on birds. Through experimental design, Brendon wanted to compare the ways that humans and songbirds process the rhythmic organization of sound, as in the regular beat pattern that people perceive in many genres of music.

“Some of the parrots I had interacted with were prolific ‘dancers’ and I was curious about the neuroanatomical basis of this behaviour,” Brendon says. “After studying bird hearing for awhile, I decided that I wanted to pursue a PhD and to choose a topic that would allow me to apply what I had learned to solve a problem facing the natural world in a meaningful way.”

Brendon’s academic supervisor from his Masters understood that he was anxious about the state of our planet and felt a responsibility to devote himself to help other species – looking at window collisions as a visual sensory problem for birds was mentioned

as a possibility. His supervisor pointed him to a non-profit organization called the Fatal Light Awareness Program (FLAP) Canada in Toronto.

“I then attended one of FLAP’s annual ‘bird layout’ events at the Royal Ontario Museum, where thousands of dead birds collected by FLAP volunteers were laid out in a pattern on the floor,” Brendon says. “It was a profound experience that changed my life and the way I thought about birds and sustainability in the built environment. I was hooked, and beyond the research I pursued for my PhD, I became motivated to work with FLAP to prevent the harms I was witnessing in any way I could.”



Brendon poses in front of the East Lions Community Centre where he helped to treat the building’s windows for bird safety through the City of London’s “Neighbourhood Decision Making” program.

According to “A First Estimate for Canada of the Number of Birds Killed by Colliding with Building Windows” (Machtans et al. 2013), the number of birds that die from collisions each year in Canada is in the 16 to 42 million range. Brendon thinks the true number is at the upper limit of that range.

“As conservationists, we should move beyond focusing on mortality figures alone – even non-lethal collisions can cause injuries that expose birds to other threats, like being more vulnerable to predation by domestic cats,” Brendon says. “Birds that are killed partway through their breeding cycle will be unable to attend to their offspring, yet the deaths of those offspring are not counted as collisions mortality.”

Preventing bird-building collisions is about more than just feeling empathy toward the different species we share our planet with. It is about helping to restore natural environments.

“Let’s suppose, for example, you treat a single window with visual markers to prevent bird collisions and as a result, a young songbird who visits your backyard manages to avoid a lethal collision,” Brendon says. “Imagine the number of seeds that individual bird can disperse over its uninterrupted lifespan, each with the potential to grow into plants and trees that themselves will sequester carbon and eventually reproduce.”

So, what can you do as an individual or as part of an organization or business to protect birds and help ensure their part of healthy, diverse ecosystems? Brendon believes even small actions can add up to a lot of protection if enough people act together. He suggests:

- Prioritizing the restoration of bird habitat by planting native species that support the insects that birds depend on for food.
- Mitigating human-caused threats to birds, including predation by domestic cats. Training cats while they are young to accept wearing a leash and harness while outside or to use an enclosure like a “catio” is an important, beneficial action to keep pets and birds safe.
- Helping birds avoid collisions with glass on buildings, including windows and railings by treating glass with visual markers arranged in a dense pattern, applied on the exterior surface. See flap.org for tips.
- Businesses and corporations can have large positive effects on bird population recovery. Treating glass to prevent collisions is not limited to residences; we also need to ensure new and existing commercial buildings are made bird safe through the adoption of standards like CSA A460 Bird Friendly Building Design in renovations and new construction. Also, there may be opportunities to switch procurement of materials like coffee and chocolate to promote bird-friendly agricultural practices.



Northern Flicker photographed in Hamilton, Ontario.

Q: What is That Bird Guy's Favourite Bird?

A: My answer to this question has changed many times! Lately I have been fixated on the Northern Flicker. Groups of flickers found in the east and west sides of North America have different colours. The birds' behaviour is unusual among woodpeckers as it specializes in foraging on the ground, as I often see them doing in my backyard garden where they feast on ants. When I was a kid, the same Flicker would return to the roof above my bedroom each spring and bang on the eaves. I thought it was the funniest thing.

“There are also many ways in which people depend on birds, but don’t necessarily recognize, and so the services and functions birds provide are taken for granted,” Brendon says. “For example, the migratory birds that we are trying to conserve in Canada spend the non-breeding period each year in the southern hemisphere on coffee farms, where they consume pest insects.” More birds means less pesticide, which means cheaper coffee and healthier communities.

Outside of the value birds provide from the perspective of ecosystem services and agriculture, Brendon hopes that more people protect birds because they see some of the things we strive for ourselves.

“Birds are fortunate for having a lot of intrinsic appeal for many people – they are charismatic fauna that people readily see and identify with. People extend empathy to birds because we recognize in them traits that we value like beauty and parental care and sociality,” he says.

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Dedication to Forest Education

Forests Canada recognizes Algoma School Board's Guy Smith

BY MATTHEW R. BROWN

The Algoma District School Board, based in Sault Ste. Marie, has a long track record of participation in Ontario Envirothon, a unique environmental education competition that immerses students in hands-on learning and discovery.

This year, the Algoma region celebrates a milestone: its 30th year participating in Envirothon. To recognize that achievement, Forests Canada, the lead agency for Ontario Envirothon, awarded its prestigious annual conference Maple Leaves Forever award to Guy Smith, a leader of Envirothon in the Algoma region. The 2025 award recognized Smith for having demonstrated exceptional leadership, involvement, and dedication to the annual competition.

Smith holds a Bachelor of Science in Forestry from the University of Toronto. After 36 years of employment with the Canadian Forestry Service in many different roles, he retired in 2023 but has maintained his involvement with the Ontario Envirothon program for over 30 years and counting. Since co-founding Algoma Envirothon in 1994, Guy's guidance and support have enabled students to compete confidently, work effectively as a team, and develop a deeper understanding of the natural world through hands-on outdoor education.

"When I look back on those years, I see teams of young people, their energy for outdoor learning, and their potential to shape the future of natural resources management and nature conservation," Smith says.

Algoma District School Board students listen to an Envirothon presentation in 2024. Photo: Guy Smith



The forested beauty of the Algoma area offers natural assets for an incomparable Envirothon in the core program areas of forests, soils, aquatics, and wildlife. Each year, some 50 area students and their teachers participate in activity days, culminating in a spring competition at Stokely Creek Lodge in Goulais River. Teams of students then put their hard-earned knowledge to the test for the chance to represent Ontario in the NCF-Envirothon against top teams from Canada, the United States, and abroad.

"Volunteers contribute their time and expertise to deliver and enrich the Envirothon experience," Allison Hands, Education Manager, Forests Canada, says.

"As Algoma Envirothon turns 30, this is the perfect time to recognize Guy for his incredible contribution to this competition. He has been invaluable to Ontario Envirothon and has helped countless students develop critical thinking, problem solving, teamwork, leadership, and communication skills."

High school students or educators who want to learn more about Ontario Envirothon, and any of Forests Canada's other education programs, can visit **ForestsCanada.ca/Education**.

The full list of Forests Canada 2025 award winners is also available in the Forests Canada Newsroom at **ForestsCanada.ca/en/articles/news**.



Guy Smith accepts Maple Leaves Forever Award at Forests Canada's 2025 conference. Photo: Forests Canada



Madeleine Bray, Education Outreach Co-ordinator with Forests Canada (at top left) poses with the 2025 Ontario Envirothon Champions from the University of Toronto Schools. In front row: Teacher/volunteer with U of T Schools, Elizabeth Straszynski; Allison Hands, Education Manager with Forests Canada; and Ken Jewett, founder of Maple Leaves Forever and long-time major sponsor of the Ontario Envirothon. Photo: Forests Canada.



Congratulations to 2025 Ontario Envirothon Champions

University of Toronto schools takes the crown

BY MATTHEW R. BROWN

After a busy spring that saw 460 students representing 92 five-member teams from across Ontario take part in regional Envirothon workshops and competitions, a team from University of Toronto Schools was crowned as 2025 Ontario Envirothon Champions on May 28.

“Envirothon season is an incredibly exciting time of year, not just for me and the education team here at Forests Canada, but also for the hundreds of students who are gaining a deeper appreciation for nature and honing their STEM skills,” Jess Kaknevicius, CEO, Forests Canada, says. “I attended the provincial championships this year and was really impressed by the knowledge and exuberance of the students but also the selflessness and dedication of all the volunteers, teachers and sponsors who make Ontario Envirothon possible.”

Throughout the season, students have showcased their knowledge of Ontario Envirothon’s four core topics – forestry, soils, wildlife, and aquatic ecosystems – along with this year’s current topic of **Roots and Resiliency: Fostering Forest Stewardship in a Canopy of Change.**

From the 17 teams that advanced to the provincial competition, the three top-ranking teams were:

First Place: University of Toronto Schools

Second Place: Waterloo Collegiate Institute

Third Place: Markville Secondary School

Below: 2025 Ontario Envirothon competitors pose for group photo.



Are You as Smart as a High School Student?

Test your knowledge with our Ontario Envirothon-themed quiz.
A perfect score is 10 points!

BY MADELEINE BRAY

Each year, Forests Canada welcomes teams from high schools across Ontario to take part in Envirothon. At the forestry station, along with identifying trees in spring before they leaf out and measuring a tree's diameter and height, students had to answer this quiz. See how you would do!

Multiple Choice (6 points)

1. Annual growth rings can be used to determine: (1 point)
- a. Tree age
 - b. Past climate conditions
 - c. Periods of intense competition and 'release' from competition
 - d. All of the above

2. An intolerant species is one which: (1 point)
- a. Needs full sunlight
 - b. Cannot withstand saturated soils
 - c. Will grow in shaded areas
 - d. Will die in drought conditions

3. What are the three regions of a tree which grow? (1 point)
- a. Roots, branches, leaves
 - b. Trunk, roots, buds
 - c. Cambium, root tips, shoots
 - d. Cambium, buds, leaves

4. The principal water conducting woody tissue in a tree stem is called what? (1 point)
- a. Cambium
 - b. Phloem
 - c. Xylem
 - d. Veneer

5. Use the provided image to answer the following. The leaf's margins are best described as: (1 point)
- a. Undulate
 - b. Entire
 - c. Serrate
 - d. Crenate



6. A prescribed burn is a forest management technique involving: (1 point)
- a. The elimination of public fires in provincial parks
 - b. The use of fire to control vegetation and disease in a forest
 - c. The prescription of anti-fire policies to aid in forest presentation
 - d. The prevention of forest fires

7. Match the following forestry tools to their correct function. (one point per correct match = 4 points)

Diameter tape	a. Measures the height of a tree
Clinometer	b. Takes sample to determine the age of a tree
Increment borer	c. Used to determine basal area
Wedge prism	d. Measures the diameter of a tree

ANSWERS 1. d—all of the above 2. a—needs full sunlight 3. c—cambium, root tips, shoots 4. c—xylem 5. b—entire 6. b—the use of fire to control vegetation and disease in a forest 7. diameter tape—measure diameter of a tree, clinometer—measures the height of a tree, increment borer—takes a sample to measure age of a tree, wedge prism—used to determine basal area



High school students compete in the Ontario Envirothon Championship at the University of Waterloo, May 2025.



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