



Atlantic Urban Forest Conference

**November 7th & 8th, 2017
Fredericton, New Brunswick**

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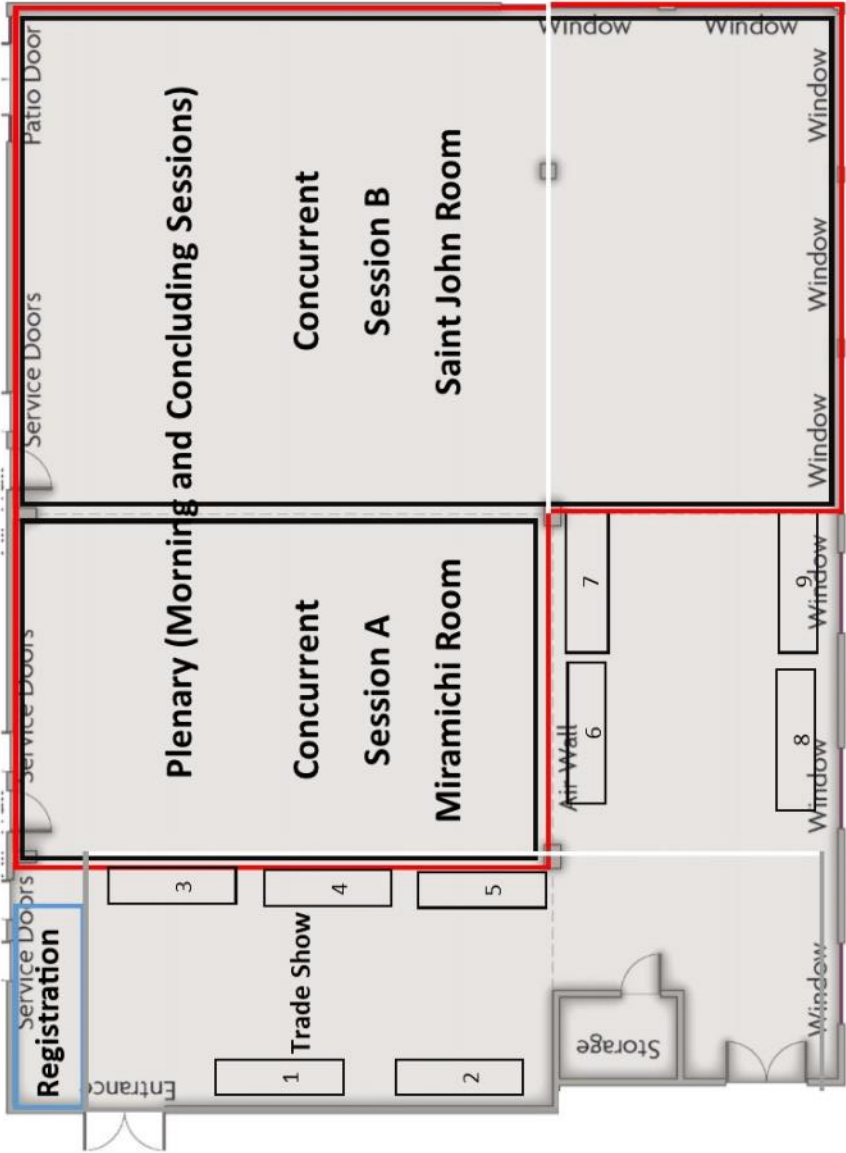
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Grand Ballroom — Ground Floor

Celebrating Canada's 150

Are Our Urban Forests Ready for the Next 150?

Fredericton, New Brunswick



November 7th

8:00 — 9:00 *Registration and Coffee*

Morning Session is Moderated by Heather Fraser, Natural Resource Program Coordinator at City of Moncton

9:00—9:15 **Mike O'Brien — Mayor City of Fredericton**
Welcome and Introduction

9:15—10:00 **Keynote Speaker**

Dr. Kathleen Wolf— Researcher, Social Scientist—University of Washington

Human Health and Happiness Benefits in the Urban Forest

Research and analytic models reveal the various environmental services that trees provide, including energy savings, cleaner air, and improved stormwater management. And another dimension of science findings reveals that trees, the urban forest and metro nature provide a wide range of human health and wellbeing benefits, including better healing and therapy, improved mental health, and better social cohesion. The combined effect of these benefits is increased happiness and quality of life for urban residents of all ages. This presentation will provide an overview of the human health benefits science results, with a focus on trees. It will also present information about the economic values of human health and wellness outcomes.

10:00—10:30 **Verna Crossman — Science Policy Advisor— Natural Resources Canada, Canadian Forest Service**
Ecological Goods and Service Benefits of Urban Forests

What are our urban forests worth and how can we measure that? This presentation will provide an overview of the many economic, ecological and social benefits that urban forests provide and examine valuation methods and advances.

10:30 —11:00 **Break Sponsored by the Maritime College of Forest Technology**

11:00—11:45 **Richard Zurawski — Meteorologist**
Seeing the Forest In Spite of the Trees

In today's world getting out the message out to the public, especially if it has to do with the sciences, is more complicated than ever. We live in a flood of pseudo science, headline oriented spectacle masquerading as news, along with hyperbole and polarized opinions. The continued demise of traditional media like newspapers, radio and TV due to the social media disrupters of Twitter, Facebook et al leaves entire swaths of content orientated discourse vulnerable and increasingly marginalized. Nowhere is this more evident than in the ecologically based sciences where vested interests have driven manufactured binaries and attacks on legitimate scientific research.

As in anything understanding what is happening is the first step to developing a counter to the deluge of false memes and astroturfing so prevalent in modern and social media.

To that end I will lay out a short history of the demise of traditional media, which also details the drivers behind the slide in media content, then discuss how an examination and application of new and surprisingly simple discourse method can provide an effective and simple antidote to false and misleading media news and reports.

The translation of content driven science to spectacle driven news stories is key to changing public perception, political action and funding. Seeing the forest in spite of the trees is more than a cute slogan. It is the basis behind a new comparative discourse analysis that can simply and effectively power translations of science into journalism, without getting overwhelmed in post modern memes and hidden agendas.





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Agenda

November 7th, 2017

11:45 —1:00

Dr. Adrina Bardekjian - Manager, Urban Forestry Programs and Research Development with Tree Canada and Postdoctoral Research Fellow with the University of British Columbia.

Sharing urban forestry knowledge across Canada: Bridging gaps and fostering collaboration

Using examples of current initiatives within the Canadian Urban Forest Network and Strategy, this presentation will focus on sharing knowledge through practice, policy, research, community engagement, and creative communications. By bridging knowledge gaps and mobilizing science towards more effective collaborations.

12:00 —1:00

Lunch Sponsored by the City of Fredericton

Speaker Mr. David Coon Leader of the New Brunswick Green Party

Concurrent Session 1

Session A—Miramichi Room

1:00 – 2:30

Landscaping in a Changing Climate

Hosted by Jim Landry, Landscape New Brunswick/Prince Edward Island

The session will focus on landscaping in a changing climate – what could we change in our current practices.

Rosemarie Lohnes – President and Designer—Helping Nature Heal

Urban Shoreline Food Forest

In this discussion Rosmarie will comment on her experience designing and creating Urban Shoreline Food Forests and how we can use them to increase biological diversity, ecological resilience, and community sustainability. The negative effects of climate change, sea level rise, erosion, habitat loss, and our disconnection from nature are more apparent than ever. This has resulted in a need and desire to do things differently, to reimagine our urban spaces, and become more sustainable. Creating multi-purpose natural spaces in urban environments provides an opportunity to solve some of these important ecological and social challenges while creating habitat and opportunities for people to explore nature. Urban shoreline food forests can address a number of issues including food insecurity, erosion due to sea level rise, human disconnection from nature, and habitat loss by creating safe natural spaces where people can harvest nuts, fruit, and berries, while at the same time reducing shoreline erosion and providing viable habitat. Planting native edible and erosion preventative plant species on urban shorelines can also improve water quality by providing shade and reducing runoff.

Michael James— General Manager—DeepRoot Canada Corporation

Trees – Soil – Rainwater: The Foundation of Sustainable Infrastructure

This presentation will look at the integration of the urban forest, oxygen rich moist soils and rain water management as a single integrated approach in order to develop and maintain sustainable green infrastructure in a dense urban environment.

Through the use of case studies and supporting quantitative research we will demonstrate how Soil Cell technology can assist municipalities in achieving their own sustainability objectives by integrating the management of trees, soil and rain water in a dense urban setting. This presentation will also include results from monitored sites



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Concurrent Session 1 (Continued)

Session B—Saint John Room

1:00 – 2:30

Urban Planning That Includes Our Urban Forests

Hosted by Stan Kochanoff, Environova

The practices that will sustain our new developments and ensure they are healthy, enticing places to live. What we plan today, will be the neighbourhoods of tomorrow.

Sébastien Arcand— Senior Urban Planner— City of Moncton

Dan Hicks—Supervisor, Parks and Leisure —City of Moncton

Introducing Street Trees in All New Development: New By-laws in Moncton

During the review of the City's Municipal Plan, the public had clearly indicated to City Council that they wanted to see more trees in new neighborhoods. It has become apparent that, left to their own, most developers would not achieve the expectation of creating a greener community. This presentation will provide the participants with an overview of how the City of Moncton has brought forward the idea of planting new street trees into all new developments into regulation. We will present best practices, tools and the steps we've taken to get there and more importantly, the lessons learned.

Jim Linfield— Parks Grounds Co-ordinator—Town of Rothesay

Deer? So, what's the Problem?

Jim will give us a bit of the history with the growing problem of deer in the urban environment. He will talk about deer in his area and what the communities there are attempting to do to manage their populations.

Daniel Savard— Senior planner— NB Department of Environment and Local Government

Urban Planning that includes our urban forests: Or how to build healthier communities

Through the Sustainable Community Design approach (SCD) communities are able to use the natural environment as a green asset that brings a value through subdivision development. This approach is promoted by the *Sustainable Communities Partnership* and helps communities to understand that less extensive infrastructures in subdivision building is less expensive infrastructure, and offers benefits that no other conventional subdivision patterns can offer. Implementation of SCD has shown that you can protect 75%+ of a property to subdivide, increase the sales revenues of the builder by 16X more, and tax revenues from \$40K/year to \$620K/year, for practically the same services to provide for. In subdivision building, protection of the urban forest is a 'No brainer'.

Dr. Peter Duinker— Professor and Acting Director— School for Resource and Environmental Studies, Dalhousie University

Plans Require Implementation to Achieve Management: How We Did It for Urban Forests in Halifax

2:30—3:00

Break Sponsored by City of Charlottetown and Nova Scotia Power





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November 7th, 2017

Concurrent Session 2

Session B—Saint John Room

3:00 – 4:30

People living in our Urban Forests

Hosted by Dr. Adrina Bardekjian, Tree Canada

Dr. Kathleen Wolf— Researcher, Social Scientist—University of Washington

Human Health and Happiness Benefits in the Urban Forest

Research and analytic models reveal the various environmental services that trees provide, including energy savings, cleaner air, and improved stormwater management. And another dimension of science findings reveals that trees, the urban forest and metro nature provide a wide range of human health and wellbeing benefits, including better healing and therapy, improved mental health, and better social cohesion. The combined effect of these benefits is increased happiness and quality of life for urban residents of all ages. This presentation will provide an overview of the human health benefits science results, with a focus on trees. It will also present information about the economic values of human health and wellness outcomes.

Emily Owens – Citizen Science Program Manager - Canadian Forest Service

Using Citizen Science as a Vehicle to Include and Engage the Public in Research Programs

Citizen Science is an increasingly valuable approach where scientists and citizens join forces to address difficult and important scientific problems. Citizen science has many benefits but is still a relatively new approach to modern data collection and public engagement. The “Budworm Tracker” is a citizen science program that provides volunteers with the unique opportunity to engage with researchers and offers a solution to the challenge of monitoring the destructive spruce budworm, *Choristoneura fumiferana*. The response and engagement of the public has been outstanding and I will be presenting some background on the project, highlight its public engagement successes, and discuss how it could be an idea model for getting the public involved in important forestry issues.

Dr. Daniel Rainham – Director, Environmental Science and Senior Research Scholar — Healthy Populations Institute, Dalhousie University

A Public Health Perspective on Urban Trees

Trees are a part of a larger natural ecology fundamental to supporting population health. Our quick transition to a more urbanized species has resulted in a more limited exposure to nature and its corresponding physical and mental health benefits. In this presentation I will talk about research on the relationship between health and contact with nature with a specific focus on trees in the urban context. The evidence suggests that trees are more than just municipal amenities; they are essential for public health and urban livability.

Dr. James Steenberg— Killam Postdoctoral Fellow— School for Resource and Environmental Studies, Dalhousie University

Open data and urban forests : Engaging the public through interactive tree mapping

Open data and open government are a recent and increasingly prevalent international trend, whereby governments – frequently municipal governments – are making the data collected and used publicly available without restriction. While a growing body of research has addressed the values of such programs (e.g., government transparency and accountability), there is little to no research investigating practical applications of open data programs for urban environmental management. Our research explores the potential roles and associated barriers of government open data for sustainable urban forest management. Making urban forest data publicly available through open data programs could improve citizen engagement in municipal urban forestry. Moreover, crowdsourcing tree inventories might also help to better inform government decision-making by building more complete tree datasets on both public and private lands.



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Concurrent Session 2

Session A—Miramichi Room

3:00 – 4:30

Utilities Moving Through the Urban Environment

Hosted by Sarah Weatherby, Maritime College of Forest Technology

Brian Williams - NB Power

James Urbanowski - NB Power

Rob Young—Nova Scotia Power

Evening Session (Public) – What to expect as the Emerald Ash Borer moves into Atlantic Urban Forests

The Emerald Ash Borer is an invasive alien species that has invaded North America. It has moved north from the United States and is now killing ash trees in Ontario and Quebec. Their impact has been costly ecologically and economically. This evening session will provide information on the ecology, economics and management of Emerald Ash Borer.

7:00 pm— Hugh John Flemming Forestry Center Lecture Theater — 1350 Regent St, Fredericton

Anthony Daniel – Science Advisor —City of Montreal

Emerald Ash Borer Impacts in the City of Montreal

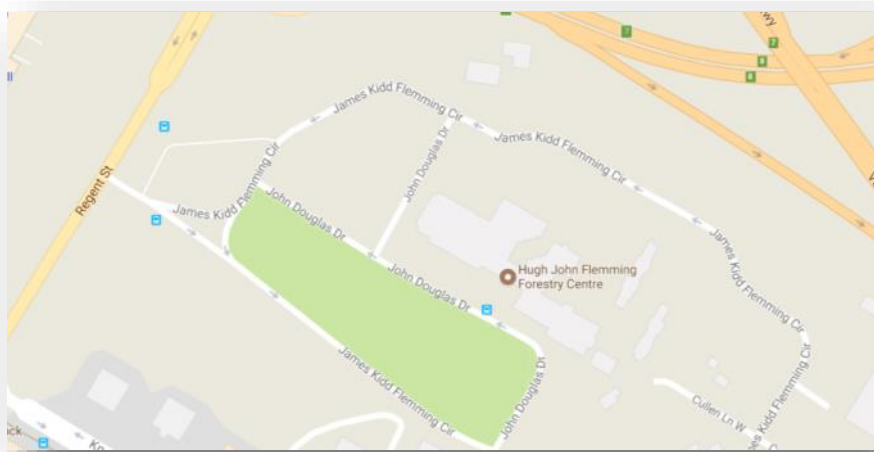
Anthony Daniel will detail some of the ecological, economic and social impacts of the Emerald Ash Borer on the City of Montreal.

Dr. Krista Ryall— Research Scientist—Canadian Forest Service

The Emerald Ash Borer: biology, impacts, and research update

Don Murray – Forester— City of Fredericton

Richard Zurawski – Meteorologist





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November 8th, 2017

Concurrent Session 3
Session A—Miramichi Room
8:30 – 10:00

Managing Pest and Diseases in Our Urban Forests

Hosted by Wayne Mckinnon, Canadian Forest Service

What pests and diseases are likely to impact our urban forests in the next 50 years? There are invasive species and species that are more detrimental because of our changing climate – what we need to watch out for and what we can do to lessen the impact.

Dr. Krista Ryall – Forest Ecological Entomologist —Canadian Forest Service

The emerald ash borer: biology, impacts, and research update

The emerald ash borer (EAB) is a devastating invasive insect pest which has caused extensive mortality to ash trees throughout its introduced range in North America. Up to 99% mortality of affected trees typically occurs within 5-6 years following infestation by the beetle. Early detection is difficult due to the cryptic nature of EAB during initial infestations; progress has been made in the development of sampling and detection tools and techniques. This includes a branch sampling technique to detect larval galleries and pheromone-baited traps to detect flying adult beetles. A classical biological control program has been initiated against this insect pest, with the introduction of three species of parasitoids known to cause high levels of mortality to the pest in its native range. Early results suggest at least one parasitoid is establishing. Long-term studies are necessary to evaluate the potential impact of the parasitoids on EAB populations.

Cory Hughes— Forest Invasive Alien Species Technician - Canadian Forest Service

Early detection of invasive forest insects: recent improvements in survey methods

The sex- and aggregation pheromones discovered in many species of longhorn beetles in the last decade has very practical applications in the survey and early detection of exotic and potentially invasive species introduced via intercontinental trade. We report results from trapping experiments in North America, China and Europe comparing several different combinations of cerambycid pheromones, host volatiles, trap colors, and trap heights for their efficacy at detecting longhorn beetles as well as other bark- and woodboring insects targeted by regulatory agencies.

Ronald Neville—Area Survey Biologist - Canadian Food Inspection Agency

CFIA Regulation and Early Detection for Invasive Forest Pests

CFIA is Canada's lead agency to prevent the introduction and spread of invasive forest pests, and to promote appropriate measures for their control. This presentation will give an overview of the rules and regulations in place to prevent the introduction and spread of invasive forest pests in Canada. High risk areas such as container ship ports, airports, and industrial distribution centers are targeted locations for pest surveys to monitor for known invasive forest pests and those anticipated to arrive in Canada sometime in the near future.



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Concurrent Session 3

Session A (Continued, Miramichi Room)

Dr. Anthony Taylor – Research Scientist/Forest Ecologist– Canadian Forest Service

The impact of climate change on Acadian tree species and their vulnerability to invasive forest insect pests

Canada's Acadian Forest Region lies in the transition between the North American boreal and temperate forest biomes and may be particularly sensitive to changes in climate because many of its component species are currently at their southern or northern climatic range limits. Although some species may exhibit major productivity boosts, others may not fare as well, experiencing increased vulnerability to disease and insect pests—affecting the goods and services we derive from them. This presentation will provide a brief overview of how the climate of the Acadian Forest is expected to change over the coming century and how this change is projected to affect our Acadian tree species, potential invasive forest insect pests, and the vulnerability of Acadian tree species to these pests.

Concurrent Session 3

Session B—Saint John Room

8:30 – 10:00

Native Forests and Corridors in Our Urban Matrix

Hosted by Nairn Hay, Fundy Model Forest

In any urban forest matrix, there are remnants of our native forests and in some case forest creatures. In many cases we are working to restore those native forests to enhance the livability of our urban settings. Here are some examples of successful programs and projects.

Paul McLaughlin - Past-President, Board of Directors — Nashwaak Watershed Association

Creating or Restoring Natural Areas in Urban Environs

The presentation is intended to demonstrate the work done to date on the silver maple forest restoration, and to further explore the other benefits and opportunities in creating or restoring natural areas in urban environs.

Ben Whalen – Executive Director—Kennebecasis Watershed Restoration Committee

Using Riparian Zones To Improve Functions of Urban Forests and Streams

Healthy riparian zones are key to future flood and storm water mitigation impacts and this presentation will demonstrate how the KWRC is using bioengineering techniques to improve flood plain connectivity. It will also discuss how rain gardens and other green infrastructure can improve how we manage our storm water runoff in urban centres.

Beth Hoar— Chair PEIISC; Parkland Conservationist— PEI Invasive Species Council;

City of Charlottetown

Invasive Plants and Insects – The Urban Perspective

Beth will present on invasive plants and insects in the urban environment. She will talk about the identification of different invasives commonly found in municipalities, their possible pathways of introduction, potential impacts outside the municipal borders, community engagement and awareness and the challenges of budgetary restrictions on management programs.





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Concurrent Session 3

Session B (Continued, Saint John Room)

Dr. Joe Nocera— Assistant Professor, Wildlife Management — University of New Brunswick

Aerial insectivore foraging as a function of urban landscape configuration

Declines in abundance and quality of food resources (i.e., flying insects) are strongly linked to population declines in aerial insectivores. Recovery of aerially-foraging insectivores requires, in part, a greater understanding of how they use their habitat while foraging during times of high metabolic demand, such as during nesting. We used radio telemetry to track the daily movements of a model aerial insectivore (Chimney Swifts) to identify foraging preferences for different areas in an urban environment. Water had a negative or neutral influence on habitat use in all cases. Those areas that are traditionally considered important to urban wildlife, namely forests and semi-natural greenspace, had a modest positive effect on habitat use. Though only observed in four birds, industrial areas had the strongest positive relationship with foraging behaviours. As industrial areas are unlikely to be substantial sources of aerial insects, the prey concentrated in these areas likely arrived by thermal convection over developed areas. Thus, chimney swift foraging habitat is multi-scaled; their foraging patterns depend on local landscape features that host or coalesce prey produced in other areas.

10:30 – 11:30 **Break Sponsored by the Association of Registered Professional Foresters of New Brunswick**

Plenary Session 2

10:30 – 11:30

Panel and Discussion

What are the vectors for change most likely to impact our Atlantic urban forest? What can we do to prepare? How is the advice different for large vs small communities?

11:30 – 12:00

Conference Wrap Up

1:00 pm – **Tour of the Fredericton Walking Trails across the Bill Thorpe Walking Bridge ending at Picaroons Roundhouse. Tour will be led by Don Murray, Manager of Parks and Trees for the City of Fredericton. Meet directly behind the Crowne Plaza Hotel on the walking trail.**

Educational Credits:

Atlantic Planners Institute — 13.5 CPL Credits

Association of Registered Professional Foresters of New Brunswick — 10.5 CFE Credits

New Brunswick Forest Technicians Association — 15 Credits

International Society of Arboriculture— 9.5 Credits

Credits reflect attendance of full conference. Check for specifics for each session with your organization.



Atlantic Urban Forest Conference

Speaker Biographies



Sébastien Arcand

**Senior Urban Planner
City of Moncton**

You can probably trace Sébastien's career success to his talent for adaptability. As Moncton's Senior Policy Planner, he works in French and English, shifting focus across a spectrum of projects with such easy versatility you might call him professionally ambidextrous. From short term development to long term policy, Sébastien has a hand in most of the endeavours shaping the city. His recent projects include implementing PlanMoncton, the City's new municipal plan, and its Climate Change Adaptation Plan and Flood Management Strategy. When not at City Hall, he's planning his next ride down some mountain – on a bike or his skis.

Dr. Adrina C. Bardekjian

**Manager, Urban Forestry Programs & Research Development and Postdoctoral Research Fellow
Tree Canada / University of British Columbia**

Dr. Adrina C. Bardekjian is an urban forestry researcher, writer and educator. She works with Tree Canada as Manager of Urban Forestry Programs and Research Development; she is also a Postdoctoral Research Fellow with the University of British Columbia and a Totten Fellow of the USDA Forest Service Northern Research Station. Adrina has a number of publications and is one of the editors of the book, *Urban Forests, Trees and Greenspace: A Political Ecology Perspective* (2014). She remains an active Board member of the Toronto Cancer Prevention Coalition and the Curriculum Review Committee for the Urban Forestry Technician Program at Fleming College. Adrina's academic research focuses on communicating underrepresented narratives in urban forestry through a political ecology lens. Her doctoral research focused on arborist perspectives on identity and labour, and her current postdoctoral work examines women's participation in urban forestry and arboriculture. Adrina is the recipient of several awards including York University's Graduate in Environmental Studies Community Excellence Prize (2012), the Canadian Dermatology Association Public Education Award for the film, *Partners In Action: A Shade Policy for the City of Toronto* (2014), and the International Society of Arboriculture's Honourary Membership Award (2016) in recognition for her efforts to promote and advance the ideas of arboriculture and urban forestry.

Verna Crossman

**Science Policy Advisor
Natural Resources Canada, Canadian Forest Service**

Verna Crossman is a Science Policy Advisor with the Canadian Forest Service and works on urban forest issues, among others. Before joining the Canadian Forest Service, Verna worked on environmental assessment and historical forestry claims at Indigenous and Northern Affairs Canada, and as a nature interpreter and forest surveyor throughout the Maritimes. With a deep appreciation of nature, she enjoys getting outside to draw on the benefits of urban forests every chance she gets.

Verna graduated from the University of New Brunswick in 2002 with a Bachelor of Science in Forestry, Parks and Wilderness Studies Minor.

Anthony Daniel

**Science Advisor
City of Montreal**

Anthony Daniel has worked in urban forestry for 15 years. He has worked for the City of Montreal since 2005 where he has occupied several positions: tree inspector, research adviser and now scientific adviser. Since 2008, he has been in charge of the city's emerald ash borer integrated pest management program. M. Daniel holds a Bachelor degree in Biology from Université du Québec à Montréal (UQAM). In the past, M. Daniel has been a phytoprotection consultant in the Montreal area. One of his firms, Arthropodia, has won three prestigious prizes in the 2002 edition of the entrepreneurship Quebec contest. This firm was the first to apply a pesticide municipal bylaw over a large territory that includes several cities in the province of Quebec. M. Daniel has also coauthor of a book on pesticide alternative to fight against common garden pest, published in 2005.





Atlantic Urban Forest Conference

Speaker Biographies

Dr. Peter Duinker

Professor and Acting Director

School for Resource and Environmental Studies, Dalhousie University

Peter Duinker is Professor in the School for Resource and Environmental Studies at Dalhousie University. With his students and research assistants, Peter helped city staff prepare Halifax's first Urban Forest Master Plan in 2012. He continues this work by providing ongoing monitoring and research in support of plan implementation. Peter's investigations on urban forests, with his students, address diverse topics spanning biophysical and socio-political themes. At his home in downtown Halifax, Peter is slowly removing the Norway-maple canopy and replacing it with native species associated with Acadian old-growth forests. Peter shares the home with his wife Maggie and, when not chasing academic pursuits, enjoys home-brewing, choral-singing, cycle-touring, home-renovating, high-score golfing, and tree-hugging.

Beth Hoar

Chair PEIISC; Parkland Conservationist

PEI Invasive Species Council; City of Charlottetown

Beth Hoar is the Parkland Conservationist for the City of Charlottetown and the Chair of the PEI Invasive Species Council. Beth manages the City of Charlottetown's urban forest, was instrumental in the creation and implementation of a street tree inventory, woodland inventory and reforestation projects. She manages the Dutch elm disease project, City initiatives on invasive forest insect pests and plants and the City's nature education program. She has also worked with the PEI Invasive Species Council for a number of years, helping to develop a framework for invasives on PEI, the creation of a Spotter's Network and an educational program to raise public awareness about invasives.

Beth is passionate about raising awareness about the issues around invasive species, in particular from the urban perspective. She is also a member of the International Society of Arboriculture, a Certified Arborist, Vice Chair of the Atlantic Advisory Committee on Introduced Forest Pests and sits on the Atlantic Urban Forest Collective planning committee.

Cory Hughes

Forest Invasive Alien Species Technician

Institution: Natural Resources Canada

Cory Hughes is a Forest Invasive Alien Species (FIAS) technician with Natural Resources Canada, Canadian Forest Service, in Fredericton. He received his Forest Technician Certificate from the Maritime College of Forest Technology in 2007 and his BSc in Forestry Science from the University of New Brunswick in 2009. He started work at the Atlantic Forestry Center in 2009 primarily on the brown spruce longhorn beetle studies conducted under Dr. Jon Sweeney. In the last several years he has supervised the field and laboratory components focused on developing methods for survey and management of invasive forest insects.

Michael James

General Manager

DeepRoot Canada Corporation

Michael James is the General Manager of DeepRoot Canada Corp. Mike has been in the municipal street tree / Stormwater industry for over 30 years and has worked extensively with landscape architects, municipalities, engineers, and landscape contractors to provide solutions for the health of the Urban Forest and Low Impact Development techniques. Michael has a Degree in Public Administration and Business Management.



Atlantic Urban Forest Conference

Speaker Biographies



Jim Linfield

Parks Grounds Co-ordinator

Town of Rothesay

Jim has a 40+ year's career in Horticulture, practiced throughout the Maritime Provinces. His academic achievements include:

- Graduate of University of Guelph with diplomas in Commercial Floriculture and Parks Horticulture.
- L/A in the New Brunswick Apprenticeship and Occupational Certification of Landscape Horticulturist
- CNLA Industry certification with the designation of Certified Landscape Manager/ formally known as Landscape Professional
- He has spent 28 years of his career working for various public entities including: the South Shore Health Authority in Bridgewater N.S. As well as the municipal parks department of the City of Moncton and the Town of Rothesay, N.B.

Before going into the public sector, Jim managed his family's greenhouse operation for 18 years in the Moncton area. Jim also sits on the Program Advisory Committee for the Landscape Horticulturist trade designation here in the province.

Rosemarie Lohnes

President and Designer—Helping Nature Heal

Rosmarie has a B.A. in Conservation and Environmental Studies from York University with prior studies in Architectural Design and further training in Horticulture as Therapy, Ecological Landscape Design, Shoreline Erosion, Master Gardener and Landscape Management. Rosmarie did an internship in 1999 at Windhorse Farm in Ecological Forestry and Organic Gardening. After her internship she began gardening and decided to start her own business; Helping Nature Heal was born.

Paul McLaughlin

Past-President, Board of Directors

Nashwaak Watershed Association

Paul McLaughlin has been working with wood for more than forty years as a designer/builder and contractor. He has been a woodlot owner, ranch hand, irrigation farmer, father, a maker of wooden swords and other weapons for imaginary battles, and most recently a grandfather. For the past seven years he was the president of the Nashwaak Watershed Association Inc.

With the NWA, he oversaw the growth of the organization's board of directors and budget and with that board, the emergence of the NWA as a significant contributor to discussions in the province on conservation and environmental issues, such as Water Classification, salmon conservation, mining and forestry practices. The 2014 Ombudsman's report on water classification was brought about by an action led by the Nashwaak Watershed Association and has spurred the current government to begin their water strategy process. Our work with the City of Fredericton on the restoration of roughly 140 acres of Silver Maple wetland forest along the Nashwaak River is a potentially ground breaking effort that could see the restoration of this very rare and valuable ecology in the very heart of a provincial capital.

Ronald Neville

Area Survey Biologist

Canadian Food Inspection Agency

Ron has worked with CFIA for about 19 years in various capacities. As an inspector of wood packaging at the Port of Halifax, passenger and commercial cargo at the Halifax International Airport, grain facilities, Forest produce exports such as Christmas trees as well as variety of other import and export of plants and plant products. Ron has worked in various outbreaks including Brown spruce longhorn beetle and Hemlock woolly adelgid in Nova Scotia and assisted colleagues with Emerald ash borer in Quebec and Ontario. He has worked as the Area Survey Biologist in Atlantic Canada since 2006 where he coordinates plant surveys.





Atlantic Urban Forest Conference

Speaker Biographies

Dr. Joe Nocera

**Assistant Professor, Wildlife Management
University of New Brunswick**

Dr. Joseph Nocera joined the Faculty of Forestry & Environmental Management in July 2016 as an Assistant Professor with focus on issues of wildlife management. He was previously a Research Scientist in Species-at-Risk with the Ontario Ministry of Natural Resources & Forestry, and a regular graduate faculty member at Trent University. These dual roles gave him the experience to ensure his students' and his research fills a gap in fundamental wildlife science and serves an applied purpose by entering the policy stream. Dr. Nocera's research takes an integrative approach to cross-disciplinary questions in population ecology by modelling wildlife-habitat relationships from a management perspective. He has used field experiments, comparative and meta-analyses, and behavioural, ecological, and physiological datasets to address these questions.

Emily Owens

**Citizen Science Program Manager
Natural Resources Canada, Canadian Forest Service**

Emily began her career working at the University of New Brunswick in the Faculty of Forestry as an entomology lab manager. Year later, based out of the Yukon, she worked as a field technician for the University of Alberta on a long-term project focused on the evolutionary ecology and population dynamics of small mammals. Eventually she returned Fredericton to work for Forest Protection Limited as a biologist on invasive pests such as Brown Spruce Longhorn Beetle, the Beech flea weevil and integrated pest management programs. Currently, Emily works for the Canadian Forest Service (CFS) on the Spruce Budworm Early Intervention Project focusing efficacy trials, moth dispersal, citizen science (Budworm Tracker), and science communications. Emily is also the project lead for "Women in Forestry Science", featuring women working within the CFS and will be launched in the New Year.

Dr. Daniel Rainham

**Director, Environmental Science and Senior Research Scholar, Health Populations Institute
Dalhousie University**

Daniel is an Associate Professor (Environmental Science) and Senior Scholar with the Healthy Populations Institute at Dalhousie University. Working at the interface of population health science, environmental epidemiology and health geography, his research is focused on people-environment interactions and how these interactions affect health and well being. These efforts are supported by innovations in wearable sensors and spatial analytics, and have most recently been applied to patient management strategies, physical activity interventions and empirical research on the role of nature contact in supporting healthy behaviours.

Dr. Krista Ryall

**Research Scientist
Natural Resources Canada**

Dr. Ryall has worked for 13 years as a research scientist with the CFS. She started her research career in the Canadian Forest Service at the Corner Brook, Newfoundland lab. Dr. Ryall transferred to the Great Lakes Forestry Centre in 2007. Most of her research focuses on sampling and ecology of bark and wood boring beetles. Dr. Ryall has a Post-doc in landscape ecology from Carleton University and obtained a PhD in Forestry from University of Toronto, studying the effects of an ice storm on predator-prey dynamics in red pine plantations across eastern Ontario. Previously she obtained an MSc in zoology from the University of Toronto, studying biology of introduced pine shoot beetle, and a BSCh in biology from Queen's University.

Most recently, Dr. Ryall assumed the lead on the emerald ash borer biological control project, overseeing the introduction, release and evaluation of parasitoids against the devastating emerald ash borer.



Atlantic Urban Forest Conference

Speaker Biographies



Daniel Savard

Senior planner

NB Department of Environment and Local Government

Mr. Savard has facilitated research and development in planning for the Department of Environment and Local Government. He is a senior planner with the Province of New Brunswick. He has a Master of Urban Planning degree from McGill University, a Master of Business Administration from the University of New Brunswick, and a Bachelor 'ès science' in geography from Université du Québec à Montréal. During his years of work in the field of planning for sustainable communities, he coordinated the implementation of the first Sustainable Community Design (SCD) subdivision project in Canada at 'Le Village en haut du Ruisseau' (Dieppe NB), which received numerous national and international awards and recognitions.

Mr. Savard is a member of the *Sustainable Communities Partnership* which includes organizations such as Canada Mortgage and Housing Corporation, the Association of Municipal Administrators of New Brunswick, and Université de Moncton with 'Groupe Littoral et vie' and with 'Campus de Shippagan.'

Dr. James Steenberg

Killam Postdoctoral Fellow

School for Resource and Environmental Studies at Dalhousie University

Dr. James Steenberg is an environmental scientist focusing on forest ecology and management. He is currently a Killam Postdoctoral Fellow at Dalhousie University's School for Resource and Environmental Studies and the principal consultant with Ecotone Consulting. His previous work was funded by the Canadian Geospatial and Open Data Research Partnership, investigating the intersections of government open data and environmental management. He was also recently a Fulbright visiting student researcher at the USDA Forest Service's Northern Research Station. James received his PhD from Ryerson University, which examined the vulnerability of the urban forest resource. As both an academic researcher and consultant, he has conducted research and written reports for the Canadian Council of Forest Ministers, Alberta Energy Regulator, Ontario Ministry of Natural Resources and Forestry, and Halifax Water. He was also one of the developers of Halifax's award-winning urban forest management plan.

Dr. Anthony Taylor

Research Scientist, Forest Ecologist

Natural Resources Canada, Canadian Forest Service

Anthony is Federal Government Research Scientist with Natural Resources Canada at the Atlantic Forestry Center in Fredericton, New Brunswick. His background is in forest ecology and he specializes in modeling forest regeneration, growth, and succession. More specifically, his recent research focuses on understanding how climate change will affect the future growth and composition of the Acadian (Maritime) forests of eastern Canada.

Ben Whalen

Project Manager

Kennebecasis Watershed Restoration Committee

Ben has more than 15 years experience in the field of watershed management and restoration in New Brunswick. As the project manager for the KWRC he has been instrumental in completing more than 20 riparian restoration sites, establishing numerous environmental education and awareness programs, and developed various watershed monitoring projects. In his spare time Ben loves to hang with his family, explore the wilderness, and fly fish.





Atlantic Urban Forest Conference

Speaker Biographies

Dr. Kathleen Wolf

**Researcher, Social Scientist
University of Washington**

Dr. Kathleen Wolf is a Research Social Scientist with the College of the Environment, University of Washington, and is a research associate with the US Forest Service, Pacific NW Research Station on a research program about Urban Forestry and Civic Stewardship. Since receiving her Ph.D. from the University of Michigan Dr. Wolf has done research to better understand the human dimensions of urban forestry and urban ecosystems. She has also worked professionally as a landscape architect and as an environmental planner. Kathy's studies are based on the principles of environmental psychology; her professional mission is to discover, understand and communicate human behavior and benefits, as people experience nature in cities and towns. Moreover, Kathy is interested in how scientific information can be integrated into local government policy and planning. She is a member of or has served with national organizations that promote nature in cities: the Environmental Design Research Association, the International Society of Arboriculture, Society of American Foresters, the Transportation Research Board national committee on Landscape and Environment, the Washington State Community Forestry Council, as well as a technical contributor on human well-being to the Sustainable Sites Initiative, and Research Advisor to the TKF Foundation's NatureSacred program. Dr Wolf has presented her research throughout the United States, in Australia, Canada, Europe, Japan, and Mexico. An overview of Dr. Wolf's research programs can be found at www.naturewithin.info; and a review of nature-based health benefits at Green Cities: Good Health: www.greenhealth.washington.edu

Richard Zurawski

Meteorologist

I am an HRM city councillor, a student, teacher, communicator, author, talk show host, meteorologist, independent producer and lecturer.

My efforts to understand the media and its role in science education extends into all area. I am a published author with four popular books to my credit, two on weather and climate change, the third about the role of the media in science. My fourth and latest book, *Science! The Science Files - From A to Z* by Richard Zurawski published by Fernwood Publishers has just been released. It is about the public face of science and is based on the questions and answers listeners call in to my one hour, call-in radio talk show, the "Science Files". The "Science Files" has been a staple on Rogers Radio in the Maritimes for eight years and is also a regular programming feature in the Kitchener-Waterloo market airing on News 570 on the Gary Doyle Show.

As a science communicator and popularizer I fill a number of science information and education roles within the Rogers Radio Broadcast Group umbrella. I am the on-air meteorologist in four of their markets. I am also the go-to science source for science explanations and elaboration of science related news stories in Ontario and the Maritimes. I guest co-host for a number of their many news talk shows whenever science related topics arise. In the role of 'science expert' I have even debated on-air, high profile climate deniers such as a Christopher Monckton and Tim Ball.

My "public outreach" efforts to popularize science and science education through the media extends to public and keynote speaking engagements.

As a documentary film maker I have produced, written and hosted numerous science and history documentaries, broadcast domestically and in international markets. I have syndicated three children's television series, *Wonder Why?*, *The Adventures of the After-Math Crew* and *WiseWeatherWhys*. My latest production was a three hour mini series for Discovery HD about ancient weapons called *M5 - Weapons of War* which I produced, wrote and hosted.

And last, but not least, I am the last year of my PhD studies as a candidate at Mount Saint Vincent University (MSVU) in the faculty of education. My PhD studies examine the relationships between the media and science and how journalists' stories about science affect public understanding and learning of science. I am also a part time lecturer at MSVU in the departments of Public Relations and Communications, and in Education.

