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ENTOMOLOGICAL SOCIETY OF ONTARIO

FALL NEWSLETTER

Photo: Wendy Riseborough
(BugEye 2022)

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Alexandre Loureiro
Grad student, U Guelph

Favourite insect:
"Without question, the leaf-cutter ant."



Kathryn Galang
Grad student, York U
Favourite insect:
"Bumble bees
(fuzzier the better)."



Simran Bahia
Grad student, York U
Favourite insect:
"*Bombus* (bumble bees)!"



Alyssa Stephens
Grad student, U Waterloo
Favourite insect:
"Fuzzy bumble bees"



Entomological
Society of Ontario
Public group

About

Discussion

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The ESO communications committee is always looking for more photos and opportunities to promote Ontario scientists studying entomology. If you have questions, photos, or social media post ideas, please email them to: esocomms@gmail.com.



Laura Timms
ESO President

Hello fellow entomologists,

I'm honoured to be able to greet you as the President of the ESO. I've been on the board of the Society on and off in several different positions over the last 20 years. I've been reflecting on why I keep coming back to it, even though – like all of us – I definitely have more than enough professional commitments in my life!

What I keep coming back to is that I found a home in the ESO when I was in the beginning of my graduate studies. I found that the meetings were small and welcoming, the more senior entomologists were generally supportive, and the students I met became friends and colleagues that I looked forward to reconnecting with each year. Being an ESO member helped me learn about many aspects of entomology, gave me a chance to hone my presentation skills, and was lots of fun.

My experiences in the ESO may resonate with you as you read this – I know that many of our members stay with the Society and volunteer their time in service positions for similar reasons. I'm also thinking about people who may have not felt welcome in the ESO, or whose experiences with senior entomologists were not supportive. What opportunities for new friends and colleagues have been missed? The ESO has done a pretty good job of evolving over the last number of years, but there is more to do to make sure that no one misses out anymore.

On that note, the Board has been discussing the creation of an Equity, Diversity, and Inclusion Committee. If you are interested in working with this committee, please let me know. We need people from all stages of their career, and would like to ensure that the diversity of our Society is represented.



Knowing where we're going as a Society is important, but it is also important to know where we've been. I have a particular affinity for the history of the ESO, and in my time as President I'm also going to focus on organizing and filling in gaps in our archival material. If you have old ESO files hanging around on your hard drive or even paper folders in an old filing cabinet, please get in touch. One person's boring meeting minutes are another person's historiographical treasure!

The ESO would not exist without the volunteer efforts of our board members and committees, and I would like to express my deep gratitude for everyone who helps us operate. Particular thanks to the outgoing board members; we have so appreciated your efforts to keep the Society running, especially through the depths of the COVID-19 pandemic.

I also have good news in regards to our search for a new editor of our Journal. Catherine Scott and Morgan Jackson have agreed to take on the role as Co-Editors-in-Chief. They will spend the next few months working with current EIC Chris MacQuarrie to learn the ins and outs of the role, and then take over in full some time in 2023. A huge thank you to Chris for all of his work with JESO over the past seven years, and to Catherine and Morgan for their willingness to continue the work.

There are many ways for **you** to support the ESO. You can write an article for the newsletter, submit a manuscript to JESO, volunteer for a committee, or put your name forward for next year's elections. You could help to organize next year's Annual General Meeting, tentatively being planned for Guelph in the fall. You could send me an email letting me know what you think we could do better, do more of, or do less of. Or you could simply ensure that you renew your membership on time! However you stay involved with the ESO we're happy to have you, and we hope that you consider the Society to be a home.

- Laura Timms
ESO President



Justin Renkema

President-elect

I am a Research Scientist with Agriculture and Agri-Food Canada at the Vineland Campus of the London Research and Development Centre. My research program focuses on applied entomology and improving integrated pest management in fruit crops. I have current projects on testing new controls, such as steam treatment of transplants, for cyclamen mite in strawberry, identifying Hemipteran vectors of grapevine red blotch virus in Ontario vineyards, determining how repellent plants and natural enemies can be used against spotted wing drosophila in berries, and investigating ambrosia beetle communities and new traps for leafroller control in apples.

Prior to working at AAFC, I was an Assistant Professor of Entomology at the University of Florida, with a research and extension program in strawberry and blueberry. I completed a MSc (2004) and was a post-doctoral researcher at the University of Guelph, completed a PhD (2011) and was a post-doc at Dalhousie University and have a BSc (2002) from Redeemer University. Since my PhD on blueberry maggot in NS, most of my research has focused on biological, chemical and physical control of and sampling for pests in fruit crops, particularly berries.

I have been a member of the ESO in the past, as a student and then as a post-doc, and look forward to joining again and becoming reacquainted with entomologists in the province. I have been active in other entomological societies, being part of the student and early-professional committee of the ESC, judging student competitions and moderating sessions at ESA meetings, and helping to organize a Florida Entomological Society meeting. I am honoured to be President and will make the most of the opportunity to promote entomology in Ontario and serve the diverse membership of the ESO.



Heath MacMillan

Director

I am an Assistant Professor in the Department of Biology and Institute of Biochemistry at Carleton University in Ottawa. I completed my PhD at the University of Western Ontario with Brent Sinclair and Jim Staples. My first postdoctoral fellowship was with Johannes Overgaard at Aarhus University (Aarhus, Denmark), which was followed by a Banting Fellowship with Andrew Donini at York University.

Throughout my career I have been interested in the physiological and molecular mechanisms underlying stress-related injury in insects. In my lab a wonderful team of people, including undergraduate and graduate students and postdocs, are all busy trying to understand how factors like temperature, microplastics, and diet all act as stressors to impact insect performance and fitness. Together, we build conceptual models of how and why stressors have these impacts and use these models to better understand evolved mechanisms of tolerance.

Beyond the various “hats” I wear as a professor, I am also a father of three kids under ten and have a keen interest in finding ways to help students and early career professionals from all backgrounds navigate work-life balance and feel supported by their research community. Through my work with the Canadian Society of Zoologists in the past, for example, I helped design a new grant in support of parents and caregivers attending the annual society meeting.



Lauren Des Marteaux

Director

I became fascinated with the incredible diversity, beauty, and ecological importance of insects as a Zoology major at the University of Guelph. I completed an M.Sc. on diapause ecology of the swede midge at Guelph, then turned to physiology for my dissertation on cold tolerance in crickets at the University of Western Ontario, during which I co-developed and co-taught a new Insect Biology course with Jeremy McNeil. I spent a number of years in the Czech Republic as a postdoc studying extreme freeze tolerance of malt flies (which can survive for many months at -196°C !), then investigated circadian rhythm in bean bugs at Osaka City University as a fellow of the Japan Society for Promotion of Science. I joined the Harrow Research and Development Centre (AAFC) as the field entomologist in 2020. I currently work on a variety of projects related to biodiversity surveying, integrated

pest management, development of novel genetic tools insect monitoring, and development of native biocontrol agents. I am also an adjunct associate professor at the University of Windsor, Ontario.

The ESO AGM was among the first conferences I attended as a student and I have always cherished this welcoming and tight-knit community. I have been a member of the ESO for 12 years and will be pleased to serve on the board as Director. I have served on the AGM Local Organizing Committee (2012), Travel Award Committee (2014), Outreach Committee (2016), as a Student Representative (2013-2015), and as Newsletter Co-Editor (2015-present). I also designed the ESO Info Pamphlet and help to admin the Facebook page. I created the first 'Bug Day' in London, Ontario in 2014 which attracted 300 visitors in its first year and grew to 700 visitors under my direction by 2016, making it the second largest insect-related outreach event in the province at the time. Entomology outreach is my top priority, and my aim as a director is to foster these events across Ontario.



Lamees Mohammad

Student representative

Hello ESO members!

My first experience with the welcoming ESO community was as an undergraduate volunteer for London's Bug Day. From this fabulous experience I developed an interest in science outreach and learned the importance of effective scientific communication. My curiosity in entomology stems prior to Bug Day as an intern in Dr. Brent Sinclair's lab at Western University. For my internship I worked on a collaborative project with the Great Lakes Forestry Center studying the overwintering physiology of Asian longhorned beetles. I then went on an adventure to the University of Calgary to receive my MSc and explore neuroscience. I missed the insect world and pursued a PhD in Dr. Sinclair's lab where I am thrilled to be researching freeze tolerance in the *Gryllus veletis* (cricket) nervous system.

I would like to work with the ESO team and students on science advocacy. The COVID-19 pandemic has underscored the role of scientists as educators to politicians and the public. Having students meet with local members of Parliament to highlight the importance of their research as *ento*-advocates would lead to stronger support for research in the long term. I am grateful to have worked with many ESO members who have set the foundation for my career, and will be happy to do the same for other students.

The 159th Annual General Meeting of the Entomological Society of Ontario took place virtually on September 23-24, 2022. With the theme of ‘Keep on Rolling: Resilience in the Face of Adversity’, 62 registrants met over Zoom on the Friday afternoon, Friday evening, and all-day Saturday.

Our MC Alex Smith cheerfully led the proceedings, beginning with a terrific plenary talk by Jessica Gillung (McGill Assistant Professor and Director of the Lyman Entomological Museum) on specimen-based research in the ‘omics era (available [here](#)). The meeting continued with three sessions of oral presentations, two sessions of poster presentations and a single session of lightning talks. Science took a backseat to socializing on Friday night, as Matthew Muzzatti and Marlee-Ann Lyle led a lively entomology trivia and networking mixer.



Congrats to the AGM prize winners!

- President's Prize - Oral Presentation: 1st Sabrina Rondeau (U. of Guelph), 2nd Lyllian Corbin (Brock U.)
- President's Prize - Lightning Talk: 1st Thomas Hall (U. of T. Scarborough), 2nd Jacob Basso (U. of Guelph)
- President's Prize - Poster Presentation: 1st Hadil Elsayed (York U.), 2nd Sherry Du (U. of Toronto)



The 2022 Annual Meeting organizing committee (Erin Campbell, Jeremy deWaard, Kaitlyn Fleming, Marlee-Ann Lyle, Shannon McCauley, Matthew Muzzatti, Amanda Roe, Alex Smith, and Laura Timms) would like to thank everyone who helped make the weekend a huge success. This includes the generous support of our meeting sponsors: Orkin, the Ontario Beekeepers Association, Ontario Apple Growers, and Hockley Valley Honey.

Details about the **2023 ESO AGM** will be posted in the next newsletter!



“Guelph Bug Day returned in-person for the first time since before the pandemic, attracting an estimated 1,000 people. Children and families flocked to The Arboretum to get up-close-and-personal with critters like cockroaches and giant snails. By noon, children were already asking when the next Bug Day would be.”

- Taylor Pace, Guelph Today

‘Turning fear into wonder at Guelph Bug Day’

Check out the Guelph Today article on this event ([here](#))

GUELPH TODAY .com

This year, Guelph Bug Day had ~1,200 people come through the doors from 10 am – 5 pm. The event featured 7 local artist vendors, 3 food trucks, and \$400 in prize pack give-aways which included insect stickers, art activities, U of G honey, two insect identification books, and other buggy decorations and posters. The only way we could provide such awesome prize packs this year was from the funding from ESO. See our list of activities (right)!

Bug Day Activities

- ✓ Kids Hike (11am - 12pm),
(3pm - 4pm)
- ✓ Pollinator Hike (1pm - 2pm)
- ✓ Forest Hike (2pm - 3pm)
- ✓ Pinning Workshop (11am - 12pm),
(3pm - 4pm)
- ✓ Honey Bee Research Centre Tour
(10:30am - 12:15pm), (2pm - 3:45pm)



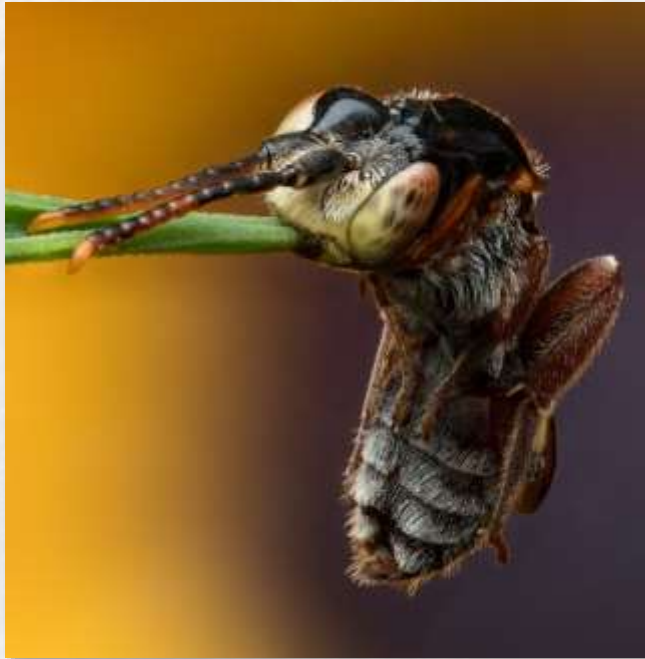
Cockroach races, Image: Taylor Pace (2022)

We ran 15 different booths this year:

1. Cockroach Races
2. Integrative Biology Invertebrate Collection
3. Edible Insects
4. Aquatic Insects
5. Pollinators
6. Cambridge Butterfly Conservatory
7. Craft Table
8. Insect Obstacle Course
9. U of G Insect Collection
10. Amazing Arachnids
11. Monarchs!
12. What Eats My Food?
13. Biocontrol
14. Face painting/temporary tattoos
15. Arboretum Centre



Guelph Bug Day also ran its own **photo contest** to enhance virtual participation in this event. Congrats to the 1st place prize winners!



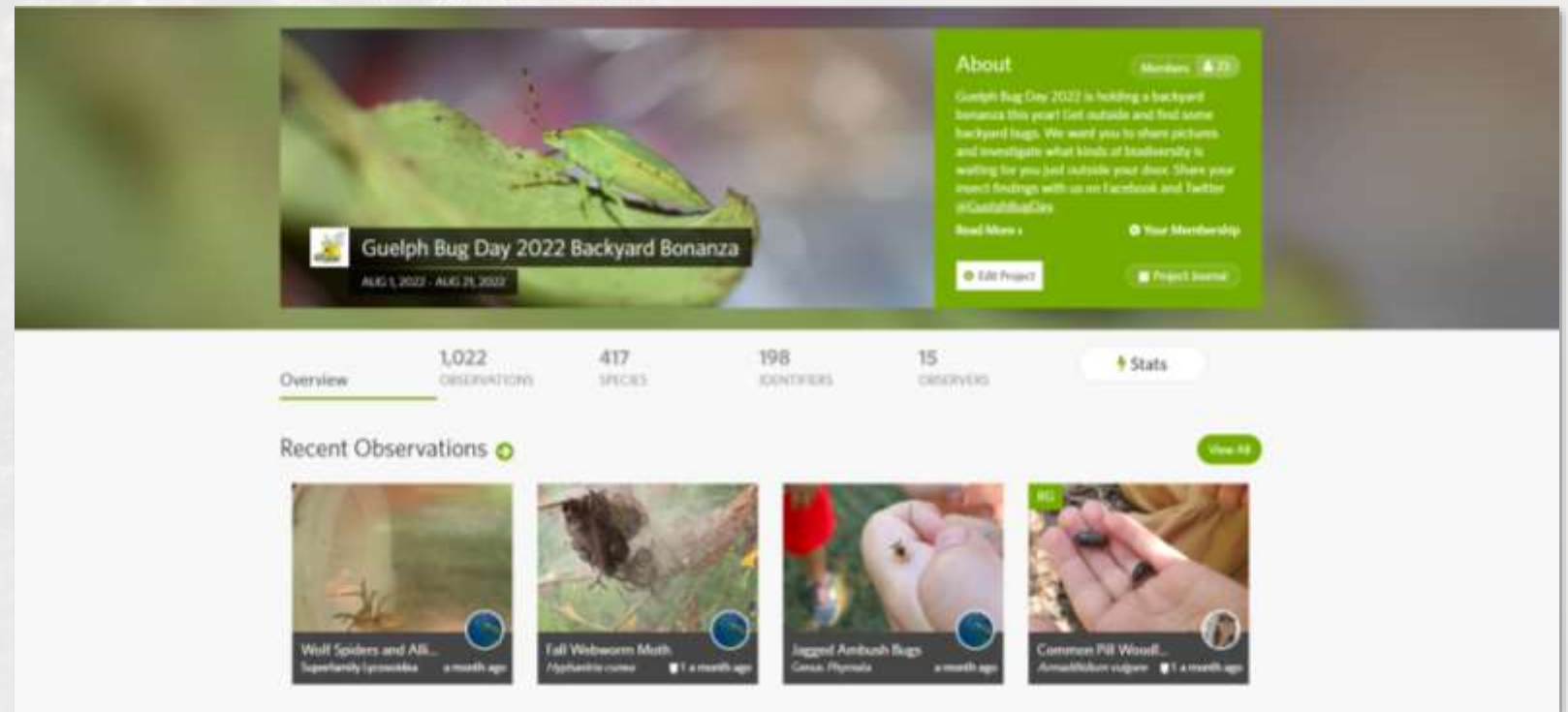
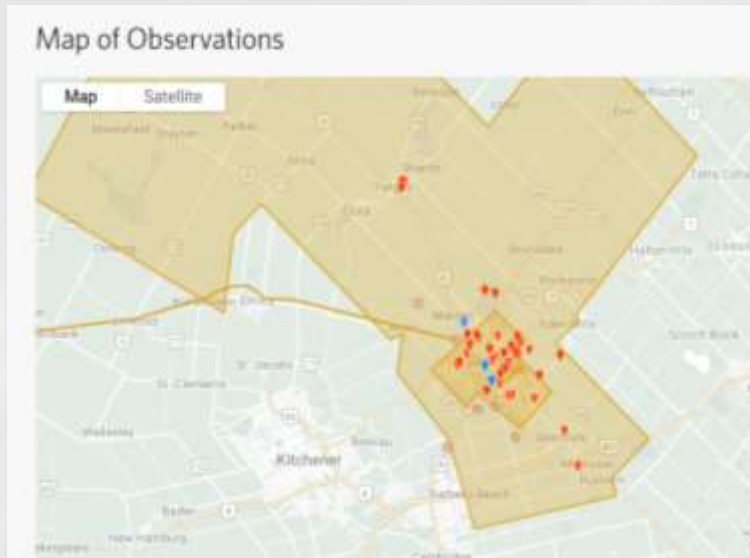
1st Place (adult): **Evan Van Zeumeren**, cuckoo bee



1st Place (youth): **Emma Boyco**, stink bug

Another virtual event we ran (which has been growing in popularity) was the **Bug Day Backyard Bonanza**, which invites community members to observe and identify local Guelph insect species and add it to our iNaturalist project.

In 2021 we had 98 observations, and in 2022 we ended with 1022 observations! The winner of 'most species observed' was a teacher who used this event as an educational tool for her classroom to go outside and learn about insects. In addition the prize given for most insects observed, we gave a prize pack to a lucky winner who filled out an event feedback survey - to help us improve for next year!



SOME HISTORY & STATS ABOUT GUELPH BUG DAY



University of Guelph students and other volunteers have delivered in-person Guelph Bug Days in 2017, 2018, 2022, with attendance growing from 800 guests in 2017 to 1200 guests in the latter two years. There were also three virtual Guelph Bug Days (2019-2021) which had around 500 virtual attendees, but our social media platforms keep all our videos and workshops up all year round for viewing. The in-person community engagement and media attention from Guelph Bug Day has been tremendous, attracting regional and local news outlets such as CTV and Rogers. Our aim is to continue this growth for Guelph Bug Day 2023.

We have 321 followers on our Facebook page as of 2022, with an average of ~350 engagements for our social media posts.

Our in-person community members came from the following regions: Guelph, Toronto, Cambridge, Kitchener, Brantford, Hamilton, Burlington, Milton, Ottawa, and Woodstock.

- Aleksandra Dolezal



After a two-year hiatus, London Bug Day returned to the London Children's Museum on September 24, 2022. The event was put together by a large team of hard-working volunteers, consisting of undergraduate and graduate students, professors from Western University, and others. Our volunteers planned and ran many different activities to engage with the London community and provide information on the importance of insects and other arthropods. Children were given activity passports which were stamped at each station, and those with fully stamped passports were given prizes and 'official entomologist' certificates.

Arthropod diversity was a common theme throughout the event, and many attendees began the event at the pinned insect collection provided by Western. This collection displayed insects from Ontario as well as more distant regions. Many attendees were surprised at the diversity of insects within Ontario. In addition to these collections, microscopes were set up to view mites, which are likewise diverse but tiny and are often forgotten.



Several live animal stations were set up, to allow attendees to view, learn about, and become comfortable around different insects and arthropods. Black widow spiders (safely enclosed in their containers) were on display on their webs. Wood blocks were split open to reveal colonies of termites living within, shedding light on the social insects and the unique ways in which they live. Terrariums with stick insects and Madagascar hissing cockroaches were popular destinations, as attendees were able to hold the insects and let them walk around their hands. There were many great photo opportunities as children held the large cockroaches in their hands. In addition, cockroaches were placed in lanes on a racetrack and allowed to walk towards a finish line, creating excitement as children rooted for their chosen racer.

Insect-themed craft stations were set up, with materials for children to make antennae headbands, clothespin butterflies, popsicle stick caterpillars, and more. Additionally, colouring stations were set up with pages of various insects to be coloured. Our face painting station was always full with many children becoming their favourite insects, or spider-themed superhero.



For the braver attendees, we had samples of edible insects provided by Entomo farms, with information on the benefits of including insects in our diets. Attendees could try a snack of dried crickets, as well as cricket flour.

To conclude Bug Day, attendees and volunteers walked to a nearby community garden to release monarch butterflies that were reared at Western. The monarchs, as well as their life stages, were on display during the event for those that were unable to stay until the release. The return of Bug Day to London was a great success, with 600 members of the community coming by to take part and learn about the importance of insects. We are grateful to our sponsors, the ESO, Nature London, Western Science, and Montessori Academy, without which this event could not have occurred.

- Zachary Balzer





Best Photo of an Ontario Insect: **Robert Guimont**

"An emerging leafhopper in Vaughan, ON on a potted Cape Sundew (it left without being trapped). Seeing that capturing a moment such as this is rare, this is definitely one of my favorites."



Best Overall Photo: **Robert Noble**

"This is a picture of three male Greene's Giant ichneumonid wasps attempting to inseminate a pre-emergent female in her nesting tunnel while a fourth male looks on. I was lucky enough to see all kinds of this activity on this day and to learn what was actually happening on the fallen tree. Brampton Ontario, June 1, 2022."



Thanks to the ESO Comms. Committee, our judges, and everyone who submitted photos! Again, we had no junior entries, so please encourage the young folks to submit photos to BugEye next year.



People's Choice: **Robert Guimont**

"This yellow jacket probably regrets visiting the Rose of Sharon in my garden in Vaughan, ON...Makes for an interesting shot though..."

GRADUATE STUDENT POSITIONS

Multiple Graduate Opportunities - Biology and Genomics of Social Insects

University of Western Ontario (London, ON)

Application deadline: None listed

PhD – Insect Nutritional Ecology and Stress

Department of Biology, Carlton University (Ottawa, ON)

Deadline: None listed

Four-month Student Field Opportunities (Undergraduate/Graduate)

Canadian Food Inspection Agency (St. Catharines, Hamilton, North Bay, London or Toronto, ON)

Application deadline: January 13, 2023



Drawing by David Beresford

JOB POSTINGS



Entomologist

Brock University (St. Catharines, ON)

Application deadline: Not listed

Laboratory Manager - Nematology

Natural Insect Control

Contact: susan@naturalinsectcontrol.com



Scientific Evaluation Officer

Pest Management Regulatory Agency (PMRA)

Start Date: As early as January 2023

Field Biologist (Contract Position)

BASF Canada (Regina, SK)

For more postings, visit the [ESC-SEC opportunities](#), [ESA careers](#), and [CSEE](#) pages.

JOIN THE ESO BOARD!

The ESO society functions thanks to the help of the board. There are many different positions, and joining is a great way to make a difference to the society, work in a team, and gain public service experience in a relaxed, friendly atmosphere. Within the board you will also have the opportunity to join various committees for outreach, plan AGMs, and more. Perhaps you have some new ideas or expertise that you'd like to bring to the society!

Each summer, the ESO members elect an incoming president, director, and student representative. The duration of these positions is:

President: 3 years (incoming, current, outgoing)

Director: 2 years

Student representative: 2 years

Those interested can send their photo and a short bio to Samm Reynolds: sreyno08@uoguelph.ca



Mostly former ESO board members, circa pre-COVID
(Listen...we haven't had in-person meetings for a while, ok?!)

ESO CAN SUPPORT YOUR EVENT

Outreach is one of the most important ways to communicate and promote public awareness of science, entomology, and an appreciation of nature in general. It is also a great way to inspire future entomologists. The ESO has especially focused on insect-related outreach over the last 10 years, supporting the province's largest entomology events such as Bug Days in Ottawa, Guelph, and London, in addition to smaller, one-time events.

If you are planning an ento-related public outreach event in Ontario, the ESO can provide some financial support! Let us know your intent to apply by emailing entsocont.newsletter@gmail.com with the subject "Outreach application". We will then send you a 1-page application form. Because funding allocation must be decided early, application forms submitted after the deadline may not be eligible for support.

Outreach Application deadline: **March 1, 2023**



Guelph Bug Day 2017 – outdoor collecting

DO YOU LIKE SOCIAL MEDIA? DO YOU LIKE BUGS?

Want to build your leadership skills while gaining experience in digital and science communication? Then this opportunity is for you! The ESO is seeking a motivated, strategic and communications-savvy individual for the position of Chair, ESO Communications Committee. In this volunteer role you will:

- Oversee the ESO's social media channels and lead a communications team in the development of daily content representing ESO's values of equity, diversity and inclusivity in science.
- Review and edit social media content to ensure accuracy, relevancy, inclusivity, and timeliness.
- Lead biweekly meetings with the communications team to brainstorm and secure upcoming social media content.
- Prepare and present brief reports summarizing the committee's activities at ESO board meetings (twice per year).
- Provide strategic communications advice and support to the ESO officers on the board, including preparing promotional social media content for entomological events, opportunities and the ESO newsletter, and provide ideas for expanding ESO membership via social media.



Those interested should email us at entsocnt.newsletter@gmail.com





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



Assoc. Editor
Jeff Skevington



Assoc. Editor
Andrew Bennett



Technical Editor
Thomas Onuferko



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](#))

Student, amateur, and retiree memberships are FREE!

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



ESO Membership Committee

Entomological Society of Ontario
Stone Road Post Office, P.O. Box 25021
17-370 Stone Road W.
Guelph, Ontario N1G 4T4

Have questions? Email the ESO membership
committee at: entsocont.membership@gmail.com