

Canadian Botanical Association 53rd Annual Meeting

L'Association Botanique
du Canada - 53^{ème} Réunion Annuelle



The Hidden World of Plants / Le Monde Secret des Plantes
Waterloo, ON July 4-8, 2017



Canadian Botanical Association



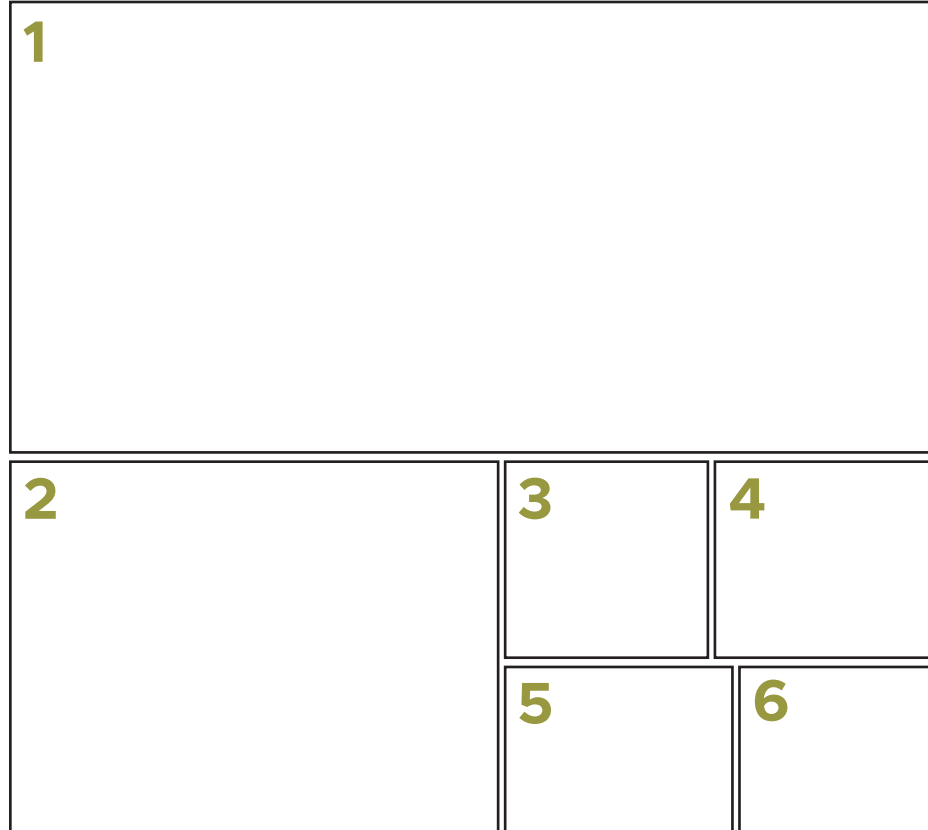
L'Association Botanique du Canada



FRONT COVER

Plants from Bruce Peninsula:

1. *Viola nephrophylla*
 2. *Calopogon tuberosus*
 3. *Symphyotrichum laeve*
 4. *Zigadenus elegans*
 5. *Cirsium hillii*
 6. *Gentianopsis virgata*
- M. Costea



BACK COVER

A possible (eccentric) example of “world of hidden plants”. Our universe is addicted to symmetry. Whether perceived as proportion and beauty or through maths’s group theory, symmetry is at the core of everything, including chaos. For a botanist, symmetry is necessarily functional. It is genetically or epigenetically encoded, it manifests ontogenetically, and it evolves. Consider the following questions: how would orchid flowers look like if bilateral symmetry would not have eventually prevailed in the family? Or the rose family flowers if new lineages with zygomorphic flowers had managed to take over? One could perhaps reveal entire clades of non-existent, but perfectly possible flowering plants. What could be more hidden, both from an artistic and scientific point of view, than something that does not even exist?! These images are symmetry alterations of real flowers; more symmetry axes have been added or subtracted, but there was no ambition to maintain the reproductive functionality or model coevolution with various pollinators. Just playing with form and color at a late night hour. Can you guess the original flowers? M. Costea

welcome

WELCOME TO Waterloo / BIENVENUE À Waterloo

We are pleased to welcome you to Waterloo, Ontario, for the 53rd Annual Meeting of the Canadian Botanical Association/l'Association Botanique du Canada. We truly hope that you will enjoy your visit in our area.

The City of Waterloo is located in the heart of the Canada's Technology Triangle in the Region of Waterloo. It has a diverse population of 134,600 inhabitants, including students and other foreign/temporary residents. It is at the center of another triangle, this one cultural, with Toronto and its skyscrapers to the East, Stratford and its theaters to the West, and Niagara falls and its beautiful scenery to the South. You may be interested to know that in 2007 Waterloo was recognized as the "Intelligent community of the year" (http://www.intelligentcommunity.org/ic_of_year).

There are two universities in Waterloo. Wilfrid Laurier University (WLU) celebrated its 100th anniversary in 2011; it began as the Waterloo Lutheran Seminary and was established with Royal Assent as a university in 1973. The University of Waterloo, a few hundred meters down the road, also traces its origins to the Waterloo Lutheran Seminary, and became a university in 1959. With over 17,000 full-time and part-time students, WLU is the smaller of the two but has been growing steadily for the last decade.

The Local Organizing Committee comprises plant biologists from both universities, and together we have assembled an exciting array of events, symposia, contributed presentations, and field trips. We are delighted to open the meeting with a public plenary lecture given by Dr. Jan Sapp from York University, Toronto. The 2017 Weresub public lecture will be given the following day by Dr. Greg Thorn from the University of Western Ontario, London. In addition to the main CBA symposium, we have two symposia presented by the Ecology and Plant Development sections.

This year, we have tried to be innovative in several ways. For example, all competitors of the Lionel-Cinq Mars Award

will present their talks in a single session so that everyone will be able to attend. Events that are new this year will include an afternoon with the Botanical Artists of Canada, a ROUND-TABLE discussion focusing on a native plant species at risk, the dense blazing star, featuring botanical artists, First Nations representatives, and plant biologists, and the opening of a juried botanical exhibition of paintings and drawings celebrating Canada's 150th anniversary through Native and Indigenous plants at the Laurier Art gallery. This opening of the exhibition is a joint event with the Botanical Artists of Canada.

The theme of the 2017 conference is "*The Hidden World of Plants / Le Monde Secret des Plantes*". This theme may be interpreted in many different ways, and each member of the Local Organizing Committee has his/her own interpretation. Our hope is this topic will open lively discussions, fueled by what we will hear during the different scheduled events.

We hope that you will be able to join us at the on-campus social events we have planned, including the post-plenary lecture reception on Tuesday, the mixer after the Weresub lecture on Wednesday, the barbeque and auction on Thursday, and the banquet on Friday which will be held at the Royal Botanical Garden in Burlington. If you wish to take a stroll during the conference, you will find an enjoyable venue to walk just across Albert Street: Waterloo Park and its Silver Lake. The Mino-kummik Aboriginal Garden at 187 Albert Street is also open to you if you are looking for a peaceful place to relax. Finally, consider signing up for one of our interesting field trips.

Most of all we hope you will enjoy the meeting. Do not hesitate to contact the LOC members or our student volunteers if you need anything.

*Frédérique Guinel
Chair of the Local Organizing Committee
53rd Annual Meeting of the
Canadian Botanical Association, Waterloo, ON*

LOCAL ORGANIZING COMMITTEE COMITÉ ORGANISATEUR LOCAL

Simon Chuong, University of Waterloo
Mihai Costea, Wilfrid Laurier University
Susan Lolle, University of Waterloo
Barbara Moffatt, University of Waterloo
Matt Smith, Wilfrid Laurier University
Kevin Stevens, Wilfrid Laurier University
Frédérique Guinel, Wilfrid Laurier University



ANNUAL MEETING LOGO LOGO DU RÉUNION ANNUELLE

Sassafras albidum (sassafras) is a charismatic tree native to eastern North America, reaching its northernmost limit in Canada only in southern Ontario. Leaves are polymorphic with variations among three shapes on the same plant or even on the same branch: entire (elliptical), 1-lobed (“mitten-shaped”) and 3-lobed. The entire plant has a distinct spicy fragrance because of secretory oil cells present in all the organs. Legend says Columbus would not have reached America if not guided by the scent of sassafras lingering above the briny notes of sea air far off the coast. The tree is particularly beautiful in the fall when leaves are glowing yellow, orange and red. We have chosen sassafras for the logo because the leaf variation on the same plant can aptly serve as a symbol of both diversity and unity.

Sassafras albidum (sassafras) est un arbre charismatique originaire de l'est de l'Amérique du Nord, atteignant sa limite la plus septentrionale au Canada seulement dans le sud de l'Ontario. Les feuilles sont polymorphes avec des variations entre trois formes sur la même plante ou même sur la même branche: entière (elliptique), unilobée (“mitaines”), et trilobée. La plante entière présente un parfum épicé distinct, à cause de cellules présentes dans tous les organes qui sécrètent une huile très parfumée. La légende dit que Christophe Colomb n'aurait pas atteint l'Amérique s'il n'avait pas été guidé loin de la côte par l'odeur de sassafras persistant au-dessus des notes salées d'air marin. L'arbre est particulièrement beau à l'automne quand ses feuilles prennent des couleurs éclatantes de jaune, orange et rouge. Nous avons choisi le sassafras pour le logo de cette conférence car la variation des feuilles sur une même plante peut servir de symbole à la fois de diversité et d'unité.

information

GENERAL INFORMATION / INFORMATIONS GÉNÉRALES

FIELD TRIPS EXCURSIONS

All field trips depart from the Parking Lot located along the Science Building which is located in front of the residence, on the other side of King Street. A boxed lunch is provided on each field trip.

Saturday, July 8

#1 Inglis Falls and Bruce Peninsula National Park
(8:00 am – 7:00 pm)

Leaders: Mihai Costea and Samantha Mulholland

#2 Ginseng Research Station and Backus Woods
(8:00 am – 5:00 pm)

Leaders: Nadia Cavallin and Frédérique Guinel

#3 Grand River Conservation Area Rafting
(9:30 am – 4:00 pm)

Leaders: Kevin Stevens and Simon Chuong

FOOD OPTIONS OPTIONS ALIMENTAIRES

Lunch is provided to all participants of the conference. However, for those of you who want to eat outside campus, please find below a list of close-by restaurants.



247 King Street North
Waterloo
519-954-3728



65 University Ave East
Waterloo
519-725-9041



262 King Street South
Waterloo
519-747-0722



253 King Street North
Waterloo
519-208-2884



4 King Street North
Waterloo
(519) 746-3550



ON CAMPUS
Monday-Friday
8:00 AM-5:00PM



384 King Street South
Waterloo
519-893-0543



75 King Street South
Waterloo
519-885-5151



220 King Street North
Waterloo
519-885-1916



272 King Street North
Waterloo
519-886-0440



220 King Street North
Waterloo
519-208-7272



253 King Street North
Waterloo
519-886-8688

PRESENTATION GUIDELINES DIRECTIVES DE PRÉSENTATION

Oral presentations for contributed papers are assigned 15-minute timeslots: 12 min for the presentation, and 3 min for questions and the transition to the next speaker. Session rooms are equipped with projectors and dedicated computer(s) with Windows 7 and Microsoft Office 13. Laser pointers and microphones are available in each room.

Presenters should arrive at least 15 minutes before the beginning of their session with their presentation on a USB flash drive, to allow time to transfer it to the computer(s) in the room. A student volunteer will be available to help. N1042, in the Science Building, will be available as a speaker ready room.

Poster presentations will be on display in the Atrium of the Science Building until the AGM on Friday. Please hang your poster on your assigned panel before the Poster Session and remove it before the banquet. Velcro tape to secure the posters will be available on-site. Presenters are expected to be present at their poster for the duration of the Poster Session, on Wednesday July 5th, 5:30 to 7:30 pm.

detailed schedule

DETAILED SCHEDULE / HORAIRE DÉTAILLÉ

TUESDAY, JULY 4 MARDI 4 JUILLET

Outgoing CBA Executive Meeting / Réunion du comité exécutif sortant de l'ABC

3:30 – 4:30 pm Science Building N1046

Registration / Inscription

4:30 – 7:30 pm Science Building Courtyard

Welcoming Remarks / Mots de bienvenue

7:30 – 8:00 pm Science Building N1001

Banakonda Kennedy-Kish Bell, Elder-in-Residence, MSW Aboriginal Field of Study, Laurier
Dr. Scott Ramsay, Chair of the Biology Department

Plenary Lecture / Conférence plénière

Chair – Frédérique Guinel

8:00 – 9:00 pm Science Building N1001

CBA-PL01	8:00 pm	Jan Sapp	Evolution by Association: Symbiosis in a neo-Darwinian World
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Welcoming mixer / Réception de bienvenue

9:00 – 11:00 pm Science Building Courtyard



Erika Gaerdner in 1967 at the publication of her book "*Harvest without planting*".

Photo by Karsh.

Dr. Erika Gaerdner graduated from the Ontario Agricultural College in 1944, the only student in her year to major in Botany, and one of the only 4 women to graduate that year. She continued her studies at Cornell University where she earned an MSc and PhD in Botany and Ethnobotany. She worked at the State Seed Laboratory in the U.S.A. and later taught at McMaster University. In the early 1950s Erika published the earliest seminal work on the germination biology and seed identification for the parasitic genus *Cuscuta* (dodder). She also published

the first experimental host specificity study in the same group of plants. Later on she wrote two ethnobotany books: "*Harvest without planting*" (1967) and "*Reap without sowing: wild food from nature's cornucopia*" (1995). 95 years young, Erika is still engaged with the botanical community sponsoring a scholarship for budding undergraduate botanists at the University of Guelph. She is currently busy writing her memoirs. If you are interested in learning more, please join us for the banquet since Dr. Gaerdner will be with us.

WEDNESDAY, JULY 5 MERCREDI 5 JUILLET

Registration / Inscription

7:00 – 8:00 am Science Building Courtyard

Welcome / Mots de bienvenue

Pam Bryden, Acting Dean of Science, Wilfrid Laurier University;

Art Davis, President of the Canadian Botanical Association / Association Botanique du Canada

8:00 – 8:30 am Science Building N1001

General Symposium / Symposium Général

The Hidden World of Plants / Le Monde Secret des Plantes

Co-chairs: Barbara Moffatt and Matt Smith

8:30 – 12:30 pm Science Building N1001

CBA-GS01	8:30 am	Roger Hangarter	Plants: they whisper, talk, and even move
CBA-GS02	9:10 am	Ned Friedman	Darwin's "abominable mystery" and the search for the first flowering plants

Coffee Break

9:50 – 10:20 am Science Building Courtyard

CBA-GS03	10:20 am	Julissa Roncal	Divergence patterns in the Neotropics: evidence from the palm family (Arecaceae)
CBA-GS04	11:00 am	Franck Stefani	The twisted world of arbuscular mycorrhizal fungi
CBA-GS05	11:40 am	Anna Hargreaves	The mysteries of edge populations: the quintessential Canadian conservation question

Lunch and Section Meetings

12:30 – 1:30 pm

Mycology Section Meeting	Science Building N1042
Systematics & Phytogeography Section Meeting	Science Building N1044
Plant development Section Meeting	Science Building N1057
Ecology Section Meeting	Science Building N1001

Lionel-Cinq Mars Competition – Contributed Papers

Chair: Julian Starr

1:30 – 5:15 pm

Science Building N1001

LCM01	1:30 pm	<u>White A</u> , Day NJ, Johnstone J, Cumming S, Mack M, Turetsky M, Walker X & Baltzer J	Drivers of post-fire understory regeneration in the conifer dominated boreal forest of southern Northwest Territories
LCM02	1:45 pm	<u>Rayon AP</u> , Eppes MC & Ryser P	Root lifespan and overwintering strategies for two wetland species, <i>Sagittaria latifolia</i> and <i>Carex crinita</i> , in different climate zones.
LCM03	2:00 pm	<u>Mediouni S</u> & Stevens KJ	Impacts of gold mining on plants and arbuscular mycorrhizal fungi in Northern Canada
LCM04	2:15 pm	<u>McHaffie M</u> & Maherali H	The influence of AM fungi on the relative magnitude of intra- and interspecific competition among plants
LCM05	2:30 pm	<u>Martel AB</u> & Qaderi MM	Interactive effects of temperature, light intensity and chemical treatment on aerobic methane emissions from canola
LCM06	2:45 pm	<u>Black KL</u> & Baltzer JL	Influence of moisture and nutrient availability on green alder function across topographic gradients on the low arctic tundra, NT
LCM07	3:00 pm	<u>Godfrey SL</u> & Gillespie LJ	One grass, two grass, ice grass, new grass: A second taxon of <i>Phippsia</i> (Poaceae) in the Canadian Arctic based on molecular data

Coffee Break

3:15 – 3:45 pm

Science Building Courtyard

LCM08	3:45 pm	<u>Hamp R</u> & Stevens K	A functional assessment of the mycorrhizal community at Steeves Lake Shoreline, Colomac Mine NWT
LCM09	4:00 pm	<u>Banerjee A</u> & Stefanovic S	Caught in action: Fine-scale plastome evolution in <i>Cuscuta</i> sect. <i>Ceratophorae</i> (Convolvulaceae)
LCM10	4:15 pm	<u>Jones JMC</u> , Lynch M, Charles T, Antunes PA & Guinel FC.	Exploring the impact of a carbonatite rock deposit on a Northern Ontario forest ecosystem
LCM11	4:30 pm	<u>Reid K</u> , Day N, Johnstone J, Cumming S, Mack M, Turetsky M, Walker X & Baltzer J	Effects of wildfires on tree establishment in conifer-dominated boreal forests in southern Northwest Territories
LCM12	4:45 pm	<u>Léveillé-Bourret É</u> , Starr J, Ford BA, Nguyễn TKT & Vũ AT	<i>Sumatroscirpus</i> : taxonomic revision and the discovery of a new monotypic Southeast Asian sedge tribe (Cariceae-Dulichieae-Scirpeae Clade, Cyperaceae)
LCM13	5:00 pm	<u>Van Volkenburg H</u> & Vasseur L	Understanding multitrophic interactions in vineyards exposed to different diversification and alternative ecological systems

Judges' Meeting for the Lionel Cinq-Mars Award / Réunion des juges pour le Prix Lionel Cinq-Mars

5:30 – 6:30pm

Science Building N1042

Poster Session / Session des affiches

Cash bar and hors d'oeuvres

5:30 – 7:30 pm Science Building Courtyard

Please see names of presenters and titles of abstracts by sections on page 13.

Judges' Meeting for the Iain and Sylvia Taylor Award / Réunion des juges pour le Prix Iain et Sylvia Taylor

7:30 – 8:00 pm Science Building N1042

Weresub Lecture / Conférence Weresub

Chair – Hugues Massicotte

8:00 – 9:00 pm Science Building N1001

Dr. Greg Thorn, University
of Western Ontario

Some common fungi we thought we knew

Student Mixer / Soirée pour étudiants

9:30 – 12:00 am Huether Hotel – The Cavern Aging Room

Others members' Mixer / Soirée pour autres membres de l' Association

9:15 – 11:00 pm Veritas Café – off the Quad

THURSDAY, JULY 6

JEUDI 6 JUILLET

Ecology Symposium – Examining Plant Ecology through the Lens of Functional Traits

Chair: Kevin Stevens

8:30 – 12:00 pm Science Building N1001

E-SY01	8:30 am	<u>Shiple</u> B & Li Y	Exploring functional space along gradients of species richness
E-SY02	9:10 am	<u>Fenton</u> NJ & Arsenault A	Examining response and effect traits in bryophytes and lichens: Towards a national network for Canada

Coffee Break

9:50 – 10:20 am Science Building Courtyard

E-SY03	10:20 am	<u>Boisvert-Marsh</u> L, Aubin I, Cardou F & Munson A	The TOPIC network: collaborative science to make trait data available to Canadian scientists
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Lunch and Section Meetings

12:30 – 1:30 pm Teaching Section Meeting Science Building N1001

Round Table Discussion of the dense blazing star, a plant native of Ontario

Moderator: Art Fredeen

1:30 – 3:30 pm Science Building N1001

Expressions of botanical knowledge: the interconnectedness of art, science and Indigenous wisdom

Participants: Terrylynn Brant, Linda Le Geyt, Kitty Lickers, Brenda Mitchell, Cindy Ross-Friedman, Andrew Trant

Coffee Break

3:30 – 4:00 pm Science Building Courtyard

CONCURRENT EVENTS

Ecology Contributed Papers

Chair: Nicole Fenton

4:00 – 5:45 pm Science Building N1001

E-CP01	4:00 pm	Barr S & <u>Ryser P</u>	Nutrient uptake in wetland plants during leaf senescence
E-CP02	4:15 pm	Qaderi MM	Aerobic methane emissions from plants: An overview
E-CP03	4:30 pm	Hébert, R.	Wild Species 2015: The General Status of Species in Canada
E-CP04	4:45 pm	<u>Dorken ME</u> & van Kleunen M	Clonal growth yields enhanced siring success with no effect on selfing rates in a population of <i>Sagittaria latifolia</i> Willd. (Alismataceae)
E-CP05	5:00 pm	<u>Caners RT</u> , Loeffers VJ & Crisfield V	Habitat heterogeneity stimulates the regeneration of bryophytes and vascular plants on highly degraded minerotrophic peatlands
E-CP06	5:15 pm	Hill NM, Chinner K, Toms B & <u>Garbary DJ</u>	Restoration of Big Meadow Bog: Steps towards the recovery of the globally endangered <i>Geum peckii</i> (Eastern Mountain Avens)
E-CP07	5:30 pm	Markham JH	The hydrological niches of tallgrass prairies

Botanical Drawing Workshop / Atelier de Dessins Botaniques

Organizers: Peggy Broad, Karen Logan, Christine Petersen, and Erin Zimmerman

4:00 – 5:00 pm Library, Learning Lab (room 2-207)

Opening of the Botanical Artists of Canada juried exhibition / Ouverture de l'exposition des Artistes Botaniques du Canada

5:00 – 7:00 pm Robert Langen Art Gallery

BBQ & Auction / BBQ & Encan

BBQ dinner and cash bar. Proceeds of the auction support Travel Student Awards.

Auctioneer: Hugues Massicotte

7:00 – 11:00 pm The Quad

FRIDAY, JULY 7

VENDREDI 7 JUILLET

Plant Development Symposium – Organelle Dynamics

Chair: Simon Chuong

8:30 – 12:30 pm Science Building N1001

PD-SY01	8:30 am	Hangarter R	Function and mechanism of light-dependent chloroplast movements in leaf cells
PD-SY02	9:10 am	Mathur J	Dynamic inter-organelle co-operation and networking in plant cells

Coffee Break

9:50 – 10:20 am Science Building Courtyard

PD-SY03	10:20 am	Nebenfuehr A	Myosin-driven organelle movements in tip-growing cells
PD-SY04	11:00 am	<u>Stefano G</u> , Renna L, Wormsbaecher C, Gamble J., Zienkiewicz K, & Brandizzi F	Novel players in plant clathrin-mediated endocytosis

Lunch and CBA Annual General Meeting / Assemblée Générale Annuelle de l'ABC

12:00 – 1:30 pm Science Building N1001

Systematics & Phytogeography Contributed Papers

Chair: Mihai Costea

1:30 – 2:30 pm Science Building N1001

SP-CP01	1:30 pm	<u>Allen GA</u> , Brouillet L & Semple JC	Phylogenetic relationships and hybridization in asters of the <i>Doellingeria-Eucephalus</i> clade (Astereae, Asteraceae).
SP-CP02	1:45 pm	<u>Gillespie LJ</u> & Soreng RJ	A new phylogenetic classification of Poeae subtribes Poinae, Coleanthineae, and Miliinae (Poaceae)
SP-CP03	2:00 pm	<u>Cardinal-McTeague WM</u> , Wurdack KJ, Sigel EM & Gillespie LJ	Pantropical biogeography and allometric associations with seed size evolution in <i>Plukenetia</i> (Euphorbiaceae)
SP-CP04	2:15 pm	<u>Starr JR</u> , Léveillé-Bourret É, Ford BA, Gilmour CN, Naczi RFC, Donadío S, Nguyễn TKT, Vũ A.T, Chen B, Spalink D, Sytsma K, Lemmon EM & Lemmon A	Phylogeny and biogeography of the Cariceae-Dulichieae-Scirpeae Clade (Cyperaceae): new tribes, genera and species based on morphology, embryology and phylogenomics

Coffee Break

2:30 – 3:00 pm Science Building Courtyard

Plant Development Contributed Papers

Chair: Susan Lolle

3:00 – 4:00 pm Science Building N1001

PD-CP01	3:00 pm	Dickinson TA	Carrie Derick – Botanist and Canada's first woman professor
PD-CP02	3:15 pm	<u>Nowak J</u> , Marsolais F & Tian L	Selection of herbicide tolerant common bean via genome editing
PD-CP03	3:30 pm	<u>von Aderkas P</u> , Donaleshen K & Ehltig J	Parasitic chalcid wasps are able to manipulate gene expression of Douglas-fir ovules to benefit developing larvae
PD-CP04	3:45 pm	Wiens DJ & <u>Davis AR</u>	Cultivars of <i>Vicia faba</i> (Fabaceae) differ in the size, shape, ratio of trichome types, and nectar production of the extrafloral nectaries on their stipules

Banquet and Awards Evening / Banquet et soirée des prix

5:00 – 10:00 pm The Royal Botanical Garden will host the banquet and the awards' evening.

Banquet tickets include dinner, admission to the gardens, guided tour of your choice, and transportation to and from the RBG. Cash bar.

Buses to the Royal Botanical Gardens will depart beginning at 4:00 pm from the parking lot located beside the Science Building. People who have pre-registered for a guided tour in the garden are asked to take the first bus. Upon arrival, the tour leaders will show us to Auditorium B, where dinner will be served at 7 pm. Tours will depart from and return to Auditorium B.

The following tours are available:

Cultivated gardens in Hendrie Park with Alex Henderson, Curator of Collections

Carolinian plants in the Helen M. Kippax Garden, Morrison Woodland Garden, and Hendrie Valley with Nadia Cavallin, Field Botanist and Herbarium Curator

Wetland restoration at Royal Botanical Gardens with Jennifer Bowman, Aquatic Ecologist

SATURDAY, JULY 8 **SAMEDI 8 JUILLET**

Incoming CBA Executive Meeting / Réunion du comité exécutif entrant de l'ABC

7:00 – 8:00 am Dining Hall

Field Trips / Excursions

Saturday field trips will depart from the parking lot outside Science Building. A boxed lunch and bottles of water will be provided.

- #1 Inglis Falls & Bruce Peninsula National Park (8 am – 7 pm)
- #2 Research Ginseng Station & Backus Woods (8 am – 5 pm)
- #3 Grand River Conservation Area Rafting (9:30 am – 4:00 pm)

posters

POSTERS BY SECTION / AFFICHES PAR SECTION

ECOLOGY ÉCOLOGIE

E-P01	<u>Coffey V</u> & Otfinowski R	Legacy effects of forest establishment on prairie plant and seedbank communities in a northern rough fescue prairie
E-P02	<u>Hart SC</u> , Massicotte HB, Rutherford PM, Elkin CM & Rogers BJ	New Solutions or More Problems: response of vegetation to wood ash application in Interior British Columbia
E-P03	<u>Wei L</u> , Fenton N & Bergeron Y	Influence of understory plant effect traits on post-disturbance forest productivity
E-P04	<u>Liyanage NS</u> & Fenton N	Using spatial genetic patterns to evaluate dispersal limitations of <i>Crossocalyx hellerianus</i> (Nees ex Lindenb.) Meyl.
E-P05	<u>Christie RV</u> , Vasseur L & Guinel FC	Microbial abundance and diversity as impacted by the agromineral Spanish River Carbonatite
E-P06	<u>Meilleur S</u> , Hugron S, Fenton N & Rochefort L	Factors influencing the regeneration of 4 species of fen true mosses in a fen restoration context
E-P07	<u>Otfinowski R</u> & Pinchbeck H	Using historic grazing intensity to predict the plant-trait composition of northern fescue prairies
E-P08	<u>Tucker M</u> , Szponarski K, MacColl K & Stevens K	Development of field deployable assays to monitor and quantify the effects of waterborne contaminants on wetland plants and associated soil fungi

PLANT DEVELOPMENT DÉVELOPPEMENT DES PLANTES

PD-P01	<u>Abo Gamar MI</u> , Stone SL, Kisiała A, Emery RJN, Yeung EC & Qaderi MM	Interactive effects of key climate change variables on growth and development of <i>Arabidopsis thaliana</i>
PD-P02	<u>Goh D</u> , Said Mohamed Farah Z, Mulholland S, Spíchal L & Guinel FC	Cytokinin stimulates mycorrhizal colonization in pea
PD-P03	<u>Tran ER</u> , Chuong SDX & Smith MD	Production of a recombinant form of the putative β -helix motif of the Toc159 M-domain
PD-P04	<u>Zhou T</u> , Grimberg N, Yeung K, Smith MD & Chuong SDX	Characterization of protein targeting pathways into the outer-envelope membrane of chloroplasts
PD-P05	<u>Oytoran BO</u> , Bergin C, Wang Y, Chatfield S, Brauer L, Subramaniam R, Smith ML & Hepworth SR.	BLADE-ON-PETIOLE 1 and 2 are required for innate immunity against pathogens in <i>Arabidopsis thaliana</i>
PD-P06	Dauphinee AN, Fletcher JI, Denbigh GL, <u>Lacroix CR</u> & Gunawardena AHLAN	Antioxidants and ROS in the regulation of lace plant programmed cell death

SYSTEMATICS & PHYTOGEOGRAPHY SYSTÉMATIQUE & PHYTOGÉOGRAPHIE

SP-P01	<u>Ho A</u> & Costea M	On the evolutionary advantage of fruit indehiscence in <i>Cuscuta</i> subg. <i>Grammica</i> (Convolvulaceae).
SP-P02	Ibiapino A, García MA, Costa L, <u>Costea M</u> , Stefanović S & Guerra M	Chromosome number and genome size variation among species of <i>Cuscuta</i> (Convolvulaceae).

participants

LIST OF PARTICIPANTS / LISTE DES PARTICIPANTS

Abo Gamar, Mohammad	PD-P01	Love, Ann	
Allen, Geraldine	SP-CP01	Macdonald, Kathryn	
Bahar, Rebecca		Mackintosh, Deirdre	
Banerjee, Arjan	LCM09	Markham, John	E-CP07
Barabé, Denis		Martel, Ashley	LCM05
Black, Katherine	LCM06	Massicotte, Hugues	E-P02
Boisvert-Marsh, Laura	E-SY03	Mathur, Jaideep	PD-SY02
Brant, Terrylynn	ROUND-TABLE	McHaffie, Mara	LCM04
Broad, Peggy-Jo	Botanical Workshop	Mediouni, Sarah	LCM03
Caners, Richard	E-CP05	Meilleur, Sébastien	E-P06
Cardinal-McTeague, Warren	SP-CP03	Metsger, Deborah	
Cavallin, Nadia		Mitchell, Brenda	ROUND-TABLE
Christie, Renée	E-P05	Moffatt, Barbara	
Chuong, Simon	PD-P03; PD-P04	Mulholland, Samantha	PD-P02
Coffey, Victory	E-P01	Nebenfuehr, Andreas	PD-SY03
Costea, Mihai	SP-P01; SP-P02	Nowak, Julia	PD-CP02
Davis, Arthur (Art)	PD-CP04	Olszewski, Magdalena	
Dickinson, Tim	PD-CP01	Otfinowski, Rafael	E-P01; E-P07
Dorcken, Marcel	E-CP04	Oyeteran, Bodunde	PD-P05
Fenton, Nicole	E-SY02; E-P03; E-P04; E-P06	Petersen, Christine	Botanical Workshop
Finlayson, Gail		Peterson, Larry	
Fredeen, Art	ROUND-TABLE	Qaderi, Mirwais	LCM05; E-CP02; PD-P01
Friedman, William (Ned)	CBA-GS02	Rayon Rodriguez, Andrea	LCM02
Gaertner, Erika		Reid, Kirsten	LCM11
Gallagher, Jacqueline		Roncal, Julissa	CBA-GS03
Galway, Moira		Ross-Friedman, Cindy	ROUND-TABLE
Garbary, David	E-CP06	Ryser, Peter	LCM02; E-CP01
Gillespie, Lynn	LCM07; SP-CP02; SP-CP03	Sadoway, Geraldine	
Godfrey, Samantha		Sapp, Jan	CBA-PL01
Goh, Dane	PD-P02	Sawhney, Vipen	
Guinel, Frédérique	LCM10; E-P05; PD-P02	Sheard, John	
Hamp, Rebekah	LCM08	Shiple, Bill	E-SY01
Hangarter, Roger	CBA-GS01; PD-SY01	Smith, Matt	PD-P03; PD-P04
Hargreaves, Anna	CBA-GS05	Starr, Julian	LCM12; SP-CP04
Hart, Saskia	E-P02	Stefani, Franck	CBA-GS04
Hébert, Rémi	E-CP03	Stefano, Giovanni	PD-SY04
Ho, Anna	SP-P01	Stevens, Kevin	LCM03; LCM08; E-P08
Hughes, Maeve		Tackaberry, Linda	
Jones, James	LCM10	Thorn, Greg	Weresub Lecture
Lacroix, Christian	PD-P06	Tran, Emily	PD-P03
Lazenby, Jill		Trant, Andrew	ROUND-TABLE
Le Geyt, Linda	ROUND-TABLE	Tucker, Miriah	E-P08
Léveillé-Bourret, Étienne	LCM12; SP-CP04	Van Volkenburg, Heather	LCM13
Lickers, Kitty	ROUND-TABLE	von Aderkas, Patrick	PD-CP03
Liyanage, Nuwan	E-P04	Wei, Liping	E-P03
Logan, Karen	Botanical Workshop	White, Alison	LCM01
Lolle, Susan		Yeung, Edward	PD-P04
		Zhou, Tianlun	PD-P04
		Zimmerman, Erin	Botanical Workshop

special thanks **nous remercions sincèrement**

*The following Laurier students from the department of Biology
volunteer to help us run this conference smoothly:*

Rebecca Bahar

Katie Black

Renée Christie

Dane Goh

Rebekah Hamp

Anna Ho

James Jones

Sarah Mediouni

Samantha Mulholland

Kirsten Reid

Emily Tran

Miriah Tucker

Alison White

Susan MacKenzie, Conference Coordinator
Laurier Conference Services

Jean Becker, Senior Advisor: Aboriginal Initiatives at Laurier

Bonnie Whitlow, Aboriginal Student Support Co-ordinator
from the Laurier Brantford Campus

Jennifer Baltzer and Alison McDonald from the Laurier Biology Department

Jennifer Bowman, Nadia Cavallin and Alex Henderson from the Royal Botanical Garden





Canadian Botanical Association Conference – Parking Information

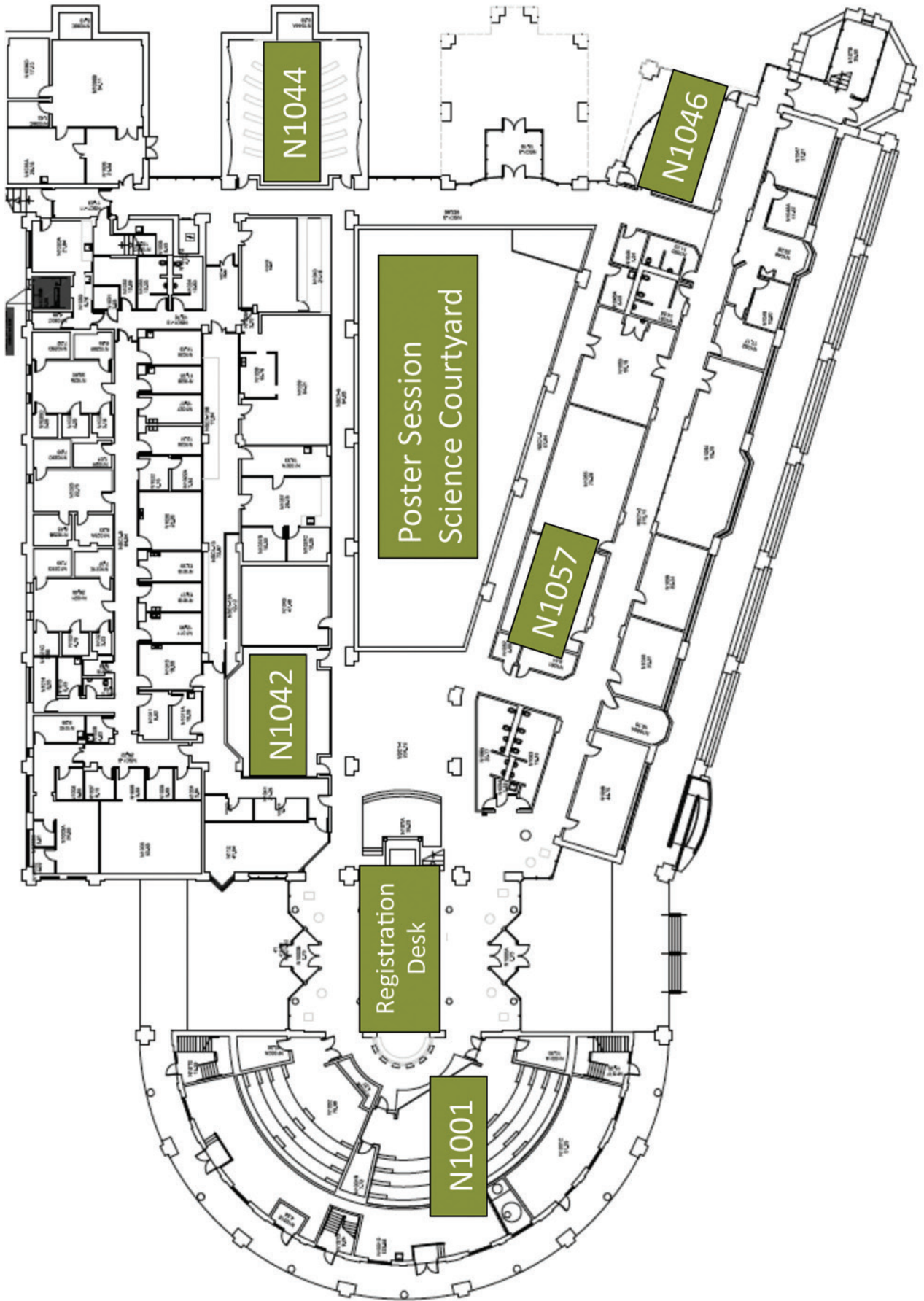
There is no charge for parking for participants staying in a campus residence. Permits will be provided at check-in at the Hotel Laurier office.

Pay & Display parking for participants not staying on campus is available in Lots 4, 20 & 10. A Pay & Display machine is located at the entrance to lots 10 and 20. The rates are \$3.00/hour or a \$9.00/day flat rate. The machine accepts quarters, one and two dollar coins, Visa and MasterCard. Parking in other lots will result in a ticket. Parking on the street is limited to 3 hours and this bylaw is strictly enforced.

Conference Sessions

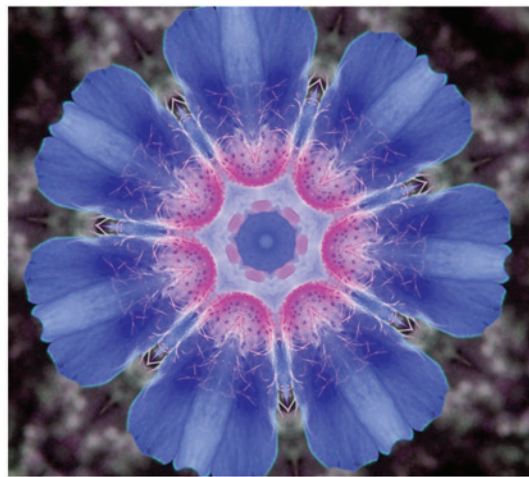
Robert Langen Gallery

Bricker Ave



King St

Time	Tuesday July 4	Wednesday July 5	Thursday July 6	Friday July 7	Saturday July 8
7:00 - 8:00		Registration			Incoming Board Meeting Dining Hall
8:00 - 8:30		Welcoming Remarks N1001	Registration	Registration	
8:30 - 9:30		General Symposium The Hidden World of Plants N1001	Section Symposium Ecology N1001	Section Symposium Plant Development N1001	Field Trips Bus departing from Science Building 1. Inglis Falls & Bruce Peninsula National Park (8 am - 7 pm) 2. Research Ginseng Station & Backus Woods (8am - 5 pm) 3. Grand River Conservation Area Rafting (9:30 am- 4:00 pm)
9:30 - 9:50		Coffee-break	Coffee-break	Coffee-break	
9:50 - 10:20		Ned Friedman, Roger Hangarter, Anna Hargreaves, Julissa Roncal, and Franck Stefani N1001	Examining Plant Ecology through the Lens of Functional Traits N1001	Organelle Dynamics N1001	
10:20 - 11:00		Section Meetings & Lunch	Registration; Teaching Section Meeting & Lunch N1001	AGM & Lunch N1001	
11:00 - 12:00		Lionel Cinq-Mars Competition N1001	Round Table Discussion of the dense blazing star, a plant native of Ontario N1044	Contributed Papers Section Systematics & Phytogeography N1001	
12:00 - 12:30		Coffee-break	Coffee-break	Coffee-break	
12:30 - 1:00				Contributed Papers Section Plant Development N1001	
1:00 - 1:30					
1:30 - 2:00					
2:00 - 2:30					
2:30 - 3:00					
3:00 - 3:15					
3:15 - 3:30					
3:30 - 3:45	Outgoing Board Meeting N1046				
3:45 - 4:00					
4:00 - 4:30		Lionel Cinq-Mars Competition N1001	Contributed Papers Section Ecology N1001	Bus departing from Science Building	
4:30 - 5:00			Botanical Drawing Workshop Library 2-207		
5:00 - 5:30			Opening BAC exhibition Robert Langen Art Gallery		
5:30 - 6:00	Registration Science Courtyard	Poster Session Science Courtyard			
6:00 - 6:30					
6:30 - 7:00					
7:00 - 7:30					
7:30 - 8:00	Welcoming Remarks N1001				
8:00 - 9:00	Plenary Lecture Jan Sapp N1001	Weresub Lecture: Greg Thorn N1001	BBQ & Auction The Quad	Royal Botanical Garden Free time to explore the RBG or take a guided tour: 1. Cultivated Garden 2. Carolinian Species 3. Wetland Restoration	
9:00 - 10:00	Welcome Mixer Science Courtyard	Student Mixer		Banquet & Awards	
10:00 - 11:00		Other members Mixer Veritas Café			



"Everything we see hides another thing; we always want to see what is hidden by what we see".

Rene Magritte