2024 Joint Annual Meeting of the Entomological Societies of Canada and Québec

Sunday, October 20 – Wednesday, October 23, 2024

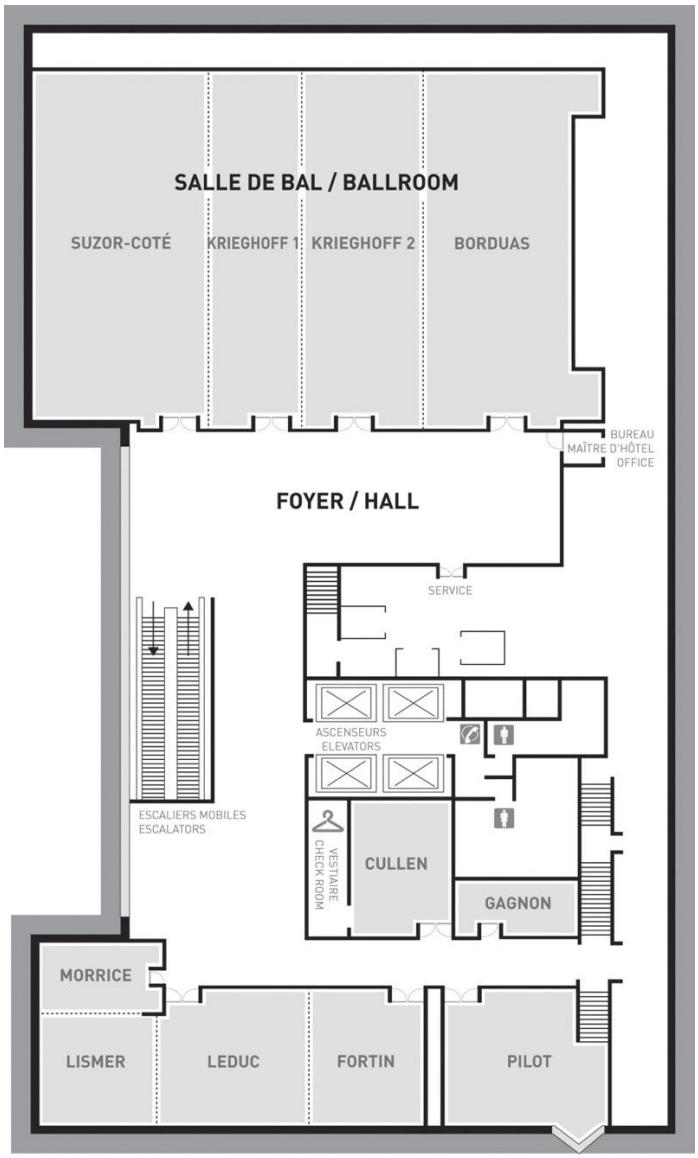
Le Concorde Hotel, Québec

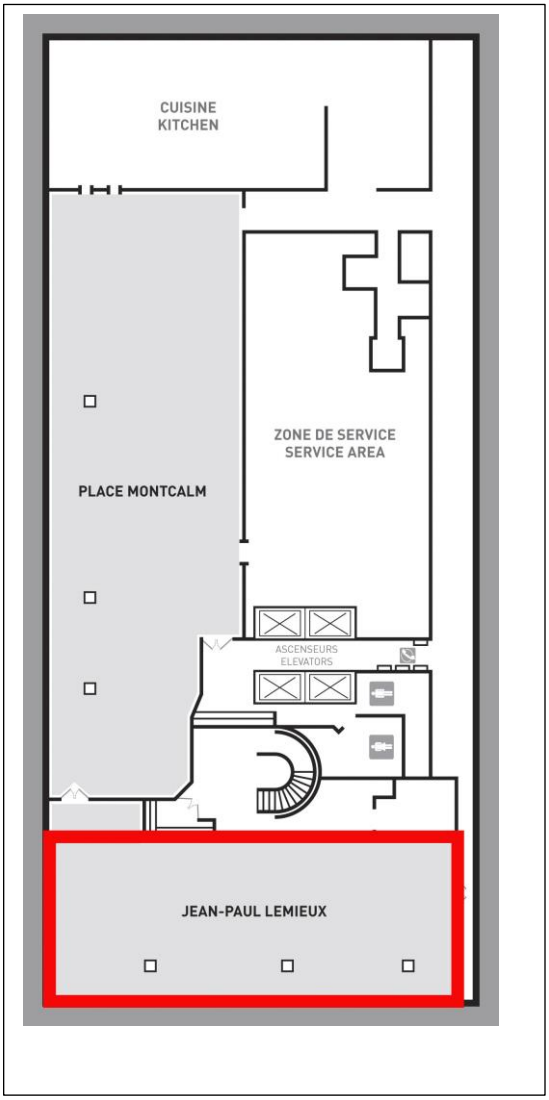


Réunion annuelle conjointe des Sociétés d'entomologie du Canada et du Québec

Dimanche 20 octobre – mercredi 23 octobre 2024

Hôtel Le Concorde, Québec





Map of the 3rd level of the Concorde Hotel (left); most events in the Scientific Program including poster session, will take place on this level. The room Jean-Paul Lemieux (right) is located in basement.

Plan du 3e étage à l'Hôtel Le Concorde (à gauche); la plupart des événements du programme scientifique, incluant la session d'affiches, se tiendront sur cet étage. La salle Jean-Paul Lemieux (à droite) est située au sous-sol.

Sunday, 20 October 2024 Dimanche 20 octobre 2024

07:00-13:30	**ESC Outgoing Board of Directors Meeting (BOD1) / Réunion du conseil d'administration sortant de la SEC** Pilot room	
13:30 - 14:00	**Opening Ceremony / Cérémonie d'ouverture** Krieghoff --Suzor-Côté	
14:00 - 15:00	**Gold Medal Lecture / Allocution du médaillé d'or** Krieghoff --Suzor-Côté Dr. Terry Don Galloway	
15:00 - 16:00	**Plenary Session 1 /Session plénière 1** Krieghoff --Suzor-Côté Dr. Samuel Ramsey: Hive and Prejudice: The Enduring Obstacle to Protecting Pollinators	
16:30 - 18:00	**Graduate Student Showcase / Vitrine aux études supérieures** Krieghoff --Suzor-Côté	
	16:30 - 17:00 Vertical Stratification Effect on Insect Herbivory in a Sugar Maple-Dominated Temperate Forest	Mahsa Hakimara Concordia University
	17:00 - 17:30 The taxonomic and functional diversity of urban ground arthropods with a special focus on phorids	Claire A. Paillard Faculty of Environment, University of British Columbia
	17:30 - 18:00 Towards development of pheromone-based monitoring for the pea leaf weevil L. (*Sitona lineatus*): Relationship between adult capture in pheromone-baited traps and feeding damage on reproductive host plants in pulse agroecosystems in Alberta	Maggie MacDonald University of Alberta
19:00 - 22:00	**Welcome Reception / Réception de bienvenue** Hall	

Monday, 21 October 2024 Lundi 21 octobre 2024

President's Prize (ESC students) / Prix du président (membres aux études de la SEC)

Prix Melville-DuPorte (SEQ students / membres aux études de la SEQ)

08:30 - 09:30	**Plenary Session 2 / Session plénière 2** Krieghoff --Suzor-Côté	
	From Hype to Hallucinations: Navigating AI's Past, Present, and (Potential) Future	Sasha Luccioni Hugging Face
09:30 - 10:30	**Ecology / Écologie (1)** Leduc Fortin Lismer	
	09:30 - 09:45 Increased plant diversity does not increase diversity nor abundance of parasitoids of forest defoliators	Nicolas Boucher Université du Québec à Montréal

09:45 - 10:00
Ecological interactions of leafhoppers and their parasitoids in Quebec's strawberry fields in the face of climate change
Jordanne Jacques
Département de phytologie, Faculté des sciences de l'agriculture et de l'alimentation, Université Laval

10:00 - 10:15
Assessing the potential spread of insect pests of wild and cultivated *Vaccinium* species in British Columbia using digitized occurrence records
Alannah Z. Penno
University of Northern British Columbia

10:15 - 10:30
Virus surveillance and species distribution modelling of vector mosquitoes in the Maritime provinces
Gemma Rawson
Acadia University

09:30 - 10:30 **IPM / Lutte intégrée (1)**
Jean-Paul Lemieux

09:30 - 09:45
Mood lighting: spectral effects on mating and developmental parameters of the predatory bug *Orius insidiosus* (Say)
Morgane Canovas
Plant Research and Innovation Center

09:45 - 10:00
Temperature, Cultivar, and Biological Control Interactions in the Management of Cannabis Aphid in Cannabis Cultivated in Controlled Environments
Jason Lemay
School of Environmental Sciences, University of Guelph

10:00 - 10:15
Getting to the heart of the matter: How does lettuce plant architecture affect aphid predator foraging behaviour?
Jessica Fraser
Université de Montréal

10:15 - 10:30
Enhancing natural enemies with flower strips in Quebec's Lettuce Fields
Malek Kalboussi
Université de Montréal

09:30 - 10:30 **Pollinators / Pollinisateurs (1)**
Borduas

09:30 - 09:45
Analyse de la nidification des bourdons dans des nichoirs artificiels sur des fermes fruitières du Québec
Lydia Millette-St-Hilaire
Université Laval

09:45 - 10:00
Management methods to optimize commercial bumble bee (*Bombus impatiens*) colonies' performance during the lowbush blueberry (*Vaccinium angustifolium*) pollination.
Anne-Charlie Robert
Université Laval

10:00 - 10:15
Effects of Drought on Bumble Bee (*Bombus* spp.) Foraging Efficiency and Community Structure
Brianne Symak
University of Saskatchewan

10:15 - 10:30
Long-term patterns in pathogen prevalence and *Bombus impatiens* spread in the Fraser Valley, British Columbia.
Sandra Gillespie
University of the Fraser Valley

09:30 - 10:30 **SYMPOSIUM: Towards the automation of insect monitoring systems (1/2)**
Krieghoff --Suzor-Côté

09:30 - 09:45
Towards the automation of insect monitoring systems
Joe Bowden
Natural Resources Canada, Canadian Forest Service

Monday, 21 October 2024 Lundi 21 octobre 2024

09:45 - 10:00
Monitoring insect diversity at scale using automated sensors assisted by AI in North-Eastern North America
Maxim Larrivée
Insectarium



10:00 - 10:15
What about the species with no data? Machine learning for rare and undescribed insects
Yuyan Chen
McGill University



10:15 - 10:30
Predicting butterfly and bird species occurrence patterns from partial observations
Mélisande Teng
Université de Montréal

10:30 - 10:45 **Break/Pause**

10:45 - 12:00 **Ecology / Écologie (2)**
Leduc Fortin Lismer



10:45 - 11:00
Using Hydrogen Isotopes to Verify the Migration of Odonates
Marrissa Miller
University of Ottawa, Earth Sciences Department



11:00 - 11:15
Experimental climate warming in boreal peatlands alters below-ground communities through peat drying
Emelie Obi
University of Western Ontario



11:15 - 11:30
Spatio-temporal distribution patterns of blacklegged ticks under extreme climate conditions
Erica Fellin
McGill University



11:30 - 11:45
Does the bacterium causing Lyme Disease, *Borrelia burgdorferi*, enhance the cold tolerance of black-legged ticks?
Mia Lauzon
Acadia University

11 :45-12 :00
Does smoke exposure disrupt insect development?
Emma Despland
Concordia University

10:45 - 12:00 **IPM / Lutte intégrée (2)**
Jean-Paul Lemieux



10:45 - 11:00
The effect of canola and field pea intercrops on diamondback moth (*Plutella xylostella*) development and herbivory
Jose Correa Ramos
University of Alberta



11:00 - 11:15
Economic Injury Levels and Economic Thresholds for the Lesser Clover Leaf Weevil (Coleoptera: Curculionidae) in Red Clover Seed Production
Jeremy Irvine
University of Saskatchewan



11:15 - 11:30
Laboratory and field assessment of Colorado Potato Beetle (*Leptinotarsa decemlineata*) attraction to aggregation pheromone and kairomone combinations
Andrew Colton
University of Guelph, School of Environmental Sciences





11:30 - 11:45
Exploration du potentiel insecticide de l'ADN conspécifique : défis et perspectives
Sirine Boubeker
UQAC

	11:45 - 12:00 Invertebrate and vertebrate species sensitivity distribution for *Bacillus thuringiensis israelensis* and deltamethrin insecticide products	Madelaine Empey University of Ottawa
10:45 - 12:00	**Pollinators / Pollinisateurs (2)** Borduas	
	10:45 - 11:00 Virus infection dynamics and immune response in honey bee queens	Prabashi Wickramasinghe University of Alberta
	11:00 - 11:15 The persistence of acaricides resistance in *Varroa destructor* population in Canada	Rassol Bahreini University of Alberta
	11:15 - 11:30 Systematic review of residual toxicity studies of pesticides to bees and veracity of guidance on pesticide labels	Leah Swanson University of Northern British Columbia
	11:30 - 11:45 Post-wildfire sampling of remote regions suggests broad range expansions for some British Columbia bee species	Mackenzie Howse University of Northern British Columbia
	11:45 - 12:00 A fistful of pollens; systematics of the specialist bees, *Protandrena* (Pterosarus)	Jason Gibbs University of Manitoba
10:45 - 12:00	**SYMPOSIUM: Towards the automation of insect monitoring systems (2/2)** Krieghoff --Suzor-Côté	
	10:45 - 11:00 Traps, apps, and dying plants. How early detection of new exotic insects can safeguard our forests and our crops.	Olivier Morin CFIA
	11:00 - 11:15 Image-based insect detection and identification using deep learning models	Kishan Sambaraju Natural Resources Canada
	11:15 - 11:30 Data quality challenge in IPM	Matej Stefancic Trapview
	11:30 - 11:45 New tools for monitoring the dispersal and population dynamics of forest insects	Felipe Dargent Canadian Forest Service
	11:45 - 12:00 Monitoring insect pests in field crops with automatic traps	Julien Saguez CÉROM
12:15 - 13:30	**ESC Annual General Meeting / Assemblée générale annuelle de la SEC** Krieghoff --Suzor-Côté	
13:30 - 14:30	**Plenary Session/Session plénière 3** Krieghoff --Suzor-Côté **Dr David Rolnick: AI for biodiversity and entomology**	

Monday, 21 October 2024 Lundi 21 octobre 2024

14:30 - 15:30 **Citizen Science and artificial intelligence/Science citoyenne et intelligence artificielle (1)**
Krieghoff --Suzor-Côté



14:30 - 14:45
Morphometric analysis of semiaquatic fly microtrichia using SEM and a novel application of an AI image classification program
Shawn Abraham
University of Alberta

14:45 - 15:00
Mission Monarch: 8 Years of Participatory Science
Charles-Étienne Ferland
Insectarium de Montréal | Espace pour la vie

15:00 - 15:15
Knowledge of an insect pest negatively affects sensory perception and emotional response to blueberries
Paul Manning
Dalhousie University

15:15 - 15:30
Web of sensation: Exploring the link between spider representation in online news stories and attitude towards spiders
André-Philippe Drapeau Picard
Insectarium de Montréal

14:30 - 15:30 **Ecology / Écologie (3)**
Leduc Fortin Lismer



14:30 - 14:45
Using morphometric functional trait metrics measurements to understand terrestrial invasion filters in the sub-Antarctic
Ella Daly
University of Rennes



14:45 - 15:00
Effect of temperature on brood production and fungal symbiont growth of the invasive ambrosia beetle *Xylosandrus crassiusculus*
Ilesha Ileperuma Arachchi
University of New Brunswick



15:00 - 15:15
Renal transcriptional plasticity during cold acclimation allows *Drosophila melanogaster* to prevent chill injury.
Rebecca Dean
Carleton University



15:15 - 15:30
Does exposure to mild heat and nutritional stress stimulate survival and reproduction in aphids?
Iniya Rajan
Dalhousie University, Faculty of Agriculture, Truro, NS

14:30 - 15:30 **IPM / Lutte intégrée (3)**
Jean-Paul Lemieux



14:30 - 14:45
Blueberry fruit fly management: degree-day, chemical, and biological solutions
Janelle MacKeil
Dalhousie University



14:45 - 15:00
Comparaison de méthodes de lâchers mécanisés de trichogrammes
Didier Labarre
Centre de recherche et d'innovation sur la canneberge



15:00 - 15:15
Parasitic castration in the context of biological control for managing carrot weevil population
Alissandre Lavoie
Université de Montréal

15:15 - 15:30
Advancing Detection and Understanding of Nematode Parasitism in Carrot Weevils Using Micro-CT Scanning
Annie-Ève Gagnon
Agriculture and Agri-Food Canada

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14:45 - 15:30 **Pollinators / Pollinisateurs (3)**
Borduas

14:45 - 15:00
Review of the bee subgenus *Lasioglossum* (Hemihalictus) in western North America (Hymenoptera: Halictidae)
Thilina Hettiarachchi
Department of Entomology, University of Manitoba

15:00 - 15:15
Effects of plant origin and water irrigations on floral resource value for pollinators
Joanna Silva
University of Florida


15:15 - 15:30
Insects and cranberries: Understanding floral resources for wild pollinators around cranberry farms
Stephanie Gagnon
McGill University

15:30 - 15:45 **Break / Pause**

15:45 - 16:45 **Citizen Science and artificial intelligence/Science citoyenne et intelligence artificielle (2)**
Krieghoff --Suzor-Côté

15:45 - 16:00
Nunavik Sentinels: documenting northern pollinator biodiversity and supporting Indigenous youth leadership through participatory research and education
Amélie Grégoire-Taillefer
Insectarium de Montréal - Espace pour la vie

16:00 - 16:15
Ecosystèmes exceptionnels : une nouvelle initiative de l'Insectarium de Montréal.
Dominic Ouellette
Insectarium de Montréal


16:15 - 16:30
Tracking Biodiversity with Beetles: A 20-year Case Study within a Mature Temperate Forest of Quebec
Ludovic Leclerc
Université Laval

16:30 - 16:45
The disadvantage of having a big mouth: the relationship between insect body size and microplastic ingestion
Marshall Ritchie
Carleton University

15:45 - 17:00 **Ecology / Écologie (4)**
Leduc Fortin Lismer

15:45 - 16:00
Exploring edge effects and dominance by *Pterostichus melanarius* (Coleoptera: Carabidae) in ground beetle communities in central Alberta canola
Aldo F. Ríos Martínez
Department of Agricultural, Food and Nutritional Science, University of Alberta

16:00 - 16:15
Echoes of the Wild: Do Mixed-Species Plantations Maintain Arthropod Diversity Like Natural Forests?
Sabina Noor
Concordia University Montreal.

16:15 - 16:30
Forage pests in agroecosystems of British Columbia's central interior and their relationships with the landscape
Meganne Harrison
University of Northern British Columbia


16:30 - 16:45
Predicting spongy moth reservoir locations, between outbreaks based on forest-composition
Noa Davidai
Concordia University

	16:45 - 17:00 Bons, brutes et truands ; oisillons, asticots et guêpes : Comment les contextes agroenvironnementaux influencent leurs dynamiques tri-trophiques à l'intérieur d'un nid ?	Simon Coroller Université de Sherbrooke
15:45 - 17:00	**IPM / Lutte intégrée (4)** Jean-Paul Lemieux	
	15:45 - 16:00 Does insecticide exposure undermine the fitness of an introduced biocontrol agent for integrated emerald ash borer management?	Preetpal Singh University of Toronto
	16:00 - 16:15 Le FraxiProtec, outil de lutte biologique pour le contrôle des populations d'agrile du frêne.	Richard Trudel GDG Environnement
	16:15 - 16:30 Genomic basis for the non-diapause phenotype of eastern spruce budworm (*Choristoneura fumiferana*)	Jeff Gauthier Institute for Integrative and Systems Biology, Université Laval
	16:30 - 16:45 Efficacy of the Early Intervention Strategy for suppressing spruce budworm outbreaks	Sara Edwards Natural Resources Canada, Canadian Forest Service
	16:45 - 17:00 Profiling invasive traits via genomics: a case study in spongy moth female flight capability	Gwylim Blackburn Canadian Forest Service
15:45 - 16:15	**Pollinators / Pollinisateurs (4)** Borduas	
	15:45 - 16:00 Syrph-ing habitats: the impact of seminatural habitats in agricultural landscapes on native flower fly populations in southern Ontario, Canada	Samm Reynolds University of Guelph
	16:00 - 16:15 The forgotten: making the case to include Stratiomyidae (Diptera) in pollination studies.	Julia Mlynarek Insectarium de Montréal
	16:15 - 16:30 Evaluation of efficacy of formic acid and thermal remediation for management of honey bee parasites *Tropilaelaps* and *Varroa* mites in central Thailand	Samuel Ramsey University of Colorado Bio Frontiers Institute
17:00 - 18:30	**Poster Session /Session d'affiches** Foyer et Morrice / Hall and Morrice	
01 	Effects of Shrimp Powder as a Finisher-Feed Supplement on the Reproductive Success of the Black Soldier Fly (Hermetia illucens)	Laura Lapierre Université Laval
02 	Microalgae-based Diets Lead to Growing Pains for an Edible Cricket Species	Sophie Kasdorf Carleton University
03 	Impact of dietary calcium on growth and bioconversion performances of Black soldier fly larvae (Hermetia illucens, Linnaeus, 1758).	Arthur Thompson de la Chenelière Université Laval

Monday, 21 October 2024 Lundi 21 octobre 2024

04		Examining two Dicyphus species (Hemiptera: Miridae) for their potential use as biological control agents on greenhouse crops.	Carly Demers Department of Integrative Biology, University of Windsor
05		Edge-effects on parasitoid Hymenopteran biodiversity and a survey of subclade Parasitoida in canola fields	Hector Carcamo Agriculture and Agri-Food Canada
06		Tarnished plant bug, *Lygus lineolaris*, parasitism in Quebec agroecosystems	Geneviève Labrie UQAM
07		Beneficial Insects in Alfalfa Seed Fields of Southern Alberta	Caitlin Watt Agriculture and Agri-Food Canada
08		Établissement d'une colonie de la cicadelle de la pomme de terre (*Empoasca fabae*) en serre et les futures expériences.	Nicolas Plante Université Laval
09		A multi-region multi-year study of diversity, biogeography, and sampling methods of Orthoptera of Peace and Athabasca regions of northern Alberta	Hector Carcamo AAFC Lethbridge
10	 	Modulation de la résistance au cyantraniliprole et au thiaméthoxame chez *Leptinotarsa decemlineata* par ARNi	Esther Nidelle SAHA TINWA Université de Moncton, Département de chimie et de biochimie
11		Lutte aux acariens phytophages en vignoble biologique : est-ce que l'introduction de prédateurs est efficace?	Caroline Provost Centre de recherche agroalimentaire de Mirabel
12		Pesticide resistance: the need for bioassays!	Elisabeth Ménard Institut de recherche et de développement en agroenvironnement
13		Molecular characterization of Colorado potato beetle insecticide resistance and target validation using RNA interference	Enock Omakele IRDA
14		*Nysius niger* en framboisières et fraisières : biologie, écologie, dommages et stratégie de gestion	François Dumont CRAM
15		Nouveaux attractifs contre la chrysomèle rayée du concombre en production biologique.	Fazia Berkani uqam
16		A royal stop: monarch roosting during their fall migration	Annie-Ève Gagnon Agriculture and Agri-Food Canada
17		Climate Modeling of the Potential Distribution of *Macrosteles quadrilineatus* (Hemiptera: Cicadellidae)	Fausto Henrique Vieira Araujo Université Laval
18	 	Downstream Effects of Supplementing Beef Cattle Diet with Seaweed on Dung Beetles: Resource Selection and Reproductive Success	Samantha Bennett Dalhousie University
19		The use of pesticides in cranberry production in Quebec: Current status	Simon Legault IRBV - Université de Montréal
20		Conditions optimales d'irradiation pour la mouche des semis *Delia platura*	Anne-Marie Fortier Université de Montréal
21		Effet du sarrasin en culture de couverture pour lutter contre les vers fil-de-fer.	Steve Lamothe CRAM
22		Rootstock preferences in European Apple Sawfly, *Hoplocampa testudinea* Klug, Hymenoptera: Tenthredinidae	Suzanne Blatt Agriculture and Agri-Food Canada

23		Wireworm species associated with corn and soybean agroecosystems in Ontario, Canada	Wim van Herk AAFC
24		Understanding bean leaf beetle damage in soybean for a better integrated pest management program	Sandrine Corriveau-Tousignant CÉROM
25		Alternative control method against the striped cucumber beetle, *Acalymma vittatum*, in cucumber greenhouses	Marie-Andrée Roy Université Laval
26		Biocontrol potential of entomopathogens (EPF) against Grape Mealybug in Canadian vineyards	Malkie Spodek Brock University
27		Blowing your Japanese beetle worries away with pneumatic control	Jean-Philippe Parent Agriculture and Agri-Food Canada
28		Pheromone- or floral-baited traps? What approach is the best for monitoring western corn rootworm (Coleoptera: Chrysomelidae) beetles	Julien Saguez CÉROM
29		Bioremediation of chlortetracycline by the black soldier fly: toward durable management of livestock feed contaminated with antibiotics	Laurence Auger Université Laval
30		Impacts of three organic amendments on cucurbits resistance against its pest *Acalymma vittatum* (Fabricius) (Coleoptera: Chrysomelidae)	Kim Langlois Université du Québec à Montréal
31		L'ajout du Btk au granulovirus CpGV réduit la lutte biologique au carpocapse de la pomme	Daniel Cormier IRDA
32		LeafHope: A Comprehensive Toolkit to Reduce Insecticide Use and Greenhouse Gases in Canada	Edel Perez-Lopez Université Laval
33		Syrph-ing continents: a comprehensive review of long-distance hover fly migration (Diptera: Syrphidae)	Samm Reynolds University of Guelph
34		Ressources Florales pour les Pollinisateurs : Analyse au Sein des Cultures de Solanacées	Mireia Cassi CRAM
35		Résilience des colonies de bourdons (*Bombus impatiens*) dans différents environnements face aux changements climatiques	Kévin Matte Université Laval
36		Wild pollinator functional diversity across landscapes in Quebec's cranberry agroecosystems	Alexa Brunet McGill University
37		The Impact of Quebec Cranberry Farming Practices on Pollinator Diversity	Samantha Dizon McGill University
38		Quantifier l'exposition liée aux résidus de pesticides dans le pollen et le nectar de plantes sauvages et cultivées pour les pollinisateurs indigènes	Michael Tremblay Université Laval
39		Effects of Chronic Chromium Exposure on Bumble Bee Buzz Response	Brianne Symak University of Saskatchewan
40		Wild bee community composition and floral use across different habitats in Atlantic Canada	Jess Vickruck AAFC
41		The 2021 "Heat Dome" in western Canada had no effect on alpine *Parnassius smintheus* butterfly populations.	Jens Roland University of Alberta
42		Candy stripers on the Rock: Habitat and resource usage of introduced candy-striped spiders in St. John's, NL	Abbie Mullins Memorial University

43		Predation by an invasive Coleoptera: comparing experimental feeding trials with inferred interactions	Ella Daly University of Rennes
44		Mosquito surveillance in the Maritime provinces under the lens of climate change	Nolan Boyd Acadia University
45		Evaluation of pupation rate and overwintering success in *Istocheta aldrichi* (Diptera : Tachinidae), a parasitoid of the Japanese beetle (Coleoptera : Scarabaeidae)	Josée Doyon IRBV/Université de Montréal
46		Examining the effects of the ingestion of polystyrene microplastic spheres on mosquito cold tolerance	April Sharpe Acadia Univeristy
47		Alberta's Oribatida: Mites galore in 2022-24	Lisa Lumley Alberta Biodiversity Monitoring Institute; University of Alberta
48		Tracking Twinkles: Fireflies as Indicators of Urban Greenspace Quality	Ana Livia Oliveira Concordia University
49		DNA barcoding reveals high levels of biodiversity for Ephemeroptera, Plecoptera, and Trichoptera in the Stellako River, BC.	Daniel Erasmus University of Northern British Columbia
50		The collection of a caddisfly of conservation concern creates a classification conundrum: The first record of *Apatania comosa* Denning 1949 or *Apatania chasica* Denning 1954 (Trichopera: Apataniidae) in Canada	Alannah Z. Penno University of Northern British Columbia
51		Mealworm (Coleoptera: Tenebrionidae: Tenebrio molitor) Strains Exhibit Different Levels of Resistance to Pathogenic Bacterial Infection	Guillaume Saint-Jacques Université de Montréal
52		Identification of microbiome diversity in *Ixodes scapularis* from Canada via long read sequencing	Anthony Piot Institut de Biologie Intégrative et des Systèmes, Université Laval
53		Ceci n'est pas une tique: which arthropods are misidentified as ticks by the public?	Jade Savage Bishop's University
54		Apprendre à reconnaître des espèces avec un jeu vidéo : Le cas d'Animal Crossing New Horizons	Simon Coroller Université de Sherbrooke
55		Parasitoid Perspectives: Regional Variability in Spruce Budworm Guild and the Impact of *Bacillus thuringiensis* var. *kurstaki* in Québec	Amélie Quesnel Société de protection des forêts contre les insectes et maladies
56		Climate-adapted silvicultural management and arthropod community ecology: long-term monitoring in BC's sub-boreal spruce zone	Dezene Huber University of Northern British Columbia
57		The freeze-avoiding mountain pine beetle survives prolonged exposure to stressful cold by mitigating ionoregulatory collapse	Heath MacMillan Carleton University
58		The effect of short-term drought and flooding conditions on oviposition of wheat midge, *Sitodiplosis mosellana* (Géhin) (Diptera: Cecidomyiidae).	Chaminda De Silva Weeraddana Research Associate

19:00 - 22:00 **Student Mixer / Réception étudiante**
Brasserie INOX/Pub, 655, Grande Allée Est

Tuesday, 22 October 2024 Mardi 22 octobre 2024

08:30 - 09:30 **Plenary Session 4 / Session plénière 4**
Krieghoff – Suzor-Côté

Dr Alberto Urbaneja: Balancing the scales: the case of zoophytophagous predators in sustainable agriculture

09:30 - 10:30 **Diversity, genomic and populations / Diversité, génomique et populations (1)**
Leduc Fortin Lismer

09:30 - 09:45
The GbS Showdown Between the Blueberry and Cranberry Aphid in a Phylogenetic Wild West
Donovan Bosnich
Carleton University & AAFC



09:45 - 10:00
Genomic Insights into *Empoasca fabae*: Characterizing the Mitochondrial Genome with Next-Generation Sequencing
Joshua Molligan
Université Laval

10:00 - 10:15
Do oribatids go with the flow? Assessing evidence for hydrochory of oribatid mites in the North Saskatchewan River in central Alberta.
Jessica Lario
Department of Biological Sciences, University of Alberta



10:15 - 10:30
Exploratory Analyses of a Weevil Population
Marc-Antoine Poulin
Université de Montréal

09:30 - 10:30 **Ecology / Écologie (5)**
Jean-Paul Lemieux

09:30 - 09:45
Herbivory and development of pea leaf weevil, *Sitona lineatus* (Coleoptera: Curculionidae) in response to *Rhizobium*-field pea symbiosis
Olajide Fatukasi
University of Alberta

09:45 - 10:00
Phenology of the Switchgrass Gall Midge (*Chilophaga virgati* Gagné) in Ontario
Clarissa Capko
University of Guelph

10:00 - 10:15
Contarinia nasturtii-Arabidopsis thaliana: a model system to study gall insect-plant interactions
Carina Lopez
University of Alberta

10:15 - 10:30
Tracing genetic diversity and population structure of wheat midge (*Sitodiplosis mosellana*) in North America
Kanishka M. Senevirathna
University of Alberta

09:30 – 10 :30 **SYMPOSIUM: Biological control programmes in Canada: advancements in using "Good" to combat "Bad"**
Krieghoff – Suzor-Côté

09:30 – 09:45
Introduction

09:45 - 10:15
Foreign exploration for candidate biological control agents: 75 years of scientific partnership between Canada and CABI
Tim Haye
CABI

	10:15 - 10:30 Implementation of biological control of invasive plants in Canada	Rob Bourchier Agriculture and AgriFood Canada
10:00 - 10:30	**Environment / Environnement** Borduas	
	10:00 - 10:15 The impact of insect activity on greenhouse gas fluxes from the dung of domesticated and wild mammals.	Katelyn Stokes Dalhousie University
	10:15 - 10:30 Different Types of Dead Animal Attract Different Communities of Arthropod Scavengers	Bennett Grappone University of Alberta
10:45 - 12:00	**Diversity, genomic and populations / Diversité, génomique et populations (2)** Leduc Fortin Lismer	
	10:45 - 11:00 Le dynamisme du microbiome associé au truand des vergers à graines de pin blanc	Apolline Maurin INRS - Centre Armand Frappier Santé Biotechnologie
	11:00 - 11:15 Megabarcoding the Mymaridae (Hymenoptera: Chalcidoidea) of Quebec's forests	Catherine Hébert Université de Montréal, Institut de recherche en biologie végétale
	11:15 - 11:30 Phylogeography and Elytral Colour Distribution of *Cicindela formosa*	Wei Han Lau University of Alberta, Department of Biological Sciences
	11:30 - 11:45 Natural history and behaviour of the Beringian pseudoscorpion (*Wyochernes asiaticus*)	Savannah L. Burroughs McGill University
	11:45 - 12:00 Diversité fonctionnelle des araignées épigées le long d'un gradient latitudinal au Québec	Pierre-Marc Brousseau Université Concordia
10:45 – 11:45	**Ecology / Écologie (6)** Jean-Paul Lemieux	
	10:45 - 11:00 Systematics of the Great Spangled Fritillary butterfly (*Speyeria cybele*)	Felix Sperling University of Alberta
	11:00 - 11:15 Taxonomy of the Nearctic Paralimnini (Hemiptera, Cicadellidae, Deltocephalinae)	Joel Kits Agriculture and Agri-Food Canada
	11:15 - 11:30 Métagénomique et séquençage à haut débit pour l'étude de la diversité des groupes taxonomiques d'arthropodes du sol : vers une valorisation des échantillons de sol de l'IRDA	Maxime Lefebvre IRDA

	11:30 - 11:45 Fantastic cunaxids - phylogeny and natural history of a small but mighty predator	Marla Schwarzfeld Agriculture and Agri-Food Canada
10:45 - 12:00	**Entotechnologies** Borduas	
	10:45 - 11:00 Small-scale rearing for the development of genomic resources in Black Soldier Fly (*Hermetia illucens*, Linnaeus, 1758)	Guyllaume Dufresne Département des sciences animales, Faculté des Sciences de l'Agriculture et de l'Alimentation, Université Laval
	11:00 - 11:15 Strain differences and genetic diversity in the Cytochrome C Oxidase I (CO1) gene of *Tenebrio molitor*	Leylia Petryk Univerisité de Montréal
	11:15 - 11:30 Entosystem's large-scale insect production plant: Challenges and successes.	Catherine Bolduc Entosystem
	11:30 - 11:45 CARNIF3: Canadian Research Network of Insects for Food, Feed and Fertilizer	Grant Vandenberg Université Laval
	11:45 - 12:00 Une nouvelle planification stratégique pour le développement des insectes comestibles comme alimentation animale au Québec.	Florent Pechereau Table Filière des Insectes Comestibles (TFIC)
10:45 - 12:00	**SYMPOSIUM: Biological control programmes in Canada: advancements in using "Good" to combat "Bad" (2)** Krieghoff – Suzor-Côté	
	10:45 - 11:00 Leaf damage and oviposition as a monitoring tool for *Ceutorhynchus scrobicollis* on *Alliaria petiolata* in central Ontario	Jennifer Baici University of Toronto
	11:00 - 11:15 Looking for the 'good' agents - exploration for indigenous and exotic natural enemies for management of the invasive strawberry blossom weevil	Michelle Franklin Agassiz Research and Development Centre, Agriculture and Agri-Food Canada
	11:15 - 11:30 Lutte biologique contre les punaises ternes (*Lygus* sp.)	François Dumont CRAM
	11:30 - 11:45 Potential for indirect biocontrol for the invasive insect, spotted lanternfly, via direct biocontrol of the weed Tree of Heaven	Chandra Moffat Agriculture and Agri-Food Canada
	11:45 - 12:00 Ce n'est pas facile d'être vert: Biological control of the emerald ash borer in Canada.	Chris JK MacQuarrie Canadian Forest Service

Tuesday, 22 October 2024 Mardi 22 octobre 2024

12:00 - 14:00 **Editorial Board Meeting, The Canadian Entomologist**
Réunion du comité éditorial, The Canadian Entomologist
Pilot

12:15 - 13:30 **General annual meeting of the SEQ**
Assemblée Générale annuelle de la SEQ
Borduas

13:45 - 15:15 **Ecology / Écologie (7)**
Jean-Paul Lemieux



13:45 - 14:00
Assessing insect responses to anthropogenic threats in protected areas
Hadil Elsayed
York University

14:00 - 14:15
Is *Chlaenius cordicollis* (Coleoptera: Carabidae) a frequent flier?
N J Holliday
Dept of Entomology, University of Manitoba

14:15 - 14:30
At the edge of an invasion: Population genomics of *Culex pipiens* in Alberta
John Soghigian
University of Calgary

14:30 - 14:45
The French Connection: insights into the geographic origin of alien populations of *Mantis religiosa* L., 1758 in southern Ontario, Canada, through DNA barcodes (Mantodea: Mantidae)
Julio Rivera
Université de Montréal

14:45 - 15:00
Phylogeography and pheromone variation in the spruce beetle (*Dendroctonus rufipennis* Kirby)
Rylee Isitt
Natural Resources Canada

15:00 - 15:15
The genome and population structure of the spruce beetle, *Dendroctonus rufipennis* (Kirby, 1837)
Christopher I. Keeling
Canadian Forest Service: Natural Resources Canada

13:45 - 15:15 **SYMPOSIUM: Biological control programmes in Canada: advancements in using "Good" to combat "Bad" (3)**
Krieghoff–Suzor-Côté

13:45 - 14:00
Cold hardiness as a factor affecting the success of the swallow-wort biological control agent *Hypena opulenta*
Ian Jones
University of Toronto

14:00 - 14:15
Biological control and the hemlock woolly adelgid in Atlantic Canada: Objectives and initial activities in Nova Scotia
Lucas Roscoe
Natural Resources Canada - Canadian Forest Service

14:15 - 14:30
Biological Control of Cereal Leaf Beetle *Oulema melanopus* (L.) (Coleoptera: Chrysomelidae) in Canada
Jocelyn Smith
University of Guelph

14:30 - 14:45
Biological control of the Japanese beetle: The Canadian experience
Jacques Brodeur
Université de Montréal

	14:45 - 15:00 Biological control of introduced Phragmites in Ontario using stem boring moths (*Archanara neurica* and *Lenisa geminipuncta*)	Michael McTavish University of Toronto
	15:00 - 15:15 The Use of UAS in Biological Control in Canada	Frédéric Jean Canopée dronautique
13:45 - 15:15	**SYMPOSIUM: "Insectes forestiers: de la connaissance à la pratique" (1/2)** Leduc Fortin Lismer	
	13:45 - 14:00 Survol des activités de surveillance des insectes et maladies des arbres dans les forêts québécoises	Evelyne Barrette Ministère des Ressources naturelles et des Forêts
	14:00 - 14:15 From the collection to the forest: improving biodiversity data management	Nicolas Bédard Centre de Foresterie des Laurentides
	14:15 - 14:30 Éviter de récupérer les zones sévèrement affectées par le longicorne noir après feu améliore la durabilité de l'aménagement des forêts brûlées	Christian Hébert Centre de foresterie des Laurentides
	14:30 - 14:45 Genomics-based assessment of the geographic origins of European spongy moths (Lymantria dispar dispar) intercepted in unregulated regions of Canada.	Sandrine Picq Canadian Forest Service, Natural Resources Canada
	14:45 - 15:00 Exploratory study of variations in the eastern spruce budworm's ABCC2 candidate gene associated with Btk resistance in Lepidoptera	Kathia Bernier Canadian Forest Service, Natural Resources Canada
	15:00 - 15:15 Évaluation du metabarcoding pour identifier les relations hôte-parasitoïdes chez la tordeuse des bourgeons de l'épinette, *Choristoneura fumiferana*	Audrey Nisole Service Canadien des Forêts, Ressources Naturelles Canada
13:45 - 15:15	**SYMPOSIUM: Interdisciplinary advances in insect mass rearing in Canada** Borduas	
	13:45 - 14:00 Insect Production and Quarantine Laboratory - Seventy Years of Mass Rearing Insects	Jake St. Amour Natural Resources Canada
	14:00 - 14:15 Indigenous Predatory Mite Species: A Multidisciplinary Approach to Addressing Research and Industry Challenges	Omid Joharchi Anatis Bioprotection Inc.
	14:15 - 14:30 Three years later, the current status of the Educational Leadership Chair in the Production and Primary Processing of Edible Insects.	Marie-Hélène Deschamps Université Laval

	14:30 - 14:45 Elimination of entrenched pests from commercial insect rearing facilities	Gabriel Mott Aspire Food Group
	14:45 - 15:00 Temperature has a stronger effect than diet on growth and development in two farmed cricket species	Émile Vadboncoeur Carleton University
	15:00 - 15:15 Grinding feed does not affect growth, development and survival in individually and group reared edible crickets	Jacinta Kong Carleton University
15:15 - 15:30	**Break / Pause**	
15:30 - 16:45	**Ecology / Écologie (8)** Jean-Paul Lemieux	
	15:30 - 15:45 Environmental controls on arthropod communities in the Hudson Bay Lowlands, Canada	Dorothy Travis Trent University
	15:45 - 16:00 Over-winter egg survival drives dynamics of alpine *Parnassius smintheus* butterflies	Sherri Fownes University of Alberta
	16:00 - 16:15 Climate change, an aphid, *Uroleucon rudbeckiae*, and its wildflower host, *Rudbeckia laciniata*, 1999-2023	Robert Lamb Department of Entomology, University of Manitoba
	16:15 - 16:30 Oribatid mite subfossils preserved in ice: assessing their utility in palaeoecological reconstruction of alpine environments	Lisa Lumley Alberta Biodiversity Monitoring Institute; University of Alberta
15:30 - 16:00	**SYMPOSIUM: Biological control programmes in Canada: advancements in using "Good" to combat "Bad" (4)** Krieghoff–Suzor-Côté	
	15:30 - 15:45 Canadian progress on biological control of spotted-wing Drosophila	Paul Abram Agriculture and Agri-Food Canada
	15:45 - 16:00 *Orchestes fagi* (L.), Beech Leaf Mining Weevil (Coleoptera: Curculionidae)	Rob Johns Canadian Forest Service
15:30 - 16:45	**SYMPOSIUM: "Insectes forestiers: de la connaissance à la pratique" (2/2)** Leduc Fortin Lismer	
	15:30 - 15:45 Développement et adaptation aux besoins opérationnels d'une méthode moléculaire (qPCR) pour dénombrer les larves hivernantes	Abdelmadjid Djoumad Centre de Foresterie des Laurentides, Service Canadien des Forêts, Ressources Naturelles Canada

Tuesday, 22 October 2024 Mardi 22 octobre 2024

	de Tordeuse des Bourgeons de l'Épinette (TBE) collectées lors des inventaires automnaux	
	15:45 - 16:00 Vulnérabilité et protection de l'épinette de Norvège contre la tordeuse des bourgeons de l'épinette	Alvaro Fuentealba Université Laval
	16:00 - 16:15 Comparisons of Btk aerial spraying scenarios against the eastern spruce budworm, based on protection timing and intensity during a complete outbreak episode.	Richard Berthiaume Société de protection des forêts contre les insectes et maladies
	16:15 - 16:30 Impact des épidémies de tordeuses des bourgeons de l'épinette, *Choristoneura fumiferana* (Clemens), sur les volumes ligneux et sur la structure des peuplements 10 ans après épidémie	Eric Bauce Université Laval
	16:30 - 16:45 40 years of studying spruce budworm parasitoids: What did we learn?	Véronique Martel Canadian Forest Service
18:30 - 23:00	**Banquet** Krieghoff–Suzor-Côté–Borduas	

Wednesday, 23 October 2024 Mercredi 23 octobre 2024

08:45 - 10:15	**IPM / Lutte intégrée (5)** Jean-Paul Lemieux	
	08:45 - 09:00 Now we're playing with power when vibrating aphids on pepper plants	Jean-Philippe Parent Agriculture and Agri-Food Canada
	09:00 - 09:15 Aphids, Natural Enemies, and Ants Complex in Orchard Flower Strips	Jessee Tinslay IRDA
	09:15 - 09:30 Des filets d'exclusion répulsifs : Une technique à double action pour protéger nos cultures contre le puceron vert du pommier (Aphis pomi)	Catherine Pouchet IRDA
	09:30 - 09:45 Effectiveness of winter rye cover crop against striped cucumber beetle in squash production.	Marc Fournier UQAM
	09:45 - 10:00 Winter canola: a new strategy against insect pests in Québec	Sébastien Boquel CÉROM
	10:00 - 10:15 Insecticide susceptibility and resistance monitoring of flea beetles in canola	Aziz Ullah Department of Agricultural, Food & Nutritional Science, University of Alberta

08:45 - 10:15 **SYMPOSIUM: Methods and tools for wild pollinator research (1/2)**
Krieghoff–Suzor-Côté

08:45 - 09:00 Community Science for Pollinator Monitoring: Insights from the Abeilles Citoyennes Project	Frédéric McCune Université Laval
09:00 - 09:15 eButterfly: standardized monitoring of butterflies through community science on a global scale	Kevin Gauthier eButterfly
09:15 - 09:30 Mission Monarch - Expert: an advanced method to characterize monarch habitats, and monitor monarch presence.	Julia Meyer Institut de recherche en biologie végétale (Canada)
09:30 - 09:45 Testing the variability in Malaise trap sampling of native bee and flower fly abundance and diversity in agroecosystems	Emily Forrester University of Guelph
09:45 - 10:00 Methods in rearing at-risk bumble bees	Parker Smale Wildlife Preservation Canada
10:00 - 10:15 Novel tools for assessing behaviour and cognition in wild bumblebee populations	Caroline Strang University of Western Ontario

08:45 - 10:15 **SYMPOSIUM: New insights from long-term studies of forest insect population dynamics (1/2)**
Leduc Fortin Lismer

08:45 - 09:15 Four decades and hundreds of thousands of traps: Introduction and growth of spongy moth populations in Western Canada.	Brian Van Hezewijk Natural Resources Canada - Canadian Forest Service
09:15 - 09:45 Are introduced parasitoids “drivers” or “passengers” in the biological control of introduced winter moth? Forty-two years of population data from Victoria, BC.	Jens Roland University of Alberta
09:45 - 10:15 Points, plots, provinces, and polemics: the forest tent caterpillar doesn’t cycle synchronously at any scale, but why?	Barry J. Cooke NRCan-CFS-GLFC

08:45 - 10:15 **SYMPOSIUM: Prairies Predicaments: Navigating beneficial and insect pest dynamics on the Canadian Prairies (1/2)**
Borduas

08:45 - 09:00 Interspecific competition between the exotic *Peristenus digoneutis* and native *Peristenus* of southern Alberta, Canada	Héctor Cárcamo Agriculture and Agri-Food Canada.
09:00 - 09:15 Drivers of aster yellows outbreaks in Canada	Tyler Wist Agriculture and Agri-Food Canada
09:15 - 09:30 Leveraging pest monitoring programmes to study beneficial insects in Saskatchewan field crops	Meghan Vankosky Agriculture and Agri-Food Canada

	09:30 - 09:45 How messy fields can affect arthropods, crop yield, and conservation	Sylvia Neumann University of Calgary
	09:45 - 10:00 A comparative mechanism drives seed selection decisions in carabid beetles	Khaldoun Ali University of Saskatchewan
	10:00 - 10:15 Putting the 'I' in IPM: Exploration of biological control agents in alfalfa seed production fields	Boyd Mori University of Alberta
10:15 - 10:30	**Break / Pause**	
10:30 - 12:00	**IPM / Lutte intégrée (6)** Jean-Paul Lemieux	
	10:30 - 10:45 Preliminary Survey of Wireworms and Beneficial Beetles in Potato Fields Adopting Regenerative Agricultural Practices and Examination of Wireworm Life-Stage Markers	Rachel Rix Dalhousie University
	10:45 - 11:00 Isocycloseram, a Novel Isoxazoline Insecticide Seed Treatment for Management of Wireworms (Coleoptera: Elateridae) in Cereal Crops	Wim van Herk AAFC
	11:00 - 11:15 Lâchers de nématodes entomopathogènes pour lutter contre l'altise à tête rouge en cannebergière.	Gabriel Ayotte-Breton CRIC
	11:15 - 11:30 Comprehensive study of a system: Integrated Insect Management (IIM) in lowbush blueberry	Chris Cutler Dalhousie University
	11:30 - 11:45 *Trichogramma* species, moth pests and multi-stress: perspectives from biological control in Europe	William Nusillard AgroParisTech, Palaiseau, France
	11:45 - 12:00 Spatial Distribution of Citrus Red Mite (*Panonychus citri* McGregor), Volatile Organic Compound Emissions, and Predator Response in Citrus Orchard of Guangdong, China	Syed Usman Mahmood Guangdong Key Laboratory of Animal Conservation and Resource Utilization, Guangdong, China.
10:30 - 11:30	**SYMPOSIUM: Methods and tools for wild pollinator research (2/2)** Krieghoff–Suzor-Côté	
	10:30 - 11:00 Non-destructive methods for multidimensional assessment of bumblebee health	Amélie Morin Université Laval
	11:00 - 11:30 Using radio-telemetry to discover habitat selection and movement behaviour of bumble bees	Amanda Liczner University of Guelph
10:30 - 11:30	**SYMPOSIUM: New insights from long-term studies of forest insect population dynamics (2/2)**	
	10:30 - 11:00 Fourty years in Armagh and Epaule: natural enemies and spruce budworm populations during an endless endemic period	Jacques Régnière Canadian Forest Service

	11:00 - 11:30 Lepidopteran scales have allowed the Holocene reconstruction of the spruce budworm outbreak-wildfire interaction in the mixed boreal forest	Marc-Antoine Leclerc Université du Québec à Chicoutimi
10:30 - 11:00	**SYMPOSIUM: Prairies Predicaments: Navigating beneficial and insect pest dynamics on the Canadian Prairies (2/2)** Borduas	
	10:30 - 10:45 Alfalfa Leafcutting Bees: Managing Pollination, Pests and Crop Production	Jennifer Retzlaff Alfalfa Seed Commission of Alberta
	10:45 - 11:00 Abundance and Diversity of Wild Pollinators in Canola Fields of the Saskatchewan Prairies	Emilio Enrique Tellarini Prieto University of Saskatchewan - Honey bee Health LAB
12:00 - 12:15	**Closing ceremony / Cérémonie de clôture**	

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