

SERG International Workshop

Feb 5th - Feb 7th, 2019
Plaza Quebec Hotel, Québec, QC

PROGRAM

Tuesday, February 5, 2019

Welcome Mr. Ronald Brizard Assisitant Deputy Minister Ministère des Forêts, de la Faune et des Parcs	8:15 AM
SOPFIM Session	
SOPFIM Forestry Protection Program <i>Nicholas Girard</i>	8:30 AM
Coffee	9:30 AM
Mountain Pine Beetle	
Mountain Pine Beetle Cold Tolerance and Seasonality: Implications for Outbreak and Spread in Canada's Boreal Forest <i>K. Bleiker, G. Smith</i>	10:00 AM
Improving monitoring tools to detect mountain pine beetle at low and high densities in novel habitats <i>Nadir Erbilgin, Jennifer Klutsch</i>	10:25 AM
Integrating fire disturbance with models of mountain pine beetle spread to evaluate efficacy of controlled burns as a management tool <i>Alex M Chubaty, Eliot J B McIntire, Barry J Cooke</i>	10:45 AM
Spruce Beetle	
Temperature Regulation of Spruce Beetle's Life Cycle and its Potential Role in Outbreaks <i>K. Bleiker, V. Rezendes, D. Huber, J. Robert</i>	11:05 AM
Formulations of emamectin benzoate (TREE-äge® and TREE-äge® G4) and propiconazole (Propizol®) for protecting Engelmann spruce from mortality attributed to spruce beetle and associated fungi <i>Christopher J. Fettig, Darren C. Blackford</i>	11:25 AM
Lunch	11:45 AM
SERG-I Graduate Student Award Presentations	
Effects of manual defoliation treatments and site type on balsam fir, black spruce and white spruce foliage production <i>Yuanyuan Wu, David A. MacLean, Chris Hennigar, and Anthony R. Taylor</i>	1:00 PM

<p>Influence of energy use during flight on subsequent host colonization and pheromone production in the mountain pine beetle, <i>Dendroctonus ponderosae</i> Hopkins</p> <p><i>Kelsey L. Jones, Rahmatollah Rajabzadeh, Guncha Ishangulyyeva, Nadir Erbilgin, and Maya L. Evenden</i></p>	<p>1:20 PM</p>
<p>Can birds act as indicators of the progression of spruce budworm outbreaks?</p> <p><i>Jeanne Moisan Perrier, Daniel Kneeshaw, Martin-Hugues St-Laurent and Marc-André Villard</i></p>	<p>1:40 PM</p>
<p>Methodologies for priority removal of Dutch Elm Disease infected American elm (<i>Ulmus americana</i>) harbouring large breeding populations of Native elm bark beetle (<i>Hylurgopinus rufipes</i>)</p> <p><i>Matthew Russell and Richard Westwood</i></p>	<p>2:00 PM</p>
<p>Does ringbarking limit post-harvest starch content and <i>Armillaria ostoyae</i> colonization within <i>Pseudotsuga menziesii</i> roots?</p> <p><i>Daniel Sklar</i></p>	<p>2:20 PM</p>
<p>Reaching new heights: are the chemical signatures of lodgepole pine trees in higher elevation and latitudes different than those of conspecifics in lower systems?</p> <p><i>Melanie Mullin</i></p>	<p>2:40 PM</p>
<p>Coffee</p>	<p>3:00 PM</p>
<p>Beech Weevil</p>	
<p>Synthesis of α-springene and 9-geranyl-4E-terpinolene as mixtures of isomers, and synthesis of β-springene</p> <p><i>P. D. Mayo, P. J. Silk</i></p>	<p>3:30 PM</p>
<p>Effect of dosage and treatment frequency on efficacy of TreeAzin™ Systemic Insecticide for protecting foliage from the beech leaf-mining weevil and preventing mortality of American beech in high value urban environments.</p> <p><i>Jon Sweeney, Cory Hughes, Tarryn Goble, Joe Meating, Ed Czerwinski, Joel Goodwin, Simon Pawlowski, N. Kirk Hillier, and Rob Johns</i></p>	<p>3:50 PM</p>
<p>Technology Transfer</p>	
<p>Updated history of SERG International bibliography and related activities</p> <p><i>Nelson Carter</i></p>	<p>4:10 PM</p>
<p>Wednesday, February 6, 2019</p>	
<p>Early Intervention Strategy to Suppress a Spruce Budworm Outbreak Phase II</p>	
<p>Introduction</p>	<p>8:00 AM</p>
<p>Efficacy, treatment optimization, and non-target impacts of Early Intervention Strategy in Atlantic Canada</p> <p><i>V. Martel and R.C. Johns</i></p>	<p>8:05 AM</p>
<p>Migration and population dynamics of spruce budworms: measurement and interpretation</p> <p><i>Jacques Régnière and Vince Nealis</i></p>	<p>8:25 AM</p>
<p>Early intervention strategies against spruce budworm: modeling and DSS analyses in 2018</p> <p><i>David A. MacLean, Chris Hennigar, Bo Zhang, Shawn Donovan, Eric Liu, Van Lantz, Luke Amos-Binks, and Drew Carleton</i></p>	<p>8:45 AM</p>

Best practices for application of insecticides in early intervention strategy <i>S. Edwards, G. Cormier and A. Willett</i>	9:05 AM
Tracking insect outbreaks: using the Budworm Tracker citizen science program to study budworm dispersal and enhance public engagement <i>D. Pureswaran and R.C. Johns</i>	9:25 AM
Coffee	9:45 AM
Monitoring and identifying spruce budworm mortality agents using molecular assays <i>Don Stewart, Audrey Nisole, George Kyei-Poku, Véronique Martel, Stefaniya Kamenova, Alex Smith and Michel Cusson</i>	10:20 AM
Spruce budworm (<i>Choristoneura fumiferana</i> Clemens, Lepidoptera: Tortricidae): Progress in pheromone studies <i>Peter Silk, Lucas Roscoe, Glen Forbes, Rosanna Lamb, Martin Williams, Matt Brophy</i>	10:40 AM
SBW pest management as a conservation tool for critical habitats and ecological integrity of forest watersheds <i>E. Emilson & M. Stastny</i>	11:00 AM
Forecasting for EIS in the context of climate change <i>Jean-Noel Candau, Eric Moise, Michael Stastny, Joe Bowden and Amanda Roe</i>	11:20 AM
Developing an adaptive and intelligent SBW defoliation detector <i>Udaya Vepakomma, Denis Cormier, Dave MacLean, Rob Johns, Dan Kneeshaw</i>	11:40 AM
Lunch	12:00 PM
Validation of a spruce budworm phenology model across environmental and genetic gradients: applications for budworm control and climate change predictions <i>Jean-Noel Candau, John Dedes, Ashley Lovelace, Chris MacQuarrie, Kerry Perrault, Amanda Roe, Kala Studens, and Ashlyn Wardlaw</i>	1:00 PM
Testing new approaches for detecting and locating early increasing populations of the Spruce Budworm for implementing an Early Intervention Strategy <i>Christian Hébert, Yves Dubuc, Olivier Jeffrey, Jean-Michel Béland and Georges Pelletier</i>	1:20 PM
Optimization of trapping parameters for spruce budworm sampling <i>C J K MacQuarrie, J Fidge, J Allison, D Carleton, R. Johns</i>	1:40 PM
Long term monitoring of northward range expansion, population dynamics and adaptation of spruce budworm populations <i>Deepa Pureswaran, Louis De Grandpré, Stéphane Bourassa</i>	2:00 PM
An analysis of historical data to identify the occurrence of meteorological conditions that are considered favourable for the long-range flight of spruce budworm moths to Newfoundland <i>Christopher M. Riley and William Richards</i>	2:20 PM
Tracking spruce budworm immigration to the western coast of Newfoundland: Toward the development of a numerical tool to infer immigration <i>Marc Rhainds</i>	2:40 PM
Coffee	3:00 PM
The use of large helicopter-towed nets to sample mass-dispersing spruce budworm moths <i>Yan Boulanger, Johanne Delisle, Marc Rhainds, Rémi Saint-Amant, Jacques Régnière, Ariane Béchar</i>	3:30 PM
Assessing effects of landscape level forest management and biotic interaction on spruce budworm outbreaks and subsequent carbon dynamics <i>Dan Kneeshaw, Louis De Grandpré, Deepa Pureswaran, Patrick James, Steven Kembel, Changhui Peng</i>	3:50 PM
Understanding overwintering survival as a component of pest management strategies for spruce budworm <i>Eric Moise, Joe Bowden, Michael Stastny</i>	4:10 PM

<p>Pheromones for Insect Pest Management: An improved Synthesis of the Spruce Budworm Pheromone <i>Aya Elbrolosy, Raymond Arsenault and David I. MaGee</i></p>	<p>4:30 PM</p>
<p>Comparisons of <i>Btk</i> aerial spraying scenarios against the eastern spruce budworm, based on protection timing and intensity during a complete outbreak episode. <i>Alain Dupont, Éric Bauce, Alvaro Fuentealba Morales, Christian Hébert and Richard Berthiaume</i></p>	<p>4:50 PM</p>
<p>Thursday, February 7, 2019</p>	
<p>Emerald Ash Borer</p>	
<p>Investigations into the chemical ecology of the emerald ash borer, <i>Agrilus planipennis</i>: Fluoro-analogs and estimating trap activation space. <i>Peter J. Silk, Krista L. Ryall, David O'Hagan, Lucas E. Roscoe, Gaetan LeClair, Peter Mayo, Katie Blain, Brian Aukema</i></p>	<p>8:20 AM</p>
<p>Validation of emerald ash borer branch sampling and estimation of 2 year life cycle in northern populations <i>C J K MacQuarrie, K Ryall</i></p>	<p>8:40 AM</p>
<p>Modelling the development of emerald ash borer in its expanding range <i>C J K MacQuarrie, D Inward, N Straw, S Smith, K Dearborn</i></p>	<p>9:00 AM</p>
<p>Release of exotic parasitoids for biological control of the emerald ash borer in Canada <i>K. Ryall, G Jones, A D Roe, C J K MacQuarrie</i></p>	<p>9:20 AM</p>
<p>FraxiProtec™ a new biological way to control EAB populations <i>Mark Ardis, Richard Trudel</i></p>	<p>9:40 AM</p>
<p>Coffee</p>	
<p>Hemlock Woolly Adelgid</p>	
<p>The role of tree stress in the dynamics and impacts of the hemlock woolly adelgid in Nova Scotia: a forecasting framework and silvicultural mitigation. <i>Michael Stastny</i></p>	<p>10:30 AM</p>
<p>Factors affecting capture of winged <i>Adelges tsugae</i> Annand (Hemiptera: Adelgidae) on yellow traps in Nova Scotia <i>Lucas E. Roscoe, Peter J. Silk</i></p>	<p>10:50 AM</p>
<p>Development of ball sampling for detecting wool of the hemlock woolly adelgid <i>J. Fidgen, R. Fournier, C. MacQuarrie, M. Whitmore and J. Turgeon</i></p>	<p>11:10 AM</p>
<p>Efficacy of TreeAzin trunk injection for protection of eastern hemlock from hemlock woolly adelgid. <i>Jon Sweeney, Cory Hughes, Kate Van Rooyen, Tarryn Goble and Ed Czerwinski</i></p>	<p>11:30 AM</p>