



Ontario Invasive Species Forum
**SPEAKER BIOS AND
PRESENTATION
DESCRIPTIONS**

March 1-4

Gary Pritchard

Creating an Ethical Space for Collaboration: Working with Indigenous Peoples



Gary Pritchard ~Giniw (Golden Eagle) is Conservation Ecologist & Indigenous Engagement/Placemaking Specialist from Curve Lake First Nation, Ontario. Gary has had the privilege to work on behalf of Indigenous peoples throughout Ontario and Canada. He has travelled and worked in almost 300 Indigenous communities throughout Canada and the northern United States. He has brought a wealth of knowledge to both his Indigenous and non-Indigenous clients performing a wide variety of services including: Indigenous Community Planning, land-use/traditional knowledge studies, Indigenous lead conservation and restoration, Ecological Monitoring using Two-eyed Seeing, Indigenous Place-making, capacity building, expert testimony, mediation between western science and traditional science and subject matter expert on behalf of Indigenous communities. Gary loves to connect and educate people through nature. He does this through several mediums. His favourite way is through his wildlife photography and storytelling. He believes that if individuals especially youth can form a connection with nature then all people can make conscious decisions on how we impact Mother Earth and the next seven generations. Gary likes to spend much of his free time educating the youth about “All Our Relations,” with his most favourite students being his two children. One of Gary's greatest strengths is that he is often able to be the one who acts as the bridge between the Indigenous Community and the western style of governance. Gary has successfully collaborated with many stakeholder groups, researchers, institutes, government agencies, Indigenous communities, and political organizations to address environmental concerns and identify practical solutions to environmental related issues



Keynote Address: Helen E. Roy

Predicting the arrival and spread of invasive alien species: global perspectives



The number of invasive non-native species arriving and establishing in new regions globally is rapidly increasing. Predicting future invaders is pivotal for informing strategy and prioritising action to reduce the threat of invasive non-native species. Here I describe an evidence-based horizon scanning method to identify and prioritise invasive alien species that has been implemented for Great Britain, Europe and the UK Overseas Territories.

Professor Helen Roy MBE is an ecologist at the UK Centre for Ecology & Hydrology. Her research focuses on the effects of environmental change on insects and other species. She has worked extensively within the field of invasion biology. Her research on invasive non-native species has received international recognition and she is currently leading a global assessment on invasive non-native species for the Intergovernmental Panel on Biodiversity and Ecosystem Services.

How to Prepare for Future Invaders Panelists



Anthony Ricciardi



Erin LeClair



Steven Cooke



Helen Roy



Pedro Antunes



Anthony Ricciardi

Anthony Ricciardi is Professor of Biology at McGill University, and a McGill Trottier Fellow in Science and Public Policy. For nearly 30 years, Tony's research has examined the impacts and spread of invasive freshwater fishes and invertebrates. From 2006 to 2016, he served on the scientific committee of the Canadian Aquatic Invasive Species Network, which assessed the risks and mechanisms of biological invasions in our lakes, rivers, and coastal waters.



Erin LeClair

Erin LeClair is a member of the Invasive Alien Species and Domestic Plant Health Program in the CFIA's Plant Protection Directorate. Her section is involved with the importation and domestic movement of invertebrates, microorganisms, and invasive plants and the pathways by which they enter Canada.



Steven Cooke

Steven J. Cooke – Cooke is a Professor of Environmental and Interdisciplinary Science at Carleton University. His interests span the natural and social sciences with a focus on solving complex conservation problems. Cooke is the Secretary of the College of the Royal Society of Canada and Editor in Chief of the journal Conservation Physiology. Learn more about the activities of his team at www.fecpl.ca



Helen Roy

Professor Helen Roy MBE is an ecologist at the UK Centre for Ecology & Hydrology. Her research focuses on the effects of environmental change on insects and other species. She has worked extensively within the field of invasion biology. Her research on invasive non-native species has received international recognition and she is currently leading a global assessment on invasive non-native species for the Intergovernmental Panel on Biodiversity and Ecosystem Services.



Pedro Antunes

Pedro M. Antunes is a Professor in the Department of Biology at Algoma University in Sault Ste. Marie. He has a B.Sc. in Biology and a PhD in Soil Science with a focus on plant-microbe interactions. For the past 10 years his research has primarily looked at how interactions between invasive plants and soil organisms affect the diversity of soil organisms and plants in communities. Dr. Antunes was appointed Canada Research Chair in Invasive Species Biology in 2015, an award he had renewed in 2020 for another 5-year term.



Jeremy Downe

Ontario Invasive Species Program Update

Jeremy Downe is the Senior Invasive Species Policy Advisor for the Ontario Ministry of Natural Resources and Forestry. Jeremy was a member of the team that developed the Ontario Invasive Species Act in 2015 and continues to support the implementation of the Act and related programs. This includes collaboration with multiple partner organizations to develop and implement various actions intended to prevent or reduce the impacts of **i**nvasive **s**pecies in Ontario.

This presentation will provide an update on recent and on-going collaborative actions the Ministry is taking to reduce the threat and prevent the establishment of key invasive species.

Erica Newton

Wild Pigs in Ontario: Pilot Project and Research Update



Erica Newton is a biologist with the Ontario Ministry of Natural Resources and Forestry. She is a true “generalist” and has studied turtles, caribou, canids, bear, deer, and wild pigs during her time with the Wildlife Research and Monitoring Section. Erica enjoys all aspects of being a biologist – from fieldwork to finding creative new ways to collect, analyze and present data.

Erica will give a brief background on wild pigs, and outline research findings from the ministry’s recent work with this invasive species. She’ll discuss why wild pigs are such a challenge for wildlife managers and what the MNRF is doing to prevent the establishment of wild pigs here in Ontario.





Keith Munro

The Role of Hunters in Addressing Wild Pigs

Dr. Keith Munro is the Wildlife Biologist for the Ontario Federation of Anglers and Hunters where he works on issues related to the conservation wildlife as well as associated fields like disease and invasive species. Keith comes from a science and research background where he was lucky to work on a wide range of species including white- and black-tailed deer, small mammals, turtles, and canids. His current job lets him work on everything from Ruffed Grouse to moose and he absolutely loves it.

Hunting has been successfully employed under the North American Model of Wildlife Conservation to ensure ecologically sustainable populations of wildlife across the continent. However, hunting is not an effective solution to the wild pig problem and can in fact contribute to their spread. Hunters still have an important role to play in the early detection and reporting of wild pigs.





Kathleen Ryan

An Overview of Hemlock Woolly Adelgid: a Practitioner's Perspective,

Kathleen is a Forest Entomologist, working with Silv-Econ Ltd since 2011. She is an expert in invasive forest species detection, ecology, and management. She facilitates a stakeholder working group on Hemlock Woolly Adelgid in southern Ontario and is interested in stakeholder needs for information and technology transfer.

Emerald ash borer taught us that we need to be prepared in advance of a new invader. To this end, a group of forest managers started meeting in 2014 to identify what they needed to be ready for HWA. This is an overview of HWA addressing those needs – it covers biology, impact and detection, as well as initiatives of the group.

Michael Stastny **Hemlock Woolly Adelgid in Nova Scotia: The Situation, Challenges, and Mitigation**

Michael received his BSc in Biology from Simon Fraser University, and his doctorate in Ecology and Evolutionary Biology from Cornell University. With field experience from three continents, he has worked in basic and applied research of plant-insect interactions on topics ranging from invasive insects and plants, climate change, insect pest management, and biological control. In 2016, Michael joined Canadian Forest Service as a Forest Insect Ecologist at their Atlantic Forestry Centre in Fredericton.

Hemlock Woolly Adelgid has established and spread across much of southwest Nova Scotia, with many areas showing hemlock decline and even mortality in the last several years. These infestations threaten large tracts of managed and protected forests in the region, and will continue to spread into other parts of Atlantic Canada. A comprehensive pest management strategy for the region involves adapting the approaches from the United States by testing specific tools to assess their suitability as both short-term and long-term tactics to mitigate the pest's impacts.



Erin Bullas-Appleton

CFIA Hemlock Woolly Adelgid Update



Erin joined the CFIA after completing her MSc in Plant Agriculture at the University of Guelph. She has been the Plant Survey Biologist for Ontario for 15 years and is currently acting as the National Manager, Plant Health Surveillance Unit. Erin is the national lead on a number of high visibility pest files and loves the creative and collaborative opportunities it provides.

Hemlock Woolly Adelgid is a destructive plant pest regulated under the authority of the Plant Protection Act. The Canadian Food Inspection Agency conducts surveys, develops outreach and education products and establishes partnerships to support regulatory control and collective response to critical plants pests.



Arvind Vasudevan

Overview and Updates to Forest Pest Regulations



Arvind Vasudevan is currently the Senior Specialist for the Forestry program at the Canadian Food Inspection Agency (CFIA), he helps manage and oversee key forest pest files in the import and domestic regulatory space to protect Canada's forest resource base. He has over 10 years of experience with the Plant Health Program at the CFIA in various roles. Prior to joining the Federal Government he worked as a research coordinator with the Lake Abitibi Model Forest in Cochrane, Ontario.

The Canadian Food Inspection Agency's (CFIA) Forestry Program supports the importation and exportation of forestry products while preventing the introduction and spread of regulated pests in Canada. Science-based regulations facilitate safe trade by implementing import, export and domestic movement requirements of at risk forest products. My presentation will focus on the use of regulatory tools and recent updates to regulations concerning forest pests.



Asian Longhorned Beetle in the GTA

Six Adjectives for Successfully Eradicating Asian long-horned Beetle, Panel Discussion



Taylor Scarr



Cara Grant



Matthew Gordon



Sandy Smith



Kristjan Vitols



Taylor Scarr

Six Adjectives for Successfully Eradicating Asian long-horned Beetle

Early, aggressive, and sustained. Transparent, collaborative, and science-based. What went right on the path to eradicating Asian long-horned beetle from Canada.



Taylor Scarr

Taylor Scarr is the Director of Integrated Pest Management Division with the Canadian Forest Service at the Great Lakes Forestry Centre, in Sault Ste. Marie, Ontario. He oversees a team conducting research in insect ecology, genomics, detection & monitoring, management, and insect rearing. Taylor has a Ph.D. in Forest Entomology and a B.Sc.F., both from the University of Toronto. He has authored or co-authored over 45 scientific publications, plus innumerable reports, presentations, and workshops. In his previous role as Provincial Forest Entomologist, Taylor represented Ontario on the Asian long-horned beetle Science Advisory Committee.



Cara Grant

Cara Grant is the Ontario Operational Specialist for Plant Health at the Canadian Food Inspection Agency. The CFIA is a science-based regulator dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy. Cara began her career in plant health with the CFIA in 2000 following graduation from the University of Guelph with a Bachelor of Science in Pure and Applied Ecology.



Matthew Gordon

Matthew Gordon is the Supervisor of Forestry Inspections in City of Mississauga's Parks, Forestry and Environment Division. He graduated from the Forestry Technician Program from Sir Sandford Fleming College in 1998. He was involved in the host species survey and removal work during the 2014 ALHB eradication effort in Mississauga.



Sandy Smith

Sandy is a Professor of Forest Health in the Institute of Forestry & Conservation at the University of Toronto and is currently Director of Forestry Programs (2019-2022). She has held numerous academic positions, including past Dean of the Faculty of Forestry, and cross-appointments. She is an expert in urban forestry and the ecology and management of invasive forest pests, including both insects and weeds.



Kristjan Vitols

Kristjan has been with Urban Forestry at the City of Toronto since joining the Asian Longhorned Beetle Task Force as a ground surveyor in 2004. In 2006, he took a position as Supervisor, Tree Nursery and Natural Resource Management. A few of the major forest health care projects that he has managed includes: a Gypsy Moth aerial spray and control program, Emerald Ash Borer detection, monitoring and removals and the Asian Longhorned Beetle eradication and monitoring program 2013-2020. Presently, Kristjan is supervising tree planting and forest management activities for Urban Forestry."

Colin Henein

Ballast Water Regulatory Proposal



Colin Henein is a Senior Policy Advisor in Marine Policy at Transport Canada based in Ottawa. He has been Canada's ballast water policy lead since 2010, working closely with colleagues from Transport Canada Marine Safety and Security, Fisheries and Oceans Canada and Global Affairs Canada amongst others. During that time, Colin has represented Canada in domestic, binational and international ballast water discussions. Colin holds a bachelor's degree in Computer Science and a Ph.D. in Cognitive Science. Colin is also a community radio broadcaster and chairs the board governance committee of MASC, an Ottawa organisation that promotes the arts in schools and the community.

Cathy Giesbrecht **Ministry of Transportation** **Phragmites Management 2021 Update**

Cathy Giesbrecht is currently a Team Lead in the Environmental Policy Office at the Ontario Ministry of Transportation. Cathy joined the policy office in November and is a member of MTO's vegetation management working group, which supports MTO's efforts to address invasive Phragmites and includes representatives from the ministry's maintenance management office and regional highway operations maintenance coordinators from across the province. Cathy's home position is Head of the Environmental Delivery section in MTO's London office where she has been supporting MTO's phragmites efforts in southwestern Ontario for several years.

This presentation provides an overview of the impacts of Phragmites on provincial highways and an update on MTO's Phragmites management efforts. Information will be shared about some MTO funded research projects and MTO's next steps in ongoing efforts to manage invasive Phragmites.





Denise Beaton

Keeping Up with the Invasives: What's OMAFRA Up To?

Denise Beaton is the Crop Protection Specialist with the Ontario Ministry of Agriculture, Food and Rural Affairs. In this role, she helps to coordinate efforts and develop strategic approaches to invasive species issues that can impact Ontario agriculture and trade. She works closely with various stakeholders, such as industry and government partners, researchers and her OMAFRA colleagues. She enjoys getting out in the field as much as possible to help monitor for agricultural pests.

Protecting Ontario's crops from new, emerging plant pests is a substantial undertaking. Learn how OMAFRA is helping to prepare and protect Ontario agriculture from invasive species.

Lauren Bell

**Early Detection and Citizen Science Tools
and EDRR Expansion to Eastern Ontario**

Lauren Bell is the Interim Program Manager at the Invasive Species Centre. Lauren oversees program implementation at the Centre, and manages the Early Detection and Rapid Response Network of Ontario, a citizen science and community action program aimed at equipping communities with the resources and information needed to detect, report and manage invasive species in Ontario. Lauren currently sits as the Canadian representative on the Midwest Invasive Plant Network.

The Early Detection and Rapid Response Network is a community science and action project coordinated by the Invasive Species Centre and run in collaboration with the Eastern Ontario Model Forest and the Ontario Invasive Plant Council. This project aims to train and equip the public with the skills and resources necessary to mitigate the spread of invasive species in Ontario. This presentation will provide an update on the projects 2020 highlights.



Linda McDougall

London Invasive Plant Strategy

Linda McDougall is an Ecologist with the City of London who helps lead and implement many of the City's award winning, natural heritage protection policies, Conservation Master Plans, ecological restoration plans and she also facilitates community stewardship programs to help protect London's Environmentally Significant Areas. In her free time Linda is an avid hiker-turned-birder, who grows milkweed in her front yard and donates all the volunteer seedlings from her native dogwood tree to ReForest London for use in local restoration projects.

This presentation will go over the successful collaboration between the Ontario Invasive Plant Council and the City using the "Creating an Invasive Plant Management Strategy: A Framework for Ontario Municipalities" document and process. London was the first municipality in Ontario to create, approve and implement an invasive species strategy in 2017 and we'll review the high-level successes and lessons learned since invasive species management began in London in 2006.



Robert McGowan

Water Soldier in Ontario, Early Detection & Rapid Response on Red Horse Lake



Robert McGowan graduated from Fleming College with a Fish and Wildlife Technologist diploma, then continued his education by obtaining his BSc Honours Degree from Trent University. Roberts passion for the outdoors has led him to a career in the environmental field where for the past 15 years has gained valuable experience while employed with the Ministry of Natural Resources and Forestry, Credit Valley Conservation, Trent University and Fleming College. For the past seven years, Robert has worked as the Management Technician at the Ontario Federation of Anglers and Hunters where he is the lead for the monitoring, surveillance and control of the water soldier populations on the Trent Severn Waterway and private ponds across Ontario.

Water soldier (*Stratiotes aloides*) was first detected in the wild in Ontario in 2008, since this time the Water Soldier Working Group has been actively monitoring and managing this population. In August 2021, the Invading Species Awareness Program received a report of the highly invasive plant water soldier north of Kingston. This presentation will follow the early detection and rapid response efforts put forward by the working group.



Valerie Minelga/Cass Stabler
**Water Soldier in Ontario, Response in the Trent-
Severn Waterways**



Brenda Conley

Collaborative Response to Japanese Stiltgrass

Brenda Conley is a National Operational Specialist with the Canadian Food Inspection Agency (CFIA). She previously served as a Program Officer with the CFIA's local office in St. Catharines. Throughout her 20 plus years with the CFIA she has worked on several invasive species projects, including Plum Pox Virus, Asian Longhorned Beetle, Jointed Goatgrass and currently Japanese Stiltgrass. She graduated with a BSc. in Biology from Brock University.

Japanese Stiltgrass is a new invasive plant to Ontario that threatens the survival of native plant species in the areas it is found. Controlling the spread of this invasive plant requires a quick response from everyone involved, including all levels of government, landowners, the public and researchers. In this presentation, you will learn how developing strong relationships between these groups aids in the control of a regulated invasive plant.

Kellie Sherman

Coordinating Collaborative Action against Invasive Species across Canada



Kellie joined the Canadian Council on Invasive Species as the Coordinator in 2017. Her previous employment included Coordinator of the Ontario Invasive Plant Council and Stewardship Technician with Kawartha Conservation. Kellie's main role with the CCIS is project management, all things communication, fundraising, partnership building and event planning. Kellie lives in Peterborough, Ontario.

Healthy ecosystems provide the foundation for Canada's natural diversity and promote the health and well-being of residents and visitors, as well as support many businesses and industry. Invasive species threaten and impact Canada's ecosystems, economy, and society as they disrupt natural ecological processes, destroy important infrastructure, and interfere with common societal activities such as outdoor recreation. They are also far reaching, and they know no boundaries within Canada and beyond.

The Canadian Council on Invasive Species (CCIS), the national voice on invasive species in Canada, mission is to link the diverse range of provincial and territorial perspectives from coast to coast to coast to build solutions together to address the issue of invasive species. This presentation will review in further detail initiatives the CCIS' has put in place to connect and collaborate with chapters, organizations, businesses, indigenous groups and leaders, industry and government across Canada and beyond to stop invasive species spread.

Belinda Junkin

Ontario Invasive Plant Council Program Update



Community Action more than people on the ground removing invasive plants. We will review how the Ontario Invasive Plant Council enables, facilitates, and drives Community Action throughout all of our work.

Belinda Junkin is the Executive Director of the Ontario Invasive Plant Council. She has over 25 years of experience in association management and has worked with the OIPC for the past 3 years. Belinda earned her Masters Business Administration from Ivey Business School, Western University and is proud graduate of Fleming College. She has a passion for the outdoors, enjoys camping and travels with her little trailer, as well as many other activities with her grandchildren.



Sophie Monfette

Pathways to Prevention: Working with Outdoor Enthusiasts to Mitigate the Introduction, Establishment, and Spread of Invasive Species

Sophie Monfette is the Coordinator of Ontario's Invading Species Awareness Program (ISAP), a partnership between the Ontario Federation of Anglers and Hunters and the Ontario Ministry of Natural Resources and Forestry. For over a decade, she has been working to equip the public with the knowledge and skills needed to foster actions that aim to prevent the introduction and spread of invasive species and conserve Ontario's resources for future generations.

Recognizing the impacts of invasive species on Ontario's natural resources, and the role of outdoor enthusiasts in their introduction and spread, the OFAH delivers the *Invading Species Awareness Program* - a multi-faceted program that responds to emerging threats and reaches millions of people each year with information about invasive species prevention, monitoring, early detection, and management. With COVID-19 impacting the typical programming delivered by staff, 2020 was a year of new and/or modified approaches to program delivery. This presentation will provide a summary of the ISAP's efforts to connect and foster relationships with our key audiences during a global pandemic.

Erling Armson

Ducks and Ontario Invasives



Erling joined Ducks Unlimited Canada as a field biologist in 1980 implementing wetland restoration projects and biological inspections. From 1982-2001 Erling was the Kingston Ontario Area Biologist leading our conservation work in eastern Ontario including wetland restoration, enhancement and securement habitat projects as well as leading our involvement in dealing with invasive purple loosestrife. Erling became a Program Delivery Leader and was involved in most aspects of DU's programs particularly our habitat conservation, research, fundraising and newer public policy program. Erling is presently Head of Land Securement, Invasives and Northern Programs throughout Ontario.

This presentation will cover the impacts of invasives on wetland and waterfowl habitats and an overview of Ducks Unlimited Canada's invasive species programs in Ontario.



Terry Rees

Federation Of Ontario Cottagers Association Program Update

Terry Rees has been the Executive Director of the Federation of Ontario Cottagers' Associations (FOCA) since 2004. FOCA is the largest waterfront landowner organization in Canada, representing 50,000 member families in 520 community associations. Terry is a member of many regional and provincial committees focussed on biodiversity, water and water management, rural economic development and more. Terry is FOCA's lead on Ontario's Lake Partner Program, the largest volunteer water quality monitoring program in Canada, and has volunteered on lake associations and with environmental initiatives for over 30 years.

Brook Schryer

Invasive Species Reporting Tools and Citizen Science in Ontario

Brook Schryer is the Aquatic Program Specialist with the Invading Species Awareness Program out of the Ontario Federation of Anglers and Hunters. In his five years with the program, his work has focused on aquatic invasive species outreach and education, including Asian carps; surveillance and monitoring for invasive species via the Early Detection and Distribution Mapping System (EDDMapS) and the Invading Species Hotline; and he verifies accuracy of sighting information for aquatic and terrestrial invasive species so that any new detections can be reported to provincial and federal partners. He has a Masters in Sustainability Studies from Trent University in Peterborough, ON.

This presentation will cover the importance of citizen science and Ontario's reporting tools and how these work together to complement early detection and rapid response for invasive species. These tools include: the Invading Species Hotline, the Early Detection and Distribution Mapping System (EDDMapS), and the online webpage, iNaturalist.





Sue Chiblow

Keno Gego Naabadosin (Everything is Connected)

Ogamauh annag qwe is crane clan from Garden River First Nation. As a PhD Candidate at York University, her work focuses on “N’bi G’giikendaaswinmin” (water knowledge) exploring humanity’s relationship to N’bi and how improving this relationship can support the well-being for N’bi, and all life. Sue is the recipient of the Vanier Graduate Scholarship and is in the Pre-Doctoral Fellowship in American Indian and Indigenous Studies Program at Michigan State University. She has worked extensively with First Nation Peoples and is a volunteer for the Traditional Ecological Knowledge Elders of the Robinson Huron Treaty territory. Sue is a member of the Aboriginal Traditional Knowledge Subcommittee to the Committee on the Status of Endangered Wildlife in Canada and is co-chair on the Indigenous Advisory Committee to the Impact Assessment Agency of Canada.

Water is life and food is medicine. Diversity is the Creator’s garden. Indigenous knowledge is based on principles of respect, responsibilities, relationships, and reciprocity. Indigenous women have unique knowledge that can inform sustainable environmental decision making. We have come to a time when all knowledge systems need to be linked together to ensure a sustainable future. Specifically, what do Indigenous law, knowledge, language, and culture have to offer for sustainable environmental decision making? How do we link our knowledge systems for a sustainable future.



Heather Braun

Impacts of Non-native Phragmites on Species at Risk



Heather is a Habitat Biologist with the Canadian Wildlife Service, working primarily on the management of Phragmites and the recovery of native species in the Long Point region of Ontario. Heather has been with CWS since 2018 and has experience working on invasive species and wetlands conservation issues throughout the Great Lakes. Prior to joining CWS, she worked for the Great Lakes Commission and Ducks Unlimited, Inc., both based in Ann Arbor, Michigan.

The spread of non-native Phragmites threatens many species at risk in Ontario. This presentation will provide an overview of species being impacted by Phragmites, why they are being impacted and what can be done to address recovery.





Eric Cleland

Invasive Phragmites – Towards a Strategic Framework for Ontario

Eric Cleland is the Director of NCC's Invasive Species Program in Ontario. He has been involved in invasive species management and habitat restoration for over 20 years. Eric leads Canada's largest Phragmites control program in the Long Point region which explores the opportunity to use aquatic herbicides for the control of invasive Phragmites in coastal and inland habitats.

For years Phragmites management work has been happening all across Ontario in an effort to slow the spread of this aggressive invader. Recently, a group of organizations called the Green Shovels Collaborative received funding support to develop a Phragmites Strategy for the province of Ontario. This presentation provides an update on the strategy development, including next steps towards completion.



Brooke Harrison

Community Based Phragmites Control Program

Brooke Harrison is the project coordinator at Georgian Bay Forever for 2 projects: Divert & Capture: The Fight to Keep Microplastics out of our Water and Phragmites Eradication for the health of our wetlands. Previously, Brooke worked with phragmites at The Bruce Peninsula Biosphere Association for 3 years. She lives in Tobermory where she enjoys hiking, boating, kayaking, and swimming in Georgian Bay.

This presentation will highlight what Georgian Bay Forever has learned in the past 8 years of our community phragbusting program. Working within a small budget and heavily relying on community members, GBF manages nearly 700 phragmites stands along the eastern shoreline of Georgian Bay, with the goal of 90% eradication by 2025.



Janice Gilbert

Invasive Phragmites Control: Light at the End of the Tunnel

Janice is a wetland ecologist, who received her PhD in Environmental Science from Ohio State University. She has been controlling Phragmites in species-at-risk habitats since 2007. Janice is the Founder and Co-Chair, Ontario Phragmites working group (established Dec 2011), she is a Scientific Advisor for the Great Lakes Phragmites Collaborative, and established the Invasive Phragmites Control Centre in 2017, a not-for-profit organization, with a mandate to provide responsible solutions for managing Canada's worst invasive plant.

This presentation provides information on cutting-to-drown control methods and examples of successful control projects. It also highlights a few of the community lead programs underway on Lake Huron.

Robert Bouchier

Implementation of biological control of introduced *Phragmites australis*



Rob is a research scientist in insect ecology and biological control with Agriculture and Agri-Food Canada (AAFC) in Lethbridge, Canada. Prior to working with AAFC, Rob worked for the Canadian Forest Service on the biological control of forest pests. 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 consortia projects developing new biological control agents for several invasive plants, including knotweeds, *Phragmites*, garlic mustard and swallowworts. As an adjunct professor at the University of Toronto, projects with collaborators and graduate students have included work on the ecology of invasive species and studies to estimate the impact and efficacy of established biocontrol agents.

Biological control of introduced *Phragmites* is a promising option to supplement existing management tools as a part of an integrated pest management (IPM) approach. The presentation will review steps to implementing biocontrol of invasive weeds like *Phragmites* and provide report on research progress.

Mandy Ehnes

Spotted Lanternfly 101



Mandy is a Program Development Coordinator at the Invasive Species Centre where she focuses on report writing through literature review and primary research through surveys. Her work at the ISC began with all things SLF and she has seen this insect in action.

She is also an adjunct professor in the Biology department at Algoma University where she instructs on a variety of topics from vertebrate evolution to plant physiology.

This presentation will provide a high-level introduction to spotted lanternfly biology, North American distribution and impacts, potential for invasion in Ontario, and what we're doing at the Invasive Species Centre to get the word out!



Hannah Fraser

Tales from the Crop: Spotted Lanternfly and the Threat of Invasive Pests

Hannah Fraser is the Entomologist-Horticulture with the Ontario Ministry of Agriculture, Food and Rural Affairs, and is based out of Guelph, ON. Her work focuses on the management of established and invasive insect pests of concern to Ontario horticulture. This includes working in collaboration with industry, other levels of government, researchers, and service providers to develop strategies for emerging pest issues, including monitoring, applied research, outreach and extension, and policy development. Hannah Fraser has been actively involved with response to invasive pests including plum pox virus, emerald ash borer, swede midge, spotted wing drosophila, brown marmorated stink bug, pepper weevil and others.

Invasive agricultural pests can lead to significant losses to producers and Ontario's economy through increased cost of production, reduced product quality and yield, as well as a potential loss of markets. Spotted lanternfly has recently made headlines in the northeastern United States and is hitchhiking its way towards the Canadian border. Can lessons learned from past encounters help inform our preparedness and response to this latest threat facing horticulture in Ontario?

Jennifer Wright-Kavanagh

Fisheries and Oceans Canada Asian Carp Program Update



Jennifer Wright Kavanagh is a senior biologist at Fisheries and Oceans Canada (DFO). Jennifer is an Asian Carp Program advisor and has a lead role in outreach and partnerships. She has worked with the Asian Carp Program since the fall of 2017. Previous to that, Jennifer worked as a senior biologist with the Fisheries Protection Program at DFO conducting project reviews of work in and around water to ensure compliance with the Fisheries Act.

Nicholas Mandrak

Threat of Asian Carps, Tributary/Spawning



Dr. Nicholas Mandrak is a Professor in the Department of Biological Sciences at the University of Toronto Scarborough. He is the Director of a professional Master's program in Conservation and Biodiversity. His research lab examines the biogeography, biodiversity, and conservation of freshwater fishes. He has co-authored more than 300 scientific articles and reports, and several books.

Paul Bzonek

Asian Carps: Non-Physical Barriers



Paul Bzonek is a PhD candidate at the University of Toronto Scarborough studying in Dr. Mandrak's conservation ecology lab. Paul studies the movement and behaviour of invasive fish, and frequently collaborates with Fisheries and Oceans Canada's Asian Carp Program to evaluate potential non-physical fish-deterrent technologies. Paul uses both lab and field techniques in his research.

Erik Dean

Asian Carps: Potential Effects of Climate Change



Erik Dean is a third year PhD student at the University of Toronto Scarborough, co-supervised by Nicholas Mandrak and Andrew Drake. Using a computational approach, Erik is developing mathematical models to explore how changing environmental conditions may affect the performance of Asian Carp populations in the Laurentian Great Lakes.



Tim Gingera

Don't Let it Loose



Tim Gingera has been a Biologist for DFO for three years; first joining the Asian Carp Program in 2017 and then moving to Winnipeg, MB to join the AIS Program in the Ontario & Prairies Region. Tim is now the acting National AIS Advisor in National Capital Region and Secretariat for the National Aquatic Invasive Species Committee (NAISC).

In 2019, the National Aquatic Invasive Species Committee (NAISC) identified the need to standardize Don't Let it Loose (DLIL) material across Canada. They have developed a nationally-recognizable message that aligns with federal, provincial, and territorial AIS, fisheries, and other regulations. This presentation will discuss NAISC's vision for DLIL and what is being done to grow AIS awareness through the DLIL identity.





Cecilia Weibert

Blue Accounting: Tracking Progress on Recreational Boating Pathway Prevention

Cecilia Weibert is a senior program specialist for the Great Lakes Commission's aquatic invasive species program. In this role, she supports the regional coordination efforts of the Great Lakes Panel on Aquatic Nuisance Species and the Invasive Mussel Collaborative and also provides program support for a variety of invasive species projects. She holds a master's degree in coastal zone management as well as a bachelor's degree in marine affairs and policy from the University of Miami in Florida, USA.

This presentation will review the process for developing a binational, regional analysis of recreational boating aquatic invasive species prevention programs in the Great Lakes. These prevention programs include regulatory policies, non-regulatory management activities, and outreach programs. Results of this analysis will also be shared in an interactive dashboard.

Sunci Avlijas

The Arrival of the Tench (*Tinca tinca*) in the Great Lakes: Learning from Invasion History and Accounting for Context Dependence



Sunci Avlijas [“soon-chee” “av-lee-yash”] is a PhD Candidate in the Ricciardi lab at McGill University. Her current work is focused on improving our ability to predict where invasive fishes will have a high impact, and where they are less likely to create a disturbance. Sunci primarily works with Eurasian Tench as a model, because it has successfully colonized every continent (except Antarctica), yet on a more local scale it has failed to establish in many watersheds where it was purposely stocked. She complements her field research with lab experiments that examine how impacts of invaders change across different environments.

A globally invasive fish, the Tench (*Tinca tinca*), is spreading through the St. Lawrence River and poses an imminent invasion threat to the Great Lakes. The species was introduced to a tributary of the St. Lawrence River in the early 1990s and in September 2018 it was detected in Lake Ontario (Bay of Quinte) for the first time. In this presentation we will explore factors that are likely to affect Tench establishment success and impacts.



David Young

TEK and Western Science: Lessons Learned and Implications for Invasive Species

David Young (Garden River First Nation) is an avid fisherman and outdoorsman, who spends much of his time on the land and within his traditional territory. He is currently working for Natural Resources Canada while he finishes his Master of Science, where he researches Lake Sturgeon movement patterns using Traditional Knowledge and Western Science (Two Ways of Knowing) in his home territory of Garden River.

My presentation will cover some of the research I have done (with Garden River First Nation regarding Lake Sturgeon) in collaborating Western Science and TEK, some of the strengths/benefits to doing so, and implications for invasive species management (prevent, mitigate, adapt, eradicate/control).



Erin LeClair

E-Commerce and the Protection of Plant Resources: Why it matters and what can we do about it?

Erin LeClair is a member of the Invasive Alien Species and Domestic Plant Health Program in the CFIA's Plant Protection Directorate. Her section is involved with the importation and domestic movement of invertebrates, microorganisms, and invasive plants and the pathways by which they enter Canada.

The rapid adoption of e-commerce in Canada has implications on plant protection efforts. This presentation will discuss those challenges as well as ways that the CFIA is attempting to address those challenges.



Chris Macquarrie

Invasive Forest Pest Research at Natural Resources Canada's Great Lakes Forestry Centre

Chris MacQuarrie is a research scientist with the Canadian Forest Service at the Great Lakes Forestry Centre in Sault Ste. Marie. He studies the population dynamics and management of invasive and native pests of trees.

This presentation will provide a brief summary and update on current invasive pest research at the Great Lakes Forestry Centre. Including work on emerald ash borer biological control, hemlock woolly adelgid detection and management and other important invasive forest pests.



Sharon Reed

Emerging Forest Pathogens



Dr. Sharon Reed has been working as the forest health research scientist for the Ministry of Natural Resources and Forestry for nearly 3-years. The lab's current efforts are focused on detection, survey, and management of invasive species. Topics include oak wilt, beech leaf disease, and Phytophthora

Oak wilt and beech leaf disease are two new emerging threats to Ontario's forests. This presentation will discuss why these diseases are a threat and the signs and symptoms of the diseases. In addition, the audience will learn about current research aimed at improving detection, identifying risks, and developing management.



Catherine Cullingham

Mountain Pine Beetle: Potential for Eastern Spread



Dr. Catherine Cullingham is an Assistant Professor in the Department of Biology at Carleton University. She received her BSc from the University of Guelph, her PhD at Trent University, and completed postdoctoral work at the University of Alberta. Her research uses landscape and population genetics to fill knowledge gaps and develop tools that can be applied to issues in forestry and wildlife management. She has been working on the mountain pine beetle system for over 10 years, and has contributed to confirming host-expansion to jack pine, defining the spatial complexity of the lodgepole x jack pine hybrid zone, and identifying genetic markers potentially associated with MPB resilience.

Mountain pine beetle is a bark beetle that infests a number of different pine hosts in western North America. Due to anthropogenic factors, this species has expanded its range into the western Boreal forest. This talk will cover some of the interesting aspects of mountain pine beetle biology, as well as the future spread-risk potential for Ontario.



Claudette Trudeau and Travis Jones Traditional Ecological Knowledge in Forest Management

Claudette Trudeau is an Anishinabekwe (Ojibwa), Mukwa dodem (Bear Clan), a member of the Serpent River First Nation and a second-generation Indian Residential School survivor. Claudette earned a B.A. in Sociology and has thirty years experience working in various federal departments in the federal government, including Employment Canada, Statistics Canada and Indigenous Services Canada, specializing in Indigenous policy. She is currently with Natural Resources Canada as a policy advisor at the Great Lakes Forestry Centre. Claudette takes pride in supporting a more inclusive and collaborative approach on Indigenous perspectives in her policy work.

Travis Jones is Anishinabe (Ojibway), Mukwa dodem (Bear Clan), a member of the Garden River First Nation and a father of 3. Travis had a traditional Anishinabe education that continues today. Travis has also earned a B.Sc in Forest Ecology as well as technical diplomas in Forestry and Fish & Wildlife. Travis has extensive experience in both forestry and working with Indigenous people. He has worked for more than 10 years in Forest Ecology research at the Northern Forestry Centre, as well as another 10 years as Indian and Northern Affairs Canada (INAC, now ISC). He is now the Indigenous Engagement and Science Advisor at the Great Lakes Forestry Centre. Travis has always been passionate about addressing the underrepresentation of Indigenous people in the sciences. Travis feels fortunate to work with Indigenous people through a natural resource development lens.

“As an Anishnabe (Ojibway) man who grew up on the land surrounded by the many miracles of our Creator, It’s an honor to work with so many brilliant and inquisitive minds here at NRCAN who share in the same sentiment of adoration that comes when we are embraced by the arms of our Mother Nature.”

Dan Rowlinson

Forest Health Conditions for Ontario 2020

Dan Rowlinson is the provincial lead for the Ontario forest health monitoring program. Beginning his career in the mid-80s as part of a spruce budworm research team he now has the role of planning the provincial level forest health monitoring program with the MNRF. Currently living in the Algoma region which is also home to Natural Resources Canada and the Invasive Species Center he continues to nurture collaborative partnerships with the focus on monitoring and research of the growing list of threatening Invasive species.

Forest health monitoring in Ontario is conducted by the Ontario Ministry of Natural Resources and Forestry (MNRF).

The forest health monitoring in Ontario includes the occurrence of native, non-native, and invasive biotic (e.g., insects, disease) and abiotic (e.g., snow and drought damage) disturbances and events. All forested area in the province, regardless of ownership, is monitored and reported on each year.





Ontario Invasive Species Forum
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