

2023 Ontario Invasive Plant Conference

Agenda

Date Wednesday, January 18th, 2023

Time 9:00am-6:00pm EST

Location *Virtually hosted on Remo.co (Registration required at <https://www.eventbrite.ca/e/2023-oipc-conference-opwg-meeting-registration-451979371467>)*

Schedule

Time	Speaker	Presentation Title
9:00am	System Opens	
9:00-9:30	Morning Mix and Mingle	
9:30-10:00	John Urquhart , President Ontario Invasive Plant Council Belinda Junkin , Executive Director Ontario Invasive Plant Council Mary Lou and Dan Smoke Celebrated Indigenous Elders and knowledge holders	Welcome & Introduction
10:00-10:10	Emily Mitchell Ontario Invasive Plant Council	Introduction to Remo (How-To)
10:10-10:30	John Urquhart , President Ontario Invasive Plant Council Belinda Junkin , Executive Director Ontario Invasive Plant Council	Ontario Invasive Plant Council Program Updates
10:30-10:45	Canadian Council on Invasive Species	Coordinating Action on Invasive Species Across Canada and Beyond
10:45 – 11:30	Keynote Speaker: Kurt Dreisilker The Morton Arboretum	Public Gardens as Sentinels Against Invasive Plants

11:30- 12:30	Lunch break/ Networking/Poster	
12:30 – 12:40	Emily Mitchell Ontario Invasive Plant Council	How-to for Concurrent Sessions
	CONCURRENT SESSIONS	
	Community-Based Project Updates	Academic Project Updates
12:40 – 12:55	Sheila White , Friends of Farquharson DSV: through an activist's lens	Emily Posteraro , Invasive Species Centre Examining the Impacts of Invasive Species on Canadian Municipalities
12:55 – 1:10	Anna Meng , Toronto Nature Stewards Community-led stewardship on public land	Andrew Le , Queen's University Assessing the cumulative effect of plant invaders on soil phosphorus and nitrogen
1:10 – 1:25	Emily Heidendahl , City of Toronto, Natural Environment and Community Programs, Urban Forestry Research Partnerships in Community Stewardship	Maisy Roach Krajewsky, Heather Kharouba, Tyler Smith , University of Ottawa Using invasion history to quantify equilibrium in over 250 invasive plant species in North America
1:25 – 1:40	Sharon Boddy , Friends of Carlington Woods / Tree Fest Ottawa Bye Bye Buckthorn	Tyler Smith , Agriculture and Agri-Food Canada Reconstructing the 130-year history of Dog-strangling vine in North America
1:40- 1:55	Wioletta Walancik, Susan Ellis , Friends of Second Marsh Engaging the Community in Responsible Stewardship at Oshawa Second Marsh	Mia Akbar , Queen's University The interaction between climate adaptation and biological control agents in purple loosestrife
2:00 – 2:20	Networking/ Poster Session	
	SPOTLIGHT TALKS	
2:20 – 2:50	Samantha Tank , Great Lakes Commission	Enhancing and expanding the European Frog-bit Collaborative across the Great Lakes
2:50 – 3:10	Heather Kharouba, Manon Veselovsky, Zoe Pekos, Greg Mitchell , University of Ottawa	The role of non-native plants in the nectar diet of the Monarch butterfly (<i>Danaus plexxipus</i>)
3:10 – 3:30	Carlotta James , The Monarch Ultra	Amplifying local and international environmental action
3:30 – 3:50	Networking/Poster Session	
	LIGHTNING TALKS	
3:50 – 3:55	Zakara Stampp , Western University, Department of Geography & Environment	An Indigenous Approach – Land Healing & Reciprocity with Western Students
3:55 – 4:00	Ian Jones , University of Toronto	Leaf-roll gall formation in invasive knotweed and its implications for biological control
4:00 – 4:05	Megan Jordan , University of Waterloo	Waterfowl forage quality increases following herbicide treatment
	DISCUSSION & CLOSING REMARKS	
4:10 – 4:40	John Urquhart , President Ontario Invasive Plant Council Belinda Junkin , Executive Director Ontario Invasive Plant Council	Interactive Discussion and Closing Remarks

4:40 – 6:00		Evening Social

POSTER SESSION	
Kira Nixon, Brittany Finigan, Ryan Sisson, Trent University	Evaluation of invasive species management at Trent University: A community-based research project
Katja Karhi, Algoma University	Exploring the ecology of <i>Vinca minor</i> : a common urban forest invader in North America
Marit Mjelde & Paola Lombardo, NIVA, Norway, & Limno Consulting, Italy	Effects of the non-native invasive <i>Elodea canadensis</i> on the submerged native macrophyte community of (Lake) Steinsfjord, south-eastern Norway

Keynote Speaker: Dr. Kurt Dreisilker

Kurt Dreisilker is the Head of Natural Resources and Collections Horticulture at The Morton Arboretum in Lisle, Illinois, where he plans and implements ecological restoration and horticultural maintenance programs. Kurt’s work within a public garden has provided him with a unique perspective on plant invasions since plants from around the world are utilized in many capacities throughout Arboretum programs. He is Treasurer for Midwest Invasive Plant Network. Kurt has a B.S. in plant biology and a M.S. in Natural Resources and Environmental Sciences from University of Illinois at Urbana-Champaign.



North American Gardens as Sentinels Against Invasive Plants

Authors: Kurt Dreisilker, Theresa Culley, Michelle Beloskur, Brittany Shultz, Nadia Cavallin, Hans Landel, Kayri Havens

Botanic gardens and arboreta in North America are harnessing their botanical and horticultural expertise to document plant taxa that are escaping from cultivation on their properties. This is accomplished by collecting, synthesizing, and sharing data about the extent that taxa spread from their original sites of cultivation into adjacent areas of their property. However, these data are much more impactful if collected, structured, and shared using a common methodology. To this end, the *Public Gardens as Sentinels against Invasive Plants* (PGSIP) working group has developed standardized guidelines to help gardens organize and share their data from their collections to characterize these situations when they occur. PGSIP also developed a database for gardens to upload their data and access information about plants spreading from cultivation at other gardens. By collecting and sharing data from gardens across North America, PGSIP aims to provide a clear picture about plants escaping cultivation and potentially becoming problematic before large-scale invasions occur and before commercial adoption of these taxa.

Spotlight Talk: Samantha Tank

Sam is a project manager for the Great Lakes Commission's aquatic invasive species program. In this role, she coordinates three invasive species collaboratives including the Great Lakes *Phragmites* Collaborative and *Phragmites* Adaptive Management Framework, the Invasive Mussel Collaborative, and the European Frog-bit Collaborative. Sam also provides staff support to the Great Lakes Panel on Aquatic Nuisance Species. Prior to joining the Commission's staff in 2018, Sam attended Michigan State University where she earned both her bachelor's and master's degrees in fisheries and wildlife.



Enhancing and expanding the European Frog-bit Collaborative across the Great lakes

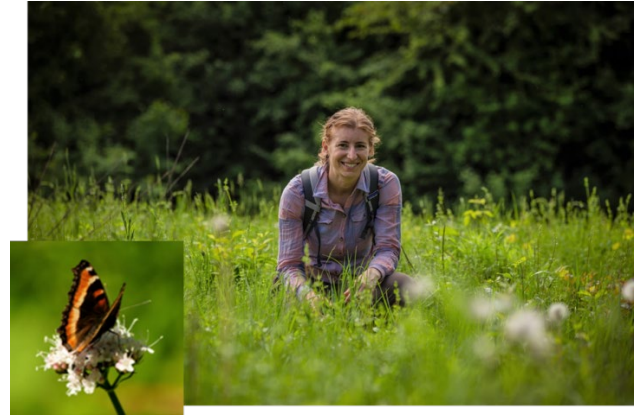
Authors: Samantha Tank, Tom Alwin, William Keiper, Sarah LeSage

European frog-bit (*Hydrocharis morsus-rane L.*; EFB) is an invasive free-floating aquatic plant of growing concern to resource managers, waterfront property owners, and recreational users due to its continued spread and potential negative effects on Great Lakes coastal wetlands and inland waters and wetlands. The EFB Collaborative was established in fall of 2018 to improve coordination and collaboration among stakeholders and build consensus on next steps for EFB management and research in Michigan. Recent EFB detections in additional Great Lakes jurisdictions including Wisconsin, Ohio, Pennsylvania, New York, and Ontario have caused EFB to become a management priority in a significant portion of the basin resulting in state and tribal interest to expand the EFB Collaborative beyond Michigan. In October 2022, the Great Lakes Commission received funding through the Great Lakes Restoration Initiative to provide backbone support and expand the EFB Collaborative across the Great Lakes basin.

The EFB Collaborative has developed GIS-based tools for both prioritizing locations for EFB monitoring and field data collection. The prioritization tool uses habitat and physical features to help identify areas most susceptible to an EFB invasion. The delimitation app provides a standardized way to collect EFB presence/absence data using an ArcGIS FieldMaps platform. The data collected is housed under a single platform which is accessible to all user groups. Since 2021, over 50 user groups have contributed to data across Michigan and Wisconsin, with the main users being CISMAs and state and local governments. This has resulted in the most complete picture of where EFB monitoring efforts have occurred and where EFB was and was not observed. This information can be used to better inform where management actions can be undertaken to reduce the spread of EFB. This large-scale effort has greatly increased the knowledge of EFB on the landscape and informed key management actions both from a local and regional scale. Preliminary plans for 2023 include engaging Great Lakes jurisdictions with established EFB populations and promoting the use of the GIS-based tools. In-person and virtual opportunities will be available to train invasive species staff and volunteers how to access and utilize the apps.

Spotlight Talk: Heather Kharouba

Heather Kharouba is an Associate Professor of Biology at the University of Ottawa, Ottawa where she studies global change ecology. Heather earned her PhD at the University of British Columbia before completing a Postdoctoral Fellowship at the University of California Davis. Her lab's research focuses on how and why species are responding to global change and what those responses mean for ecological communities, with a particular focus on plant-insect interactions. They are interested in the impacts of global change on a variety of taxa with an emphasis on understanding cross-scale effects of climate change using multiple methods (e.g., lab experiments, museum collections). To learn more about her lab's research, visit: kharoubalab.weebly.com.



The role of non-native plants in the nectar diet of the Monarch butterfly (*Danaus plexippus*)

Authors: Heather Kharouba, Manon Veselovsky, Zoe Pecos, Greg Mitchell

The iconic eastern migratory monarch butterfly is currently listed as a 'species of special concern' under Canada's Species at Risk Act and are likely going to be up-listed by the government in council to 'endangered'. One recovery action currently being considered is the restoration of migratory staging habitat, which includes the nectaring flowers that monarchs use to fuel their energetically expensive migration south to Mexico every fall. To date, we have little idea about which plant species provide the greatest benefit to the monarch in terms of energy acquisition from nectar. In many human modified areas, there is an increased abundance of non-native flowering plants available as nectar sources. We have little idea how much monarchs use non-native nectar and if it provides a similar nectar benefit to native wildflowers. Using field surveys around Ottawa ON, and greenhouse growth trials, our work shows that 58% of all foraging visits by monarchs were on non-native plants and 4/5 of the most frequently visited plant species were non-native. Preliminary experimental results show that non-native plants may provide lower quality nectar than native species. This suggests that there might be a mismatch between usage frequency and nutritional benefits of nectar. This knowledge will help direct restoration activities like planting native flowers and non-native plant management.

Spotlight Talk: Carlotta James

Carlotta James is an eco-landscaper, community builder, and long-distance runner. Carlotta graduated from the University of Toronto with an Honours B.A. in International Relations and Political Science, where she subsequently was awarded a scholarship under the Canada-China Scholars' Exchange Program to study Mandarin Chinese at Yunnan University in Kunming, China. In addition to her academic interests, Carlotta's curiosity in the global community have led her to work and travel in China, South Africa, England, Australia, and Mexico for six years. Carlotta currently lives in Peterborough with her family, where her passion for environmental sustainability is evident through her community work with [Peterborough Pollinators](#). Carlotta is co-founder of [Three Sisters Natural Landscapes](#), an eco-landscaping social enterprise dedicated to creating pollinator-friendly gardens in Peterborough and the Kawarthas. Carlotta is also co-founder of the [Monarch Ultra](#), an international relay run, documentary and conservation project aimed at connecting communities across North America with common goals of Earth stewardship & biodiversity conservation. Carlotta hopes to inspire others through her passion for running as a way of reconnecting with nature and with community.



Amplifying local and international environmental action

Monarch butterflies, like all pollinators, need healthy ecosystems for their survival. Though even more important to their survival is the need for connected wild spaces with native flowering plants that extends from Canada, through the USA, and finally to Mexico, to the monarch butterfly biosphere reserve. However, monarch butterfly populations (and all pollinators), are in steep decline due to invasive species, pesticide use, climate change, and habitat loss. So how can advocacy and awareness at the local and international level amplify our roles and responsibilities as earth stewards to protect species at risk, such as monarch butterflies, before it is too late? My intention to promote conversations and actions around biodiversity conservation in order to inspire positive, long term change will be shared during the presentation.

DSV: through an activist's lens

Sheila White, Friends of Farquharson

With respect to community engagement on the issues concerning invasive species of plants, how effective are these community engagement efforts from an informed resident's perspective? In senior activist Sheila White's neighbourhood and Toronto generally Dog-Strangling Vine (DSV) is rampant. Thus began her journey three years ago to seek advice and support for developing a local eradication project. The audience will hear about the steps taken to liaise with city staff, a conservation authority, politicians, a local industry as well as OIPC, and how each of them responded. Photos and video accompany the presentation.

Community-led stewardship on public land

Anna Meng, Toronto Nature Stewards

Despite the importance of nature in the City, Toronto's natural areas are at an ecological tipping point. Toronto Nature Stewards (TNS) believes that through community-led stewardship, we can build sustainable and positive relationships with the land we live on.

Over the past two years TNS has collaborated with the City of Toronto Urban Forestry to develop a scalable, volunteer-led, model of stewardship. By the end of 2022, we've experienced great success through working towards the removal of 12 invasive plant species spanning across 74 hectares of natural area. While TNS provides the training and framework, the real on-the-ground work is done by our growing community of 63 Lead Stewards and 500 volunteer stewards.

Research partnerships in community stewardship

Emily Heidendahl, City of Toronto, Natural Environment and Community Programs, Urban Forestry

The Community Stewardship Program is a City of Toronto Forestry volunteer program with eight restoration sites throughout the city. Volunteers in this program meet weekly to learn about native plants, invasive species, restoration, and ecological monitoring. In 2018, the City of Toronto partnered with EcoSpark and Humber College to engage Community Stewardship Program volunteers in a community science research project to explore volunteer restoration methods. The project sought to study manual removal methods of invasive common reed (*Phragmites australis*). This presentation will introduce City volunteer stewardship programming, explore the results of this study, and introduce a new community science research partnership on Dog-strangling vine (*Vincetoxicum rossicum*).

Bye bye Buckthorn

Sharon Boddy, Friends of Carlington Woods/Tree Fest Ottawa

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The Friends of Carlington Woods spearheaded this buckthorn removal project. Over the course of five days, volunteers cleared 90 square meters of invasive buckthorn and honeysuckle from the edge of an 22-ha urban forest, and immediately planted 43 native shrubs and 2 trees. All plants were numbered so that we can track their health over the years, and we have plans to double the work area in 2023.

In the spring of 2022, the Friends of Carlington Woods with its partner, Tree Fest Ottawa received a grant from the Invasive Species Centre to remove buckthorn from a small area of the Carlington Woods and immediately replant with native species. The Carlington Woods is a 22-ha urban forest in central Ottawa. The area is close to one of the Woods' entrances and is directly behind the Clyde Bee & Butterfly Patch, a small pollinator garden that was started in 2020. The Patch was one of the reasons this site was chosen. By removing the buckthorn, it will reduce its spread into the pollinator garden. We waited until October to clear the area so as not to disturb any nesting birds. It took five days to clear ~90 m², representing about 200 person hours. Volunteers with the Friends of Carlington Woods and Friends of Hampton Park, as well as several Grade 6 Revel Academy students, and other local residents helped out. When we were ready to plant, we laid the plants out according to their shade and sun needs. The species are: Smooth serviceberry, Grey dogwood, Red osier dogwood, Ninebark, Nannyberry, Bladdernut, Black cherry (tree), Butternut (tree). We've numbered the plants so that we can track their health. We see the potential of the site to contribute to several research areas, including soil health, entomology, climate change, and invasive species control.

Engaging the community in responsible stewardship at Oshawa Second Marsh

Wioletta Walancik, Susan Ellis, Friends of Second Marsh

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