THE ESO Newsletter

June 2004 **Volume 9, Issue 2**

The *OTHER* 2004 Election

Included with this newsletter for all fellows, students, amateurs and regular ESO members who have renewed in 2003 or 2004 is a ballot and an envelope for returning the ballot to the Secretary of the ESO.

The annual ESO elections ballot lists two candidates for president-elect, four candidates for the two director positions, and two candidates for student representative.

Ballots will be tallied on August 1 , 2004.

Make your vote count!

Mail it in before August!

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Brock University

2004 Entomological Society of Ontario Annual Meeting

November 5-7th 2004
Brock University,
St. Catharines, ON

The theme of the 141st ESO Annual Meeting will be "Ancient Insects"

Accommodation is available at:
Four Points Sheraton Suites,
3530 Schmon Parkway,
St. Catharines, Ontario
Canada L2V 4Y6
Hotel Reservations: 1-800-359-5672

(Please mention that you are with the Entomological Society of Ontario Meeting to qualify for the conference rates of $119 per night single or double occupancy; add $10 for each additional adult in the room. All rooms are suites and easily accommodate 4 people.)

Further information about the upcoming conference is available from the Co-Organizers at Brock: Dr. Fiona F. Hunter(hunterf@brocku.ca) or Dr. Miriam Richards (miriam.richards@brocku.ca)

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2004 ELECTION OF ESO OFFICERS

The following are the biographies supplied by the Candidates for the positions of President-Elect, Directors,and Student Representative.

President-Elect (select one)

John T. Huber

John Huber attended the University of Guelph for his BSc (Agr.). After working two years in forest entomology in Tanzania, he returned to Guelph for his MSc on the taxonomy of cuckoo wasps. John then spent four years in France working on biological control of weeds for the Australian CSIRO, before going to the University of California for his PhD on the systematics of Mymaridae. In 1988, John joined the Canadian Forest Service as a taxonomist of chalcid parasitic wasps, working at the Canadian National Collection of Insects, Ottawa. For the past 12 years he has been curator of the Hymenoptera collection there. As well as his main research interests in taxonomy of Chalcidoidea, particularly Mymaridae, John has co-edited three books: on Hymenoptera, Chalcidoidea, and Biological Control.

John is involved with the International Society of Hymenopterists, serving first as a subject editor then as treasurer. He has been a member of the Entomological Society of Ontario for 27 years. While not active in ESO affairs he maintains a real interest in the Society and believes it is an important provincial forum and focus for amateurs, students and professionals interested in all aspects of entomology.

Terry A. Wheeler

Terry Wheeler has been a member of the Entomological Society of Ontario since 1987. He received a PhD in systematic entomology from the University of Guelph in 1991, followed by an NSERC Postdoctoral Fellowship at Carleton University. Terry moved to McGill University in 1995 and is currently an Associate Professor of Entomology and Director of the Lyman Entomological Museum. He is also an Associate Member of the McGill School of Environment. Terry maintains an active research and graduate training program in insect systematics and biodiversity, with over 50 refereed publications along with several conference presentations and invited seminars. He has served on the Finance, Student Awards and Nominations Committees of the Entomological Society of Canada and is also a member of the Scientific Committee of the Biological Survey of Canada (Terrestrial Arthropods). Terry received the C. Gordon Hewitt Award of the Entomological Society of Canada, the Macdonald Campus Award for Teaching Excellence, the McGill University Principal's Prize for Teaching Excellence and the Alan Blizzard Award from the Society for Teaching and Learning in Higher Education. In 1994, Terry served as Secretary of the Third International Congress of Dipterology and has been active in the organization of other conferences and symposia. He is currently a member of NSERC's Evolution and Ecology Grant Selection Committee.

So, why should a Quebec resident want to become President of the Entomological Society of Ontario? Aside from the obvious boost to national entomological unity, there is historical precedent: for many years in the 19th and 20th centuries, Montreal's entomologists made up the Montreal Branch of the ESO and the cross-border connections during those days were many and fruitful. There is also a geographic argument: on an average traffic day you can get to Ottawa from Sainte-Anne-de-Bellevue almost as quickly as you can get to the other end of Montreal. Finally, since Terry's grad student days at Guelph he has recognized the importance of our regional societies in promoting student research in entomology. Terry believes the annual ESO meeting remains a great opportunity for students to present their work to a friendly audience. Since he moved to McGill and started to build his own group of students, he has managed to keep a token McGill presence at the annual ESO meeting in most years. The great support and encouragement that students receive at the ESO Annual Meeting may be the most important role that the Society plays in promoting the future of entomology in Ontario. Terry would like to contribute to that crucial function.

Directors (select two)

Fenja Brodo

Fenja earned her BSc in Biology in 1958 from City College, New York, her MA in Entomology in 1963 from the University of Kansas and a PhD in Biology in 1984 at Carleton University. Fenja has had various contracts with Fisheries & Oceans (editing), Geological Survey of Canada (arctic insect inventory) and US Department of Agriculture, Juneau, Alaska (insect survey). Her research interest is in Tipulidae (Diptera) and she has a monograph currently in progress. Fenja is very active in local natural history activities and has served as editor of the Ottawa Field Naturalists' Club journal "Trail & Landscape" for 10 years. She has given several insect workshops and walks, and is on the Board of the Eastern Ontario Biodiversity Museum where she is actively promoting education in insects. Fenja's reason for wishing to be a Director of the ESO is to be a voice for promoting interest in insects to a wider audience.

Hannah Fraser

With all of the invasive alien insects in the Ontario landscape these days, Hannah's life as the provincial entomologist for horticulture is never boring. When she's not getting calls about multi-coloured ladybird beetles ripping people's flesh and infesting their crops at harvest, or sitting on various task forces and committees for these aliens, she's probably out in the field with one of the shrinking number of research entomologists in Ontario, trying to develop solutions to the disruption that "new" insects have on existing IPM programs.

Hannah became hooked on entomology after two stints at the University of Guelph, during which she obtained a BSc (1992) and a MSc (1997). While writing up her graduate thesis, she stumbled into the fascinating world of mating disruption at the Vineland Research Station, working with Agriculture and Agri-Food Canada. Having frustrated a sufficient number of male moths, she moved on to the Ontario Ministry of Agriculture and Food (OMAF) in 2000. Hannah has been there ever since, fighting the fires caused by invasive insect pests. During her less extreme moments, she edits OMAF's key newsletter for horticulture, "Hort Matters", plans conferences, writes factsheets and puts out the odd radio report (always with a nice entomological bent).

Trying to put a positive spin on things, Hannah believes that one of the beneficial off-shoots of introduced insects is a renewed interest within people to look around for new things – hence the bags, vials and children's plastic insect collecting jars that end up on her desk with requests for identification. (To the untrained eye, every insect can become an Asian longhorned beetle or an Emerald ash borer.) Invasive insects also highlight the real need for continuing a high level of expertise in entomology, and to provide the required resources to develop solutions to new pests issues, and answer the many unknowns associated with them. If elected as Director, Hannah would work towards enhancing the profile of the ESO, attract more new members, and coordinate a network of entomological expertise that is readily accessible.

Margaret Pickles

Margaret is a graduate of the University of Guelph (BSc Biology, minor Entomology) and McMaster University (MSc Teaching). Margaret has worked at the Royal Ontario Museum and the Niagara Parks Butterfly Conservatory; both positions that focused on public education and awareness of insects. She is presently self-employed and is known as the "Bug Lady" because she spends a great deal of her time spreading the word that "Bugs are Cool". Margaret gives hands-on workshops in schools and recently she worked on the TV series "Secret World of Gardens."

Margaret has been involved with the ESO since her university days. She was recently on the board of directors (2000-2003) but would welcome the opportunity to be on the board again. Another term would allow Margaret to continue with the education committee and to see to completion some projects. It was previously proposed that a "Careers in Entomology" pamphlet be produced by the ESO. This pamphlet would be made available to secondary school students to heighten the awareness of career opportunities in Entomology. If elected Margaret would help get this pamphlet produced and into the hands of young students.

Jayne Yack

Jayne recently accepted a position as assistant professor of biology at Carleton University, where she teaches Animal Behaviour and Neuroethology. She earned her MSc and PhD degrees in the Department

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Directors continued (select two)

Jayne Yack

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of Zoology at the University of Toronto, and completed a Postdoctoral Fellowship in the Department of Neurobiology and Behavior at Cornell University. Jayne is broadly interested in insect behaviour and physiology, and recently has forged new frontiers in the study of acoustic communication in butterflies and caterpillars.

Increasing public awareness to the field of entomology, and inspiring new students is a high priority for Dr. Yack. Carleton University has much to offer in this capacity, with research strengths in insect behavioural ecology, physiology, systematics, and parasitology. As Director of the ESO, Jayne hopes to increase the profile of Carleton University as a major contributor to entomological research and training in Ontario.

Student Representative (select one)

Sigrun Kullik

Sigrun "Ziggy" is in the final year of a PhD program in the Department of Environmental Biology at the University of Guelph. She has been actively involved in entomological research for the past five years, but has had a passion for insects since childhood. As an undergraduate at Trent University in Peterborough Sigrun took courses in general as well as medical entomology, her research activities however focused on larval development of frogs and toads.

During her time at the University of Guelph she has been studying the phenology and management of the black cutworm in Ontario no-till corn. This study has involved several field seasons of extensive trapping and collecting as well as laboratory and field bioassays. Sigrun has been a teaching assistant for several years now, independently running laboratories for diploma students and preparing and presenting lectures. She is also an active participant in student life at the University, as a graduate student representative on the OAC President's Advisory Council, in the department by initiating and writing a guide for PhD students preparing for their comprehensive examinations as well as playing for the intramural water polo team for several semesters.

This past fall Sigrun was involved in producing the program and designing the logo for the ESO annual meeting and enjoyed the experience very much. She was particularly impressed with the opportunities the ESO meetings provide for many graduate and undergraduate students to present their work while offering them free membership. Organizations such as the ESO play a very important role in providing a forum for students to meet more experienced entomologists. They also ensure that research conducted on the provincial level is presented to members. Having attended conferences in Canada and the US, Sigrun was struck by the very welcoming and intimate feel of the ESO meetings. The recent increase in student memberships is a very positive sign and Sigrun hopes to be a part of ensuring this trend continues. As a landed immigrant and single mother she understands the diverse challenges facing today's graduate student and she believes she would be an effective graduate student representative for the ESO membership.

Laura Timms

As our current ESO student representative, this year Laura has made progress in promoting communication and cooperation through the creation of a student email list. She uses the list to send regular messages containing job opportunities and updates to ESO student members. If re-elected, Laura hopes to continue this effort next year, as well as working on other initiatives to encourage student interaction. Most of all, Laura would like to hear from students about what concerns they have as a student member of the ESO. Your opinions count!

Laura's interest in entomology began while she was an undergraduate at the University of Guelph. Research for a paper on ant behaviour led her into the wild world of insects, and she was soon addicted. Laura went on to take most of the insect courses available at Guelph, and to work as a research assistant with the Monarch butterfly and Bt corn project for two years. She also completed an undergraduate thesis project on the effects of bioassay methodology on the feeding behaviour

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Laura Timms

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of the larvae of the Monarch butterfly. Between her undergraduate degree and grad school, she worked as a summer student at a biological control research station in Switzerland, and as a research technician in the biocontrol lab at Agriculture and Agri-Food Canada in Ottawa.

Currently, Laura is doing her Masters at the University of Toronto, in the Faculty of Forestry. Her research is on the Emerald ash borer, a new and exciting invasive species from China. She is hoping to find a pattern in the within-tree distribution of the larvae, as well as any parasitoids that might be attacking it. If you'd like to see how it's possible to fit 93 ash trees into a small biology lab, come visit Laura at Windsor University this summer!

JESO News

Volume 134 of JESO coming right up.

I believe that the members will be pleased to see the content of volume 134. There are works on economic entomology and several on the insect biodiversity of Ontario. A feature of this volume is the invited review article, a new initiative of the Board. Also, one can't help but note that there has been renewed activity in identification of Ontario Hymenoptera. Again, our cover artist, Martin Damus has done excellent work in depicting the insect of the review article. I know Karen Jamieson, the technical editor is hard at work coordinating the timely publication of the volume with the University of Toronto Press. And some more good news, volume 135 already has two submitted articles and a book is being reviewed. I am also accepting 500-1000-word book reviews of 2004 books or later. Please contact me at Yves.Prevost@Lakeheadu.ca before hand to ensure that the book has not been reviewed already. I look forward to receiving your manuscripts early so that we can get volume 135 out a little earlier.

Yves Prévost
JESO Editor

JOURNAL OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO
Volume 134

CONTENTS:

Recent ESO Business and Initiatives

Serious deliberations – ESO Interim Board Meeting 2004

Hello again to all ESO members, Jim Corrigan (elder Society potentate) here. I hope everybody survived their respective winter dormancy (???) periods, and that you are all ready to FLY into Ontario's 'bio-active' season!

There is no moss growing on the ESO 'rolling stone'! I want to update all members of our progress on a number of initiatives, and tell you about some new things that we're working on. This update is also an informal (all of my stuff is informal – GRIN) report of the matters of consequence arising from the Interim Board Meeting of the ESO, held Apr. 23, 2004.

In no particular order of importance ...

OMAF has accepted our **audited financial records** for 1995-2003! Thanks again to everybody involved in getting us up to date - **Kevin Barber, Leo Cadogan, Blair & Susan Helson and Dave Hunt**.

Our new **Treasurer**, **Kevin Barber**, presented a detailed 'example' report showing his ideas on (subtly) **modifying our fiscal reporting procedures**. Kevin hopes to create a layout that will help the Society isolate and identify our specific costs and expenses and facilitate year-to-year comparisons of the fiscal status of the ESO. Informally, Kevin has also brought forward some very good suggestions to increase the transparency of ESO fiscal activities for all ESO members. More to come on this ...

The ESO is receiving a **$600.00 grant** from the Science Policy Committee of the **Entomological Society of Canada** to compensate us for our public-outreach activities conducted in 2003 (i.e. Job Fair, Small Equipment Grant). Thanks to **Dave Hunt** for doing much of the legwork on this and to the ESC for approving our funding request. We'll be putting this significant windfall to good use in 2004!

We are planning to ask future plenary invitees to our Annual Scientific Meetings to submit **review-style articles** on the topics that they present at our meetings. These (peer-reviewed) articles would be published in the Journal of the Entomological Society of Ontario, and page charges would be absorbed by the ESO.

In a revival of a 'dormant' Society policy, the ESO will offer to **defer publication charges** for both **President's Prize Winners** and all **Runners-up** from the 140th Annual Scientific (Guelph) Meetings. Papers are expected to relate to the topics presented at this meeting, and would go through the usual peer-review process.

The Board elected to **advance $500.00** to the St. Catharines Annual Meeting Committee - 2004 (co-chaired by **Fiona Hunter** & **Miriam Richards**) to cover pre-meeting expenses.

At our Interim Board Meeting, it was decided to 'soft-pedal' our push to move to a primarily **electronic publishing** format for the **ESO Newsletter**. Concerns had been expressed to (and by) the Board that readership of the Newsletter would decrease if we were too aggressive in abandoning our paper format. The Newsletter will continue to be available on the ESO Website. **Dave Hunt** and **Dana Gagnier** will continue to compile an email list of any members wishing to receive only the electronic notification of the new posting on the website. Members can still add their name to the list of electronic subscribers by emailing Dave or Dana. However, paper copy will not be phased out, and will continue to be sent to all members who wish to receive their Newsletter in this format. The Board decided (for obvious ecological and symbolic reasons) that our paper copies should be printed on recycled paper in the future – thanks to **Miriam Richards** for reminding us of our 'larger priorities'!

At our Interim Board Meeting, **Gary Umphrey** presented a thorough and well-researched report on **electronic publication** of the **JOURNAL of the ESO**. The Society had investigated this option several years ago, and had decided to 'wait and see' how this technology would be accepted by the Scientific Community. Things move quickly in the computer world, and Gary's report concluded that the time had come to move in the electronic direction. There was general agreement that the Scientific Community has come to

accept the electronic format for scientific periodicals, and that the 'time was right' to move in this direction. Gary recommended NRC Press, for its permanence and stability (as stable as the Canadian government). The costs of electronic publishing have come down in the past few years, and Gary felt that a 150-page edition of our Journal would cost the Society about $1,000.00 to get online in each year. The Board felt that we should keep our paper format as it stands, and add the electronic edition of our Journal to our repertoire of publication options. In order to increase the exposure and impact of our publication, access to the electronic edition would be free to all end-users.

Gary, Treasurer Kevin Barber, Journal Editor Yves Prevost and Webmaster Barry Lyons have been asked to prepare a proposal describing our transition to electronic publishing, including a detailed description of the costs involved, and this will be voted on by the Board at our fall meeting.

Board member **Patrice Bouchard** felt that we should be taking advantage of our current comfortable fiscal situation to give **more** of our **traditional student awards in 2004**. The Board has approved the awarding of **two more President's Prize awards** (@$250.00 per) at this fall's Annual Scientific Meetings, making a total of four awards (2 talks, 2 posters) to be presented this fall. As well, we will present **two extra Travel Grants** (1 Grad, 1 Undergrad @ $250.00 per), making a total of five such grants (3 Grad, 2 Undergrad) to be awarded this year. Students, look for announcements of the Travel Grant Competitions in this Newsletter (see ad this page) and get those applications in!

The ESO **sent 10 'Ontario Insects' posters** (graciously donated by the Insect Bio-systematics lab at the U of Guelph) to **Parkwood Hill Public School** in Nepean ON. The posters will be given away as awards or prizes at the school's 'Fun Night' for their students.

In order to facilitate day-to-day business, the Board decided to make **cash advances** to several Board members (President, Newsletter Editor) to allow then to cover their ongoing ESO expenses in an expeditious manner. **Kevin Barber**, whipped up a dandy form to keep our individual expense tracks in order. Anybody up for PIZZA??? [GRIN]

On the suggestion of student member, **Lisa Ciolfi**, ESO Secretary **Dave Hunt** will be approaching our Webmaster, **Barry Lyons**, to find a way that our no-fee members (student, amateur, retired) **can renew their memberships online**. Since no money exchange is needed to complete these renewals, it seems that this would be more convenient, and save a few trees.

On May 1-2, the ESO participated in the recent (not outdoor!) **Insect Fair** at the U of Guelph Arboretum Centre (see article on page 8). **Christie Bahlai**, **Dana Gagnier**, **Sheila Goodfellow**, **Ziggy Kullik** and **Andrew Welsman**, provided invaluable assistance and great expertise on both days of the Fair. Thanks again to all involved, and everybody should make their plans to become involved in our booth at next year's Fair!

OK, that's a summary of the latest goings-on around the ESO. We'll all be 'in the field' doing our work this summer, so I hope everybody has a very successful research season in 2004 (if it ever stops raining!).

Enjoy your summer!
Jim Corrigan

More Student Awards For This Year's Annual Meeting!

University, college professors and all teachers of entomology: Please inform your students that the ESO has even more awards this year!

This is a great year for students to get involved with the ESO. Each year the Entomological Society of Ontario provides travel grants to assist students with their travel expenses to the annual meeting. This year, the ESO will award **three graduate and two undergraduate** travel grants of $250 each! The society is very happy to be able to provide more assistance for both graduate and undergraduate students who show a keen interest in entomology.

Student members of the ESO who are presenting a poster or paper at the Annual Meeting of the Entomological Society of Ontario being held November 5-7th, 2004 at Brock University in St. Catharines are eligible to apply. There will also be **four President's Prizes** awarded at the meeting for exceptional paper and poster presentations. Student memberships for the ESO are free but must be renewed each year.

Any interested students must apply in writing, stating their financial needs for attending the conference, and why they should be chosen to receive a travel grant. Please indicate contact information including an email address.

Deadline for application is September 30, 2004.
Grant recipients will be notified by October 8th, 2004.

Please send application to:
Tracey Baute, ESO Director,
OMAF, P.O. Box 400, Main Street East
Agronomy Building, Ridgetown College
Ridgetown, Ontario N0P 2C0
tracey.baute@omaf.gov.on.ca

ESO Rocks Ontario Insect Fair

On the weekend of May 1-2, the ESO participated in the first-ever Ontario Insect Fair held at the Arboretum Centre at the University of Guelph. Comments in the previous Newsletter notwithstanding, the Fair was indoors. This was a good thing, because it was a very rainy weekend in Guelph.

The majority of the exhibitors were selling beautiful, mostly tropical, insects. Coming from an academic background, I was unfamiliar with the degree of interest in this end of the entomology biz. Exhibitors were displaying virtually all of the 'Oh My' species – morphos, ornithopterans, tropical silk moths, giant walking sticks, leaf- and flower-mimic mantids, jewel beetles etc. Exhibitors pointed out that their practices were ecologically sound, as they were not selling wild-caught specimens. Most specimens are imported from small 'cottage' businesses that rear the insects in their areas of origin.

What would one pay for a perfectly spread butterfly or other 'pretty'? It seemed to me that the specimens were amazingly cheap. Unframed specimens were in the $3-10 range! The sellers appeared to be doing a very good trade, and many 'high-rises' of Styrofoam bug boxes were being carried around the exhibit.

The ESO booth provided an excellent compliment to the Fair. Dana Gagnier had brought (literally!) a trunk-full of kid friendly bug activities. Colouring pages (of bugs, of course), markers and crayons, paper plate insect antennae, insect toys, a microscope and various insects in petri dish containers provided a rich resource for our younger colleagues. On Sunday, Christie Bahlai brought her pet Madagascar giant hissing roaches to the Fair, and each of them ran several 'roach marathons' up and down some young arms (see photo above right). The poor roaches were tuckered out after their day at the Fair! No other exhibit was designed to be 'kid-friendly', so the ESO booth provided a place for families to hang out and allowed youngsters literally to 'get in touch' with insects. The Insect Biosystematics lab at the U of Guelph graciously had donated a large number of the 'Ontario Insect' posters for our use at the Fair. We gave about 100 to kids of all ages, after each person answered an (age-adjusted) entomological skill-testing question. Our booth was a constant hive of activity (pun intended) throughout the weekend!

Christie Bahlai, Dana Gagnier, Sheila Goodfellow, Ziggy Kullik and Andrew Welsman, provided invaluable assistance and great entomological expertise at the Fair. Thanks to all of our volunteers! Plans are being made for another Fair next year, and the ESO expects to participate again. Why don't YOU become involved with the ESO booth at next year's Insect Fair!

Jim Corrigan

Kontesa Zlatic (2 years) is no stranger to large insects. Her father Zoran Zlatic told us that since 4 months of age she has traveled with their family to Serbia, Columbia and Mexico to collect insects.

Want some help to promote entomology in Ontario???

Are you part of a school group, club or outdoor organization that is involved in promoting awareness of Entomology in Ontario? The Entomological Society of Ontario would like to assist you.

Based on the success of our 'Small Equipment Grant' to the Eastern Ontario Biodiversity Museum in 2003, the ESO will be accepting requests for small grants ($100-500) from groups that could use a hand in developing their outreach programs. The funding would be directed at providing equipment or materials that could put your program 'on the map' (collecting equipment, resource materials, supplies etc.).

Your organization should submit a short (1 page), simple, funding proposal, outlining the nature of your programs and explaining what the Grant would be used to support/subsidize. The ESO will evaluate your request, and notify your group if your application is successful. We do not have a formal application deadline, so please contact Jim Corrigan if you are interested in applying for this granting program.

Jim Corrigan
BUGJIMCORRIGAN@GOSYMPATICO.CA
1-519-338-2492

Obituary
Terence M. Laverty

Terence M. Laverty died April 12, 2004 in London, Ontario, at the age of 52. Terence was a professor in the Department of Biology at the University of Western Ontario for the past 18 years. He taught courses in introductory biology, animal behaviour, and behavioural ecology, population biology as well as the field courses in pollination of spring flora and alpine ecology. His courses were all highly rated by his students.

Terence was known for his research on bumble bee behaviour. His research centred on the co-evolution of floral traits (flower design, colour, scent, shape symmetry and rewards) and pollinator behaviour. Terence was an Associate Editor for The Canadian Entomologist from 1995 to 2001. Throughout his career, he reviewed articles for more than 21 journals.

Terence received his Honors BA in Psychology and Biology from Queen's University in 1974. He obtained a MSc in Entomology from the University of Alberta in 1978, and a PhD in Zoology from the University of Toronto in 1985. He was a postdoctoral fellow at Toronto and McGill prior to accepting the position of Assistant Professor at Western in the Department of Zoology.

Memorial Garden
planned in Laverty's honour

Until a couple of years ago, Terence cultivated a "bee garden" behind the Staging Building on the UWO campus. Terence's memorial garden will be put back in the same place. The original garden had to be dismantled to make way for construction, so Terence moved many of the plants himself and gave others to friends for safe keeping. The garden was an enclosure about 8 x 15 m, surrounded on 2 sides by a hedge, and located close to the naturalized corridor along the Thames River. The hedge is still intact, but rather overgrown. Terence provided a wish list of mainly native plants (trees, shrubs and wildflowers) that are insect pollinated, and used by bees, that he wanted to see used for landscaping the new building. Budget restraints mean that most of the landscaping will not happen, but the species list will be used for the bee garden.

At present, the area is a sea of construction mud with a hedge and fence on two sides. The plan is to remove some of the large shrubs and volunteer trees to bring down the height of the hedge, open it up a little and take out weeds such as buckthorn. The third side has a gate, which makes an attractive landscape feature so that the area will look like a partially abandoned cottage garden. The site will be open on the third side. The space between it and the river (an access corridor to the back of the new building) will be seeded with a native wildflower mix and mown once a year.

The garden will be casual and low maintenance, a wild mix of a wide variety of flowers that bloom through the season, beginning with violets and ending with goldenrods. The kind of garden that Terence loved. The emphasis will be on native plants, but non-native species from the old garden will also be brought back. Invasive non-natives like Dame's Rocket will be avoided. There will be no paths or benches (nothing formal), but some flagstones scattered about as stepping stones and 2 or 3 large limestone boulders for sitting on. A tree (probably a Honey Locust) and some shrubs will be planted close to the garden, but between it and the new building, to help draw in bees.

The garden will probably evolve over the next couple of years. The first thing that needs doing is to bring in some top soil. This will happen in early June, once the machinery is able to get into the area (at the moment it is too wet). Physical Plant on campus will also do the heavier pruning. Mid-summer is not the best time to transplant, but I hope to organize an evening or two when students and friends can come and work on some plantings of potted material. Much of it - including the shrubs and trees may have to wait until next spring.

Volunteers who will be working on the garden include mainly students of Terence and friends from the Department of Biology.

Dr. Jane Bowles
Department of Biology, UWO

A special thank-you to Jane for writing this piece for ESO members!

Concept design for the memorial garden, created from a photograph, for the recent memorial celebration held in Laverty's honour at UWO.

New to the ESO Newsletter . . . .

ESO COLLECTOR'S CORNER:

Collecting Asian Lady Beetles: A Day At The Beach

Collector's Corner is a place where you can share your insect collecting stories, information on how or where to collect insects, pinning and spreading tips, or places in Ontario where you photograph and collect insects. Special thanks to Christie Bahlai for writing our first article for this feature.
Send your submissions (and attach a colour photograph if available) to Dana Gagnier.

Part of my summer job this year involves collecting multicoloured Asian lady beetles (*Harmonia axyridis*) for a research colony belonging to Dr. Mark Sears of the University of Guelph. Given the numbers everyone finds in their homes in the winter, you wouldn't think Asian lady beetles would be particularly difficult to find in Ontario this spring. However, after running around fields near the university with sweeper nets, crawling around building foundations with aspirators, and hiking through the arboretum, poking at bark and leaves, my fellow summer students and I had only found a couple of specimens. We'd managed to find quite a few of native or introduced varieties, but our beetle of interest was specifically the Asians.

Then, our luck changed. Erin Jones, one of the folks I work with, spent the Victoria Day weekend camping at Pinery Provincial Park, near Grand Bend, Ontario. Besides housing a good chunk of the world's oak savanna, Erin observed another peculiarity of the region - along the beach, in great density, amongst weeds and driftwood, were all sorts of different species of lady beetles. Delighted, a team of us set out for the shores of Lake Huron to collect lady beetles.

We decided to stop first at a public beach access point in Ipperwash, and progress northward towards Grand Bend if necessary. I was not prepared for the sheer density of lady beetles on the Ipperwash beach: each and every weed and bush in amongst the dunes had a handful of beetles crawling on it. The sand was peppered with their cohorts. In between the weeds we often found groups of up to ten or twelve just sitting around. There didn't appear to be much in the way of foodstuffs to attract the beetles to the beach: it seems this dense aggregation is due to the prevailing winds sweeping in from the lake. A wide variety of species were present, most prevalently the twelve-spotted lady beetle (*Coleomegilla maculata*), also called the pink spotted lady beetles, seven-spotted lady beetle (*Coccinella septempunctata*), and Asian varieties. In a little over an hour, our team was able to collect as many Asian lady beetles as we could possibly need: we were impeded more by ensuring we were collecting the right beetles than actually finding beetles! We actually had beetles landing on us while we attempted to collect other beetles!

Though lady beetles are seen as rather commonplace insects, a trip out to the eastern shores of Lake Huron in the next little while is well worth it. This is a spectacular sight.

Christine Bahlai

Photo appears courtesy of PAULA BEATTIE

Catching Cicadas in Cincinnati

This May 24th, it was the sights and sounds of the emergence of "Brood X" 17-year periodical cicadas that motivated my husband and I to take a road trip with our 2 sons, Andrew and Ben to Cincinnati, Ohio.

Several sources provided inspiration for the trip. First, was Jim Corrigan's collection of 1987 New Jersey "Brood X" periodical cicadas at the Guelph Insect Fair. On the drive home from the fair I mused about where I was in my life for the 2 previous emergences. However, if I waited to see the next 17-year emergence, I'd be 54 and by then our sons would be in their 20's and well beyond enjoying a trip like this. The time to go was now.

A few days before the long weekend, I searched the internet for information on Cincinnati, and found that some of the hotels were offering a **Cininnati Cicada Great Escape Package** (May 14-July 31, 2004). The package included a "17 Year Itch: Mating Songs of Cincinnati USA" CD featuring the courting calls of all 3 *Magicicada spp.* (*M.septendecim*, *M. cassini* and *M. septendecula*). Instead of apologizing to their guests for the noise, Cincinnati hotels were offering a special take-home souvenir CD of the bugs disturbing the peace. It was intriguing to see insects featured as a tourist attraction. Not knowing the city or where to locate the bugs, I called the visitors' bureau for directions to an area where we could see cicadas up-close. The bureau put me in touch with someone at the zoo who told me "Why don't you wait 'til you get here." Sounded like a sensible thing to do, just call back once we arrived in town.

Five hours of driving put us in Cincinnati near supper-time on Sunday. As we crossed the city limits for Cincinnati, on the interstate, we were greeted by a chorus of cicadas "singing" in the trees. There must have been hundreds in the trees lining the interstate! There was no mistaking that buzzing sound we heard well above the noise of trucks on the road and over the movie our kids were watching at volume "24" inside our van! We noticed the cicada calls faded when there were no mature trees near the interstate. As we cruised around the next curve on the interstate, "SPLAT!" on the windshield, was a flying cicada. We're in the right place!

Driving downtown to our hotel, the area was typical in that it was covered in pavement; but to our disappointment, also devoid of cicadas and their songs. After supper, we decided to spend the evening swimming in the hotel pool; we'd resume our search Monday morning on our way to the zoo.

The next morning, a wrong turn on the way to the zoo sent us down a side street to turn around, but we were excited to finally catch a glimpse of the cicadas on the side walk, covering a rolled up rug that someone was discarding. Further along the street, it looked like a neighbour was trying to rid their lot of cicadas by pruning some tree branches and setting them out to the curb for "pick-up". In what I found to be an unevolved behaviour, the cicadas remained clinging to the wilted branches set out at the curb. Lots for the boys to look at here, so we pulled the van over and we all excitedly jumped out to take a closer look. We found our gold!

Here in this older neighbourhood several trees were at least 75 feet tall. We saw the trunk of a smaller tree wrapped in tinfoil and the foliage wrapped in cheesecloth. No doubt for protection from the female cicadas laying their eggs. The older trees are far more tolerant than say a small ornamental dogwood. Up in the trees, the males were just starting their calls. In the 2-foot strip of grass between the sidewalk and the curb the cicada nymphs were making their way up through the grass in great numbers. Tenerals were emerging from their nymphal skins and inflating their wings to dry before leaving for a spot on the vegetation. At the base of a telephone post, we found a great accumulation of nymphal skins and abandoned exuviae on the side of the post. The weather was partly cloudy, but when the sun came out and the wind blew through the trees, the cicadas broke into song. We spent 30 minutes out on the sidewalk in front of these older homes handling and enjoying these slow-moving, gregarious insects.

Compared to the Ontario "Dog Day" cicadas, these periodical cicadas were on average somewhat shorter in length (3-5 cm), and noticeably narrower across the thorax and abdomen, giving them a more delicate-looking appearance. We expected a bug that had been growing for 17 years to be larger.

Emerging cicada nymphs congregate to climb the nearest vertical surface.

Andrew (6) and Ben (4) collecting the friendly cicadas.

Our sons described *Magicicada* wings as clear with a golden-orange colour trimming. Since only the males sing, and "buzz" an alarm call when handled, our sons began using the alarm buzz to sex them before stashing them in their over-sized bug collector.

As for cicadas at the zoo, there was no need to look elsewhere, and we laughed remembering the earlier comment "Wait 'til you get here." There amongst all the other animals of interest to our sons were the cicadas, clinging to the vegetation. The ground of the flower-beds had a characteristic shot-hole look from the cicada emergence tunnels. The holes opened flush with the ground, and we did not see any "chimney" structures around the edges. Nymphal skins were covering the bushes (every type) and adults were also up in the branches of many different kinds of trees. The flying adults that we observed, flew low to the ground and slow enough to gently land on a person's shoulder without startling them. Our impression of public reaction was that people seemed to get a kick out of them. There was a common tolerance for these red-eyed wonders. In terms of numbers I would think Cincinnati must have at least a billion in the city; a few million at the zoo.

I am so glad we did this as a family! Andrew and I took some of the dead adults he collected to school on Tuesday to showed his friends.

Periodical cicada adults live approximately 6 weeks (usually the end of June). Brood number ten has the largest and most widespread emergence of the 12 broods of periodical cicadas in the north-eastern US. The Brood X range extends to southern Michigan. Consider taking a road trip to see these cicadas and when you return, write about your cicada adventure and send it in for the Fall edition of the ESO Newsletter.

In 2008, Cincinnati's second brood (Brood XIV) of 17-year periodical cicadas will emerge on the city's east side.

Happy Collecting!

Dana Gagnier

Periodical Cicada Links:

The University of Michigan Museum of Zoology's Periodical Cicada Page:
http://insects.ummz.lsa.umich.edu/fauna/michigan_cicadas/Periodical/Index.html
Excellent information, contains audio files of all *Magicicada* spp. mating calls.

Cicada Watch 2004: **http://www.msj.edu/cicada/**

Quick Facts About Periodical Cicadas (National Geographic):
http://news.nationalgeographic.com/news/2004/03/0330_040330_cicadafacts.html

Cincinnati Cicadas 2004: **http://www.cincinnati.com/freetime/cicadas/**

New to the ESO Newsletter . . . .

HOMEMADE ENTOMOLOGY EQUIPMENT: Plastic Insect Cages

I'm hoping that this article might be the beginning of a 'cheap chic' column on making equipment to do our work better and/or more cheaply. Send in your pet 'minor' techniques. Your colleagues will benefit from your ingenuity!

Today, I'm going to discuss how to make enclosures for caging insects on individual plants or plant parts. At the Bio-control Lab at Guelph, we used plexiglass cylinders for this purpose. Each one was very expensive (and heavy), and many experimental designs dictated that we would need 20-100 cylinders for each trial. Last summer, as the 'Bug Wrangler' for the production of the TV show 'The Secret World of Gardens', I needed to keep/rear a variety of insect 'starlets' on intact plants until we could film them for the show, and I did not have the budget to purchase the deluxe plexiglass tubes.

Let's get to work ...

Materials

1. Substantial numbers of 3.78L, plastic juice containers.
2. A raging passion for fruit juice, a lot of thirsty friends, or kids.
3. A hot glue gun and glue sticks.
4. A fine mesh screening material (I like Dacron sheer curtain material).
5. Good scissors to cut the sheer material, and a SHARP Xacto-style cutting blade to cut the plastic containers. (A small pair of sturdy "dissecting" scissors will cut plastic pop bottles well.)
6. A few band-aids and a CAUTIOUS approach.

Methods

First, consume the contents of two or three of the juice containers. Go to the bathroom until you are comfortable enough to resume your work.

Notice the constriction in the bottle just above the 'main' part of the vessel. You will want to make your first cut about 1cm ABOVE the narrowest part of this constriction.

About making the cuts in this type of plastic ... If you try to cut it with your blade at a 90° angle to the surface, you will have to 'saw' the plastic. However, by positioning the blade at an acute angle to the surface, your blade will cut the plastic very easily, but UNPREDICTABLY!!! The blade will 'hot-knife-through-butter' on you, and you must work SLOWLY to keep your cuts close to where you want them to be. Watch out for 'blade leap' out of the plastic container and into YOU! Think about the direction of your cut, and where you are holding/supporting the bottle with your (tender!) fleshy bits.
Make the first cut to remove the top (save a few of the top sections with the plastic cap and handle in place). Now, turn the bottle over and look at the bottom. You want to cut the bottom out, but you must leave enough 'lip' to slightly overlap the 'flare' on the top of another cut bottle. Make both cuts on 1-3 bottles.

Bend/push/manipulate the flared top of one bottle so that it snaps inside the lip on the bottom of another one. Plug in your glue gun, hold the bottles so that the two surfaces are in contact and seal/glue the two bottles together. Use lots of glue, as this joint tends to come apart if the cage is moved often. You've just made the basic 'middle' unit of a multi-bottle cage. You can glue any number of bottles together to make a high-rise bug enclosure.

Various Sizes of Cages

Your cage needs a top and bottom. For the spout end of your high-rise (which will become the cage opening), cut this bottle on the taper about 5cm ABOVE the bulge over the constriction. Where you make this cut will determine the diameter of the opening of the cage, but be sure to leave enough lip to be able to bury the cage opening securely in the soil. These cages are best suited for being pushed into soil in a pot or in the field.

If you are going to be burying the opening in soil, this cut line doesn't need to be too precise. If you plan to rest the cage on a hard, flat surface, use a 'straight' cut. Use modeling clay or playdough for a seal between the cage and a flat surface.

For the top of your high rise (bottom of the juice bottles), leave a larger lip than you did on the middle bottles.

Nearly done! Cut a piece of sheer material to fit the bottom, and hot glue it to the cage. Cut several small panels out of the sides of the cage, and cover/seal these with the sheer material. These windows will ventilate the cage to maintain the ambient temperature of the surrounding environment, and not BAKE your host plant or your bugs.
There are endless variations on this basic theme. To make cages that can be sealed over a tree branch or plant stem, use a pop bottle and glue a tube (20-40 cm wide) of the sheer material to the cage opening. Now, you'll be able to slide the cage over a branch and seal it by fastening the sheer sleeve securely to the branch or stem. You can add a sleeve opening on the side of your cages if needed.

Pop Bottle Sleeve Cage

Make smaller cages by using different sized bottles. The design of the 'mega-juicers' facilitates the construction of high rises (the 'complementary' surfaces on these bottles increase the contact area between them for a more secure connection).

One problem with taller cages is they are not very wind-stable in open field environments. You'll probably need to tether them somehow. If the cage is being used on a potted plant, simply dig the lip into the soil and run tape from the cage to the outside of the pot. Creative work with nylon cord and hot glue can give you tethers that can be buried/staked in field applications.

Use the tops you saved from the middle bottles to make a carrying cage for collected insects. Tape a top onto a cage, carry it with the handle on the spout, and dump your specimens in through the capped opening. When it's time to liberate your bugs, tear off the tape holding the top in place and dump out your insects.

Cage as an Insect Carrier

I hope that you have fun making these cages, and you find them useful for experiments requiring a large number of caged plants. Unlike a fabric sleeve cage, these do not 'drape' on the plant, they offer better visibility into the cage and they are removed more easily without disturbing your 'subjects'. In my opinion, they are better suited to situations where insects must be caged on plants for sustained periods of time.

Have fun – be careful with the blade!

Jim Corrigan

Insects In the News

NEW: Asian Longhorned Beetle (*Anoplophora glabripennis*):
Details of the ALB situation in Toronto can be found on the CFIA website:
http://www.inspection.gc.ca/english/plaveg/protect/pestrava/asialong/asialonge.shtml

Emerald Ash Borer *(Agrilus planipennis)* :
http://www.inspection.gc.ca/english/corpaffr/newcom/2004/20040113e.shtml

Swede Midge *(Contarinia nasturtii)*:
http://www.gov.on.ca/OMAFRA/english/crops/facts/03-035.htm
http://www.inspection.gc.ca/english/plaveg/protect/pestrava/swedceci/contexte.shtml

West Nile Virus:
Health Canada website:
http://www.hc-sc.gc.ca/pphb-dgspsp/wnv-vwn/index.html#wnvgen

For information on collecting and submitting dead birds for analysis:
http://wildlife.usask.ca/WestNileAlertHTML/WestNileAlertEng5.htm

North American Plant Protection Organization:
Updates on new pests: http://www.pestalert.org/main.cfm

HELP US FIND OUR MISSING MEMBERS

The February 2004 issue of the ESO Newsletter was returned for the following members. If you know their whereabouts, please have them contact Dave Hunt to update their address:

Brenda Conley
Eleanor Fast
Johanna Kraus
Bharatkumar Patel
Shawna Peddle
Elizabeth Wanja

NEW: Photo Field Guide to Some Caterpillars of Southern Ontario

Ian Carmichael and Ann Vance
Published in 2004 by: St Thomas Field Naturalist Club Incorporated
(Box 23009, St Thomas, ON, Canada N5R 6A3)

Finding a name for those Ontario caterpillars just got easier with this new photo guide! At 10cm by 17cm this pocket-sized guide is as easy to carry as it is to flip through it's 72 pages of outstanding colour photographs. In addition to the caterpillar checklist on the inside cover, the guide contains colour photos of the caterpillars and adults of species from 18 families of Lepidoptera common to southern Ontario. Packed with information, the guide also includes details on key identification characteristics, size, life cycle, host plants, and time of year the caterpillar stage can be found in Ontario.

A copy of the guide can be purchased from provincial park gift shops and naturalist clubs throughout southern Ontario, or by writing the St Thomas Field Naturalist Club (address above). At $10 per copy, the guide is a great value. A portion of the sales are also used to fund the local programs of the organization the guide is purchased from. Funding for this project came from 16 southern Ontario organizations comprised of conservation areas, friends of provincial parks and naturalist clubs. **"The intent of the guide was to get the knowledge out to the young people, in hopes that it might lead to protection down the road,"** said Carmichael, who has co-authored two previous photo guides for southern Ontario. Previously published guides include one for Dragonflies and Damselflies, in 2002 (now out of print), and Butterflies, in 2003 (also co-authored with Vance). The photos in the guides are largely from the slide collection of Carmichael and Vance. You'll also notice a number of ESO member names in the acknowledgements for their help in reviewing the technical contents of the guide!

Thank you to ESO member Gabriella Zilahi-Balogh for bringing this new guide to my attention.

Enjoy the caterpillars this summer!

Dana Gagnier

New to the ESO Newsletter . . . .

Graduate Position Announcements

GRAD ADS

MSc AND PhD PROJECTS

MOLECULAR ECOLOGY AND BIODIVERSITY OF SOCIAL SWEAT BEES AND CARPENTER BEES

One of the most interesting aspects of animal sociality is the evolution of cooperative behaviour, which is observed in many different kinds of animals, from bees to humans. In extreme cases such as colonial social insects, individuals known as workers or soldiers display a remarkable degree of self-sacrifice in aiding other individuals, foregoing reproduction or even dying to defend the colony. The existence of altruism in insects and other animals poses a fascinating evolutionary conundrum: how does reproductive altruism evolve when altruists contribute fewer genes to succeeding generations than do the selfish individuals that they help? Finding answers to this question is the main focus of research in my lab. Our studies involve laboratory and field methods, including molecular techniques (microsatellite analyses, DNA sequencing), behavioural studies, and ecological approaches.

Students interested in discussing the possibilities for MSc or PhD projects beginning in September 2004 or January 2005, should contact

Dr. Miriam Richards
Department of Biological Sciences
Brock University
St. Catharines, Ontario L2S 3A1
Phone: 905 688 5550 x4406
Email: miriam.richards@brocku.ca

Advertise **Ontario Graduate Student Positions** *here* in the **GRAD ADS** section of the ESO Newsletter.

Spread the word about this new feature. Mention the **GRAD ADS** to a grad student or a colleague wishing to hire a grad student!

The ESO membership is brimming with today's brightest Students.

Send Graduate Student Advertisements to: Dana Gagnier, gagnierd@agr.gc.ca

PREFER AN ELECTRONIC COPY OF THE NEWSLETTER?

Email Dave Hunt or Dana Gagnier! We are preparing an electronic distribution list of members wishing to receive only the electronic notification for the ESO Newsletter. We will be creating the distribution list from these email messages. Enjoy the colour pdf version on our website and help to save a few trees. (www.entsocont.com)

Upcoming Events: Entomology in your 'hood!

Toronto Entomologist's Association

Website: http://www.ontarioinsects.org/who%20we%20are.htm#OI

The TEA conducts a number of summer field trips and insect counts throughout Ontario. Everyone is welcome on the counts, whatever your skill level. There is no fee. Please join us!

Summer Field Trips

For more information on summer field trips visit: http://www.ontarioinsects.org/images/Field_Trips04.pdf

Insect Counts (for Butterflies or Dragonflies)

For dates and locations near you in Ontario visit: http://www.ontarioinsects.org/images/Insect%20Counts%202004.pdf

141st Annual Meeting of the ESO - Brock University, St. Catharines, ON - Nov 5-7, 2004

Meeting Theme: Ancient Insects *(see front page of this newsletter)*
For information, contact Dr. Fiona F. Hunter(hunterf@brocku.ca) or Dr. Miriam Richards (miriam.richards@brocku.ca)

MEETINGS: OUTSIDE ONTARIO

54th ESC Annual Meeting
Joint Meeting of the Entomological Society of Canada and the Acadian Entomological Society, 15-18 October 2004, Rodd Charlottetown Hotel, Charlottetown, Prince Edward Island
Meeting Theme: Insects in our Landscape
Website: http://www.acadianes.org/2004meeting.htm

ESA Annual Meeting, November 14-17, 2004, Salt Palace Convention Center, Salt Lake City, Utah
Website: http://www.entsoc.org/annual_meeting/2004/ameeting.htm

XXII International Congress of Entomology, 15-21 August 2004, Brisbane, Australia
Website: http://www.ccm.com.au/icoe/index.html

Forest Diversity and Resistance to Native and Exotic Pest Insects (IUFRO conference), 10-13 August, 2004, Hanmer Springs, New Zealand
Website: http://iufro.boku.ac.at/iufro/iufronet/d7/wu70307/nz/