



Volume 22 | Issue 1 | June 6, 2017

# Entomological Society of Ontario

## **SPRING NEWSLETTER**



## From the board

Officers of the ESO ..... 2

President’s address ..... 3

Board nominations ..... 4-11

## Upcoming meetings

ESO AGM ..... 12-13

ESC-ESM JAM ..... 14-15

## Outreach events

Ottawa Bug Day ..... 16

London Bug Day ..... 18

Guelph Bug Day ..... 19

## Other announcements

BugEye Photo Contest ..... 20-21

Upcoming Events .....22-23

Opportunities ..... 24

## Society

Publish in JESO!..... 25

Join the ESO!..... 26





**President  
Gard Otis**  
University of Guelph  
[gotis@uoguelph.ca](mailto:gotis@uoguelph.ca)



**President-elect  
Antonia Guidotti**  
ROM  
[antoniag@rom.on.ca](mailto:antoniag@rom.on.ca)



**Past president  
Joel Gibson**  
Royal BC Museum  
[Jgibson@royalbcmuseum.bc.ca](mailto:Jgibson@royalbcmuseum.bc.ca)



**Secretary  
Michelle Locke**  
AAFC, CNC  
[michellemlocke@gmail.com](mailto:michellemlocke@gmail.com)



**Treasurer  
Shiyu Li**  
AAFC  
[sli@nrcan.gc.ca](mailto:sli@nrcan.gc.ca)



**Webmaster  
Trevor Burt**  
Carleton University  
CNC  
[trevburt@gmail.com](mailto:trevburt@gmail.com)



**JESO Editor  
Chris MacQuarrie**  
CFS - GLFC  
[chritian.macquarrie@canada.ca](mailto:chritian.macquarrie@canada.ca)



**JESO Assoc. Editor  
Jeff Skevington**  
AAFC, CNC  
[jhskevington@gmail.com](mailto:jhskevington@gmail.com)



**JESO Assoc. Editor  
Andrew Bennett**  
AAFC, CNC  
[andrew.bennett@agr.gc.ca](mailto:andrew.bennett@agr.gc.ca)



**JESO Technical Editor  
Thomas Onuferko**  
York University  
[onerko@yorku.ca](mailto:onerko@yorku.ca)



**Director 2017-19  
Joel Kitts**  
AAFC, CNC  
[joel.kitts@agr.gc.ca](mailto:joel.kitts@agr.gc.ca)



**Director 2017-19  
Amanda Roe**  
NRCan  
[amanda.roe@canada.ca](mailto:amanda.roe@canada.ca)



**Director 2015-17  
David Beresford**  
Trent University  
[davidberesford@trentu.ca](mailto:davidberesford@trentu.ca)



**Director 2015-17  
Jocelyn Smith**  
University of Guelph, Ridgetown Campus  
[jocelynleighsmith@gmail.com](mailto:jocelynleighsmith@gmail.com)



**Director 2016-18  
Laura Timms**  
CVC, ROM  
[laura.le.timms@gmail.com](mailto:laura.le.timms@gmail.com)



**Director 2016-18  
Alex Smith**  
University of Guelph  
[salex@uoguelph.ca](mailto:salex@uoguelph.ca)



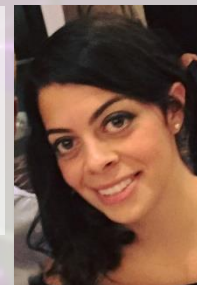
**ESC Rep. to ESO  
Sophie Cardinal**  
AAFC, CNC  
[sophie.cardinal@agr.gc.ca](mailto:sophie.cardinal@agr.gc.ca)



**Student Rep.  
Andrew Young**  
CNC  
[a.d.young@gmail.com](mailto:a.d.young@gmail.com)



**Student Rep.  
Catherine Scott**  
UofToronto  
[catherine.elizabeth.scott@gmail.com](mailto:catherine.elizabeth.scott@gmail.com)



**Newsletter Co-editors  
Lauren Des Marteaux**  
Western University  
[ldesmart@gmail.com](mailto:ldesmart@gmail.com)  
**Kruti Shukla**  
Ryerson  
[kruti.shukla@gmail.com](mailto:kruti.shukla@gmail.com)





Fellow Entomologists,

Spring is attempting to make its debut, but with huge temperature swings (record-breaking warmth at the end of February, and snow in early May!) and rain everywhere. How this will affect insect emergences and populations, and in turn our collecting trips and research projects, has yet to be seen. It could prove to be an “interesting” year.

I spend most of my time pinned to my desk. However, Jessica Linton (of Natural Resource Solutions, Inc.) and I broke free briefly on April 28<sup>th</sup> to visit a lovely site owned by The Nature Conservancy just over the border in Ohio—Kitty Todd Preserve. The preserve protects and rehabilitates a number of endangered habitats, including Black Oak Savanna. It and nearby Oak Openings Metropark have significant populations of wild lupine, the host plant of three butterfly species extirpated in Ontario but hanging on in NW Ohio: Karner Blue, Frosted Elfin, and Persius Duskywing. A number of people, ourselves included, dream of re-establishing one or more of those species in Ontario. Despite the chilly day, we succeeded in our goal of locating our first “lifer” Frosted Elfins and got a brief glimpse of their behaviour. More importantly, the site is beautiful, with other species (Blue Racer, Lark Sparrow) that made for a fabulous day. It reminded me of why I love to work on insects—my quest for them allows me to get out of my office and connect with nature. I am sure you can identify with that!

Most of my activities since the October AGM in Sault Ste. Marie have gone into organizing for the 2017 ESO conference in Guelph. You can read more about that in the Newsletter. All the pieces are falling into place—it should be a fabulous conference! We are expecting more than 100 regular and student attendees, and possible 100 more casual entomologists and students who want to attend the Saturday morning Plenary Session and student posters. Please make plans to attend—Sept. 29-Oct. 1. If you know of others who are interested in insects, please pass along information about the Saturday AM session and the full conference. And be sure to remind people that students can become members of ESO for free, and regular membership is inexpensive.

I wish you well for the coming season, and I look forward to seeing you in Guelph for the ESO conference at the end of September!

**Gard W. Otis**  
**ESO President**



## David Beresford

### President-elect



I am from Peterborough Ontario, and live on a nearby beef farm where I conducted my graduate research. During my undergraduate years I nursed a passion for dragonflies. Afterwards, I ran my own business for ten years, then entered graduate school in 1997 under the supervision of Jim Sutcliffe at Trent University. I graduated in 2006. My PhD thesis examined the overwintering success and population dynamics of stable flies on dairy and beef farms in southern Ontario, with the help of many dairy farmers from Peterborough and Northumberland Counties, and I have been involved with biting flies of one kind or another since that time – usually as bait!

I have continued my stable fly research, I am developing a stable fly matrix population model using degree day time steps, and have published my research in Journal of Economic Entomology, Journal of Medical Entomology, Journal of Dairy Science, Oikos, and JESO. I am collaborating with American colleagues on a wide scale phenological study of stable fly emergence and population growth. This work takes place on the farms in the Peterborough area.

My other research looks at species diversity for conservation purposes, focusing on Tabanidae diversity in the Hudson Bay lowlands of Northern Ontario. To this end, I spend much of my summer at an MNRF field camp on Akimiski Island in James Bay. Two of my current graduate students are looking at blow fly diversity across Canada, and the possible use of silphid grub development rates for estimating post-mortem intervals, both of these are in collaboration with the OPP and RCMP. Three other graduate students (1 PhD, 2 MSc) are examining Syphidae, Dytiscidae, and Carabidae species diversity across the more inaccessible parts of northern Ontario, in collaboration with the Ontario MNRF.

At Trent University, I teach introductory entomology, agricultural entomology, forensic entomology, and biology of invasive species. I have been privileged to have had so many great students over my past several years of teaching. Three of my students have published in JESO, and I am very proud of their continued post-graduate success. I am delighted with this opportunity to submit my name for this position. If elected I will bring the same enthusiasm and dedication that I bring to all my endeavours.





## Nusha Keyghobadi

### President-elect

I have been conducting research on insects for almost 25 years. My passion for working with insects began as an undergraduate, when I assisted with forest entomology research in northern Ontario for two summers. Since then, I have continued to conduct research in ecology and evolution using many different insect species as study systems, from alpine butterflies to mosquito disease vectors.

Currently, I am an associate professor at Western University. Here, my research program is focused on understanding the ecology and evolution of spatially structured populations. My students and I take advantage of a number of different model systems for answering questions about the effects of population spatial structure and the surrounding landscape on genetic diversity. These systems include a population network of the Rocky Mountain apollo butterfly, the insects that are commensal inhabitants of the carnivorous pitcher plant, and swallowtail butterflies associated with fragmented forests. I also engage in projects with an applied focus. These projects mostly concern the conservation genetics of threatened butterflies, but have also included work on insects that are invasive or agricultural pests.

I am passionate about passing on my love of science and entomology to others, through mentoring graduate students, teaching, and public outreach. My lab members and I regularly participate in outreach events that use insects to engage elementary and high school students with science and nature. Many of these events take place outdoors and allow young students to capture and handle live insects. It's wonderful to see their excitement at catching and holding a butterfly - for many of them, for the first time in their life!

I would be proud to serve as president of the ESO, and to further the excellent work the society does in support of scholarship and outreach by the entomology community.





## Amro Zayed

### President-elect

I am an Associate Professor of Biology and York University's Research Chair (Tier II) in Genomics. I completed my doctorate in Biology (PhD 2006) at York University on 'Bee Conservation Genetics', then held a Natural Sciences and Engineering Research Council of Canada's Postdoctoral Fellowship at the University of Illinois' Department of Entomology (2006-2008). I later served as a Fellow for the Institute for Genomic Biology's Genomics of Neural & Behavioral Plasticity Theme at the University of Illinois (2008-2009). I rejoined York University's Department of Biology in 2009, where I lead a research program on the genetics, genomics and behaviour of social insects using the honey bee as a model organism.

My research group has made several important contributions in the field of social insect biology and bee health. Since 2009, I mentored two postdoctoral fellows, 3 PhD students, 9 MSc students, 3 Research Associates, and 38 undergraduate students. Over the same period, I led or co-led grant applications worth over \$8.8 million. I received the Governor General's Gold Medal in 2007, the Ontario Ministry of Research and Innovation's Early Researcher Award in 2010, the Faculty of Science's Early Career Researcher Award in 2014. I was recently awarded the Entomological Society of Canada's Gordon C. Hewitt Award, and YorkU's President's Emerging Research Leader award.

As ESO's president, I will seek to increase the society's membership and status by liaising and coordinating activities with the different entomological groups found within Ontario, and attempting to recruit researchers that work on insects but don't typically consider themselves as 'entomologists'. The latter can be accomplished by broadening the academic programming of the Society's AGMs



## Julia Mlynarek

### Director

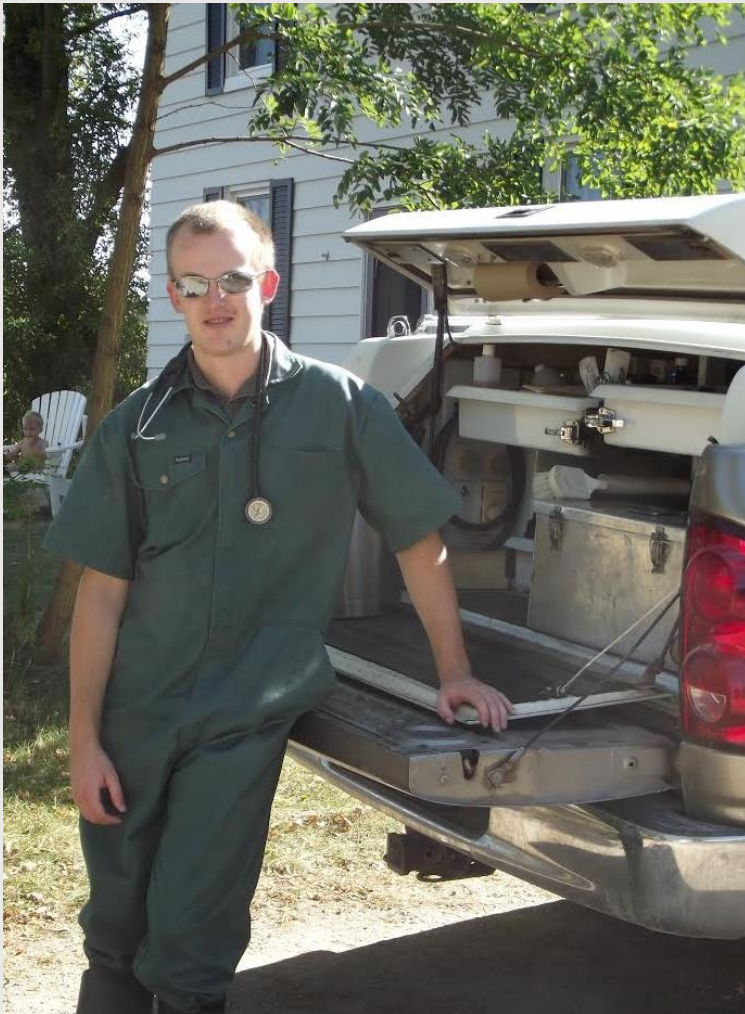


I started as an entomology research scientist (focused on non-greenhouse insects) at Agriculture and Agri-Food Canada at the Harrow Research and Development Centre in 2016. I want to develop a program to monitor insect populations and communities, and develop sound integrated pest management strategies in field, horticultural and vegetable crops of Southern Ontario.

My passion for entomology started during my undergraduate studies when I discovered the amazing diversity of insects at the Lyman Entomological Museum. I have worked on insects ever since! I spent time working on taxonomy and systematics of the Chloropidae (Diptera) at McGill University (BSc 2003-2007; MSc 2007-2009) and host-parasite associations in damselflies (Odonata) infested by water mites (Acari) and gregarines (Apicomplexa) at Carleton University (PhD 2010-2014). Most recently, I moved to the Maritimes for postdoctoral studies at the University of New Brunswick investigated the diversity and population genetics of leaf mining insects (Diptera, Coleoptera, and Lepidoptera) feeding on the plant family Asteraceae. Although the Maritimes are beautiful, I am happy to be back in Ontario.

I have been involved in Entomology Societies for many years serving as an assistant editor of the ESC Bulletin, on the student committee and as a trustee of the ESC. It has always given me a great joy to serve Societies and I always do so to the best of my abilities. It would be an honour to be elected as a Director of the Society to serve the membership, and to work to spread the passion of insect in the province.





## Gregory Aitken

### Director

Gregory Aitken is a practicing large animal veterinarian in Peterborough County. He was raised on a working farm near Guelph, Ontario, and has experience in many facets of Ontario agriculture, which have culminated in working full-time with the agricultural sector in Peterborough and surrounding area. As a large animal veterinarian, he provides emergency, preventative health, and consulting services to a wide variety of agricultural species including cattle, sheep, goats, horses, and swine. He is interested in veterinary entomology/parasitology, with areas of interest including developing multi-modal approaches to internal and external pest management in cattle, mitigation of development of parasite resistance to anthelmintics in sheep and goat populations, and the monitoring the introduction of tick-borne diseases in local cattle and horse populations, as tick populations expand in eastern Ontario.





## Miriam Richards

### Director

I am a professor in the Department of Biological Sciences at Brock University in St. Catharines. My students and I study the social behaviour and ecology of bees in Niagara, and we are particularly interested in carpenter bees, sweat bees, and long-term studies. I have previously served as a director on the ESO Board and was editor of JESO for a number of years. ESO is one of my favourite societies because of the welcome it offers to anyone studying insects - I did not think I was a "real" entomologist until ESO members insisted that I was!

I would be happy to serve another term on the ESO Board.



## Kaitlyn Fleming

### Student representative



My name is Kaitlyn Fleming. I am a PhD candidate at Trent University in the Environmental and Life Sciences program. I study ground beetle biogeography in Northern Ontario. I am determining why ground beetles are where they are and how climate change will influence their distributions.

My MSc work was in an unrelated field, that being forensic anthropology. After completing my MSc, I came to the realization that entomology is where my true research interests lie. Since 2014, I have fully embraced being looked at strangely by many people when I suddenly stop and crouch down to look at one of our six-legged friends. I have been a member of the Canadian Entomological Society, the Entomological Society of Ontario and several other societies since 2015.

Outreach and engagement is incredibly important in encouraging students to enter the field of entomology. As well, both undergraduate and graduate students should have opportunities to engage with other scientists and members of the public about their research. I would love to be the student representative for the Entomological Society of Ontario to help encourage student research and provide opportunities for students to share their research.





## Sarah Dolson

### Student representative

I am a M.Sc. student at the University of Guelph in Alex Smith's lab. I study Rove Beetle (Staphylinidae) community structure and diversity across an elevation gradient. My research is currently focused in Costa Rica; however I have a global love for arthropods as I have also studied aquatic insects, honeybees, and beetles in Canada and Asia.

I have been interested in scientific communication and public outreach since I began studying arthropods. Together with my friend Matt Muzzatti and the ESO, we have been organizing the first Bug Day in Guelph which will take place this August (see you there!). Like other Bug Days put on by the ESO, this event will help engage our community in entomology related activities and celebrate the very small and very cool world of insects.

I believe events such as bug days are not only important in getting the public interested and excited about entomology, but also for students, to help learn to communicate their research in ways that make it accessible to the public. This is especially necessary since we work with organisms that are largely feared or unappreciated. The ESO AGMs do this as well, and also provide a great space for networking and learning with other scientists. I hope to be your next ESO student representative to help to continue creating events and meetings that share knowledge and enthusiasm about our six legged friends.





# ENTOMOLOGICAL SOCIETY OF ONTARIO Annual Conference

UNIVERSITY  
of GUELPH

29 September – 1 October, 2017

## Plenary Speakers:

Nigel Raine

University of Guelph:

"Bee-ing serious about pollinators  
and food"

Gerhard Gries

Simon Fraser U.:

"Humans and human foods-  
gourmet meals for insects"

Jade Savage

Bishop's University:

"The root of the problem: why identity  
matters when dealing with *Delia* flies"

## Student Competition:

Oral and Poster

## Regular Presentations

Students, scientists, citizens

## Banquet:

David Waltner-Toews

"Eating Beetles: Fears, Fantasies,  
and the Future of Food"

Plus black-lighting for moths

This year the 154<sup>th</sup> ESO conference will be held at the University of Guelph. For 150 years, researchers at the Ontario Agricultural College, now the University of Guelph, have built on linkages with OMAFRA, AAFC, CIDA, and other agencies to enhance the production, processing, and marketing of nearly all food products, ranging from honey to milk, soybeans and grains, and arctic char to chickens. Recent funding from governments at all levels as well as private donors has led to the establishment of the Arrell Food Institute, and the view of Guelph as the "food university" of Canada. The Food Institute has a vision to "to transform global food systems, and elevate Canada's place within the global food economy". The ESO conference in Guelph will build on those strengths this year through our theme, "The Entomology of Food".

The main conference on Saturday, 30 September, will be held in Peter Clark Hall, centrally located on the University of Guelph campus. It will open with three of Canada's premier researchers studying the relationship of insects to their food. Dr. Nigel Raine of the University of Guelph, who studies pollinators and factors affecting their successes and failures in the environment, will kick off the conference with his presentation pollinators and their role in creating our food. Dr. Gerhard Gries, Simon Fraser University, will follow with a focus on insects that eat both our food and us, and his exciting research into manipulating insect communication systems to control pest species. Dr. Jade Savage, Bishop's University, will close the plenary session by discussing her research on the importance of identifying insects correctly if we hope to control them, with a focus on her recent research on root maggots (*Delia*). The Saturday morning plenary session will be open to the public and students *for free*, so please let your friends who are casual entomologists know so they can plan to attend.

The remainder of the conference on Saturday afternoon and Sunday morning will feature student and scientist presentations, both oral and posters, about all aspects of entomology. Other conference participants are welcome to submit titles and abstracts of presentations to be given in short "bullet" (5 minute) talks, regular 12-minute talks, and posters. The Saturday evening banquet at The Arboretum will feature Dr. David Waltner-Toews, Professor Emeritus, Population Medicine Department, Ontario Veterinary College. His newest book, "*Eat the Beetles*," will be published this month by ECW Press. His stories about encounters with insects as food will underscore the potential of insects in human diets. For added "entertainment", Dr. Andrew Bendall will set up black lights outside the Arboretum Center (the banquet venue) and will guide us in the identification of late season moths.

The conference is open to everyone, regardless of level of entomological expertise. Watch for additional information about accommodations at the Holiday Inn at reduced meeting prices, travel grants, deadlines, student competitions (best poster and best oral presentations), and other details about the conference on the ESO website: [www.entsocont.ca](http://www.entsocont.ca).

**For more information, contact:**

Dr. Gard W. Otis ([gotis@uoguelph.ca](mailto:gotis@uoguelph.ca))

**More info soon at: [www.entsocont.ca](http://www.entsocont.ca)**





# Joint Meeting of the Entomological Societies of Canada and Manitoba

Fairmont Winnipeg Hotel  
Winnipeg, Manitoba  
22-25 October 2017

*Small is Beautiful*



On behalf of the Entomological Societies of Canada and Manitoba, we are pleased to invite you to the **ESC-ESM 2017 Joint Annual Meeting: Small is Beautiful**. Nestled in between two very large entomology meetings; ICE in Orlando 2016 and ESA-ESC in Vancouver 2018, the ESC-ESM JAM in Winnipeg will undoubtedly be a much smaller event but an excellent opportunity to showcase entomological research in Canada and around the world.

**Keynote Speaker:** [Angela Douglas](#), Cornell University – “Interface between insects and bacteria”

**Plenary Symposium Speakers:**

- [Keith Summerville](#), Drake University – **Forestry Symposium**
- [Dale Clayton](#), University of Utah – **Ectoparasite Symposium**
- [Anthony Ives](#), University of Wisconsin-Madison – **Population Dynamics Symposium**
- [Nigel Raine](#), University of Guelph - **Pollination in a climate of change Symposium**

**Additional Symposia:**

- Biological Survey of Canada
- Graduate Student Showcase: contact [Miles Zhang](#) or [Anne-Sophie Caron](#)

**Organizing a Member symposium or a workshop? Contact:** Paul Fields (Scientific Chair), [paul.fields@agr.gc.ca](mailto:paul.fields@agr.gc.ca)

**\*\*\* Submitted paper deadline is 31 July 2017 \*\*\***



**Registration: early registration deadline (11 September 2017)  
online registration closes (15 October 2017)**

- Regular members - early registration (\$350), late or onsite registration (\$450)
- Early professional members - early registration (\$265), late or onsite registration (\$365)
- Students - early registration (\$175), late or onsite registration (\$275)
- Non-members - early registration (\$450), late or onsite registration (\$585)
- Single day onsite registration (\$200)

Sean McCann

**Member Discount:** Renew or become an [ESC member](#) - \$26 for students and \$105 for regular members

**Accommodations:** [Fairmont Winnipeg Hotel](#), discount meeting rate - \$169 + taxes (book early).  
Staying at the conference hotel is convenient for you and lowers the meeting costs.

**Associated Meetings:** 20 October 2017 - Agriculture & Agri-Food Canada Working Group on Biocontrol  
26-27 October 2017 - [Western Forum on Pest Management](http://www.westernforum.org/): <http://www.westernforum.org/>

**Visit ESC-ESM 2017:** <http://home.cc.umanitoba.ca/ESM>

**For general meeting inquiries contact:** Rhéal Lafrenière (General Chair), [Rheal.Lafreniere@gov.mb.ca](mailto:Rheal.Lafreniere@gov.mb.ca)



**Ottawa Bug Day** will take place on (date). Last year, the event attracted ~2,000 visitors and was run by over 70 volunteers! Join them September 9<sup>th</sup>, 2017 at the Ottawa Research and Development Center.

The fantastic activities at this event include (but are not limited to): insect cuisine, aquatic insects, bug zoo, get your bug identified, all about bees, insect curation, cockroach races, good bugs vs bad bugs, face painting, insect crafts, micro insects, insect expeditions, insect acoustics, and monarch watch.

**For details, contact:**  
Sophie Cardinale  
Canadian National Collection  
and Agriculture and Agri-  
food Canada  
([sophie.cardinal@agr.gc.ca](mailto:sophie.cardinal@agr.gc.ca))





The **London Bug Day** event has grown from ~300 visitors in 2014 to 700 visitors in 2016! Join them on September 9<sup>th</sup>, 2017 at the London Children's Museum for a day of fun with insects! This event includes cockroach races, edible insects, pinned and live insects, face painting, crafts, and more!

**For details, contact:** John Ciano

Department of Biology, University of Western Ontario ([jciano@uwo.ca](mailto:jciano@uwo.ca))





The first **Guelph Bug Day** will be held this year at the beautiful University of Guelph Arboretum Center! Bring family and friends for this great family event on Sunday, August 27th, 2017. After participating in many insect-related activities, have a walk through the extensive gardens provided by this great venue!

**For details, contact:**

Matthew Muzzatti, M.Sc. Student, School of Environmental Sciences,  
Ontario Agricultural College ([muzzattm@uoguelph.ca](mailto:muzzattm@uoguelph.ca))

Sarah Dolson, M.Sc. Student, Department of Integrative Biology,  
College of Biological Sciences ([dolsons@uoguelph.ca](mailto:dolsons@uoguelph.ca))





# Submit a photo to the 2017 Bug Eye photo contest!

## Instructions:

Ontario residents includes international students living in Ontario. Copyright for the photo remains with the photographer, use must be granted for ESO promotional material. Images must be of insects or closely related arthropod species (e.g. mites, spiders, etc). All submissions must be as a digital files. The judging criteria will be based on: a) image composition; b) visual impact of image; c) subject interest; d) sharpness of subject; e) difficulty of image acquisition; and f) lighting.

You may submit up to 3 unique images, but can only win one prize plus the People's Choice Award. Submit the image file by creating a digital file that is the equivalent of 7.5 inches by 10 inches (19.5cm by 25.4cm), at 300 dpi, formatted as a jpg. Create a filename using **an appropriate title, underscore, your last name, underscore, first initial (e.g. dragonfly\_smith\_j)**. Images may be either "landscape" or "portrait" in orientation. Images recorded on film must be digitally scanned and then edited according to the prescribed resolution (i.e. 7.5" by 10", at 300 dpi) for submission.



**Best Overall & People's choice (2016)**

Michael Battenberg



## Instructions (continued):

Photographic enhancement is allowed as long as it is something that could also be achieved in a real darkroom with a color or black & white negative (e.g. adjustment of contrast, color enhancement, cropping, etc.). However, very dubious enhancements will be negatively scored.

The best pictures submitted will be selected by judges and entered into the People's Choice Award competition. The selected pictures will be posted on the ESO website and/or on a photo sharing website such as flickr for the community to vote on. The pictures will also be displayed at the Annual Meeting of the Entomological Society of Ontario. If you do not wish for your pictures to be posted in such a way, you can choose to not participate in the People's Choice Award.

Please include a short description of your entries (where they were taken, why you like them, etc.) and whether the picture is of an Ontario insect and if you are a child under the age of 13. You must also indicate if you would like to be considered for the People's Choice Award. Do not forget to include your complete address.



### **Prizes for:**

Best photo (\$50)

Best photo of an Ontario insect (\$50)

Best photo by a junior entomologist under 13 (1<sup>st</sup> \$25, 2<sup>nd</sup> \$20, 3<sup>rd</sup> \$10)

People's Choice Award (\$50)

**Open to all Ontario residents, no entry fee**

**Submission deadline: September 8th, 2017**

**Submit photos to: [esophotos@gmail.com](mailto:esophotos@gmail.com)**

**Winners announced: October 1st, 2017**



## Eagle Hill Institute Seminar Series on Insect, Spider, and Arthropod Photography on the Coast of Maine

**Multiple Seminars Starting May 28, 2017 – July 29, 2017.**

**Coast of Eastern Maine, East of Acadia National Park**

Eagle Hill Institute is a scientific and literary non-profit organization dedicated to the pursuit of scholarly knowledge from an natural history perspective. They have several seminars focused on insect identification, collection, and ecology. Information about individual seminars can be found on their [website](#).

- **June 11, 2017 – June 17, 2017:** *Systematics, Biology, and Ecology of Important Lotic and Lentic Aquatic Insects: Mayflies, Stoneflies, Caddisflies, Odonata, and Coleoptera.*  
Hosted by: Steven Burian
- **June 25, 2017 – July 1, 2017:** *Moths and Butterflies: Identification, Specimen Preparation, and Taxonomy.*  
Hosted by: Hugh McGuinness and Bryan Pfeiffer
- **July 2, 2017 – July 8, 2017:** *Dragonflies and Damselflies: Field Techniques and Identification.*  
Hosted by: Bryan Pfeiffer
- **July 9, 2017 – July 16, 2017:** *Native Bees as Pollinators: Diversity, Ecology, Conservation, and Habitat Enhancement.*  
Hosted by: Sara Bushmann and Kalyn Bickerman-Martens
- **July 23, 2017 – July, 20, 2017:** *Spiders: Identification, Biology, and Ecology.*  
Hosted by: Kefyn Catley
- **July 30, 2017 – August 5, 2017:** *Art and Science of Photographing Insects and their Kin.*  
Hosted by: Kefyn Catley



Photo source: Eagle Hill  
(<https://www.eaglehill.us/programs/nhs/nhs-calendar.shtml>  
& [https://www.facebook.com/pg/eaglehillinstitute/photos/?ref=page\\_internal](https://www.facebook.com/pg/eaglehillinstitute/photos/?ref=page_internal))





## 2017 Ontario Bioblitz at Rouge Park

**Saturday, June 24 , 2017 – Sunday, June 25, 2017**

**Rouge Park (1749 Meadowvale Road, Toronto, ON)**

We are returning to Rouge Park for the 2017 Ontario Bioblitz. Rouge Park is the first, and largest, urban park in Canada. Once the area is fully established, it encompasses 79.1 km<sup>2</sup> of diverse habitat and important agricultural lands. Returning after four years, it will be interesting to see how the change, growth, and restoration of the land will affect this year's species counts and inventories compared to our 2013 surveys.

Everyone is welcome and encouraged to help out! Once again, we will have teams taking inventories of the area's biodiversity. There will be a variety of family and kids' activities and events. Check the [website](#) for more event information and travel details!



## TEA Toronto East Butterfly Count

**Saturday, July 1, 2017 – 9:00 am**

**Rouge Valley Conservation Centre (1749 Meadowvale Road, Toronto, ON)**

Brush up on your ID skills and help survey insect fauna across Ontario. The Toronto Entomologist Association will be heading out on Canada Day to conduct butterfly counts across the Rouge Valley. This survey is part of the official North American Butterfly Association (NABA) and, as such, will require a participation fee.

Please visit the TEA [website](#) and the [Ontario Nature Blog](#) for registration information and butterfly surveys taking place across Ontario.



Photo source: International Congress of Odonatology  
<http://www.ico2017.org/>

## **International Congress of Odonatology 2017 (ICO 2017)**

**Sunday, July 16, 2017 – Thursday, July 20, 2017**

**Clare College – University of Cambridge (Cambridge, United Kingdom)**

The ICO is an international biennial meeting of odonatologists, with this year's meeting being held at the University of Cambridge. The programme consists of 10 general sessions, plenaries, and three special sessions.

The three special sessions planned are:

1. Dragonfly vision
2. Dragonfly flight
3. Ten Years since Philip Corbet

ICO 2017 is open to all. Scholarships available for students.

Please visit the congress [website](http://www.ico2017.org/) for registration and event information.



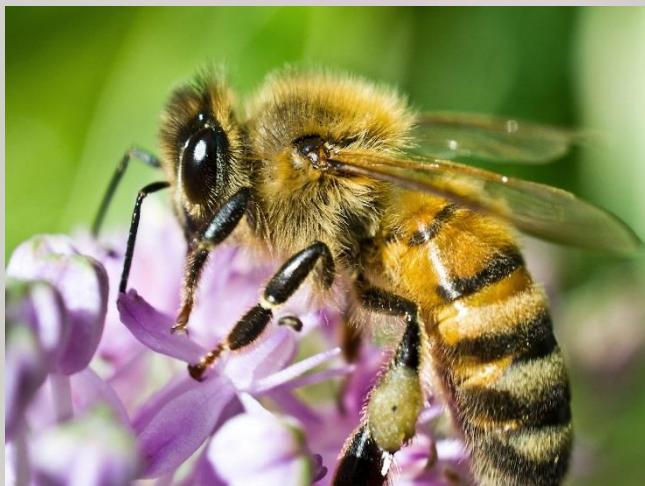


Photo source:  
<http://www.pestworld.org/pest-guide/stinging-insects/honeybees/>



Photo source: Karman/Sukarman  
<https://permaculturenews.org/2015/09/18/cycling-with-black-soldier-flies/>

## Graduate Student Positions

### **PhD Graduate Research Assistantship (GRA), Risk assessment of neonicotinoid exposure to honeybees in a corn/soybean ecosystem**

University of Guelph – Ontario Agricultural (Ridgetown Campus)

Application Deadline: Until suitable candidate found. Full details found [here](#).

### **PhD position, Up-cycling potential of organic residual matter by the mass production of block soldier fly larvae**

Université Laval, Quebec City, Québec

Application Deadline: Until suitable [candidate](#) found; Start Date: Summer 2017.

### **PhD position, Insect mass-rearing, nutrition, bioconservation and food safety**

Université Laval, Quebec City, Québec

Application Deadline: Until suitable [candidate](#) found; Start Date: Summer 2017.

For graduate positions outside of Canada (mostly USA), visit the ESC-SEC [website](#).

Source: <http://www.entsocont.ca/opportunities.html> & [www.esc-sec.ca/jobs](http://www.esc-sec.ca/jobs)

## Job postings

### **Within Canada**

See the ESC-SEC jobs page, [here](#)

### **International (mostly USA)**

See the ESA jobs page, [here](#)





## PUBLISH IN JESO!

The Journal of the Entomological Society (JESO) is the second oldest entomological journal in North America.

Papers on any aspect of entomology are accepted, and do not need to be restricted to Ontario! Both French and English manuscripts are welcome. At least one author must be a member of the ESO. To submit, please see the [Instructions for Authors](#) page.



Editor  
**Chris MacQuarrie**  
chritian.macquarrie@  
nrcanrncan.gc.ca



Assoc. Editor  
**Jeff Skevington**  
jhskevington@gmail.com



Assoc. Editor  
**Andrew Bennett**  
andrew.bennett@  
agr.gc.ca



Technical Editor  
**Thomas Onuferko**  
onerko@yorku.ca



# THE ENTOMOLOGICAL SOCIETY OF ONTARIO

## MEMBERSHIP FORM

Just fill out this form (+ cheque or  
money order if required) and send to:

**Michelle Locke**  
Entomological  
Society of Ontario

Vista Centre, 1830 Bank St.  
P.O. Box 83025  
Ottawa, ON, K1V 1A3

### Type of membership requested

- |                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Retired (free)         | <input type="checkbox"/> Student / Amateur (free) |
| <input type="checkbox"/> Regular (\$30)         | <input type="checkbox"/> Student / Amateur        |
| <input type="checkbox"/> Regular 5-year (\$150) | (International) (\$10)                            |

Name \_\_\_\_\_

Affiliation \_\_\_\_\_

Street Address \_\_\_\_\_

City, Province/State, Country \_\_\_\_\_

Postal Code/Zip Code \_\_\_\_\_ Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

### (Optional) Background Information

Employment (Location/Subject area) \_\_\_\_\_

Entomological Interest \_\_\_\_\_

- ☐ Check if you would like to get  
more involved with ESO activities  
If so, how?

\_\_\_\_\_  
\_\_\_\_\_



## JOIN THE ESO!

For ESO membership, complete the [Membership form](#)  
(also available on the ESO website)

**Canadian student, amateur, and retiree memberships** are  
**FREE!** Email Michelle for membership renewal (must be  
done each year): [entsocont.membership@gmail.com](mailto:entsocont.membership@gmail.com)

**Regular members:** A one-time payment of \$150 secures  
you a 5 year membership! For payment options, including  
PayPal, please visit [www.entsocont.ca](http://www.entsocont.ca), or mail your invoice  
and payment to:



### Michelle Locke (ESO Secretary)

Vista Centre 1830 Bank St.  
PO Box 83025 Ottawa, ON  
K1V 1A3 Telephone:  
(613) 759-1727