



THE ESO Newsletter

June 2013

Volume 18, Issue 1

ESO President's Message:

After a rather lackluster field season in 2012 it looks like things are shaping up nicely for a great insect year. At least summer didn't start in March this year! It is always fun to get out and see the early spring insects kicking into gear. There were oodles of bee flies (*Bombylius major* and *B. pygmaeus*) out in Algonquin last weekend (May 4th) as well as the first selection of flower flies and butterflies of the year. My favourite early spring flower fly is *Criorhina nigriventris*; these big bumblebee mimics are only out for a few days but easy to find on willow flowers at this time of the year. We saw our first on April 28th this year, about average but a month later than last year. I hope that all who lost their field season last year with the drought make up for it in spades this year.

Another sign of spring from last week was our April board meeting. There are lots of great plans in the works for our society. Many of the new ideas focus on engaging our members and attracting new members. For example, Sophie Cardinal is planning a public outreach activity for Ottawa this year. She was involved with some extremely successful programs like this when she was at Cornell University and will bring some of her ideas to our program. We are hoping to give the ESO and insects some publicity with this event and if it is successful, try it in other communities next year. Getting media exposure is always an important part of an event like this and we will try to get the word out as much as possible for this.

We need to involve the media more with our ESO events and our big 150th birthday party/aka annual meeting in Guelph should see a fair bit of publicity. This event is undoubtedly our priority for the year and most of our available energy is going into making this a big success. Local planning is going very well. Gary Umphrey has been overseeing the local arrangements and he and his team have a superb venue

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arranged for the meeting. Registration will include many of our meals, so once the main outlay of cash is made there should not be too many extra costs. Joel Gibson has been leading the production of a fabulous scientific program. His committee has put together some great plenary speakers and a really varied program. Morgan Jackson is organizing some great ideas for training workshops to be held in conjunction with the meeting. Watch for these on the website that he has put together for us. These workshops promise to be interesting and educational and they should also offer an alternative for government scientists who may not be able to officially attend the conference. We hope that the training workshops provide a way for these folks to get to Guelph and experience part of this historic meeting. Registration in training workshops will allow participants to attend the meeting and vice versa (i.e. registration cost for training workshops and the meeting are the same and allow for attendance at all events). The deadline for early registration is August 15th. For more details of the meeting, see <http://www.uoguelph.ca/debu/esc-eso2013/esc-eso.html>.

A couple of other changes are in the works for the society. First, our website is due for an overhaul. Delivering the content of our journal and connecting members are the priorities of a newly developed website that we hope to see come together later this year. A members' area of the website is a key addition that is long overdue for our society. The other thing that we are hoping to do this year is to add some non-voting positions to the board. Our society needs more long-term continuity and vision than can currently be offered from elected board membership. We are aware that many of you would like to be more involved with the society so this may work well for you. These additions to the board will be able to sit on committees, offer advice and direction to the board, and generally help with our long term planning. If this sounds like something that you might like to be involved with, please let me know.

Have a safe and productive summer and see you at the JAM in October!

Jeff Skevington, jhskevington@gmail.com

University of Guelph Arboretum Bioblitz June 22 - 23, 2013



The Arboretum at the University of Guelph is holding a Bioblitz from 6pm, June 22 until 6pm, June 23, and volunteers are needed to help identify plants, animals, and fungi. Saturday access will be restricted to Bioblitz volunteers due to a wedding, while Sunday will be open to the public. Saturday volunteers will help with bat detecting, setting up sheets and lights for

moths, calling for owls, and possibly small mammal trapping. Specific details for Sunday are still being worked out. On both days, volunteers will hike in groups to look for various species. Arboretum docents/volunteers will be on hand to help organize and lead different routes throughout the site, and all species identified will be added to the Arboretum Biodiversity List.

If you are interested in helping out, please contact:

Chris Earley, cearley@uoguelph.ca

Don't Forget to Renew Your ESO Membership!

Please visit www.entsocont.ca to pay via PayPal or mail your invoice and payment to:

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

Student, amateur, and retired memberships in Canada are free but **must be renewed each year!** Free memberships may be renewed electronically by sending an email to Nicole at: nicole.mckenzie@hc-sc.gc.ca

If you're a long-term ESO member that has trouble remembering to renew each year, consider our new 5 year membership option!

ESO Newsletter Editor Needed!

As our current editor, Angela, heads for newsletter retirement, the ESO seeks a volunteer to fill her place. If you are interested, please contact Nicole McKenzie (nicole.mckenzie@hc-sc.gc.ca) for more information.



2013 Electoral and Fellow Candidates



All fellows, regular, and student members of the ESO who have renewed their membership for 2013 will receive an email from the ESO secretary with instructions for online voting. If you have requested a paper copy of the newsletter, you will receive a paper ballot by mail. The annual ESO election ballot lists all candidates running for an elected position on the ESO Board. This year's election ballot includes two candidates for President-Elect, three candidates for two director positions, and two candidates for one student representative position.

Additionally, Thelma Finlayson has been nominated as a Fellow of the ESO. Fellows of the ESO are members or former members who have made an outstanding contribution to the advancement of entomology. Fellow nomination ballots will be included with the election ballots. A nominee for Fellow shall be elected if at least two-thirds of the votes returned to the Secretary are in the affirmative.

The following are biographies supplied by the candidates:

President Elect Candidate: Ian Scott



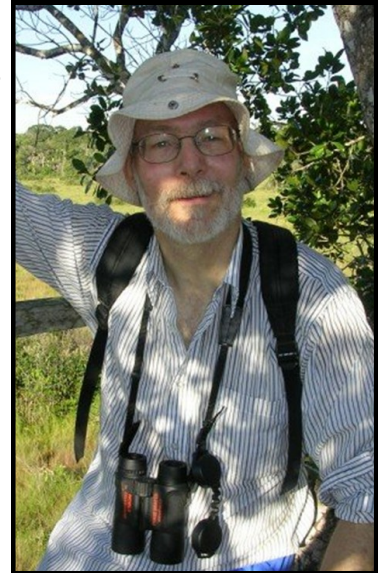
Greetings fellow members of the Entomological Society of Ontario, I would like to introduce myself as a prospective ESO President and ask that you consider my qualifications. Over the years I have certainly worked with my fair share of the members of Class Insecta. I have decapitated, poisoned, dissected, homogenized, eviscerated, glued, poked/prodded, and generally dispatched many of them in a timely fashion (so as not to be too cruel). As a toxicologist over the past 25 years, both in and out of academia and government, I have basically been given a "licence to kill insects" in the name of science. My exposure to insects in science began innocently enough in Dr. John Sprague's limnology of polluted waters course at Guelph where we waded the riffles and pools of the Speed River in search of Ephemeroptera and Trichoptera. We learned to kick stones and sediment into a D-net, and to understand the basics of aquatic insect taxonomy and biodiversity. This experience helped to get me my first job, but many of you would be horrified to know that I was the only applicant willing to cut the heads off beautiful Plecoptera larvae (but only after I had exposed them to insecticides in artificial stream tanks at Environment Canada)! This "training" prepared me for my M.Sc. at Guelph, where I was able to dabble my toes in lovely mosquito-infested microcosms (really wading pools) used to measure the effects of insecticides on Culicidae and Chironomidae. However, the fact that I was assessing the toxicity of a neem-based insecticide really made this approach more "natural" and wholesome. I had a brief 6 year hiatus from insects to work on fish and molluscs, but realized my true calling and went back to study insects for my Ph.D. at the University of Ottawa. My thesis research focused on the efficacy and mode of action of pepper (Piperaceae) ex-

tracts to control home and garden insect "pests". Many pine sawflies *Neodiprion sertifer* (Geoffroy), lily leaf beetles *Lilioceris lili* [Scopoli] and houseflies *Musca domestica* L. met their maker in the course of this "spicy" project, investigating alternative pest control during the early era of cosmetic pesticide bans. After graduation, a Post Doc funded by NSERC to study plant-insect interactions took me to Cornell University where I was introduced to the cabbage looper, *Trichoplusia ni* Hübner. The looper became my best friend for many late nights while studying their response to mutant tomato plants that either under- or over-expressed jasmonate-regulated defenses. To assess the effect of tomato defenses on the looper's metabolism it was necessary to dissect and pull out their midguts in one elegant motion, followed by tissue homogenization and protease assays. These skills landed me my current position with Agriculture Canada in London where I continue to pursue this most recent path, primarily by investigating further the insect response to plant defenses at the biochemical and proteomics level. The importance of this work is to identify specific target enzymes and to better understand their role in the response of the herbivore to different host plants or when it is treated with novel plant extracts, bio-oil and biopesticides. As I reflect upon the years spent in the lab and field pursuing our 6 legged friends, I can truthfully say it has prepared me for the sometimes cruel but kind attitude required for the presidency of a distinguished entomological society. After 2 years as an ESO Board member (2010-2012) and countless committee meetings at AAFC, I recognize the importance of keeping the agenda on track. Please vote for me, and I will bring the gavel down with precise and practiced force at each meeting.

President Elect Candidate: Gard Otis

I have been a professor at the University of Guelph for more than 30 years. Most of my 40-year career with insects has related to the ecology, behaviour, and evolution of honey bees. I am most proud of the research my students and I have done on the swarming biology of Africanized honey bees (PhD research); strategies that beekeepers can implement to overcome problems caused by honey bee tracheal mites; and my rediscovery of *Apis nigrocincta* in Indonesia and the insights it has provided into the speciation of honey bees. In recent years I have been absent from most ESO meetings because they conflicted with activities related to my beekeeping development project in Vietnam. That project, a model for effective international development through effective communication strategies at all levels, is arguably the most significant achievement of my life. My other most significant achievements are the students (from undergrad to PhD) who I have guided along their paths, both through research activities and through participation in a Field Entomology course, who continue to advance our discipline of entomology.

I served as President of the Entomological Society of Ontario once before about a decade ago. I have agreed to stand for election not because I am desperate to take on presidential duties, but because I value the activities of our society. I do not need "President of ESO" on my CV, nor do I anticipate any fame or fortune to come from the position. My feelings will not be hurt if the membership decides to give the other candidate the opportunity to guide our society. If elected, however, I will take the responsibility seriously and work to improve the society to the best of my abilities.



Director Candidate: Wayne Knee



I grew up in Alberta, where I lived in the Rocky Mountains, Aspen Parkland and the Boreal Forest. I have always been interested in the natural world around me, spending hours in the creeks, fields, and forests around my home and abroad. Insects and arachnids had captivated me at an early age, but it wasn't until my undergraduate that I became enthralled with mites.

I attended the University of Alberta and completed a BSc specializing in animal biology (2005), where I worked as an undergraduate researcher under Heather Proctor. Heather supported and encouraged me in my pursuit of exploring the biodiversity and ecology of mites and invertebrates. At the University of Alberta I had the opportunity to take several entomology courses during my undergraduate. I completed my MSc (2007) in Heather Proctor's lab, where I studied blood and tissue-feeding mites associated with birds in Canada. I conducted the largest survey of parasitic bird mites in Canada; I described six new species of mites, and created an interactive html-based dichotomous key to nasal mite species in Canada. Following my MSc I moved to Ottawa to attend Carleton University, and work on a PhD under Mark Forbes. I came to Carleton University specifically to work under Mark; I was interested in the host-parasite ecological research being conducted in his lab. Throughout my PhD I studied the species boundaries and host specificity of beetle-associated mites, using molecular and morphological markers. Specifically, I worked on mites associated with bark beetles and burying beetles. My PhD research focused on challenging our understanding and interpretation of species boundaries in beetle-associated mites, and exploring how the observed host associations may have evolved. Following my PhD I have been working as a mite systematist at Agriculture and Agri-Food Canada, in the Canadian National Collection of Insects, Arachnids, and Nematodes, in Ottawa, where I am studying plant-feeding mites and associated predatory mites with Fred Beaulieu. Our research largely focuses on uncovering 'plant-mite' biodiversity as well as exploring species boundaries with molecular techniques. Although I am relatively early in my career, I have a lot of experience with the systematics and biodiversity of mites, as well as many entomological taxa.

I have only been in Ontario for a few years, but I am interested in reaching out to the public and bridging the gap between the public and professional entomologists. I think that it is important to connect with the public and share our enthusiasm for arthropods. I have recently become involved in teaching entomological workshops with the Ottawa Field-Naturalists' Club. In addition to my love of arthropods I am also a die hard rock-hound, and you can find me collecting minerals across the Quebec and Ontario countryside whenever I find the time. If elected, I look forward to giving back to the society as a director of the ESO, and having the chance to be a part of Canada's oldest Entomological Society. Thank you.

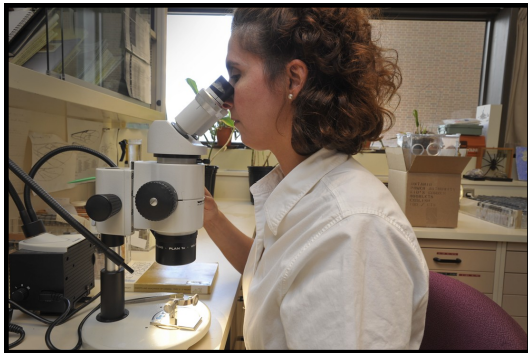
Director Candidate: Sigrun (Ziggy) Kullik

My academic background is in agricultural entomology with a focus on corn pests, which included several field seasons of extensive trapping and collecting as well as laboratory and field studies. I obtained my doctorate from the University of Guelph in 2006. During my doctoral studies I developed a keen interest in soil invertebrates and decomposition ecology which I subsequently pursued as a postdoctoral researcher at the University of Guelph and as a research coordinator for the Frost Center Institute research group. In 2010 I joined the Environmental Impact initiative at Health Canada and completed a risk assessment of the environmental effects of pharmaceuticals, veterinary drugs, and personal care products. Currently I am developing industry guidance for the environmental assessment of new pharmaceuticals and veterinary drugs, a project I began in 2012 as a Canadian Institute of Health Research Science Policy Fellow. This includes the selection of experimental protocols and screening mechanisms for potential environmental impacts on aquatic and soil invertebrates. Through my continuing association with the University of Guelph I am actively engaged in research on soil invertebrates, particularly collembola. My research interests include leaf litter and vernal pool ecology and the effect of pharmaceuticals and personal care products on terrestrial and aquatic ecosystems. In addition to my active involvement in field and laboratory research, I have mentored graduate and undergraduate students. Through my position with the Frost Centre Institute I was also given the opportunity to work with children and youth, providing them with hands-on exposure to insects and scientific research.



I first joined the Entomological Society of Ontario in 2001 and have been an active member ever since. As a graduate student I benefited greatly from participating in student competitions at the annual meetings. Particularly striking was the welcoming and supportive atmosphere and the opportunities to interact with the ESO's committed and active membership. In 2003 I participated in organizing the annual meeting as a member of the Program committee, a rewarding and educational experience. I have since been involved in organizing several more annual meetings in various roles, including local arrangements committee chair, co-chair and deputy chair. I have gained considerable administrative skills and organizational abilities through these experiences. During my previous term as a director of the society I was a member of the web committee and acted as the society's digital archivist, two areas in which I hope to be able to once again serve the ESO in addition to taking on any new challenges that may arise.

Director Candidate: Antonia Guidotti



I have been at the Royal Ontario Museum since 1994, as a volunteer, a student, and on various contracts until I was hired fulltime as an entomology technician in the Department of Natural History in 2000. My passion for insects was sparked in university during field courses that examined their behaviour and evolution and continued to develop through my first years at the ROM. I love the diversity of insects, their shape, colour, form.... I consider myself fortunate in that I truly enjoy my work!

I have a Bachelor of Science in Toxicology and Zoology from the University of Toronto and a Master of Science in Zoology, specifically entomology, from U of T as well. My Master's thesis reviewed the systematics of the Rhopalosomatidae, a relatively unknown family of parasitic wasps.

In addition to assisting curators with preparation of manuscripts and research, I identify insects for the public, museums, and other institutions, and respond to general inquiries about insects. Due to this component of my job, I learn a great deal about many different arthropods, sometimes with the assistance of other entomologists around the province that are experts in a particular group and help me with the identification (my favourite line is: "I can't know everything about all insects!"). I am sometimes called by the media to comment on the particular insect "story of the day"; I really enjoy being able to refer them to the real 'experts' on that particular insect. Occasionally, I contribute to the ROM blog. I was a member of the awesome working group that wrote the *"Butterflies of Toronto: A Guide to Their Remarkable World"*, part of the City of Toronto Biodiversity Series. It was a pleasure to work with so many amateurs that are the true experts. Presently, I and three co-authors are working on the *"ROM Field Guide to the Butterflies of Ontario"* which is expected to be published in March 2014. I was part of the Rouge Bioblitz Organizing Committee last year and am now the organizer of the scientist participants for the 2013 Rouge Bioblitz. It was wonderful to have so many entomologists from around the province participating; I hope we see even more this year. In my "spare" time, I am the Program Coordinator for the Toronto Entomologists' Association, a fantastic group of dedicated individuals (mostly amateurs) with a passion for insects. I see the ESO as an important organization for spreading the word about insects and building the entomological community. I hope that with my past experience, I could contribute to this community building and would be an asset to the ESO.

Student Representative Candidate: Trevor Burt

Greetings fellow entomophiles! I'm privileged to be in the first year of my MSc under the close direction of Dr. Jeff Skevington and Dr. Jeff Dawson of Carleton University. My research interest revolves around a systemic revision of the North American *Conopidae* (Big-headed flies). My lab is located at the Canadian National Collection of Insects (CNC) in Ottawa where I am lucky enough to have access to one of the finest insect collections in the world.

To me this seems a million miles away from where I started. I grew up in a small village outside of Owen Sound, Ontario, mainly known for its farming and Amish communities. Science education was never at the forefront of our minds. After high school I worked as a carpenter, building houses all over the Bruce Peninsula, a rather beautiful area rich in natural heritage. My interest in the biological sciences gradually began to bloom. I enrolled at Georgian College to do a General Arts and Science Diploma at the local Owen Sound satellite campus as a sort of test to see if post-secondary education was where I should be. It seemed like a good fit. After graduating I moved to Peterborough and enrolled in Trent University's Biology Undergraduate program where I graduated with Honours. Throughout my UG degree I was on the lookout for something that would capture my imagination. I took a summer field course between my second and third year, the *Biology of Insects*. When I first peered down my microscope at a carrion beetle (*Nicrophorus tomentosus*) I knew I had found my calling. You simply cannot argue with the body plan of a beetle. From then on I have been interested in anything with six legs. I took several reading courses geared towards learning more about beetles in particular and insects in general. I did my honours thesis on beetle responses to habitat disturbance on a First Nations ecological preserve under the supervision of Professors David Beresford and Marcel Dorken. Now, I am working on my Master's thesis in the capital, meeting other insect enthusiasts. Be they professional, amateur, or student, we are a connected community because of our shared excitement.

I have found the ESO to be at the heart of this community, encouraging discussion, publication, and participation. I have been a member of the ESO for about 2 years and have been impressed with how active the Society is in promoting amateur and student involvement. I would wish to continue in this vein, pressing the importance of open dialogue between up and coming students and those professionals already established in the field. I would like to maintain student-centered activities while expanding our student base by highlighting the benefits of membership and career opportunities in the field after completing education. Lastly, I would stress that at the core of the ESO is a friendly community filled with hundreds of years of collective knowledge on all things insect-related. I feel the ESO can do much more to convey that insects are something to get excited about.



Student Representative Candidate: Lauren Des Marteaux



I hail from Toronto, ON but spent most of my childhood in mosquito paradise (Winnipeg, MB). Despite that trauma I developed a passion for insects during my B.Sc. in Zoology at the University of Guelph, guided by rove beetle aficionado Adam Brunke. I was truly sold after attending the entomology field course with Drs. Stephen Marshall and Gard Otis. My honours thesis with Drs. Jonathan Schmidt, Sigrun Kullik, and Marc Habash was a study of terrestrial isopods and their influence on litter decomposition and microbial communities. Despite a lack of insect theme, the 2010 ESO-AGM welcomed my honours thesis poster with open arms. That meeting was my first conference experience as a student and I've attended it each year since. As an undergraduate research assistant or volunteer I worked with aquatic insects and a number of agricultural insect pests and beneficials in both the laboratory and field. I went on to complete an M.Sc. with Dr. Rebecca Hallett on patterns of diapause entry and emergence in the swede midge

(Diptera: Cecidomyiidae), an invasive agricultural pest of crucifers in Ontario. I recently embarked on my PhD at Western University with Dr. Brent Sinclair where I will be exploring mechanisms underlying insect cold tolerance and the physiology of chill coma. My favorite insects are hemipterans (which I find to be unparalleled in both cuteness and wacky morphology).

As a student attending the ESO annual meetings I've really enjoyed being exposed to such a broad range of entomological fields and researchers from Ontario and around the world. I find the meetings to be a welcoming place for students to gain research presentation experience in a uniquely comfortable and intimate atmosphere. The ESO society and annual meetings are also a great way for students to network and seek out academic or professional opportunities. I'd love to be further involved with the ESO as the student representative. I think it's important to maintain a large student presence in the society, with ever-growing student interest and AGM attendance. I would also like to promote general awareness of the society and the diversity, beauty, and importance of the insects (and their relatives) that we all love.

Finlayson earned her B.A. (Biology) from the University of Toronto in 1936, certification in Taxonomy and Biological by ARPE in 1971 and an LLB from Simon Fraser University in 1996.

Finlayson began her entomological career in 1937 as a Technical Officer for the Canada Dept. of Agriculture, Belleville Research Institute. She was, in fact, one of the first women scientists to enter the federal research branch. In 1946, she was asked to retire because men were returning from the war. However, at that time, her husband Roy had become very ill and was forced to retire, making it an absolute necessity for Thelma to work. She challenged the "invitation" to retire by threatening to ensure that every other married woman in the Civil Service would be fired for the same reason. In due course, the Assistant Deputy Minister of Agriculture verified her right to work, saving her own job and establishing an important human rights precedent for the Federal Civil Service. In 1959 she was promoted to Research Officer (Level 1 and then 2).



In 1967, Finlayson was appointed Assistant Professor and Curator of Entomology at Simon Fraser University. She is also a founding member of SFU's Centre for Pest Management, one of the first centres of its kind. She rose to the position of Full Professor (1976) and has held the position of Professor Emerita since 1979 (SFU's first Professor Emerita). In 1983, Finlayson was appointed as Special Advisor at the SFU Academic Advice Centre and retained that position until 2012 (during which time, she advised more than 7,000 students). At age 98, she may well have been the oldest student advisor on the planet! This past fall, the center was renamed The Thelma Finlayson Centre for Student Engagement.

Finlayson's primary interest is in the taxonomy of natural enemies with application to biological control. She has published approximately 40 papers, Memoirs and book chapters during her career. Finlayson was particularly successful in her work on the taxonomy of immature Hymenoptera.

While at SFU, she officially mentored 7 Masters and PhD candidates and, unofficially, countless others. Graduate and undergraduate students have sought Thelma's advice for decades. In addition to the tremendous amount of time that she devoted to students, Thelma was a clear advocate of entomology through significant financial contributions. For the past ten years, she has donated \$22,000/annum toward Pest Management fellowships. Further, Finlayson financed an endowment to establish the Finlayson Chair in Biological Control (currently held by Jenny Cory).

In addition, Finlayson was involved in increasing the quality of education for students in developing nations. For example, Finlayson travelled to Indonesia to assess and determine the initial set of "sandwich" MSc students who trained in entomology and toxicology at SFU and Manado, Indonesia.

Finlayson has been an active member in the entomological community for decades; she is past president of the Entomological Society of BC and an Honorary Member and a Fellow of the Entomological Society of Canada.

Finlayson's contributions to entomology, science, and society have been recognized on countless occasions. For example, two insect species, *Anisota finlaysoni* and *Mesopolobus finlaysoni*, a lepidopteran and an a hymenopteran, respectively, have been named in her honour. Further, she was named to the Order of Canada in 2005 as "a trailblazing entomologist and a beloved teacher and advisor". Finally, she is a Lifetime Member of the Entomological Society of British Columbia.

Professor Finlayson is a pioneer with many important firsts accomplished in her long and distinguished career. (Photo used with permission from SFU News, Simon Fraser University).

JOINT ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF CANADA AND THE ENTOMOLOGICAL SOCIETY OF ONTARIO

The University of Guelph and the Delta Guelph Hotel & Conference Centre,
Guelph, Ontario

Sunday 20 October – Wednesday 23 October 2013

PREDATING THE NATION: A SESQUICENTENNIAL CELEBRATION OF ENTOMOLOGY IN CANADA

The Entomological Society of Ontario invites you to the 2013 Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of Ontario, to celebrate the Sesquicentennial Anniversaries of both societies and our joint history. In recognition of the 150th Anniversary, we are extending the conference to four full days and including a wide range of symposia, workshops, and associated events.

The Sunday program and some special events will be held on the University of Guelph Campus. The remainder of the conference will be held at the Delta Guelph Hotel & Conference Centre, 50 Stone Road West Guelph, Ontario N1G 0A9 Canada (see <https://www.deltahotels.com/Groups/Delta-Guelph-Groups/U-of-G-EntomoLogical-Society-of-Canada>). Room rates are from \$134/night plus taxes, and include parking. Call 519-780-3700 or 1-800-268-1133 for reservations. (Group Code: GLCON2013).

Program Highlights:

Plenary Symposium and Heritage Lecture: The plenary symposium is designed to celebrate the history of the ESC and ESO, include a range of entomological topics, and highlight the success of Canadian entomological education, research, and service to society.

- Dr. Laura Timms, Lyman Entomological Museum, McGill University
- Dr. Brian Brown, Natural History Museum of Los Angeles County
- Dr. Owain Edwards, CSIRO, Australia

Graduate Student Showcase, following the Plenary Symposium

Sustainable Agriculture and Integrated Pest Management

Beneficial Arthropod Health and Agroecosystems

New Technologies for Investigating Old Ecological Problems

Application of Insect Genomics in Canada: Problems of the Past, Solutions of the Future

The Canadian Pollination Initiative: 5 Years of Integrative Research Addressing Pollination Decline in Canada

How Insects Work: Highlighting Research into Insect Physiology and Biochemistry

The Science of Emerald Ash Borer: Where Are We After 10 Years of Research?

Challenges of Insect Management in Stored Products

Orchids & Insects

Biological Survey of Canada Symposium

Canadian Forum for Biological Control Symposium

Student paper and poster competitions

Regular paper and poster sessions

Lunch-time workshops

Curation Blitz

Associated events on Saturday and Thursday with separate registration

NEW THIS YEAR: Lunches (Mon-Wed) are included in registration; full day scientific program on Wednesday.

Check the JAM 2013 webpage (English: <http://www.uoguelph.ca/debu/esc-eso2013/esc-eso.html>; French: <http://www.uoguelph.ca/debu/esc-eso2013/sec-seo.html>) for updated information on symposia and other events, registration and the call for papers.

**Call for Applications:
Joint Annual Meeting of
the Entomological Society of Canada
and
the Entomological Society of Ontario
Graduate Student Showcase, 2013**

Graduate students are invited to present their research at the 2013 Graduate Student Showcase (GSS). The GSS will be held on Sunday October 20 from 5-7 pm during the **Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of Ontario in Guelph, ON (October 20-23, 2013)**. The purpose of the GSS is to provide a high profile opportunity for graduate students near the completion of their degrees to present a more in depth overview of their thesis research.

Applicants to the GSS must:

- have defended or plan to defend their thesis at a Canadian University within one year of the meeting
- be the principal investigator and principal author of the presented work
- be registered at the meeting

Eligible candidates who wish to be considered for the GSS must submit a complete application to gsscommittee@gmail.com, following the instructions below:

- Submit a 250 word abstract describing the proposed presentation highlighting their work
- Submit a 1 page (single-spaced, 12 font) outline of their research, including rationale/significance, methodology, and results to date
- Arrange to have the principal supervisor **email** a letter of support that confirms the anticipated or actual date of graduation and comments on the proposed presentation and the applicant's presentation and research abilities
- Include a CV that includes a list of previous conference presentations and other presentation experience

All information must be submitted/mailed by **September 15th, 2013**. All applicants will be notified of the status of their application. Unsuccessful applicants to the GSS will have their talks automatically moved to a President's Prize Oral submission.

Differences between the GSS and the President's Prize (PP) Competition include:

- The GSS will take place in its own dedicated time slot (**new for this year!**) - there will be no conflicting talks!
- Presenters in the GSS are given more time to speak about their research (24 minutes total, 20 for the presentation & 4 for questions) compared to the PP (15 minutes total)
- Abstracts for talks presented in the GSS are published in the *ESC Bulletin*, an open access publication, received by all ESC members and over 300 libraries around the world
- The selection process for the GSS is competitive (only selected students speak), compared to the PP where all students who enter speak but only one per category receives a prize
- All presenters in the GSS receive a \$120 honorarium

We would like to encourage all eligible students to apply for the GSS. Supervisors, please encourage your students to apply and please help us to spread the word!

Any questions can be directed to gsscommittee@gmail.com

Boyd Mori, Paul Abram, and Andrew Frewin
Graduate Student Showcase Committee



Entomological Society of Ontario

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ESO Sesquicentennial Graduate Student Awards

This is a new award from the Entomological Society of Ontario, to be presented yearly at the annual meeting of the Society. It is to be awarded to Ontario graduate students in recognition of achievements and excellence in the discipline of Entomology. The award, in honour of the 150th anniversary of the ESO, will be first presented in Guelph, Ontario in October, 2013 at the Joint Annual Meeting of the Entomological Societies of Canada and Ontario. The awardees will be evaluated by a committee composed of entomologists from academia, government, and industry. Applications for the award must be submitted each year by July 15th, to allow time for the selected students to prepare an abstract on their research that will be distributed at the meeting. A single award of \$1500 will be presented; however, in the event of a tie, this amount will be split between the two top applicants. Recipients will be encouraged to attend the ESO annual meeting, provide a poster or oral presentation of their research, and receive their award during the banquet ceremony. This award will not replace the President's Prizes or ESO travel awards, but will constitute additional recognition of the high calibre of the research conducted by Ontario graduate students.

Applicants for the 2013 award must submit a CV, a 500-word (1 page) summary of their research, and the names and contact information of two personal references to Brent Sinclair (bsincla7@uwo.ca). To be eligible, applicants must be registered at an Ontario university, or have completed a postgraduate degree at an Ontario university after January 1st, 2013. Applicants pursuing graduate studies on insects, spiders, ticks, mites, or related arthropods will be considered. The award recipient(s) will be evaluated based on the following criteria:

- Innovation, creativity, and potential impact of the research
- Publications
- Other evidence of research activity, such as presentations at meetings and grant proposals
- Honours, awards, and achievements
- Referee's statements

The deadline for application is July 15th, 2013.

BUG EYE 2013
A photo contest presented by:
THE ENTOMOLOGICAL SOCIETY OF ONTARIO



Prizes for:
Best photo (\$50)
Best photo of an Ontario insect (\$50)
Best photo by a junior entomologist under 13 (1st \$25, 2nd \$20, 3rd \$10)
People's Choice Award (\$50)

Open to ESO members and all Ontario residents, no entry fee

Submission deadline: September 22nd, 2013
Submit photos to: esophotos@gmail.com
Winners announced: October 22nd, 2013

Ontario resident means anyone who makes their primary residence in Ontario - international students welcome! Copyright for the photo remains with photographer, use must be granted for ESO promotional material. Images must be of insects or closely related arthropod species (eg. mites, spiders). All submissions must be as 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.

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 obvious enhancements will be negatively scored.

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 25.4 cm), at 300 dpi, formatted as a jpg. Create a filename using an appropriate title, underscore, your last name, underscore, first initial (e.g. dragon-fly_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 inches by 10 inches, at 300 dpi) for submission.

The best submitted pictures 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 Joint Annual Meeting of the Entomological Societies of Canada and Ontario for further voting. 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.

Featured ESO Member: Justin Renkema



I am currently a post-doc at the University of Guelph in Rebecca Hallett's lab. We are working on repellents and attractants for spotted wing drosophila, a recent invasive that is becoming a serious pest of fruit in Ontario and around the world. The end-goal is to develop a push-pull management strategy to reduce reliance on spraying insecticides. Chemical ecology for pest management is a new and exciting area for me, as my PhD at Dalhousie University focused on physical and biological controls for blueberry maggot. I followed that with a brief post-doc at Nova Scotia Agricultural College with Chris Cutler, where I continued research on blueberry maggot and worked on developing molecular tools to detect pest predation by ground beetles in lowbush blueberries. I am interested in all areas of insect pest management and am particularly keen to explore predator-prey interactions and novel methods (including use of semiochemicals) of conserving biological control agents in agriculture.

I grew up in flat southwestern Ontario surrounded by agriculture. Through summer employment with Art Schaafsma at Ridgetown College working in field crop entomology and disease management, I

developed an interest in field research. I began a MSc at U. of Guelph digging for white grubs in field corn and ended up developing a sequential sampling plan for these pests. This experience, a summer course in ecological agriculture on the West Coast and working on an organic vegetable farm led me to further pursue agriculture, entomology, and ecology as career interests.

During one of my breaks from being a student, I spent a year-and-a-half in Belize working for a study-abroad program. We took students into the country's most remote corners for marine/reef, stream, and forest ecology as well as agricultural and community development courses. One entomological highlight was connecting a student with the Natural History Museum in London to do a research project with sphingid moths. Another was proudly hosting two bot fly maggots in my forearm.

While academic pursuits brought me back to Canada, outdoor activities are still on the top of my list of things to do while not in the lab or field or writing papers. During a recent trip to Chile, my wife and I spent much of our time in Patagonia, hiking up to the granite spires of Torres del Paine National Park. Closer to home, I spend my free time canoeing, camping, vegetable gardening, running, skiing or playing sports. Our current goal is to hike the Bruce Trail, all 900 km from Queenston to Tobermory, in one year.

As a recent returnee to Ontario and the ESO, I am looking forward to working again in agricultural research in this province and getting to know and work with Ontario entomologists.

I hope that everyone has had the chance to read and enjoy the ESO Featured Member column. This column was created early last year with the intent to help raise the profile of ESO members within the society, with a particular focus on student members. To this end, I believe it is meeting that objective. However, to ensure this column continues we need ensure we have a member (or two) to feature for each newsletter, and we need your help!

Any member of the ESO can be a newsletter featured member. Although we would like to maintain an emphasis on students we would be thrilled to feature any ESO member with an interesting story to tell. To help us find featured members, you can:

1. Nominate yourself : simply email the newsletter editor to sign up!
2. Nominate a colleague : if you know an ESO member who would make a great featured member (e.g., one of your students, a colleague, a lab-mate, or a friend), you should nominate them! To nominate a featured member, send the newsletter editor the contact information of the nominee and a brief explanation of what they do.



Entomological Society of Ontario

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Treasurer's Report -- 2012 final report

From January 1 to December 31, 2012

Prepared by Shiyu Li, Treasurer

Items	Description	Amount	
Balance forwarded from 2011	US\$ saving account balance on December 31, 2011	7359.86	
	CN\$ checking account balance on December 31, 2011	10629.22	
	BMO 5-yr rate riser GIC	18000.00	
	2011 AGM loan	2500.00	
	Ontario Savings Bonds	24000.00	
Revenue			
	In Canadian dollars	15752.44	
	Memberships		600.00
	JESO subscriptions		1046.00
	Page charges		1785.00
	Exchange US\$7000 to CD\$		6797.00
	Donation ('11 & '12 ESO AGMs)		4588.44
	Bank interests		936.00
	In US dollars	1834.43	
	JESO subscriptions		1830.00
	Bank interests		4.43
Expenditure			
	In Canadian dollars	9497.76	
	Journal printing and technical editing costs		4350.43
	Journal mail out costs		592.97
	Board meeting lunches and general mails		760.69
	Spring board meeting travels		340.93
	Mail box rental and mail costs from Secretary		207.74
	Awards (students and photo contest)		1245.00
	2013 ESC AGM loan		2000.00
	In US dollars	7012.20	
	Bank service fees		12.20
	Exchange US\$7000 to CD\$		7000.00
Total assets			
	In Canadian dollars	61383.90	
	Checking account balance on December 31, 2012		7383.90
	Ontario Savings Bonds		12000.00
	BMO GICs		42000.00
	In US dollars	2182.09	
	US\$ saving account balance on December 22, 2012		2182.09

ESO Committees

ESO Regional Rep to ESC: Patrice Bouchard - 613-759-7510, patrice.bouchard@agr.gc.ca

JESO Editor: John Huber - 613-759-1840, john.huber@agr.gc.ca; Jess Vickruck (Technical Editor) - 905-688-5550 x3956, jvickruck@gmail.com

Outreach: Christie Bahlai - 517-331-0499, cbahlai@msu.edu; Angela Gradish - 519-824-4120 x58810, agradish@uoguelph.ca; Sophie Cardinal - 613-759-1797, sophie.cardinal@agr.gc.ca

Nominations: Bruce Gill - 613-759-1842, bruce.gill@inspection.gc.ca

Awards: Brent Sinclair - 519-661-2111 x83138, bsincl7@uwo.ca

Website: Morgan Jackson (webmaster) - 519-824-4120 x52582, jackson@uoguelph.ca; Sigrun Kullik - 519-829-9041, kullik.sigrun@gmail.com; Hume Douglas - 613-759-7128, douglash@inspection.gc.ca; Joel Gibson - 226-979-2560, jfgibson@uoguelph.ca

2013 JAM Local Organizing Committee: Gary Umphrey - 519-824-4120 x53288, umphrey@uoguelph.ca; Cynthia Scott-Dupree - 519-824-4120 x52477, cscottdu@uoguelph.ca; Rebecca Hallett - 519-824-4120 x54488, rhallett@uoguelph.ca; Joel Gibson - 226-979-2560, jfgibson@uoguelph.ca; Angela Gradish - 519-824-4120 x58810, agradish@uoguelph.ca; Morgan Jackson - 519-824-4120 x52582, jackson@uoguelph.ca

Finance: Bruce Gill - 613-759-1842, bruce.gill@inspection.gc.ca; Hannah Fraser - 905-562-1674, hannah.fraser@ontario.ca; Shiyu Li - 613-694-2459, sli@nrcan.gc.ca; Nicole McKenzie - 613-736-3393, nicole.mckenzie@hc-sc.gc.ca

New Member Contact: Nicole McKenzie - 613-736-3393, nicole.mckenzie@hc-sc.gc.ca; Rose Buitenhuis - 905-562-0320 x749, rose.buitenhuis@vinelandresearch.com; Sophie Cardinal - 613-759-1797, sophie.cardinal@agr.gc.ca

Tell Us When You Defend!

One of the most important accomplishments in an academic's life is the successful defence of their thesis. **We would like to collectively acknowledge and commend the hard work of ESO members who have complete their thesis in a new newsletter column entitled Metamorphosis** (special thanks to Bruce Gill for suggesting the name). However, to do this we need your help! If you have recently defended your thesis, let us know by contacting the student rep, Andrew Frewin (afrewin@uoguelph.ca).

Submit to JESO

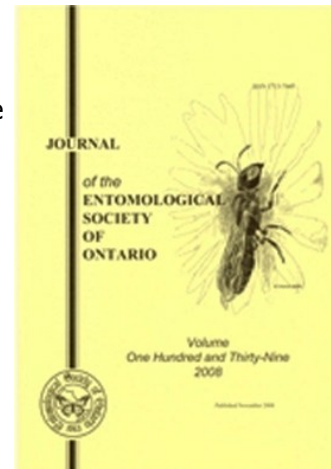
Consider submitting your next manuscript to JESO.

Instructions to authors are available on-line at www.entocont.ca

****Please submit manuscripts by June/July for publication in 2013****

Electronic submissions should be directed to:

John Huber
JESO editor
john.huber@agr.gc.ca



Missing Members

If you know any of these members, please ask them to send their contact information to ESO Secretary, Nicole McKenzie:

Pierre Paquin
G. Ritcey
Jennifer Allen
Ryan Burke
Dr. B. S. Chandel
Chris Course
Chris Darling
Jessica Hurley
Kimberley James
Tania Mottus
Brandon Smith
Lauren Strachan
Tomislav Terzin
Charles K. Zubovits
Robert Pivar
D. J. Pree
Tony Renda
John Wilson
Jean Brodeur
Peter Wm. Wood
Muhammad Omar

Paul Abram
Ibrahim Abu-Zinid
Connie Chan
Harry C. Coppel
Jason Gibbs
Marjolaine Giroux
Amy Meekes
Elisabeth Reichert
Carrie Woods
Timothy Adebayo
Alex Ardila-Garcia
Matt Bergeron
Claudia Bustos
Amnuay Pinratana
Jay Whistlecraft
MD A. Hannan
Marianna Horn
Rodrigo Leon Cordero
Heather Cumming
Kevin Horrucks