

OIPC Conference and AGM

Canada 150 & OIPC 10: Success, Milestones and the Future of Invasive Plant Management in Ontario

Agenda

**note, this agenda is subject to change.*

Date: October 10-11 2017

Time: **October 10** (field tours and evening social): 1:00 pm – 8:00 pm, **October 11** (main conference): 7:30 am – 5:00 pm

Location: Ottawa Event and Conference Centre, 200 Coventry Road, Ottawa, Ontario

Time **Details (October 10)**

1:00 – 5:00 (pm) Field Tours, Ottawa Event and Conference Centre, 200 Coventry Road, Ottawa

This year, there will be two field tours, consisting of the same site visits. For both tours, participants will all start at the same location, above. The group will then split and head to separate locations. Once finished at those locations, the groups will alternate. Therefore, both groups will experience the same tour, just at different times, in smaller groups.

This first stop on this tour is to Macoun Marsh, a unique urban wetland located in the southeast section of Beachwood Cemetery and named after John Macoun, a pioneering Canadian naturalist. The marsh has received provincial, national, and international attention and has been used as a unique teaching tool about natural wonders, but now, invasives have begun to creep in and disrupt its teaching value. The second (or third, depending on tour) stop on the tour is the Leitrim Wetland, located near the Findlay Creek Community within the urban boundary of the City of Ottawa. South Nation Conservation, in collaboration with other community partners, helps to monitor and manage resources within this Provincially Significant Wetland. SNC has been completing glossy buckthorn removal within fen habitat in the wetland for several years in an effort to maintain this important feature. Although a full eradication of glossy buckthorn is unlikely, progress has been made, and fen indicator species are once again flowering. The third (or second, depending on tour) stop on this tour will be to Mud Lake, which is one of the most ecologically important natural habitats in the urban part of Canada's Capital Region. It is

identified as a provincially significant wetland and an area of Natural and Scientific Interest, as well as a protected area by the International Union for Conservation of Nature. However, invasive plants threaten the biodiversity of the Mud Lake habitat. Learn more about what the National Capital Commission (NCC) is doing to control invasive plant and preserve the ecological integrity of the natural environment.

What to bring: water, rubber boots, jacket, rain gear in case, snacks provided.

Confirmation details will be sent one week prior to the event.

6:00 – 8:00 (pm) Evening Social, Ottawa Conference and Event Centre, 200 Coventry Road, Ottawa
This year's evening social will be held at the Ottawa Conference and Event Centre, 200 Coventry Road, Ottawa. The evening social will start at 6 pm and end at 8 pm. There will be complimentary appetizers and a cash bar. Take this time to mingle and connect with your fellow colleagues!

Time Details (October 11)

7:30-8:00 (am) Registration with coffee and refreshments

8:00-8:10 Welcome, Ottawa City Councillor Tobi Nussbaum

8:10-9:00 Keynote Speaker: David Phillips, Environment Canada and Climate Change
Tomorrow's Weather Forecast: Warmer, Wetter and Wilder

The Earth is warming faster and greater now than it has in a very long time. Yet, more extreme and variable weather and a destabilization of historic weather patterns may be the most significant outcome from an over-heated planet facing run-away climate change. For nature, it's clear that even slight warming will have a significant impact on biodiversity and the loss of life-sustaining habitats. Environmental change will also cause native species to become stressed putting invasives at a competitive advantage for the exploitation of dwindling resources. What is for sure is that we can no longer assume that yesterday's weather will apply tomorrow. The future is not going to look like the past. We need to prepare better for the climate coming not what has happened.

Get to know David

David has been employed with Environment Canada's weather service for 50 years. His work activities relate to the study of the climate of Canada and to promote awareness and understanding of meteorology. He has published several books, papers and reports, including a book on The Climates of Canada, and two bestsellers: The Day Niagara Falls Ran Dry and Blame It On The Weather. He is the originator and author of the Canadian Weather Trivia Calendar, the most popular calendar sold in Canada, and now in its 30th year. David frequently appears on national radio and television as a commentator on weather and climate matters. He has been awarded the Commemorative Medal for the 125th Anniversary of the Confederation of Canada, the Queen Elizabeth Golden and Diamond Jubilee Medals and has twice received the Public Service Merit Award. David is the recipient of three honorary doctorates from the universities of Waterloo and Windsor and Nipissing University. In 2001, David was named to the Order of Canada.

9:00-9:15 **Questions**

9:15-11:20 **Success and Milestones in Invasive Plant Management: Focus on Eastern Ontario**

9:15-9:35 ***Vegetation Management Project at Mud Lake, Genevieve Mercier, National Capital Commission***

The presentation will describe the Mud Lake Vegetation Management Project and will highlight the accomplished results. The methodology will be described – including the partnerships and the next steps will be mentioned.

Get to know Genevieve

Geneviève completed a Master of physical sciences, Physical geography and Bachelor of Arts, Environmental Studies and Geography from the University of Ottawa. She has been planning, managing and implementing the NCC's Environmental Strategy since 2008. She has been developing and implementing environmental programs in five areas for action: reducing waste, protecting biodiversity, preventing pollution, leading in environmental practices and combatting climate change.

9:35-9:55

Invasive Plant Management and Control at McKay Lake - an Ottawa Urban Natural Area, Iola Price, OIPC President

In the 1970s and early 1980s, the owner of the east side of McKay Lake in the former Village of Rockcliffe Park (now part of Ottawa) filled most of a cattail marsh and cleared a maple-beech upland forest to create new building lots. Residents initiated court action to stop the filling and after wins and losses in Court; negotiations with the new owner led to an agreement that in exchange for two acres of land plus a public footpath around the east side of lake, planning permission to build condominiums would be granted. Trees and wild flowers were planted in the 1980s and paths around and through the land were laid out.

However, follow-up management was haphazard and by the mid-1990s, it became obvious that invasive vegetation control was needed so Iola, with the help of volunteers began to remove buckthorn, adding Dog-strangling Vine, Garlic Mustard, Norway Maple, and other plants to the list of invasives being controlled as volunteer labour and time permitted. The Village commissioned a Management Plan in 2000 that still forms the basis for activities there. The area is now under the jurisdiction of the City of Ottawa and is one of the jewels in the city's Urban Natural Area patchwork of forests. Iola will describe the area, how removal and re-planting techniques and strategies evolved, outline some of the lessons learned and illustrate where we are today in the ecological rehabilitation of this area.

Get to know Iola

Iola, Director at Large and President of the OIPC is a retired biologist. She started her career as a wildlife biologist with the Canadian Wildlife Service, initially working on contaminant effects on fish-eating birds on the Great Lakes. She moved to the Department of Fisheries and Oceans as the Director, Aquaculture and Oceans Science. She co-chaired the fed-prov. committee writing the National Code on Introduction and Transfer of Aquatic Organisms and at various times was responsible for national coordination of programs on biological and physical oceanography and impact of changes in the oceans on fish populations; habitat science and acid rain impacts on fish populations; salmonid and new species aquaculture research; and, Canada's fish health program.

Her volunteer work has included being a member and then chair of the Ottawa Forests and Greenspace Advisory Committee (reporting to Ottawa City Council) 2001-2007 advising on urban and rural tree and forestry issues, wetlands protection etc. She hosts the annual informal meeting of the Ottawa Invasive Plant Group.

9:55-10:10 BREAK

10:10-10:30 *Ottawa Wild Parsnip Management Plan, City of Ottawa, Genevieve Raymond and Laila Gibbons*

10:30-10:50 *Management of European Water Chestnut at Voyageur Provincial Park, Erin Markham, Voyageur Provincial Park*

This presentation will provide an overview of the work that has been performed on the European Water Chestnut (*Trapa natans*) infestation at Voyageur Provincial Park since 2008. It will mainly focus on the methods used, results from seed bank experiments, and trends that have been observed. Water Chestnut is a highly invasive aquatic plant species consisting of floating rosettes which form a canopy and can completely cover an area. They produce numerous sharp, barbed seeds that can lay dormant in the substrate for years. It was first discovered in Voyageur Provincial Park in 2005 and work to remove it began in 2008. The project grew from 3 staff members handpicking from canoes to a team of 16 equipped with specially designed machinery to harvest the plants and compost them on shore. The methods currently being implemented are showing great results such as the return of native plant species and fewer Water Chestnuts germinating with each passing year of control. As of 2016, approximately 62 of the 70 acres of full surface coverage were cleared and stopped of any new seed production. Future plans are to continue work with the current methods with the final goal of eradication, as well as to share experiences and information gathered throughout the years with other groups who are also dealing with Water Chestnut infestations.

Get to know Erin

Erin Markham is a recent graduate from the Honours program at Trent University where she obtained her BSc. in Biology with a particular interest in Ecology and Marine Mammals. In 2015 she had the opportunity to take part in a field course to Taiwan and Hong Kong to study *Sousa chinensis*. Upon completion of her degree, Erin began her current career as Biologist/Supervisor of the Water Chestnut Management Project at Voyageur Provincial Park (Ontario parks). With a total of 4 years' experience working at Voyageur on the project Erin now provides leadership to a large team of students each summer, continually improving the success rate of plant removal as well as coming up with innovative ways of educating more people on the importance of invasive species management.

10:50-11:10 *Combatting Invasive Species through Habitat Restoration, Erling Armson and Kyle Borrowman, Ducks Unlimited*

Over the years, Ducks Unlimited Canada (DUC) has contributed to the fight against invasive species through assisting legislation and policy development, performing scientific research, and control projects. DUC has partnered with various organizations and regulatory agencies

to tackle invasive plant management projects across the country in order to conserve, restore and manage wetlands and associated waterfowl habitats. This collaborative approach has been applied on both regional and local scales using integrated pest management informed by science and research including mechanical, chemical and biological control methods to combat invasive species. As invasive species continue to create challenges to restoring wetland habitat, new and novel approaches to identify, control and monitor program success will need to be explored. This presentation will provide an overview on DUC's past projects as well as spotlighting current and emerging projects including early detection and rapid response and large scale monitoring. Specific interest will be given to ongoing projects related to European water chestnut (*Trapa natans*) and European common reed (*Phragmites australis*).

Get to know Erling

Erling is currently Head of Ducks Unlimited Canada's land securement, invasive and northern programs in Ontario. He has been employed by Ducks Unlimited over the past 37 years as a field biologist, area biologist, program delivery leader and manager of Boreal Forest programs. Much of his experience has been related to implementing conservation programs in Ontario that secure, enhance and restore wetland habitats for waterfowl, wildlife and people.

Get to know Kyle

Kyle is the Coordinator of the European Water Chestnut Program at Ducks Unlimited Canada. Prior to this position, he has worked within the NGO and private sectors overseeing various invasive species management projects and initiatives. A strong focus of Kyle's experience consists of aquatic plant management where he's had the opportunity to implement mechanical, biological and chemical control projects.

- 11:10-11:20 **Questions**
- 11:20-12:00 **OIPC AGM (Iola Price, OIPC President/OIPC Update)/Poster Tour (for those not attending AGM)**
- 12:00-1:00 **Lunch (provided)**
- 1:00-3:05 **New Research and the Future of Invasive Plant Management**
- 1:00-1:20 ***The Management of Giant Hogweed: Control Options throughout the Year, Guelph University***
Heracleum mantegazzianum (giant hogweed) is an invasive species to North America and parts of Europe, causing environmental, economic and public concern. Its toxic sap, enormous size, and ability to regenerate make it hard to manage. Control options include chemical treatments such as broadcast application or injection, and non-chemical treatments such as root dig up or

manual cuttings. However, the success of these control options is limited to seasonal biological stages of the plant. Populations are easiest to control during the spring when small, but when the opportunity is missed, other, more hazardous and often labour intensive options are necessary. These include herbicide injection and/or manual cuttings, both of which are done during Hogweed's flowering period. Within this presentation, control options and the best times to apply them throughout the season will be discussed, along with the results gained through their application during this research.

Get to know Meghan

Meghan Grguric is currently a student at the University of Guelph pursuing a Master's in Plant Agriculture. Though she grew up with a background in the Thoroughbred racehorse industry, Meghan decided to get away from dangerous animals and ironically began her research on the dangerous plant, Giant Hogweed. Searching for a greater understanding on Giant Hogweed's growth and how to better control it, Meghan maintains an interest in invasive species despite their persistence in fighting back, literally.

1:20-1:40

Mechanisms of invasion by Dog-strangling Vine in North America, Richard Dickinson, University of Toronto

The spread of dog-strangling vine (DSV; *Vincetoxicum rossicum*) in Ontario has reached epidemic proportions in the last 20 years. This four year 3-part study examined 56 DSV populations across Ontario, an "invasion in progress" field case study, and five manipulative greenhouse experiments using 12 different soils. Results of the study suggest that DSV employs a combination of allelopathy and the accumulation of fungal pathogens and dark septate endophytes in its spread. These fungal partners may be used as markers in determining a site's susceptibility to invasion and assist in the reclamation of invaded sites.

Get to know Richard

Richard is currently completing his Ph.D. in Forestry at the University of Toronto. His thesis has focused on the ecology and spread of dog-strangling vine in Ontario. He has authored several field guides including "Plants of Southern Ontario" and "Weeds of North America." The latter title was awarded Book of the Year 2015 by the American Horticultural Society.

1:40-2:00

Comparing fish community composition in invasive *Phragmites australis* and native emergent species' in the St. Clair River Delta, Abby Wynia, Trent University

Invasive *Phragmites australis* ssp. *australis* has established and rapidly spread throughout several coastal and nearshore areas of the Great Lakes. The extent to which *Phragmites* provides comparable habitat for freshwater fishes is currently unquantified, although widely considered to be unsuitable. This study will assess whether fish assemblages and production in stands of *Phragmites* differs from that in stands of two native emergent species, *Typha* sp. and *Schoenoplectus* sp. in the St. Clair River Delta. Working collaboratively with Walpole Island First

Nation and Fisheries and Oceans Canada, the results from this study will help to determine whether *Phragmites* is contributing comparable habitat for freshwater fishes, and provide management agencies with quantitative data on potential losses to fish habitat associated with the spread of this invasive species.

Get to know Abby

Abby Wynia graduated with a Bachelor of Environmental Science and Studies (B.E.S.S.) from Trent University in 2016. Currently a M.Sc. student in the Environmental & Life Sciences graduate program at Trent University, she is working collaboratively with Fisheries and Oceans Canada and Walpole Island First Nation in the study of fish community composition in invasive *Phragmites australis* subsp. *australis* and native emergent species in the St. Clair River Delta.

2:00-2:15

BREAK

2:15-2:35

Implementing Biological Control for Invasive Plants in Ontario, Robert Bouchier, Agriculture and Agri-Food Canada

Canada has a long history of successful public-good research targeting the suppression of introduced invasive plants with arthropod biological control agents. The release and establishment of a biocontrol agent in Canada is the culmination of 10 to 15 years of cooperative work to identify promising agents, conduct host-range testing for safety and impact testing. Following granting of release permits for biocontrol agents for dog-strangling vine (DSV) and knotweeds, research has been targeted at developing mass-rearing programs, design of effective release methods and tracking population establishment and growth. This talk will focus on the release of *Hypena opulenta*, a multivoltine leaf-feeding moth on DSV, to illustrate implementation of biocontrol in Ontario.

Get to know Robert

Rob is a research scientist in insect ecology and biological control with Agriculture and Agrifood Canada, and an adjunct professor at the Faculty of Forestry University of Toronto. Specific research interests include: host-plant insect interactions; population dynamics of biological control agents and their hosts; influence of habitat and climate on the impact and dispersal of biocontrol agents; and risk assessment of biological control. He is currently Canadian lead for collaborative projects developing new biological control agents for several invasive plants, including knotweeds, phragmites swallowworts and garlic mustard.

2:35-2:55 ***Five-leaf Aralia: An Experiment in Treatment, Removal and Monitoring in an Urban Ravine, Erin Mallon and Dianne Watkins, Cootes to Escarpment EcoPark System and P.O.W.E.R. Halton Hills - vectorIAS program***

Five-leaf aralia (*Eleutherococcus sieboldianus*) is a plant that has been identified as a threat to natural areas within the eastern United States and southern Ontario. It is a very prickly shrub originating from Asia that grows rapidly in forest settings and is widely planted as an ornamental in landscaping, or used as a live fence. The first recorded occurrence of five-leaf aralia was found within the Hamilton-Halton watershed in the fall of 2015. After nearly 2 years of developing a management plan based on little to no documented information, Conservation Halton staff under the Cootes to Escarpment EcoPark System, and in partnership with *vectorIAS* and Royal Botanical Gardens has begun implementing pilot control measures on the rapidly growing plant with seemingly successful results. The specific location of the plant makes control complex as the dense, woody plant is stabilizing a steep, loose sandy slope of a ravine adjacent to the Hamilton Harbour and covers an area of approximately 1,600m².

Strong organizational partnerships and public education is critically important in the success of controlling the five-leaf aralia within the watershed as it is readily available through local nurseries. Along with long term control of the plant, we are working together on developing a communications plan specific to the five-leaf aralia.

Get to know Erin

Erin is an ecologist with over 12 years of experience working in the environmental field. She has a BSc. in biology from Trent University and an MSc. in ecology from the University of Guelph. She has worked in various roles as a biologist in consulting and with non-profit NGO's. Erin has been with Conservation Halton since July 2016 working as a stewardship technician to assist private landowners improve water quality and enhance wildlife habitat. This work often includes invasive species outreach, education and mitigation.

Get to know Dianne

Dianne is a restoration ecologist with a BES and Diploma of Excellence in Ecological Restoration and Rehabilitation from the University of Waterloo. She has previously worked for Conservation Halton and has completed contracts and assignments with Ontario's Biodiversity Education and Awareness Network (B.E.A.N.) and the Canadian Wildlife Service. Dianne is currently completing an MES on a part-time basis with the University of Waterloo, and since 2014 has led development and oversight for P.O.W.E.R. Halton Hills' 'vectorIAS' program.

2:55-3:05 **Questions**

3:05-3:15 **BREAK**

3:15-4:15 **Combatting Invasive Plants in a Municipal and Private Landowner Setting**

3:15-3:35 *Invasive Plant Management Strategy for the York Regional Forest, Dayna Laxton, York Region*
 A look into the development of an invasive plant management plan for the York Regional Forest located in the Regional Municipality of York, managed by the Natural Heritage and Forestry Section of the Environment Services Department. The Region partnered with the OIPC in 2014 to draft one of the first Invasive Plant Management strategies in the province. The presentation will provide an overview of some of the goals and objectives and give examples of on-the-ground action implemented to date.

Get to know Dayna

Dayna attended Sir Sandford Fleming College, School of Environmental and Natural Resource Sciences where she graduated from the Environmental Technology program. She continued her education at Trent University where she obtained her B.Sc. Honours degree in Environmental and Natural Resource Sciences and she successfully obtained her M.Sc. in Environmental and Life Sciences also from Trent University. Currently, as the Invasive Species Specialist at York Region, Dayna is responsible for assisting management in the development and implementation of invasive species management plans and strategies; striving to conserve the biodiversity of the Region’s flora and fauna by supporting individuals and organizations working to prevent, manage, or control invasive species; serving as a resource to the Natural Heritage and Forestry Team; and working closely with other staff and partners to ensure that best practices are developed and that the invasive species information or databases for the Region are accurate, up-to-date, and comprehensive.

3:35-3:55 *Update on Kudzu Management Plan in Ontario, Canadian Food Inspection Agency*

3:55-4:15 *City of London Invasive Plant Management Strategy*

4:15-4:25 **Questions**

4:25-4:45 *Canada 150: National Invasive Species Update, Natural Resources Canada*

4:45-4:50 **Questions**

4:50-5:00 **Wrap-Up and Adjourn**