

# 46<sup>TH</sup> ONTARIO ECOLOGY, ETHOLOGY, AND EVOLUTION COLLOQUIUM

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May 5<sup>th</sup>-7<sup>th</sup>  
University of Toronto  
Department of Ecology and Evolutionary Biology



**OE3C '16**  
UNIVERSITY OF TORONTO

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## WELCOME

Welcome to the 2016 Ontario Ecology, Ethology, and Evolution Colloquium (OE3C)!

For the past 46 years, OE3C has brought together top researchers from across Ontario to share their work in the fields of ecology, ethology, and evolution. As in past years, this conference was organized entirely by a subset of dedicated graduate students. This year the graduate students from the University of Toronto's Department of Ecology and Evolutionary Biology are proud to be hosting OE3C 2016.

We are happy to welcome over 140 participants to OE3C 2016. With diverse presentation topics ranging from evolutionary genetics to community ecology, it is sure to be a stimulating meeting. We are also proud to welcome four plenary speakers to present on topics in the fields of ecology, ethology, evolutionary biology and, for the first time in the history of this conference, science communication.

OE3C is one of the largest graduate-student focused conferences in Ontario. It has, and continues, to provide students with the opportunity to disseminate their research to peers and receive constructive feedback. In addition to offering networking opportunities to researchers, OE3C also offers students the opportunity to meet faculty interested in recruiting promising young graduate students. Together we strive to continue this tradition by making this conference a positive, inclusive, friendly, and collaborative academic experience for all!

On behalf of the organizing committee, welcome to OE3C 2016 and please enjoy your stay at the University of Toronto!

Sincerely,

The image shows two handwritten signatures side-by-side. The signature on the left is "Cylita Guy" and the signature on the right is "Amardeep Singh". Both signatures are written in black ink on a white background.

Cylita Guy & Amardeep Singh  
OE3C 2016 Co-Organizers

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## ORGANIZING COMMITTEE

OE3C 2016 would not be possible without the hard work and dedication of the following individuals who helped to plan this year's event:

Cylita Guy  
Amardeep Singh  
Viviana Astudillo  
Daniel Anstett  
Celina Baines  
Arjan Banerjee  
Felix Beaudry  
Christopher Blackford  
Rowshyra Castaneda  
Mitch Daniel  
Michael Foisy  
Molly Hetherington-Rauth  
Charlotte de Keyzer  
Julia Kreiner  
Shannon Meadley Dunphy  
Ruth Rivkin  
Nishant Singh  
Catherine Scott  
Ken Thompson  
Mackenzie Urquhart-Cronish

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## GENERAL INFORMATION

### **Registration:**

On **Thursday**, registration will be open from 6:30-11:00pm on the second floor of the Graduate Student Union (GSU) pub. Food and drinks will be served. On **Friday**, registration will be open from 7:15 – 8:15 am in the Bahen Centre. On **Saturday** registration will be open from 8:00 – 9:00 am in the Bahen Centre. Registration for OE3C 2016 includes a conference package; breakfast, lunch, snacks, and coffee at breaks and meal times; and two drink tickets.

### **Presentations:**

Oral Presentations – **Full talks** will be a maximum of 15 minutes (12 minutes with 3 minutes for questions). Moderators will signal you at 10 minutes and ask you to wrap-up your presentation at 14 minutes. **Lightning talks** will be a maximum of 7 minutes (5 minutes with 2 minutes for questions). Moderators will signal you at 4 minutes and ask you to wrap-up your presentation at 6 minutes. Please report to your scheduled room in the Bahen Centre **15 minutes before** your session begins to load your **PowerPoint (.ppt)** file onto the computer.

Poster Presentations - Posters should **NOT exceed dimensions of 3 ft. wide by 4 ft. long** (this is a vertical format). Posters will be set up in the atrium of the Bahen Centre. Please hang your poster at your assigned spot anytime between 8:00am-5:00pm on Friday. Posters that are not removed from poster boards at the end of the poster session on Friday will be discarded.

### **T-Shirts:**

Pre-ordered t-shirts will be handed out with your registration package. Extra t-shirts will be available for purchase (\$15 each) at the registration desk throughout the event.

### **Transportation & Parking:**

The University of Toronto can be reached using the TTC (Toronto's public transportation system, see the campus map for closest stops). Parking is also available on campus (for lot locations please see campus map).

## **Meals:**

The opening reception will be held from 6:30–11:00pm on Thursday at the GSU pub (second floor, see campus map). Finger foods and drinks will be served.

Breakfast will be served from 7:15-8:15am on Friday and 8:00-9:00am Saturday (during morning registration) in the Bahen Centre (see campus map). Lunches will be held in the Bahen Centre on Friday and Saturday. The poster session reception will be held from 5:00-7:00pm on Friday, in the Bahen Centre. Finger foods and drinks will be served.

OE3C will not be providing dinner on Friday; however, participants can sign up for organized Friday dinners at registration. These dinners will provide an opportunity to engage in conversation with participants from other labs/ universities. Reservations for up to 6 people at various restaurants within walking distance of the University of Toronto will be made for Friday evening.

## **Accommodations:**

On campus accommodations are located in the New College Residences. These rooms are less than a 5 min walk from the conference venue (see campus map). Check in time is at 3:00pm and check out time is 11:00am. For those interested in off campus accommodations, there is a Holiday Inn Express close to the conference venue (<15 min walk) at Bloor & St. George (see campus map).

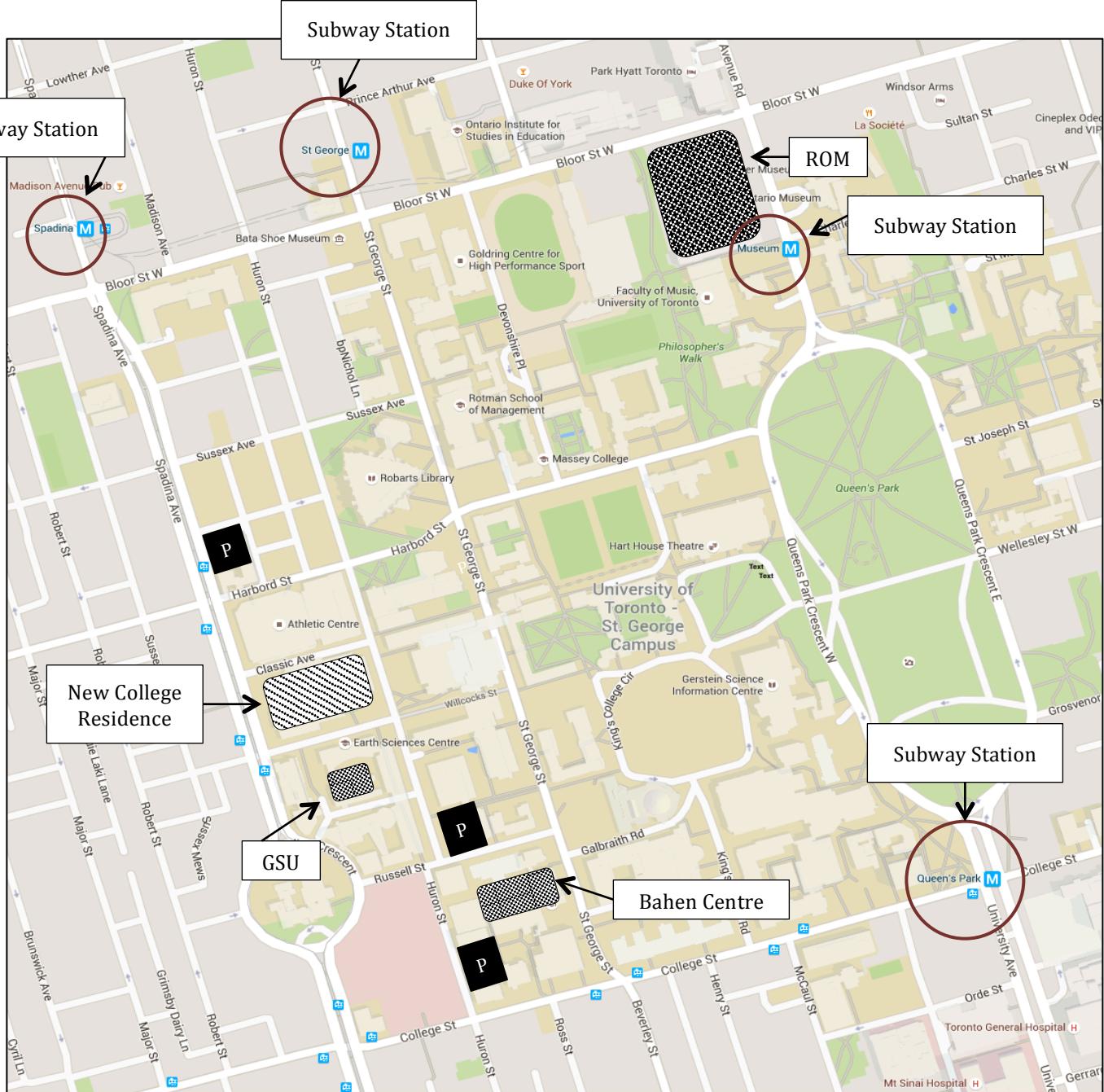
## **Recommendations on Places to Eat / Things to Do in the City:**

The University of Toronto is surrounded by a number of great local restaurants and bars. Neighbourhoods to check out include: The Annex (Bloor & W of Spadina), Harbord Village (Harbord & W of Spadina), Chinatown (Spadina & S of College), Kensington Market (W of Spadina & S of College), and Baldwin Village (E of Spadina & S of College).

For fast food, the closest restaurants and coffee shops to the Bahen Centre can be found on College St. These include Tim Hortons, Starbucks, Second Cup, Subway, Booster Juice, Burger King, Smoke's Poutine, etc.

For conference goers with an extra day in Toronto, here are some fun things to do in the city with estimated transit times from the Bahen Centre: The CN Tower (25m by transit), Steam Whistle Brewery (20m by transit), Royal Ontario Museum (<15m walk), Ripley's Aquarium of Canada (25m by transit), Art Gallery of Ontario (<10m walk), High Park (cherry blossom are predicted to peak during OE3C weekend, 25m by transit).

# CAMPUS MAP



## Main Building Entrances:

New College Residences → Willcocks St.  
 GSU → Bancroft Avenue (directly south of building on map)  
 Bahen → St. George St.  
 ROM → Bloor St. W

**Parking Information:** Please leave yourself ample time to find a parking spot. For a more complete list of parking around U of T, you can search:

<http://map.utoronto.ca/parking#>  
 OR  
<http://parking.greencp.com/find-parking/>

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## VENUES

### **Graduate Students' Union (GSU) Pub**

*Thursday Night Social*

16 Bancroft Avenue



### **Bahen Centre**

*Conference Location*

40 St. George Street



### **New College Residences**

*On Campus Accommodations*

40 Willcocks Street



### **The Royal Ontario Museum**

*Go for a Visit!*

100 Queens Park



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## PLENARY SPEAKERS

We are pleased to have four plenary speakers joining us this year! All plenary sessions will take place in the Bahen Centre (Rm. 1160). Please refer to the OE3C 2016 schedule to find out when specific speakers are presenting. Talk abstracts are available online.



### **Maydianne Andrade (@WidowWeb)**

*Department of Biological Sciences  
University of Toronto Scarborough*

Professor Maydianne Andrade's research group aims to understand how reciprocal effects of ecological and social factors influence reproductive tactics, life history decisions, physiological performance, and sexual selection. The Andrade lab combines field and laboratory studies of the integrative behavioural ecology of mating in invertebrates, primarily black widow spiders (genus *Latrodectus*), to answer these questions. Some of her recent work includes exploring how evolutionary

processes shape divergence in phenotypic traits related to mating in geographically separated populations. Maydianne Andrade is a Tier 2 Canada Research Chair and full Professor at the University of Toronto Scarborough.



### **Zoë Lindo (@LindoLab)**

*Department of Biology  
Western University*

Dr. Zoë Lindo is an assistant professor in the Biology Department at Western University. Her lab integrates community ecology, ecosystem ecology, and taxonomy to study the relationship between biodiversity and ecosystem function in Canadian forest soil systems. They use experiments in the field, greenhouse and laboratory, and the integration of empirical results with current theoretical perspectives to help identify how to mitigate the impacts of environmental change and maintain ecosystem function in soil systems. Dr. Lindo has worked

extensively in Canadian forests, particularly in the Canadian coastal temperate rainforest. In this system, Dr. Lindo initiated an unprecedented canopy research programme, which she has subsequently used to make theoretical advances for the understanding of biodiversity and ecosystem functioning. Dr. Lindo is an expert in forest soil biodiversity, and, in her spare time, discovers and describes new species of soil arthropods.

**David C. Queller (@dqueller)**

*Department of Biology  
Washington University in St. Louis*

Evolution is typically thought to favour “selfish” traits that help individuals to outcompete others. Yet, nature gives us many examples of cooperation deeply engrained in organisms’ evolutionary history, including social insect colonies, multicellular organisms and the eukaryotic cell. Dr. David C. Queller employs a combination of cutting edge empirical and theoretical approaches to help resolve this paradox. Some of his recent work has examined the genetic and molecular mechanisms that facilitate kin recognition,

cooperation and cheating in the social amoeba *Dictyostelium discoideum*. He has also developed insightful models—employing elements of population genetics, inclusive fitness and game theory—exploring the conditions under which cooperation should evolve or break down. Dr. Queller is co-head of the Queller-Strassmann research group and holds the Spencer T. Olin Professorship at Washington University in St. Louis.

**Hannah Hoag (@hannahh)**

*Managing Editor at Arctic Deeply*

Hannah Hoag is a science journalist and editor based in Toronto. She is the managing editor of Arctic Deeply, a single-subject news site devoted to the coverage of circumpolar Arctic issues. Hannah began her career as a research scientist earning her Master’s degree in Biology from McGill University. Despite enjoying research, she decided to pursue a different career path in science journalism. She earned her Master’s degree in Science and Medical Journalism from Boston University and completed internships at *Nature* and *Discover*.

Hannah’s articles have appeared in magazines, newspapers, and online including *Nature*, *Canadian Geographic* and *the Toronto Star*. Her recent work includes discussions of climate science and science policy and funding in Canada and in the Arctic. In addition to writing science articles, she has contributed research for television series, produced radio stories and taken photographs that have been published in *PLoS*, *Nature*, and *The Montreal Gazette*. She is also actively involved in promoting science communication, frequently mentors students in science writing, and delivers public seminars.

## CONFERENCE SCHEDULE

<b>Thursday, May 5</b> <i>Graduate Students' Union Pub</i>			
6:30-11:00	Registration and Social <i>Graduate Students' Union Pub</i>		
<b>Friday, May 6</b> <i>Bahen Centre (Bahen)</i>			
7:15-8:15	Registration & Breakfast <i>Bahen Atrium</i>		
8:15-8:30	Opening Remarks & Welcome <i>Bahen, Rm 1160</i>		
8:30-9:30	<b>Dr. Maydianne Andrade</b> <i>Bahen, Rm 1160</i>		
9:30-10:00	Coffee Break / Speakers Upload Talks <i>Bahen Atrium</i>		
10:00-12:15	<b>Session 1A: Aquatic Ecology</b> <i>Bahen, Rm 1180</i>	<b>Session 1B: Macroevolution &amp; Phylogenetics</b> <i>Bahen, Rm 1210</i>	<b>Session 1C: Community Ecology &amp; Species Interactions</b> <i>Bahen, Rm 1170</i>
12:15-1:15	Lunch / Speakers Upload Talks <i>Bahen Atrium</i>		
1:15-3:30	<b>Session 2A: Evolutionary Ecology</b> <i>Bahen, Rm 1180</i>	<b>Session 2B: Global Change &amp; Conservation Biology</b> <i>Bahen, Rm 1170</i>	<b>Session 2C: Behavioural Ecology</b> <i>Bahen, Rm 1210</i>
3:30-4:00	Coffee Break <i>Bahen Atrium</i>		
4:00-5:00	<b>Dr. Zoë Lindo</b> <i>Bahen, Rm 1160</i>		
5:00-7:00	Poster Session <i>Bahen Atrium</i>		
7:00 - onwards	Dinner <i>Optional dinner in small groups at various Restaurants in Downtown Toronto</i>		

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## CONFERENCE SCHEDULE (CONT.)

<b>Saturday, May 7</b> <i>Bahen Centre (Bahen)</i>		
8:00-9:00	Registration & Breakfast <i>Bahen Atrium</i>	
9:00-10:00	<b>Dr. David Queller</b> <i>Bahen, Rm 1160</i>	
10:00-10:30	Coffee Break / Speakers Upload Talks <i>Bahen Atrium</i>	
10:30-12:45	<b>Session 3A: Evolutionary Genetics &amp; Molecular Evolution</b> <i>Bahen, Rm 1170</i>	<b>Session 3B: Landscape Ecology &amp; Phylogeography</b> <i>Bahen, Rm 1180</i>
12:45-2:00	Lunch / Speakers Upload Talks <i>Bahen Atrium</i>	
2:00-3:45	<b>Session 4A: Lightning Talks in Ecology &amp; Ethology</b> <i>Bahen, Rm 1170</i>	<b>Session 4B: Lightning Talks in Evolution</b> <i>Bahen, Rm 1180</i>
3:45-4:15	Coffee Break <i>Bahen Atrium</i>	
4:15-5:15	<b>Hannah Hoag</b> <i>Bahen, Rm 1160</i>	
5:15-5:45	Student Awards & Closing Remarks <i>Bahen, Rm 1160</i>	

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## SESSION SCHEDULES

### Session 1A: Aquatic Ecology

*Friday May 6, Bahen 1180*

10:00	<i>The Effects of Temperature Warming on Fatty Acid Composition in the freshwater diatom, Navicula pelliculosa</i> <b>Ellen S Cameron - Ryerson University</b> , Michael Arts, Stefanie Hixon,
10:15	<i>Vertical movement of freshwater phytoplankton under varying population densities and environmental conditions</i> <b>Tessa Brinklow - University of Toronto</b> , Hélène Cyr
10:30	<i>If it's not growing, it's shrinking: Dynamics of coral erosion after the massive 1998 bleaching event in the Maldives</i> <b>William Allison</b>
10:45	<i>Road salt reduces larval amphibian parasite avoidance behaviour but not resistance to infection</i> <b>Dino Milotic - Ryerson University</b> , Janet Koprivnikar
11:00	<i>Tackling Imperfect Detection: An Assessment of Multispecies Occupancy Modelling in Aquatic Systems</i> <b>David Benoit - University of Toronto</b> , Don Jackson, Mark Ridgway
11:15	<i>Ebullition from Marsh Sediments after Wetland Restoration</i> <b>Victoria Wisniewski - University of Toronto</b> , Monika Havelka, Tim Duval
11:30	<i>Occupancy Patterns of Brook Trout in Algonquin Park</i> <b>Darren Smith - University of Toronto</b> , Don Jackson
11:45	<i>Alien invasion: Effects of the release of a bait fish on the abundance and distribution of a critically endangered endemic fish in the Virgin River</i> <b>Carolyn A. Trombley - University of Guelph</b> , Karl Cottenie, Astrid Schwalb, Thom Hardy
12:00	<i>Climate warming is predicted to reduce omega-3, long-chain, polyunsaturated fatty acid production in phytoplankton</i> <b>Stefanie M. Hixson - Ryerson University</b> , Micheal T. Arts

## Session 1B: Macroevolution & Phylogenetics

Friday May 6, Bahen 1210

10:00	<i>Did the Eye Evolve Once or Multiple times? Evidence From the Effects of Visual Experience in Vertebrates and Non-Vertebrates</i> <b>Jacob G Sivak - University of Waterloo</b>
10:15	<i>The link between swimming morphology and habitat in a cichlid adaptive radiation</i> <b>Tobias Mankis - University of Toronto</b> , Viviana Astudillo-Clavijo and Hernán López-Fernández
10:30	<i>Ice ages drove explosive diversification in kiwi</i> <b>Jason Weir - University of Toronto</b> , Oliver Haddrath, Hugh A. Robertson, Rogan M. Colbourne and Allan Baker
10:45	<i>Mode and tempo of diversification of Hyalella (Crustacea: Amphipoda) in ancient Lake Titicaca</i> <b>Michelle Pyle - University of Guelph</b> , Sarah J. Adamowicz
11:00	<i>Phylogeography and morphological evolution of Geophagus cichlids</i> <b>Stephanie Blain - University of Toronto</b> , Hernan Lopez-Fernandez
11:15	<i>Does water color matter? Phylogeny and phylogeography of the genus Steatogenys (Boulenger, 1898) (Gymnotiformes: Hypopomidae)</i> <b>João Pedro Fontenelle - University of Toronto, Scarborough</b> , William Crampton and Nathan Lovejoy
11:30	<i>Six novel species in the genus Amanita (Agaricales, Fungi) from the Brazilian Amazon</i> <b>Eduardo Garza - University of Toronto</b> , Simona Margaritescu, Dirce Leimi Komura, Maria Alice Neves and Jean-Marc Moncalvo
11:45	<i>Dynamics of Speciation in Neotropical Birds: Hybridization and Reproductive Isolation</i> <b>Paola Pulido-Santacruz - University of Toronto</b> , Jason Weir
12:00	<i>The implications of introgression on the speciation of crowned-sparrows (Zonotrichia atricapilla and Zonotrichia leucophrys)</i> <b>Ashley Bramwell - Queens University</b> , Stephen C. Lougheed

## Session 1C: Community Ecology & Species Interactions

Friday May 6, Bahen 1170

10:00	<i>Effects of management history and variation in downed woody debris supply on macrofungal communities in northeastern Ontario boreal mixed wood forests</i> <b>Melanie Croydon-Sugarman - University of Toronto</b> , Jay R. Malcolm, Jean-Marc Moncalvo
10:15	<i>Seed dispersal characteristics of a native and invasive ant alter the spatial patterns of seedling recruitment</i> <b>Shannon Meadley Dunphy - University of Toronto</b> , Kirsten Prior and Megan Frederickson
10:30	<i>Traits related to biological invasion: A comparative analysis of plants and insects</i> <b>Lisa Emiljanowicz - University of Guelph</b> , Heather Hager and Jonathan Newman
10:45	<i>Group living and viral diversity in bats</i> <b>Cylita Guy - University of Toronto</b> , Jeneni Thiagavel, Nicole Mideo and John M. Ratcliffe
11:00	<i>Root foraging and mutualism-stabilizing traits in Medicago truncatula</i> <b>Rebecca Batstone - University of Toronto</b> , Donglin Wang, Molly Yang, Aadiyat Ahmad, Megan Frederickson
11:15	<i>Exploring aboveground-belowground linkages in boreal peatlands with a plant traits-based approach.</i> <b>Julia Palozzi - University of Western Ontario</b>
11:30	<i>Phylogenetic relatedness, phenotypic similarity and plant-soil feedbacks</i> <b>Connor Fitzpatrick - University of Toronto Mississauga</b> , Laura Gehant, Peter M. Kotanen and Marc T. J. Johnson
11:45	<i>Interactions between Pseudomonas syringae and the invasive plant Cirsium arvense (Canada thistle)</i> <b>Ariana Longley - University of Toronto Mississauga</b> , Gurpreet Chandi, Peter Kotanen
12:00	<i>Density and complexity of aquatic vegetation does not affect larval amphibian parasitism</i> <b>Marin Milotic - Ryerson University</b> , Janet Koprivnikar

## Session 2A: Evolutionary Ecology

Friday May 6, Bahen 1180

1:15	<i>Adaptive evolution in the urban jungle</i> <b>Ken Thompson - University of Toronto</b> , Marc T.J. Johnson
1:30	<i>The evolutionary consequences of cascading food web interactions: Do predators indirectly affect the strength of pollinator-mediated selection on floral traits?</i> <b>Amanda Benoit - University of Guelph</b> , Christina M. Caruso
1:45	<i>Inbreeding and outbreeding effects in eight outcrossed populations of Chinook salmon (Oncorhynchus tshawytscha)</i> <b>Katarina Doughty - University of Western Ontario</b> , Shawn Garner and Bryan D Neff
2:00	<i>How should we test salinity tolerance in coastal plants? NaCl or seawater: that is the question</i> <b>Karen E. Samis - U of Prince Edward Island</b>
2:15	<i>Herbarium records can be used to reconstruct flowering time clines in the invasive plant Lythrum salicaria (purple loosestrife)</i> <b>Leila Forsyth - Queens University</b> , Robert I. Colautti
2:30	<i>Patterns of parallel, ecology-driven differentiation among Galician Littorina saxatilis ecotypes</i> <b>Tony Kess - University of Guelph</b> , Elizabeth Boulding
2:45	<i>The evolution of leaf endopolyploidy evolution in flowering plants and its functional consequences</i> <b>James Seery - University of Guelph</b> , Brian Husband and Hafiz Maher Ali
3:00	<i>Heterospecific matings in black widow spiders: Do males use different sperm allocation strategies depending on their mating partner?</i> <b>Archchana Rajmohan - University of Toronto, Scarborough</b> , Luciana Baruffaldi and Maydianne CB Andrade
3:15	<i>How do pollinator declines affect selection on attractive floral traits?</i> <b>Katie Brown -University of Guelph</b> , Christina M. Caruso

## Session 2B: Global Change & Conservation Biology

Friday May 6 , Bahen 1170

1:15	<i>Phenological Divergence Impedes Gene Flow</i> <b>Colin Bonner - University of Toronto</b> , Arthur E Weis
1:30	<i>Potential for northward expansion of the American dog tick (<i>Dermacentor variabilis</i>) range in North America under climate change</i> <b>Jordan Minigan - University of Guelph</b> , Heather Hager and Jonathan Newman
1:45	<i>Modeling Honey Bee Dynamics in the Presence of Disease and Changing Seasons</i> <b>Matthew Betti - Western University</b> , Lindi Wahl and Mair Zamir
2:00	<i>Effects of altered precipitation on temperate grassland plant communities</i> <b>John Serafini - Queen's University</b> , Lonnie Aarssen and Paul Grogan
2:15	<i>An investigation into bank swallow productivity and occupancy: a look at aggregate sites vs. natural sites</i> <b>Tianna Burke - Trent University</b> , Erica Nol and Mike Cadman
2:30	<i>Effects of climate-induced changes on lake ice phenology of northern Wisconsin lakes over the last 35 years</i> <b>Bailey Hewitt - York University</b> , Sapna Sharma
2:45	<i>The effects of climate change on water level fluctuations in northern Wisconsin lakes</i> <b>Katrina Gaibisels - York University</b> , Sapna Sharma
3:00	<i>Forced Hibernation: A Technique to Ensure Overwinter Survival of Temperate Neonatal Snakes</i> <b>Anne Yagi - Brock University</b> , Glenn J. Tattersall
3:15	<i>What is 'Field Realistic'? A season long study in Ontario and Quebec</i> <b>Nadia Tsvetkov - York University</b> , Olivier Samson-Robert, Harshillkumar S. Patel, Daniel A. Malena, Valérie Fournier and Amro Zayed

## Session 2C: Behavioural Ecology

Friday May 6 Bahen 1210

1:15	<i>Understanding Consequences of Trematode Infection on Temperature Selection in Tadpoles</i> <b>Susan Wang - Brock University</b> , Glenn J Tattersall and Janet Koprivnikar
1:30	<i>Strength of individual turning bias in round gobies, Neogobius melanostomus, when experiencing acute temperature changes</i> <b>Justin Bridgeman - Brock University</b> , Glenn J. Tattersall
1:45	<i>Differential Use of Single Nectar Meals by Hummingbirds with Varying Environmental Conditions</i> <b>Nadia Bayram - University of Toronto, Scarborough</b> , Mary Shehata, Kenneth C. Welch Jr., and L. Gerardo Herrera M
2:00	<i>Negative Density Dependent Dispersal in a Small Mammal</i> <b>Simmon Denomme-Brown - University of Guelph</b> , Andrew McAdam and Karl Cottenie
2:15	<i>Effect of Acoustic Signaling, Metabolic Rate, and Size on Territoriality in Male Cyphoderris monstrosa (Orthoptera: Haglidae)</i> <b>Terrence Chang - University of Toronto</b> , Andrew C. Mason
2:30	<i>Queen-sized workers or worker-sized queens?</i> <b>David Awde - Brock University</b> , Miriam H. Richards
2:45	<i>The Effects of Sibling Cannibalism in Australian Redback Spiders (<i>Latrodectus hasselti</i>)</i> <b>Ramanja Pakirathan - University of Toronto</b> , Monica Mowery and Maydianne C.B. Andrade
3:00	<i>Can population estimation enhance kin recognition for mate choice and nepotism</i> <b>Mitchel Daniel - University of Toronto</b> , F. Helen Rodd
3:15	<i>Competition drives non-kin based sociality in a facultatively social bee</i> <b>Jessica L. Vickruck - Brock University</b> , Mariam H. Richards

## Session 3A: Evolutionary Genetics & Molecular Evolution

Saturday May 7, Bahen 1170

10:30	<i>Sperm Heteromorphism: A molecular evolutionary approach</i> <b>Emma Whittington - Syracuse University</b> , Desiree Harpel, Jamie Walters and Stephen Dorus
10:45	<i>Goodbye genome paper, hello genome report: the increasing popularity of "genome announcements" and their impact on science</i> <b>David Smith - Western University</b>
11:00	<i>Exploring the role of mitochondria in the evolution of longevity with Caenorhabditis nematodes</i> <b>Juliette Martineau - University of Toronto</b> , Joanna Bundus, Asher Cutter
11:15	<i>Genome-wide patterns of genetic variation in a clonal angiosperm</i> <b>Magdalena Bartkowska - Queen's University</b> , Aneil Agrawal and Stephen Wright
11:30	<i>The effect of experience on female mate choice</i> <b>David Filice - Wilfrid Laurier University</b> , Tristan Long
11:45	<i>Characterization of psychrophilic ferredoxin from the Antarctic alga Chlamydomonas sp. UW0241 reveals novel features of cold adaptation</i> <b>Marina Cvetkovska - Western University</b> , Beth Szyszka-Mroz, David Roy Smith and Norman P.A. Hüner
12:00	<i>Why do plant Y chromosomes grow?</i> <b>Felix Beaudry - University of Toronto</b> , Stephen Wright and Spencer CH Barrett
12:15	<i>Selection on phosphorylation sites in intrinsically disordered protein regions preserves function</i> <b>Caressa Tsai - University of Toronto</b> , Taraneh Zarin and Alan M. Moses
12:30	<i>Does size matter? The role of sperm size in gametic isolation in the Caenorhabditis genus</i> <b>Rebecca Schalkowski - University of Toronto</b> , Asher Cutter

## Session 3B: Landscape Ecology & Phylogeography

Saturday May 7, Bahen 1180

10:30	<i>The influence of adjacent land cover on plant diversity and functional traits in restored grassland patches of Norfolk County, Ontario</i> <b>Rachel Chambers - Western University</b> , Zoë Lindo
10:45	<i>Dragonfly Dispersal Through Landscape Matrices</i> <b>Rosemary Martin - University of Toronto</b> , Shannon J McCauley, Marie-Josée Fortin, Celina B. Baines and Locke Rowe
11:00	<i>Staphylinidae across an elevation gradient: Changes in abundance, morphology and genetic diversity</i> <b>Kelsey Jones - University of Guelph</b> , M. Alex Smith
11:15	<i>Assessment of road avoidance in American badger, Taxidea taxus jacksoni, at three spatial scales in southern Ontario, Canada</i> <b>Julia Sunga - University of Guelph</b> , Danielle Ethier and Dr. Karl Cottenie
11:30	Differentiation in the face of gene flow in an Amazonian flooded forest bird <b>Alfredo Barrera-Guzman - University of Toronto</b> , Jason Weir
11:45	<i>Strong genetic differentiation but not local adaptation towards the range limit of a coastal dune plant</i> <b>Christopher Eckert - Queen's University</b>
12:00	<i>The role of sex-biased herbivory on the evolution of dioecy in Sagittaria latifolia (Alismataceae).</i> <b>Ruth Rivkin - University of Toronto Mississauga</b> , Marc T.J. Jonson
12:15	<i>Natural selection on phenology across the elevational range of an annual plant, Rhinanthus minor</i> <b>Dylan Sora - Queen's University</b> , Dave Ensing, Anna Hargreaves and Christopher Eckert
12:30	<i>Are sexual traits vestigialized in asexual populations of the clonal aquatic plant, Decodon verticillatus?</i> <b>Corrina Thomsen - Queen's University</b> , Magdalena Bartkowska and Christopher G. Eckert

## Session 4A: Lightning Talks in Ecology and Ethology

Saturday May 6, Bahen 1170

2:00	<i>Effects of Global Warming on the Production, Transfer and Redistribution of Essential Fatty Acids in Freshwater Wetlands</i> <b>Tarn Preet Parmar - Ryerson University</b> , Michael T. Arts
2:07	<i>Native Macrophyte Selection in Engineered Wetlands</i> <b>Francesca Fernandes - Ryerson University</b>
2:14	<i>Variation in offspring size towards species' geographical range limits</i> <b>Jason Verbeek - Queen's University</b> , Dave Eising and Chris Eckert
2:21	<i>Kin-sorting maintains social order in populations of subterranean termite (<i>Reticulitermes flavipes</i>)</i> <b>Vicki Simkovic - University of Western Ontario</b>
2:28	<i>Revisiting the size-advantage hypothesis: body size and seed bank abundance in herbaceous vegetation</i> <b>Amanda Tracey - Queen's University, Lonnie Aarssen</b>
2:35	<i>Trichoplusia ni (Hübner) attraction to transgenic Solanum lycopersicum(L): Devising Greenhouse transgenic trap cropping strategies for the Cabbage Looper Moth</i> <b>William Laur - University of Western Ontario, Ian Scott, Jeremy McNeil</b>
2:42	<i>Working towards an optimal Marine Protected Area network design in the Canadian Pacific Ocean</i> <b>Christopher Blackford - University of Toronto, Marie-Josée Fortin</b>
2:49	<i>Genetic connectivity of boreal woodland caribou (<i>Rangifer tarandus caribou</i>) in central Canada</i> <b>Pauline Priadka - University of Guelph, Micheline Manseau, Paul Wilson</b>
2:56	<i>Exploring the evolution of multispecies symbiotic relationships</i> <b>James Franklin - University of Guelph</b>
3:03	<i>Perception and physiological response to non-lethal predatory cues in snowshoe hares</i> <b>Sophia Lavergne - University of Toronto, Rudy Boonstra, Michael Sheriff</b>
3:10	<i>Understanding the diamondback moth performance in alternative cropping systems</i> <b>Anshul Sidhu - Brock University, Liette Vasseur</b>
3:17	<i>Occurrence of dual arbuscular and ectomycorrhizal symbiosis across Canada</i> <b>Mackenzie Lauermeyer - University of Guelph, Hafiz Maherli</b>
3:24	<i>Detecting Change in Fish Community Size-Spectra</i> <b>Abby Daigle - University of Toronto, Brian Shuter, Don Jackson</b>
3:31	<i>Size-dependent predation alters interactions between parasites and predators</i> <b>Shantel Catani - University of Toronto, Shannon McCauley, Janet Koprivnikar</b>
3:38	<i>The effects of climate change on future fish distributions and potential competitive interactions</i> <b>Lianna Lopez - York University, Thomas Van Zuiden, Miranda Chen, Samantha Stefanoff, Sapna Sharma</b>

## Session 4B: Lightning Talks in Evolutionary Biology

Saturday May 7, Bahen 1180

2:00	<i>Modelling gametic compatibilities, assortative mating and impacts on gene flow</i> <b>Madeline Peters - University of Toronto</b> , Arthur Weis
2:07	<i>The evolution of herbicide resistance in Canada's agricultural weeds</i> <b>Julia Kreiner - University of Toronto</b> , Stephen Wright, John Stinchcombe
2:14	<i>Character Displacement In Lesser Antillean Anolis Lizards</i> <b>James Boyko - University of Toronto</b> , Luke Mahler
2:21	<i>Testing the Hypothesis of Polyploidy as an Adaptation for Efficient Storage</i> <b>Evan Pacey - University of Guelph</b> , Hafiz Maherali and Brian C. Husband
2:28	<i>Early nutritional stress and adult digestive plasticity: Interpreting the biological significance of excretion differences using T.U.R.D.</i> <b>Mackenzie Urquhart-Cronish - University of Toronto</b> , Marla B. Sokolowski
2:35	<i>Limited Reproductive Isolation in Polyphenic Sunfish</i> <b>Will Jarvis - University of Guelph</b> , Beren Robinson
2:42	<i>Understanding the effects of whole genome duplication on the expression of flowering time genes in Arabidopsis thaliana</i> <b>Werdah Iqbal - University of Guelph</b> , Brian Husband and Joe Colasanti
2:49	<i>Characterizing the genetic basis of female preference in Drosophila simulans using CRISPR/Cas9</i> <b>Jalina Bielaska Da Silva - University of Western Ontario</b> , Amanda J Moehring
2:56	<i>Local adaptation in the Medicago-rhizobia system</i> <b>Isabela Borges - University of Toronto</b> , Corlett Wood, Tia Harrison, John Stinchcombe
3:03	<i>Identifying the genetic and neural mechanisms that modulate female sexual receptivity in Drosophila</i> <b>Pria Mahabir - University of Western Ontario</b> , Amanda J. Moehring
3:10	<i>The (in)complete organelle genome: exploring the use and disuse of available technologies for characterizing mitochondrial and plastid chromosomes</i> <b>Matheus Sanita Lima - University of Western Ontario</b> , Laura C. Woods, Matthew W. Cartwright and David Roy Smith
3:17	<i>The Genetic and Environmental Basis for Cuticular Hydrocarbon Biosynthesis in Drosophila</i> <b>Heather Ward - University of Western Ontario</b> , Amanda J. Moehring
3:24	<i>Cortisol and reproduction in a hibernating mammal: sex differences and adaptive value</i> <b>Phoebe Edwards - University of Toronto</b> , Rudy Boonstra
3:31	<i>Escape, Resist or Tolerate? Context-Dependant Evolution in Response to Glyphosate</i> <i>Herbicide in a Noxious Weed, Amaranthus palmeri</i> <b>Zachary Teitel - University of Guelph</b> , Christina Caruso

## Poster Session

*Friday May 6, Bahen Atrium, 5:00pm-7:00pm*

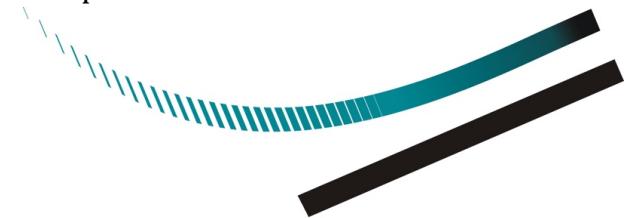
1	<i>Exploration of genome size in theraphosid spiders and 4 previously unsampled arachnid orders</i> <b>Haley Yorke - University of Guelph</b> , T. Ryan Gregory and M. Alex Smith
2	<i>Investigating the exposure of grassland birds to imidacloprid.</i> <b>Tehmeena Chaudhry - York University</b> , Heidi van Vliet and Bridget Stutchbury
3	<i>Leaf architecture and geographic parthenogenesis of Rocky Mountain hawthorns</i> <b>Xue Qi Yan - University of Toronto</b> , Nathaniel Edwards, Weizhen He, Josh Hwang and Catheryne Xuan
4	<i>You are what you eat: unravelling the origins of sexual preferences</i> <b>Michael Foisy - University of Toronto</b> , Helen Rodd and Luke Mahler
5	<i>Overwintering Success of Headstarted Blanding's Turtles (<i>Emydoidea blandingii</i>) in a Restored Wetland Complex</i> <b>Shannon Ritchie - University of Toronto, Scarborough</b> , Mandrak, N.E., Lentini and A, Phillips, J
6	<i>Behavioural Characteristics of Dispersing Naked Mole Rats</i> <b>Ilapreet Toor - University of Toronto, Mississauga</b>
7	<i>Population genomics of transposable elements in a population of outcrossing Capsella grandiflora</i> <b>Jasmina Uzunovic - University of Toronto</b> , Stephen Wright
8	<i>Daphnia Fishery: Population Dynamics in Response to Harvesting and Stochasticity</i> <b>Zachary Moore - University of Toronto</b> , Abby Daigle, Pepijn Luijckx and Martin Krkosek
9	<i>Comparative ontogeny of feeding performance in durophagous stingrays</i> <b>Henil Patel - University of Toronto, Scarborough</b> , Swara Shah, Matthew Kolmann, Dean Grubbs and Nathan Lovejoy
10	<i>Effects of Ritalin (methylphenidate) on Activity and Exploratory Behaviour in P. reticulata (Trinidadian Guppies)</i> <b>Lucian Wang - University of Toronto</b> , Alex De Serrano and Helen Rodd
11	<i>How do Tail Beat Amplitudes relate to Swimming Speeds in Lake Trout (<i>Salvelinus namaycush</i>)?</i> <b>Sisi Feng - University of Toronto</b> , Christina Truong and Liset Cruz-Font
12	<i>Effects of forest fragmentation on bird-mediated seed dispersal and pollination of a keystone tropical plant</i> <b>Luis Antonio Arias Medellin - University of Toronto</b> , Arias Medellin, Adam Hadley and Helene Wagner
13	<i>Symbioses, succession, and size: A genomic perspective on lichenized fungi</i> <b>Katherine Drotos - University of Guelph</b> , T. Ryan Gregory, M. Alex Smith and R. Troy McMullin
14	<i>Horizontal Disease Transmission in B. impatiens</i> <b>Natalia Konstantelos - University of Toronto</b> , Charlotte de Keyzer and James Thomson
15	<i>Monitoring phenologies and the effects of sparrow activity on swallow populations at University of Toronto Mississauga</i> <b>Avneet Ghotra - University of Toronto, Mississauga</b> , Tiffany Lam

16	<i>Characterization of a chromosomal inversion associated with adaptive divergence in Mimulus guttatus</i> <b>Reno Eckeblecht - Syracuse University</b> , Jannice Friedman
17	<i>Modelling Habitat Connectivity and Future Distribution for the Monarch Butterfly among Protected Areas</i> <b>Aleksandra Dolezal - University of Toronto</b> , Marie-Josée Fortin
18	<i>Effects of Temperature, Boldness and Aggression on Dispersal Propensity of Invasive Redback Spiderlings</i> <b>Danielle Alvares, Imaan Javeed, and Kishon Thaveswaran - University of Toronto, Scarborough</b> , Maydianne CB Andrade
19	<i>Comparative ontogeny of feeding performance in durophagous stingrays</i> <b>Swara Shah - University of Toronto, Scarborough</b> , Henil Patel, Matthew Kolmann, Dean Grubbs and Nathan Lovejoy
20	<i>Examining how Common Carp respond to Visual and Acoustic Stimuli</i> <b>Paul Bzonek - University of Toronto, Scarborough</b> , Jaewoo Kim, Nicholas E. Mandrak
21	<i>Brain form plasticity in polymorphic Pumpkinseed Sunfish</i> <b>Caleb Axelrod - University of Guelph</b> , Beren Robinson and Fred Laberge
22	<i>Measuring Thermal Stress in Brook Trout Populations</i> <b>Yiminxue Zheng - University of Toronto, Scarborough</b> , Nicholas Mandrak
23	<i>Spider diversity across a Neotropical elevation gradient</i> <b>Sarah Dolson - University of Guelph</b> , M. Alex Smith and Megan McPhee
24	<i>Threat-sensitive behavioural responses of two co-occurring semi-aquatic insects</i> <b>Ilia Maria Ferzoco - University of Toronto, Mississauga</b> , Celina Baines and Shannon McCauley
25	<i>Sensory acclimation of sea lamprey to conspecific damage-released alarm cues</i> <b>Istvan Imre - Algoma University</b> , Richard T. Di Rocco, Istvan Imre, Nicholas S. Johnson, Vision Paudel and Grant E. Brown
26	<i>Impact of metal exposure on rDNA recombination and mutation rate, and transposon activity in mutation lines of Daphnia pulex</i> <b>Eleanor Harvey - University of Guelph</b> , Teresa J. Crease
26	<i>Habitat fragmentation affects plant communities via predator loss</i> <b>Lucy Genua - University of Toronto</b> , Denon Start and Benjamin Gilbert
28	<i>Ecosystem engineers and multiple stressors: Can algae mussel their way into the nearshore?</i> <b>Samantha Stefanoff - York University</b> , Richard Vogt, Todd Howell and Sapna Sharma
29	<i>Morphological variation between two Gryposaurus (Dinosauria: Hadrosauridae) species from Southern Alberta, Canada</i> <b>Talia Lowi-Merri - University of Toronto</b>
30	<i>Genome size diversity in scale insects (Coccoidea), cockroaches and termites (Blattodea), and their relatives</i> <b>Darren Kelly - University of Guelph</b> , T. Ryan Gregory
31	<i>Sepiamyces, a new genus of tropical saprobic mushrooms from Malaysia.</i> <b>R. Claire M. Maglicmot - University of Toronto</b> , Jean-Marc Moncalvo

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## ACKNOWLEDGEMENTS

OE3C would not be possible without the generous support of numerous organizations. The organizers of OE3C would like to extend a special thanks to our sponsors. We would also like to extend a special thank-you to members of the Department of Ecology and Evolutionary Biology who supported this event through contribution of their valuable time, namely: Helen Rodd and Don Jackson for assistance in planning, and the numerous faculty and post doctoral fellows who volunteered to judge talks and posters.



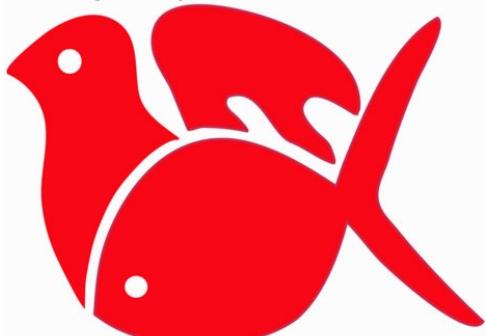
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