



Eastern CANUSA Forest Science Conference 2018

**9TH BI-ANNUAL
EASTERN CANADA – USA FOREST SCIENCE CONFERENCE
OCTOBER 18-20, 2018**

WU CONFERENCE CENTER,
UNIVERSITY OF NEW BRUNSWICK
FREDERICTON, NEW BRUNSWICK

AGENDA

EASTERN CANADA-USA FOREST SCIENCE CONFERENCE 2018

BALANCING FOREST PRODUCTION AND CONSERVATION

The northeastern United States and eastern Canada share a vital and common link to the northern forest. In addition to strong economic dependence, people of the region derive considerable recreational, aesthetic, and ecological values from this forest. The future of the region clearly relies upon the sustainable management of this highly valued forest resource.

Because of the northern forest's importance, forest managers and researchers from the northeastern states and eastern Canadian provinces are working continuously to find solutions to a wide variety of natural resource problems. Great work is occurring on both sides of the US/Canadian border that would be further enhanced by regular information exchange about issues affecting the northern forest. A forum was needed to promote ongoing discussions and collaborations about the latest forest problems, methods, findings, and technologies.

The *Eastern CANUSA Forest Science Conference* was developed to provide a regular venue for communications among forest managers, forest scientists, policy makers, students, natural resource professionals, and others interested in forest resource issues from both sides of the Canadian/US border. Conferences have been held biannually since 2002. Ultimately, this conference is designed to offer researchers and graduate students the opportunity to share their research before an audience of their peers and foster international professional relationships.

All interested researchers and graduate students are invited to submit presentation proposals on any topic related to the theme of ECANUSA 2018. ECANUSA is open to all forest science fields, including:

- Adaptive Management
- Decision Support Tools
- Forest health
- Forest disturbance ecology and dynamics
- Abiotic disturbance
- Human dimensions
- Community based forestry

- Family forest owners
- Land use and fragmentation
- Silviculture
- Managing forested ecosystems
- Forest policy and economics
- Forest ecology and wildlife
- Mixedwood management

Thursday October 18, 2018

7:00pm – 9:00 **Arrival/registration**
Cocktail Reception
Room 100A and Foyer

Friday October 19, 2018

7:45 – 8:30 **Registration**

8:30 – 8:40 **Opening Remarks** – *J. Harper Kent Auditorium*
Dr. Van Lantz, Dean, Faculty of Forestry and Environmental Management, UNB

8:40 – 9:30 **Keynote Speaker** – *J. Harper Kent Auditorium*
Dr. Thom Erdle, Professor, University of New Brunswick
Managing Forests for Wood Production and Conservation: An Exploration of Options

9:30 – 10:30 **Morning plenary session**

Time	Silviculture <i>J Harper Kent Auditorium</i> Moderator Patricia Raymond	Stand Growth Models <i>Room 208</i> Moderator Loïc D'Orangeville	Managing Forest Ecosystems - 1 <i>Chancellor's Room</i> Moderator Anthony Taylor
9:30 - 9:50	Proof of concept: a crop tree release variant of precommercial thinning using a spacing saw designed for top spacing - <i>Michel Soucy and Martin Béland</i>	Short- and long-term comparison of a tree-level and a stand-level growth model - <i>Hugues Power and Isabelle Auger</i>	Structural development pathways in secondary Northern forests indicate high potential for carbon-based forest management - <i>Dominik Thom and William S. Keeton</i>
9:50 - 10:10	Introducing Maine's Adaptive Silviculture Network (MASN) - <i>Brian E. Roth, Aaron R. Weiskittel, Anil R. Kizha, and Amber M. Roth</i>	A growth simulator to help managers adapt their management in white spruce plantations - <i>Robert Schneider, Emmanuel Duchateau, and Tony Franceschini</i>	Borealization of the New England-Acadian forest: a review of the evidence - <i>Josh Noseworthy and Thomas M. Beckley</i>
10:10 - 10:30	Hardwood crop tree release: modeling a spatially heterogeneous treatment with OSM, a non spatially explicit tree list model - <i>Martin Béland and Michel Soucy</i>	Stand development prediction accuracy of two individual-tree statistical growth models for the Acadian forest region: FVS-ACD AND OSM-ACD - <i>Chris Hennigar and Aaron Weiskittel</i>	Landscape-level effects of intensive forest management - <i>Daniel Ouellette and David A. MacLean</i>

10:30 – 10:50 **Break** - Foyer

10:50 – 12:10 **Concurrent sessions**

Time	Forest Disturbance Ecology and Dynamics <i>J Harper Kent Auditorium</i> Moderator <i>Chris Hennigar</i>	Mixedwood Management <i>Chancellor's Room</i> Moderator <i>Dave MacLean</i>	Forest Ecology <i>Room 208</i> Moderator <i>Robert Schneider</i>
10:50 - 11:10	Landscape configuration influences the intensity of spruce budworm outbreaks - <i>Dan Kneeshaw, Louis De Grandpré, Deepa Pureswaran, Louis-Etienne Robert, and Patrick James</i>	Challenges to regenerating and recruiting temperate mixedwoods in Northeastern and Central North America - <i>Laura Kenefic, Kenneth Clark, Bethany Muñoz Delgado, Daniel Dey, John Kabrick, Christel Kern, Benjamin Knapp, David MacLean, and Patricia Raymond</i>	Canopy cover estimation from Landsat images: understory impact on top-of-canopy reflectance in a northern hardwood forest - <i>Stéphanie Landry, Martin-Hugues St-Laurent, Peter R. Nelson, Gaetan Pelletier, Marc-André Villard</i>
11:10 - 11:30	Disentangling factors that influence forest vulnerability to wind disturbance along Canada's coastal Acadian forest - <i>Anthony R. Taylor, Evan Dracup, David A. MacLean, Yan Boulanger, Sarah Endicott</i>	Silvicultural options for rehabilitating high-graded mixedwood stands in a herbicide-free context - <i>Patricia Raymond, Marcel Prévost and Vincent Roy</i>	Spatial temporal dynamics of populations in disturbed forested landscapes - <i>Christopher B. Edge</i>
11:30 - 11:50	Northern white-cedar regeneration in natural and managed stands - <i>Jean-Claude Ruel, Christine Bombardier-Cauffopé, Laurence Saucier, Catherine Larouche, and Jean-Pierre Tremblay</i>	Effects of hardwood content on balsam fir defoliation during the building phase of a spruce budworm outbreak - <i>Bo Zhang, David A. MacLean, Rob C. Johns and Eldon S. Eveleigh</i>	Patches among gaps: the entangled dynamics of boreal old-growth forests in eastern Canada - <i>Maxence Martin, Hubert Morin, and Nicole Fenton</i>
11:50 - 12:10	Unraveling the mechanisms that drive early succession following harvesting in the Acadian forest - <i>Anthony R. Taylor, Sarah Endicott, Chris Hennigar, and Elizabeth McGarrigle</i>	Northern mixedwood fuels-deadwood structure and regeneration following repeated whole-tree and stem-only harvests with and without prescribed burning - <i>Bethany L. Muñoz Delgado, Laura S. Kenefic, William A. Patterson III, Aaron R. Weiskittel</i>	Distance of clearcut edge influence for epiphytic cyanolichens in old, wet, mixedwood forests of Nova Scotia: year 1 of the L-ACER field study - <i>Sean R. Haughian and Karen A. Harper</i>

12:10 - 1:00 **Lunch** (Provided) - *Chancellor's Room*

1:00-2:00 **Keynote Speaker** – *J. Harper Kent Auditorium*
Chris Norfolk, Director, Forest Planning and Stewardship Branch, NB Dept. of Energy and Resource Development.
Delivering Value from New Brunswick's Public Forest

2:00 – 3:00 **Concurrent sessions**

Time	Managing Forested Ecosystems - 2 <i>J Harper Kent Auditorium</i> Moderator <i>Brian Roth</i>	Forest Policy and Economics <i>Room 208</i> Moderator <i>Van Lantz</i>	Human Dimensions and Community Based Forestry <i>Chancellor's Room</i> Moderator <i>Kevin Percy</i>
2:00 - 2:20	Boreal forests of eastern Canada: beneficial effects of climate warming on growth may be transitory - <i>Loïc D'Orangeville, Daniel Houle, Louis Duchesne, Richard P. Phillips, Yves Bergeron, and Daniel Kneeshaw</i>	Economics of early intervention to suppress a potential spruce budworm outbreak in New Brunswick, Canada - <i>Eric Liu, Van Lantz, David A. MacLean and Chris Hennigar</i>	Would community forestry or co-management help to bridge the gap between indigenous interests and industry practices in New Brunswick? - <i>Christina Davis and Maren Oelbermann</i>
2:20 - 2:40	N-ICE: a quick method to delineate groundwater inputs in running waters - <i>Antóin M. O'Sullivan, Tommi Linnansaari and R. Allen Curry</i>	Maine's tree growth tax law 1972-2016: a policy assessment - <i>Lloyd C. Irland, Adam Daigneault, and Mindy Crandall</i>	Employers attitudes and behaviours regarding the diversity of the indigenous workforce in the forestry industry - <i>Guillaume Proulx, Jean-Michel Beaudoin, et Hugo Asselin</i>
2:40 - 3:00	Managing northern conifer forests for changing objectives - <i>Maren Granstrom, Laura S. Kenefic, Mindy S. Crandall, Aaron R. Weiskittel, and Anthony W. D'Amato</i>	Economics of hybrid clear-cutting system involving at-stump processing and soil reinforcement strategies - <i>Harikrishnan Soman and Anil Raj Kizha</i>	The Atlantic Forest Research Collaborative - <i>Ted D. Needham and Kevin E. Percy</i>

3:00 – 3:30 **Break** - *Foyer*

3:30 – 4:50 **Concurrent sessions**

Time	Forest Health <i>J Harper Kent Auditorium</i> Moderator <i>Jon Sweeney</i>	Forest Ecology and Wildlife <i>Chancellor's Room</i> Moderator <i>Graham Forbes</i>
3:30 - 3:50	Quantification of forest canopy changes caused by spruce budworm defoliation using digital hemispherical imagery - <i>Shawn Donovan, David A. MacLean, John A. Kershaw, Mike B. Lavigne</i>	A regional approach to deer research and management - <i>Philip A. Wiebe, Carly Sponarski, Amber Roth, Nathan Bieber, Joe Kennedy, Stephen C. Arsenault, Graham J. Forbes, David A. MacLean, Stéphanie Lebel, and John Gilbert</i>
3:50 - 4:10	Evaluation and improvement of trapping for the invasive beech leaf mining weevil, <i>Orchestes fagi</i> L., in Nova Scotia, Canada - <i>Joel Goodwin, Simon Pawlowski, Peter Silk, Peter Mayo, Jon Sweeney, and N. Kirk Hillier</i>	An analysis of factors affecting satisfaction levels of deer hunters in New Brunswick - <i>Daniel Gautreau, Stephen Wyatt, and Solange Nadeau</i>
4:10 - 4:30	Spatial-temporal patterns of spruce budworm defoliation within plots in Québec - <i>Mingke Li, David A. MacLean, Chris Hennigar, and Jae Ogilvie</i>	Susceptibility of seedlings to mammalian herbivores: considering the nutritional value and defence compounds of plants - <i>Emilie Champagne, Alejandro A. Royo, Jean-Pierre Tremblay, and Patricia Raymond</i>
4:30 - 4:50	Mitigating the impact of the European beech leaf mining weevil, <i>Orchestes fagi</i>, on American beech in Canada - <i>Jon Sweeney, Cory Hughes, Garrett Brodersen, Joel Goodwin, Kirk Hillier, Ed Czerwinski, Tarryn Goble, Rob Johns, Natalia Kirichenko, Marc Kenis, and Michael Stastny</i>	Olive-sided flycatchers (<i>Contopus cooperi</i>) in forested wetlands of NB: ecological traps and the role of habitat availability - <i>Delaney R. Brooks and Joseph J. Nocera</i>

4:30 - 6:00 **Poster session and cocktail hour** (cash bar) - *Foyer*

Poster Titles and Authors

Development of a spatially explicit forest growth model for Quebec's managed mixedwood stands - *Hugues Power, Marcel Prévost, Patricia Raymond and Steve Bédard*

Effects of stand heterogeneity on wind loads in a balsam fir (*Abies balsamea*) stand - *Marine Duperat, Jean-Claude Ruel and Barry Gardiner*

Testing the effects of climatic factors on the early growth and development of spruce species in the Acadian forest - *W. Rob Vaughn, Anthony R. Taylor, and David A. MacLean*

The role of wetland buffer width in maintaining American black duck populations in New Brunswick commercial forests - *Kelly E. McLean, J. Bruce Pollard, Nic R. McLellan, and Joseph J. Nocera*

Estimating the mitigation potential of climate change through afforestation and reforestation of unproductive lands - *Isabelle Ménard, Évelyne Thiffault, Jean-François Boucher, and Patrick Lavoie*

Individual tree species identification using low and mid-density airborne laser scanning - *James C.G. Farrell, David A. MacLean, Doug Pitt, Chris Hennigar, and Benoît St-Onge*

Effects of spruce budworm outbreaks on balsam fir regeneration in mixed balsam fir-hardwood stands - *Zhuoyi Nie, David A. MacLean, and Anthony R. Taylor*

White cedar (*Thuja occidentalis*) regeneration under high browsing pressure - *Olivier Villemaire-Côté, Jean-Claude Ruel, and Jean-Pierre Tremblay*

Exotic larch is everywhere - *David Maass and Lloyd Irland*

Operational considerations for lowland northern white-cedar: deadwood, microtopography, and regeneration - *Laura Kenefic, Shawn Fraver, Anil Kizha, Kathryn Gerndt, and Andrew Richley*

Lichens, acidification, and cut edge response (L-ACER): filling the knowledge gaps for effective management of at-risk lichens in forested wetlands - *Sean R. Haughian and Karen A. Harper*

Effects of manual defoliation treatments and site type on young balsam fir foliage production - *Yuanyuan Wu and David A. MacLean*

6:00 - 8:00 **Banquet** (included in registration) – *Chancellor's Room*

Keynote speaker: Dr. Robert Seymour, Emeritus Professor, University of Maine

Reflections on 30 Years of Ecological Forestry and the Triad in Maine and Eastern Canada

Saturday October 20, 2018

Field trip – Leaving from UNB SUB located at 21 Pacey Drive on the UNB Campus

8:00 - 8:10 Brief intro to field trip, ECANUSA 2018 Final remarks, ECANUSA 2020 announcement

12:30 - 1:00 Box lunch (provided)

4:00 Return to the UNB campus

Field Trip Description

View forest management and conservation locations across southern New Brunswick. Itinerary and stops are to be confirmed, but will include management of tolerant hardwoods, white pine, spruce plantations and conservation.

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