

Bulletin

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Images

Sur le dos : Le dendroctone du pin ponderosa, *Dendroctonus ponderosae* Hopk. (Curculionidae), une espèce épidémique qui détruit périodiquement de grandes surfaces de pinèdes dans l'ouest de l'Amérique du Nord. Photo : D. Linton.

Sous le titre : La likenée blanche, *Catocala relictata* Wlk. (Noctuidae), se nourrit de peupliers, de trembles et de saules. Photo : A. Carroll.

1. Récolte de scolytes (Curculionidés) dans un piège à entonnoir Lindgren à Angstad Creek, près de Merritt, Colombie-Britannique. Photo : J. Smith.

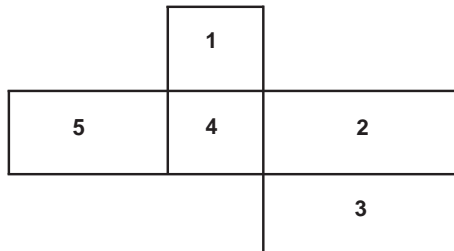
2. *Leptomantispia pulchella* (Banks) photographié à Ojibway Prairie à Windsor, Ontario. L'espèce n'est par ailleurs connue au Canada que de la vallée de l'Okanagan. Photo : S. Marshall.

3. Puceron de l'épinette de Sitka, *Adelges cooleyi* (Gill.) (Adelgidae), exule parthénogénétique avec ses oeufs sur sapin Douglas. Photo : B. Bains.

4. *Formica aserva* Forel (Formicidae), une fourmi agressive qui niche dans les grands débris ligneux partout au Canada, portant une nymphe. Photo : R. Higgins.

5. Cécidomyie du blé, *Sitodiplosis mosellana* (Géhin) (Cecidomyiidae), femelle. Photo : R. Lamb.

Plat inférieur : *Tetragnatha viridis* Walck. (Tetragnathidae), seule araignée orbitèle à grands appendices buccaux et à couleur vert brillant au Canada; sa répartition s'étend vers le sud de l'est de l'Ontario et de la Nouvelle-Écosse jusqu'à la rive nord du golfe du Mexique. Photo : M. Larrivée.





This past year has gone by very quickly and I can hardly believe that this is my last “Up front” article. It gives me great pleasure to congratulate our 2007 Gold Medal winner, Cedric Gillott, and our 2007 Hewitt Award winner, Maya Evenden. The Gold Medal is awarded for outstanding achievement in Canadian entomology and Cedric Gillott was chosen in recognition of his major contributions in insect reproductive physiology. It is especially appropriate that he will receive the Gold Medal in Saskatoon as he spent much of his career at the University of Saskatchewan. The Hewitt Award recognizes exceptional contributions by an entomologist under the age of 40. As part of the Department of Biological Sciences at the University of Alberta, Maya Evenden studies the chemical ecology of mate finding in Lepidoptera and how sex pheromones can be used in IPM against moth pests.

I encourage all members to access <http://tce-future.wikispaces.com/>. Paul Fields has set up this internet site as a forum to stimulate discussion on the future of *The Canadian Entomologist (TCE)*. Not only is the journal facing declining revenues and increasing costs, but there are fundamental changes in scientific

Cette dernière année est passée très vite et je peux difficilement croire qu’il s’agit déjà de mon dernier « Avant-propos ». Je suis très heureuse de féliciter le gagnant de la Médaille d’Or de 2007, Cédric Gillott, et la gagnante du prix Hewitt de 2007, Maya Evenden. La Médaille d’Or est attribuée pour un accomplissement extraordinaire en entomologie au Canada, et le Cedric Gillot a été choisi en reconnaissance de ses contributions majeures en physiologie de la reproduction chez les insectes. Il est particulièrement approprié pour lui de recevoir la Médaille d’Or à Saskatoon puisqu’il a passé la majorité de sa carrière à l’Université de Saskatchewan. Le prix Hewitt reconnaît les contributions exceptionnelles d’un entomologiste de moins de 40 ans. En tant que membre du département des Sciences Biologiques de l’Université de l’Alberta, le Maya Evenden a étudié l’écologie chimique de la recherche de partenaires sexuels chez les Lépidoptères et la façon dont les phéromones peuvent être utilisées en lutte intégrée contre certains lépidoptères ravageurs.

J’encourage tous les membres d’accéder au site suivant <http://tce-future.wikispaces.com/>. Paul Fields a construit ce site Internet sous forme de forum pour stimuler les discussions sur le futur de *The Canadian Entomologist (TCE)*. Non seulement le journal fait face à des pertes de revenus et des hausses de coûts, mais il y a des changements fondamentaux dans la publication scientifique en général, avec un passage au média électronique. Depuis que la publication de *TCE* est une de nos activités principales, nous avons besoin de tous les commentaires possibles sur les options possibles. Veuillez vous référer à l’article plus détaillé présenté dans ce *Bulletin*.

Récemment, en reconnaissance de l’importance de la nomenclature et de la systématique, la SEC est devenue une affiliée de la « International Commission on Zoological Nomenclature » (ICZN). Cette commission a été fondée en 1895 et est située au Musée d’Histoire Naturelle de Londres,

publication in general, with a move to electronic media. Since publishing *TCE* is one of our main activities, we need all the feedback we can get on the options presented. Please refer to the more detailed article published elsewhere in this *Bulletin*.

Recently, in recognition of the importance of nomenclature and systematics, ESC became an affiliate of the International Commission on Zoological Nomenclature (ICZN). The Commission was founded in 1895 and is based at the Natural History Museum in London, UK. It publishes the International Code of Zoological Nomenclature which contains the rules governing the application of scientific names to all organisms which are treated as animals, and provides rulings on individual nomenclatural problems. ICZN produces the *Bulletin of Zoological Nomenclature*, in which issues needing a formal decision by the Commission are published for discussion by the zoological community. Check out their website at <http://www.iczn.org/>.

Don't forget that the joint annual meeting of the Entomological Society of Canada and the Entomological Society of Saskatchewan is taking place between 30 September - 3 October 2007. The theme of the meeting is "Insects: Microscale Subjects for Megascala Research" and the two symposia, "Insect-Microbe Interactions" and "Basic and Applied Aspects of Neuroethology" should be interesting. The meeting includes a trip to Wanuskewin Heritage Park, a world-famous facility designed to increase understanding and awareness of the Northern Plains First Nations. I look forward to seeing everyone in beautiful Saskatoon.

In closing, I want to point out that our Society runs smoothly thanks to the large numbers of volunteers who do so many different things. I have to acknowledge in particular the generous and patient support of Rick West, Pat Bouchard and Derna Lisi, ESC Secretary, Treasurer and Office Manager respectively. Véronique Martel and the Bilingualism Committee were always efficient at translating any document sent their way, and a pleasure to work with too. Sincere thanks also to Robb Bennett, new

au Royaume-Uni. La commission publie le code international de nomenclature zoologique contenant les règles qui gouvernent l'application de noms scientifiques à tous les organismes considérés comme des animaux, et présente les règles concernant les problèmes de nomenclature individuels. L'ICZN publie le *Bulletin of Zoological Nomenclature*, dans lequel les problèmes nécessitant une décision formelle par la Commission sont publiés pour discussion par la communauté zoologique. Vous pouvez jeter un œil à leur site Internet : <http://www.iczn.org/>.

N'oubliez pas que la réunion annuelle conjointe de la Société d'Entomologie du Canada et de la Société d'Entomologie de la Saskatchewan prendra place du 30 septembre au 3 octobre 2007. Le thème de cette année est « Les insectes : petits sujets pour de grandes recherches » et les deux symposia, « Interactions insecte-microbe » et « Aspects fondamentaux et appliqués de la neuroéthologie » devraient être intéressants. La réunion inclut une visite au parc Wanuskewin, un site reconnu mondialement visant à augmenter la compréhension et la sensibilisation aux premières nations du Nord des prairies. J'ai hâte de voir tout le monde dans cette belle ville de Saskatoon.

En terminant, j'aimerais mentionner que notre Société roule tout en douceur grâce aux nombreux volontaires qui accomplissent une variété de tâches. Je remercie particulièrement le support généreux et patient de Rick West, Pat Bouchard et Derna Lisi, respectivement secrétaire, trésorier et gestionnaire. Véronique Martel et le comité du bilinguisme sont toujours efficaces à traduire tous les documents qui leur sont envoyés, et c'est également un plaisir de travailler avec eux. Sincères remerciements également à Robb Benett, le nouveau rédacteur en chef de *TCE* et Kevin Floate, le nouveau rédacteur du *Bulletin*. Parlant du *Bulletin*, Marj Smith quittera son poste de rédactrice adjointe du *Bulletin* à la fin de 2007. Merci Marj d'être restée afin d'aider Kevin Floate durant sa première année! Nous sommes donc à la recherche d'un nouveau rédacteur adjoint pour notre *Bulletin*, alors contactez Kevin si

Editor-in-Chief of *TCE* and Kevin Floate, our new *Bulletin* Editor. Speaking of the *Bulletin*, Marj Smith will be stepping down as Assistant *Bulletin* Editor at the end of 2007. Thanks Marj for staying to help Kevin Floate through his first year! We now need a new Assistant Editor for our *Bulletin* so please contact Kevin if you are interested (floatek@agr.gc.ca). I'd also like to thank the new *TCE* Divisional Editors, Yvan Pelletier, Chris Buddle and Gilles Boiteau, and the outgoing Divisional Editors Donald Lafontaine, Michel Cusson, David Gray and Vasily Grebennikov. Finally, I forgot to say thanks to a number of people in my first "Up front", so on behalf of ESC, I want to acknowledge Richard Ring, Sandy Devine and Paul Fields for their years of service as Editor-in-Chief of *TCE*, Office Manager and *Bulletin* Editor respectively.

And to everyone, my personal thanks for a great year!

vous êtes intéressés par le poste (floatek@agr.gc.ca). J'aimerais également remercier les nouveaux rédacteurs associés de la *TCE*, Yvan Pelletier, Chris Buddle et Gilles Boiteau, ainsi que les rédacteurs déjà présents, Donald Lafontaine, Michel Cusson, David Gray et Vasily Grebennikov. Finalement, j'ai oublié de remercier un grand nombre de personnes dans mon « Avant-Propos », alors au nom de la SEC, j'aimerais dire un grand merci à Richard Ring, Sandy Devine et Paul Fields pour leurs années de service respectivement en temps que rédacteur en chef du *TCE*, gestionnaire de bureau et rédacteur du *Bulletin*.

Mes sincères remerciements à tout le monde pour cette année magnifique!"

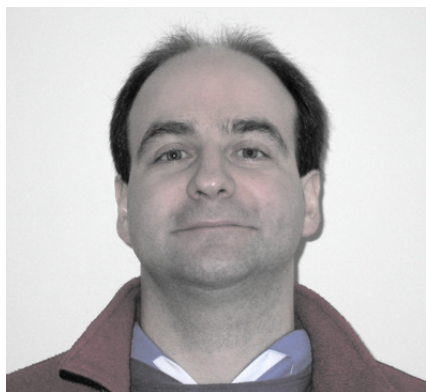


Bob Lamb

Forficula auricularia L., female European earwig guarding larvae.

Moth balls / Boules à mites

By Andrew Bennett



DEET (pour Homme)

The fields of entomology and fashion are not exactly complete opposites, but as a couple, they would not seem out of place at a dance where black and white, night and day, and Homer Simpson and Ned Flanders were all slow-dancing cheek to cheek. Nevertheless, people working around insects do generally wear clothes, therefore I thought it would be interesting to investigate this apparent paradox. What kind of clothes do those working around insects wear? One either thinks of baggy, uncomfortable clothing designed for the sole purpose of preventing insects from drawing blood or of lab-coats, hip waders and faded t-shirts bearing Far Side cartoons. Just to be clear, the lab-coated, Far Side description is the public's perception of entomologists (in case anybody was confused about this). In my continuing efforts to provide help to entomologists and others working around insects, this issue's column provides

Andrew Bennett is a research scientist with Agriculture and Agri-Food Canada in Ottawa working on the taxonomy of Ichneumonidae. He received his PhD at the University of Toronto. Contact details: e-mail: bennetta@agr.gc.ca, telephone: (613) 759-1900.

a simple questionnaire that may highlight if you should be concerned about any imminent visits from the fashion police. Please answer the following questions, giving yourself one point for each "yes" unless otherwise noted.

Part A

- 1) Do you own more than one t-shirt with an insect other than a butterfly depicted on it?
- 2) Do you own more t-shirts with insects depicted on them than t-shirts without insects on them? (2 points)
- 3) Have you ever searched the internet or biological supply catalogues for a D-net that accessorizes well with your hip waders?
- 4) Do you own more pairs of forceps than dress pants / skirts?
- 5) Has anybody ever commented that you smell like moth balls?
- 6) If you answered 'yes' to 5, did you thank them for the compliment?
- 7) In choosing pants, do you consider the size and number of pockets your number one priority?
- 8) Have you ever suffered frost bite by forgetting to change out of your lab coat when going outside in February?

Part B

- 9) Do you own any garments made entirely of mosquito netting?
- 10) If you answered 'yes' to 9, are any of your items worn below the waist (pants, socks, etc.)?
- 11) If you answered 'yes' to 10, have you ever worn these items anywhere where you may be seen by other people?
- 12) Have you ever worn adhesive glue patches on the back of a hat in order to catch deer flies? (See <http://www.flypatch.com> for photos of these fashion violations).
- 13) If you answered 'yes' to 12, what is the threshold number of flies that would prevent you from wearing your glue patch-endowed hat to dinner?

- a) zero (one point)
- b) one to ten (two points)
- c) no threshold (three points)

14) Have you ever applied adhesive glue patches directly to your head or body?

15) Have you ever considered wearing DEET-based repellents as cologne?

16) Have you ever found bee keeper outfits strangely alluring?

Scoring

0 points: You may wish to try going outside some time. It's through the door that leads to the very large room with the extremely high, blue ceiling.

1 to 5 points: You are a likely a moderately well-adjusted individual with the correct balance between practicality in your wardrobe and not looking like a complete dork.

6 to 10 points: You are an ento-nerd. Get thee to a nerdery!

10+ points: You are well-placed at the forefront of the inevitable entomologically-inspired fashion revolution that is bound to hit the runways of Europe any time soon. I would be quite confident that Jean-Paul Gaultier and Alexander McQueen (among others) will soon be knocking down your door for advice on their next collections.

Join me next issue when I will once again distribute a fine dusting of Moth Balls to keep the proverbial clothes moths at bay.



Seeking Assistant *Bulletin* Editor

The Entomological Society of Canada is looking to fill the position of Assistant *Bulletin* Editor. The duties would cover, but not be limited to, finding new material for the *Bulletin*, taking charge of some of the columns and proof-reading galleys.

The ability to work in both French and English would be an asset. The Assistant *Bulletin* Editor would be a Trustee of the Society and a member of the Governing Board.

Please express your interest in the position to *Bulletin* Editor, Kevin Floate (for contact details see the inside of the back cover), by **31 October 2007**. The final selection will be made by an ad hoc committee convened by the President of the ESC, Peggy Dixon.

À la recherche d'un assistant ou assistante à la rédaction

La société d'entomologie du Canada cherche à combler le poste d'assistant à la rédaction du *Bulletin*. Les tâches comprennent, entre autres, la recherche de matériel neuf pour le *Bulletin*, la responsabilité de certaines sections et la révision la révision des épreuves.

La capacité de travailler en français et en anglais serait un atout. L'assistant à la rédaction serait un fiduciaire de la Société et membre du conseil d'administration.

Si ce poste vous intéresse, veuillez communiquer avant le **31 octobre 2007** avec le rédacteur du *Bulletin*, Kevin Floate, dont les coordonnées figurent à l'intérieur de la page dernière de ce numéro. La sélection finale sera faite par un comité ad hoc convoqué par le président de la SEC, Peggy Dixon.

Meeting announcements / Réunions futures

Joint Meeting of the Entomological Society of Canada and the Entomological Society of Saskatchewan

Saskatoon, Saskatchewan, Canada, 30 September - 3 October 2007
<http://www.sfn.saskatoon.sk.ca/science/ess/ESS-ESC/intro.html>

Insect Rearing Workshop

Mississippi State University, Starkville, Mississippi, 21-26 October 2007
<http://www.msstate.edu/Entomology/resources/Rearingwksp.html>

134ème réunion annuelle de la Société d'entomologie du Québec

Lac Delage, Québec, Canada, Du 25 au 26 octobre 2007
http://www.seq.qc.ca/accueil_fr.htm

55th Annual Meeting of the Entomological Society of Alberta

Olds, Alberta, Canada, 25-27 October 2007
<http://www.biology.ualberta.ca/courses.hp/esa/meet2007.htm>

144th Annual Meeting of the Entomological Society of Ontario

Sault Ste. Marie, Ontario, Canada, 26-28 October 2007
http://www.entsocont.com/annual_meeting.htm

Joint Meeting of the Association of Natural Bio-control Producers with the ASTM subcommittee E35.30 on Natural Multi-Cellular Biological Control Organisms, and the International Biocontrol Manufacturers Association Invertebrate Biocontrols Group

Montreal, Quebec, Canada, 28 October – 1 November 2007
http://www.anbp.org/joint_meeting.htm

“Biocontrol Without Borders”, Collaborative Symposium of the International Organization for Biological Control Nearctic Regional Section & the Neotropical Regional Section & the Mexican Society for Biological Control

Merida, Yucatan, Mexico, 13-15 November 2007
<http://entomology.uark.edu/iobcsymp.html>

55th Annual Meeting of the Entomological Society of America

San Diego, California, USA, 9-12 December 2007
http://www.entsoc.org/annual_meeting/current_meeting/index.htm

XXIII International Congress of Entomology

Durban, South Africa, 6-12 July 2008
www.ice2008.org.za



Future Directions for *The Canadian Entomologist*

Paul Fields, David Shorthouse and
Dan Quiring

The Challenge

The *Canadian Entomologist* (*TCE*) is an important part of the Entomological Society of Canada. It is a highly successful journal, publishing about 800 pages a year in six volumes, with an Impact Factor of 0.67. However, *TCE* is facing declining revenues and increasing costs (Fig. 1), making it financially unsustainable in the long term. Over the last 10 years, the number of *TCE* subscribers have dropped by 30% (from 422 to 288, Fig. 2.), and total membership in the ESC has dropped by about 20% (from 553 to 445, Fig. 3). Concomitant with this decline in readership are fundamental changes taking place in scientific publication. Authors and readers are turning to electronic media to publish and receive information.

The Executive of the ESC has asked Paul Fields and Dan Quiring to investigate ways to deal with the finance crisis facing *TCE* and the opportunities offered by electronic media. We see three basic options available to the ESC. These are:

- **Status Quo:** Continue to publish print and electronic *TCE*, but reduce costs and increase revenues. ESC shall maintain ownership.

- **Sell Off:** Transfer ownership and financial liability to a publisher such as NRC Research Press, Blackwell or Elsevier.

- **Electronic-Only:** Make principal means of accessing *TCE* by electronic media. Stop wide-spread distribution of printed *TCE* but print a few copies for archiving in a few key libraries.

Status Quo

For this scenario, the ESC would maintain the present structure, which is print and mail

hard copies, maintain back issues and make available electronic versions of reprints. ESC members and institutional subscribers would continue to pay to access print or electronic copies. *TCE* would be made financially sustainable either by cutting costs or increasing revenues. The costs are: printing, copy editing, mailing and office manager and Editor's office. The revenues are: institutional subscriptions (\$250 US/yr, or \$200/yr in Canada), author page charges (\$35/page), membership dues, reprint sales and back issues.

Advantages

- Known model of publication that has worked since 1868.
- No fundamental change in *TCE*.
- Paper proven media for archiving information, ease of access, stable technology.

Disadvantages

- Difficult to reverse the trend of decreasing institutional subscriptions.
- Current format does not permit electronic-only media such as spreadsheets, video or audio attachments.
- Need to find other sources of revenue.

Steps To Take

- Detailed look at *TCE* revenues and expenditures.
- Proposals to increase revenues or decrease expenditures.

NRC Research Press saw little that can be done to cut costs. However, they had some suggestions that may increase revenue. NRC Research Press has observed similar declines in their institutional subscriptions of about 5%/year.

Sell Off

For this scenario, the ESC would transfer ownership of *TCE* to a professional publisher. ESC presently contracts NRC Research Press (publisher of *Canadian Journal of Zoology*) to print *TCE*, and this contract expires in

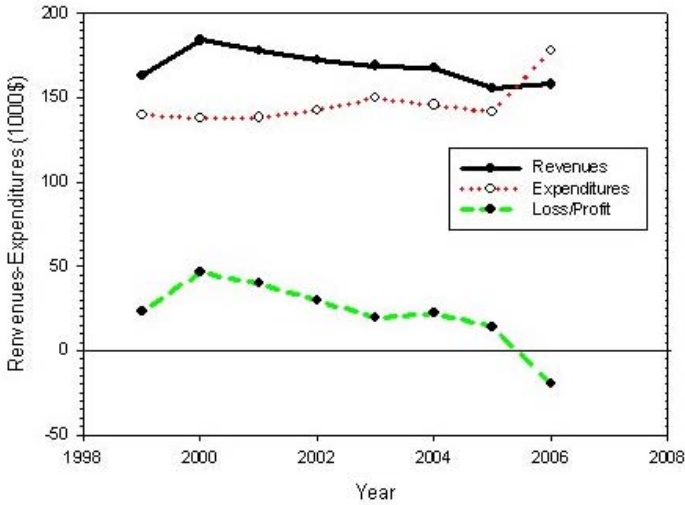


Figure 1. The recent increase in expenditures reflects increased mailing and printing costs. More pages were printed in 2006 (901 pages) compared to 2005 (763 pages). Decline in revenues reflect the increase in the Canadian dollar and the decline in international subscriptions.

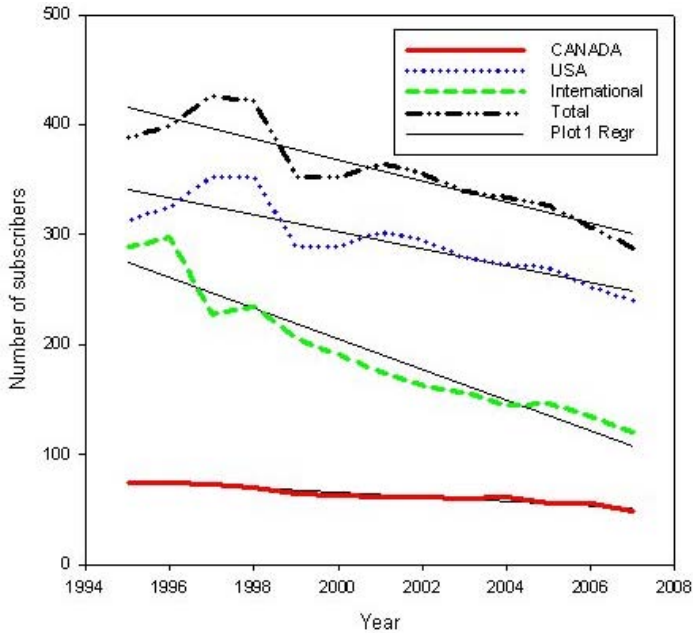


Figure 2. The decline in subscriptions is about 25 per year (2 for Canada, 8 for USA, 14 for International).

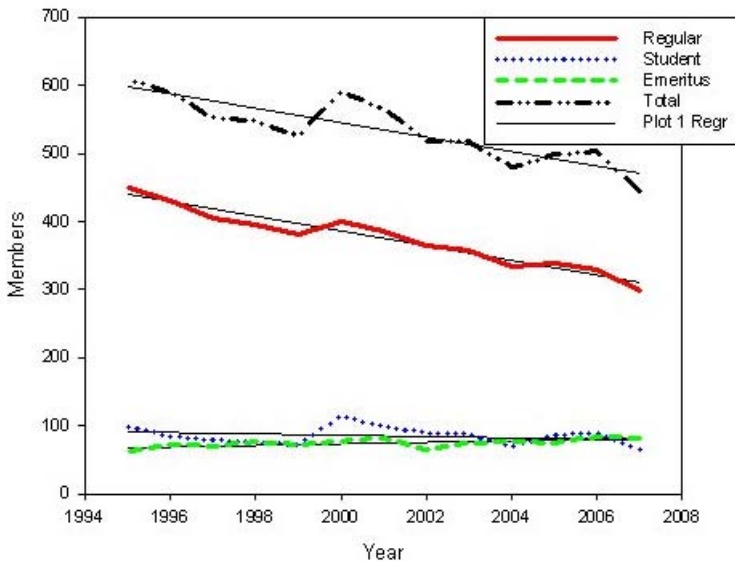


Figure 3. The decline in membership is about 11 per year (11 regular, 1 student, 1 emeritus (increase)).

December 2009. ESC is the publisher and it appoints the Editorial Board and the Publications Committee that determine the style and content of *TCE*. ESC head office handles the billing of institutional subscribers, manuscript submissions, back issues and reprints. ESC could transfer ownership of the *TCE* to a professional publisher such as NRC Research Press, Elsevier or Blackwell Publishing.

The Entomological Society of Australia (<http://www.blackwellpublishing.com/journal.asp?ref=1326-6756&site=1>) recently sold its journal to Blackwell Publishing, and there have been mixed reviews of this transfer.

Advantages

- Not financially responsible for losses generated by the *TCE*.
- Professional publisher may be better at stopping slide in subscription rates.
- Professional services for promotion of *TCE*.
- ESC no longer needs to invoice subscribers and authors.

Disadvantages

- Lose control of *TCE*.
- *TCE* could increase in cost to libraries and members.
- No profits from *TCE*. Until recently *TCE* generated profits for ESC.
- Some members may be against selling *TCE* to a commercial publisher.

Steps To Take

- Determine the terms under which ESC would relinquish ownership of *TCE*.
- Get details of the sale the *Australian Entomologist* to Blackwell Publishing.

NRC Research Press is willing to discuss transfer of ownership for *TCE*. Their latest acquisition was *Applied Physiology, Nutrition, and Metabolism*.

Electronic-Only

For this scenario, the ESC would make the principal means of accessing *TCE* the Internet and would cease wide-spread distribution

of print copies. Issues would be printed for archival purposes and distributed to several libraries e.g. Canadian Agricultural Library (Agriculture and Agri-Food Canada), University of Guelph, Smithsonian and Europe. A print-on-demand company could be contracted to produce paper versions for individuals and libraries. The electronic version could be open access (no cost for readers), delayed open access (members and subscribers exclusive access for limited time eg 1 year) or paid access (members and subscribers only). An electronic copy does not eliminate production costs. Copy editing and layout still need to be done and this must not be left to volunteers. Depending on what is most desirable, there may also be additional costs to produce an electronic version to accommodate full-text search, linking of references, and receipt of public or registered user comments.

Advantages

- Richer selection of media: spreadsheets, software, video and audio.
- No extra cost for colour.
- Publicly funded scientists in USA may have to publish in open access journals.
 - Reduction in costs of printing and mailing *TCE*.
 - Open access would reduce costs associated with billing, both of password protected site.
 - Open access increases exposure and citation rates.
 - Quicker publishing of articles once copy editing finished.
 - Persistent linking and discoverability.
 - Facilitate access to emerging trends (e.g. TaxonX for taxonomic treatment mark-up).
 - Page limits can be lifted.

Disadvantages

- Print copy would not be widely available.
- Possible loss in confidence in *TCE* as source of reliable information because no print journal has yet made the transition to electronic-only publication.
 - Loss in revenues from institutional sub-

scribers if ESC proceeds with fully open access model for delivery.

- Need computer and Internet to access information.
- Need to occasionally modify electronic format to ensure greatest possible accessibility.
- Still need to pay for copy editing.
- Extra cost of preparing for electronic format.

Steps To Take

- See if other journals have gone from print to electronic-only.
- Estimate costs of electronic-only: copy editing, formatting for electronic manuscript, print-on-demand or short run printing.
- Estimate revenues from electronic-only: page charges, web advertising, delayed access.

NRC Research Press estimates that transitioning delivery to electronic-only will reduce costs by 30-35%. They have an in-house printer and estimate that it will cost approximately \$12/issue, or \$72/year plus postage to perform print-on-demand.

Electronic Versions of Back Issues

Currently *TCE* is available back to 2003 in electronic format. Issues before that are only available in print. The *Memoirs of the Entomological Society of Canada* are only available in print and the *Bulletin* is available electronically only since 2002. Some of the back issues of the *Memoirs* are out of print but are still being requested. Studies have shown that making back issues available online increases the citation of these articles by 7-200%. One solution is to digitally scan out-of-print back issues and make these electronic versions available.

JStore is a not-for-profit organization that will scan entire back-issues of journals and make these available on-line. They also provide indexing of titles, authors and abstracts, and full text search after having used Optical Character Recognition. They also store

original paper copies at the California Digital Library and Harvard Depository. Currently, there are 600 scholarly journals in JStore.

Another company that does scanning of back-issues is Thomson Gale. However, there are currently no entomological journals. There are some science-related journals, but the apparent audience is public libraries and high schools.

We could do the scanning ourselves, hire someone or have Derna Lisi, the ESC office manager do it and post it on our web site. This may be a stop-gap measure for the requested back-issues that are currently unavailable.

NRC Research Press is doing this for its own journals and we have asked them to estimate costs for doing this for *TCE* and the *Memoirs*.

One problem with scanning and making *TCE* available electronically is that ESC does not have copyright for most of the *TCE*. Until recently, authors owned copyright.

Steps to Take

- Get quotes on costs and commitments for scanning by various means.
- Make recommendation to Executive, Editor of *TCE* and Publications Committee.
- Start process of chosen method by December 2007.

Robb Bennett, Editor-in-Chief of *TCE*, is moving *TCE* to a system for electronic submission and review. The editorial board of *TCE* is currently reviewing Open Journal System <http://pkp.sfu.ca/?q=ojs>, a program developed by Simon Fraser University.

We look forward to your input either at the upcoming meeting in Saskatoon this fall, or via the web site <http://tce-future.wikispaces.com/> that we have set up to act as a focal point for the discussion.



R. Spooner

The llama louse, *Microthoracius mazzai* (Anoplura: Microthoraciidae). Actual size is 1-2 mm.

ESC 2007 award winners / Gagnants des prix SEC 2007

Gold Medal Award Cedric Gillott

The 2007 recipient of the Entomological Society of Canada's Gold Medal for Outstanding Achievement in Canadian Entomology is Dr. Cedric Gillott. This award is presented in recognition of his major contributions as an eminent scientist and Professor (now Emeritus) in the area of insect reproductive physiology and neuro-endocrine control of reproductive organ function. Although retired from teaching, Cedric Gillott continues his distinguished and productive research career, to date having publishing 86 papers in peer reviewed journals, including 65 papers related directly to his chosen field of expertise, insect reproductive physiology. Cedric has generated a significant body of research on the reproductive biology of the migratory grasshopper, *Melanoplus sanguinipes* (Fabricius). It is through this major body of work that he has greatly advanced the understanding of the role of male accessory glands in the reproductive success of insects in a broader context. However, the disciplinary scope of his entomological career extends well beyond his in-depth expertise in Orthoptera. Through supervision of, and collaboration with graduate students, Cedric has also co-authored twelve papers in applied entomology, six papers on insect pathology and biological control, and three papers in aquatic entomology. Perhaps Cedric's greatest achievement in this category is the publication of his textbook *Entomology*; first published in 1980, the 3rd edition was released in July 2005. Cedric has very successfully incorporated the latest research and current theories of fields as diverse as molecular taxonomy and ecology into each of the subsequent editions of this basic entomology textbook. This book has become a standard for introductory and advanced courses in entomology in university departments across North America and indeed the world.



Marilynn Mierau

Cedric was the recipient of over 70 competitive grants and awards during his academic career totaling more than \$1.3 million, including nearly a 30-year uninterrupted span in funding from the Natural Sciences and Engineering Research Council of Canada. As indicated above, his main academic research focus has been in the area of insect reproductive physiology and endocrinology, a field in which he has garnered an international reputation as a recognized expert. In addition, he has also successfully conducted applied research related to integrated pest management systems and monitoring of insect populations with funding from provincial agencies and industry.

Cedric has a distinguished career as an educator at the University of Saskatchewan. Throughout his tenure he contributed to the teaching of basic biology, introducing the fundamental concepts of animal biology to a broad range of students from biology majors to agriculture, kinesiology, veterinary and medical students. He also developed a novel approach for independent study of introductory zoology in the 1970s; a prototype of the on-line course format of today. Cedric was integral to the university's biology curriculum, regularly teaching senior level courses in general entomology, cell physiology and zoology. He

was also instrumental in the development of special advanced courses including Comparative Endocrinology and Insect Structure and Function. In addition to inspiring students of entomology in the classroom, the publication of his textbook *Entomology* has undoubtedly had even more of a wide-ranging impact on the teaching of entomology.

Cedric continues to be very active in the education and mentorship of graduate students. Nominally retired, he still teaches his graduate course titled Advanced Insect Physiology, and supervises several graduate students with enthusiasm and vigor. Over the course of his career, Cedric has supervised nine PhD students and eleven MSc students with projects ranging from fundamental research on insect neuro-endocrine processes to more applied economic entomology issues. He has also supervised eight post-doctoral fellows in his laboratory. Throughout his exemplary career, Cedric has instilled the fundamentals of scientific enquiry, hypothesis testing, and scientific writing in young scientists while introducing them to innovative techniques in biochemistry and physiology.

Cedric's outstanding contributions to entomological research, the education of entomologists and biologists, and to entomological organizations make him eminently qualified to receive the Society's Gold Medal.

La Médaille d'Or Cedric Gillott

La Médaille d'Or 2007 de la Société d'Entomologie du Canada qui reconnaît les réalisations exemplaires d'un entomologiste canadien est décernée au Dr Cedric Gillott. Cette récompense est présentée en reconnaissance de ses contributions majeures en tant qu'éminent chercheur et professeur (maintenant émérite) dans le domaine de la physiologie de la reproduction chez les insectes et du contrôle neuro-endocrinien des organes de reproduction. Bien qu'il soit maintenant retraité de l'enseignement,

Cedric Gillott poursuit sa carrière distinguée et productive en recherche, ayant publié 86 articles dans des journaux avec comité de lecture, incluant 65 articles directement reliés à son champ d'expertise, la physiologie de la reproduction chez les insectes. Cedric a généré une importante quantité de recherches sur le criquet migrateur, *Melanoplus sanguinipes* (Fabricius). C'est par ces recherches qu'il a permis un avancement important dans les connaissances sur la compréhension du rôle des glandes accessoires mâles dans le succès reproductif des insectes. Cependant, la portée disciplinaire de sa carrière entomologique s'étend bien au-delà de son expertise approfondie des orthoptères. Par le biais de la supervision et des collaborations avec des étudiants gradués, Cedric a été co-auteur de 12 articles en entomologie appliquée, 6 articles sur la pathologie des insectes et la lutte biologique, ainsi que 3 articles en entomologie aquatique. Le plus grand accomplissement de Cedric est possiblement la publication du livre *Entomology*; publié pour la première fois en 1980, la 3^{ème} édition ayant parue en juillet 2005. Dans chacune des éditions subséquentes de son livre d'entomologie fondamentale, Cedric a intégré avec succès les plus récentes recherches et les théories actuelles dans des secteurs aussi variés que la taxonomie moléculaire et l'écologie. Ce livre est devenu une norme pour les cours d'entomologie autant de base qu'avancée dans les universités d'Amérique du nord et même du monde entier.

Durant sa carrière académique, Cedric a reçu plus de 70 bourses et prix, totalisant plus de 1,3 M \$, incluant un financement de presque 30 années continues de la part du CRSNG. Tel que mentionné précédemment, son domaine principal de recherche concernait la physiologie de la reproduction et l'endocrinologie chez les insectes, un secteur dans lequel il a acquis une renommée internationale en tant qu'expert. De plus, il a également mené avec succès, grâce au financement provincial et de l'industrie, des recherches appliquées sur les systèmes de gestion intégrée des ravageurs et sur la surveillance des populations d'insectes.

Cedric a mené une carrière distinguée en tant qu'enseignant à l'Université de Saskatchewan. En tant que titulaire, il a contribué à l'enseignement de l'entomologie de base en introduisant les concepts de biologie animale à des étudiants d'horizons variés, allant de majeures en biologie à l'agriculture, en passant par la kinésiologie, la médecine vétérinaire et même la médecine. Dans les années 1970, il a également développé une nouvelle approche d'étude indépendante à la zoologie, un prototype pour les cours en ligne d'aujourd'hui. En enseignant régulièrement des cours avancés d'entomologie générale, de physiologie cellulaire et de zoologie, Cedric faisait partie intégrante du programme académique de l'université. Il a également joué un rôle clé dans le développement de cours avancés spéciaux incluant l'endocrinologie comparée (Comparative Endocrinology) et les structures et fonctions des insectes (Insect structure and Function). En plus d'avoir inspiré les étudiants de ses cours d'entomologie, la publication de son livre *Entomology* a sans aucun doute influencé l'enseignement de l'entomologie en général.

Cedric continue d'être très actif dans l'enseignement et le mentorat d'étudiants diplômés. Même s'il est retraité, il enseigne toujours son cours gradué sur la physiologie avancée des insectes (Advanced Insect Physiology) et continue de superviser plusieurs étudiants diplômés avec passion et enthousiasme. Tout au long de sa carrière, Cedric a supervisé 9 étudiants au doctorat et 11 étudiants à la maîtrise, avec des projets portant tant sur la recherche fondamentale, que sur les processus neuro-endocriniens chez les insectes ou sur des problématiques d'entomologie économique. Il a également supervisé 9 collègues au post-doctorat au sein de son laboratoire. Au cours de sa carrière, Cedric a su inculquer à de jeunes chercheurs les fondements du questionnement scientifique, de l'évaluation et de l'analyse des hypothèses ainsi que de la rédaction scientifique, tout en les initiant à des techniques innovatrices en biochimie et en physiologie.

Les contributions exemplaires de Cedric à

la recherche en entomologie, à l'enseignement aux entomologistes et biologistes, ainsi qu'aux organisations entomologiques, le rend éminemment qualifié à recevoir la Médaille d'Or de la Société.



Steven Dokken

C. Gordon Hewitt Award Maya Evenden

The 2007 recipient of the C. Gordon Hewitt award is Dr. Maya Evenden. Maya has made many significant contributions to basic and applied insect chemical ecology. She is also an accomplished teacher, has participated in outreach programs that bring her results to the attention of practitioners, school children and the media, and has a remarkable record of service to the academic community and entomological societies.

Maya first became interested in Entomology as an undergraduate student at the University of Victoria. She pursued graduate studies at Simon Fraser University (SFU) where she completed a Masters of Pest Management (MPM)

degree under John Borden in 1994. Maya's MPM research involved the development of a pheromone-based monitoring system to predict densities of the western hemlock looper, *Lambdina fiscellaria lugubrosa* (Lepidoptera: Geometridae). This research introduced her to the use of semiochemicals in Integrated Pest Management (IPM) which has remained a major theme in her research ever since. Maya's PhD research was also conducted at SFU where her research involved understanding the mechanisms of pheromone-based mating disruption that targeted two sympatric tree fruit pests.

After graduating in 1998, Maya moved to Kentucky to conduct a post doctoral fellowship in the insect behavior/chemical ecology lab under Ken Haynes. At the University of Kentucky, she and her colleagues examined heritability of male moth response to pheromone as well as the evolution of resistance to pheromone-based mating disruption using quantitative genetics approaches. Maya's first academic position (2001-2003) was as Assistant Professor in the Department of Biology at West Chester University (WCU) in Pennsylvania. While at WCU, her research focused on the development of a pheromone-based "attracticide" for the Oriental fruit moth, a cosmopolitan pest of tree fruits. In 2003, Maya was awarded a NSERC UFA award which allowed her to join the Department of Biological Sciences at the University of Alberta. At Alberta, the work in her laboratory has focused on ecological and physiological factors that influence sex pheromone communication and flight in several species of moths considered to be pests. She and her students have continued to incorporate their findings into IPM strategies used in agricultural and forest systems. This research has resulted in the publication of 21 peer-reviewed journal publications, three invited symposia presentations, 39 papers at scientific meetings and seven invited seminars at universities.

As a teacher, Maya has populated her laboratory with graduate students, with four Master of Science students in course, and two

doctoral and two masters students beginning their studies in September 2007. Her students are supported by abundant grant funding, totaling \$477, 416 awarded since 2003. Maya teaches several courses at the University of Alberta including Agricultural Entomology and Chemical Ecology.

Maya has been active in service activities for several entomological societies. In 2003, she served as the Public Information Committee Chair for the Eastern Branch of the Entomological Society of America. Since moving to Alberta, she has been an active member of the Entomological Society of Alberta serving as Proceedings Editor in 2004, Vice-President in 2005, President in 2006 and currently as Past-President (2007). Maya has also been directly involved in planning and organizing entomological meetings.

Maya has a history of awards and scholarships dating back to 1986. Among the more notable are the Entomological Society of Canada Postgraduate Scholarship (1991), the B.P. Beirne Award as the outstanding graduate from Simon Fraser University's Master of Pest Management Program in 1994, two President's Prize Awards for best student paper from the Entomological Society of America (1994, 1996), and a prestigious NSERC University Faculty Award (2003-2008) that supports her appointment at the University of Alberta.

Maya is also the proud mother of two daughters: Hannah (age 6) and Nyssa (age 10 months).

As a young entomologist on a path toward even greater recognition, Maya L. Evenden is a richly deserving recipient of the C. Gordon Hewitt Award from the Entomological Society of Canada.

Prix C. Gordon Hewitt Maya Evenden

Le récipiendaire du prix C. Gordon Hewitt est le Dr. Maya L. Evenden. Maya est l'auteure de maintes con-

tributions importantes dans le domaine de l'écologie et de la chimie des insectes, autant en recherche fondamentale qu'en recherche appliquée. Elle est également une enseignante accomplie, et participe à plusieurs programmes de sensibilisation et de vulgarisation scientifique pour les écoles et le grand public. Elle est aussi très active dans le milieu académique et dans plusieurs sociétés scientifiques.

Maya s'est tout d'abord intéressée à l'entomologie durant son baccalauréat à l'Université de Victoria. Elle a ensuite complété une maîtrise en contrôle des ravageurs dans le laboratoire de John Borden, à l'Université Simon Fraser en 1994. Son projet de recherche principal consistait à développer, à l'aide d'une phéromone, un système de dépistage de l'arpeuteuse de la pruche de l'ouest, *Lambdina fiscellaria lugubrosa*, (Lepidoptera: Geometridae) afin d'estimer la densité de population. L'utilisation des composés sémiocchimiques dans la lutte intégrée a, depuis ce temps, constitué un aspect majeur de ses travaux de recherche. Elle a d'ailleurs continué dans ce domaine en complétant en 1998 un doctorat à l'Université Simon Fraser, durant lequel elle a étudié les mécanismes de perturbation d'accouplement avec des phéromones chez deux ravageurs d'arbres fruitiers.

Maya a ensuite étudié le comportement et l'écologie chimique lors d'un stage post-doctoral au laboratoire de Ken Haynes, à l'Université du Kentucky. Elle y a étudié l'héritabilité de la réponse aux phéromones par les papillons mâles, ainsi que l'évolution de la résistance à la perturbation de l'accouplement par les phéromones, à l'aide de la génétique quantitative. Elle a ensuite obtenu un poste de professeur associé au département de biologie, à l'Université West Chester en Pennsylvanie (2001-2003). Elle y a travaillé afin de développer un attracticide à base de phéromone pour la tordeuse orientale du pêcher.

En 2003, Maya a obtenu une bourse APU du CRSNG et elle occupe depuis ce temps un poste au département des sciences biologiques à l'Université de l'Alberta. Sa recherche se concentre sur l'importance des facteurs

écologiques et physiologiques sur la communication sexuelle par phéromones et le vol de plusieurs espèces de lépidoptères ravageurs. Son laboratoire incorpore continuellement ses résultats dans les stratégies de lutte intégrée en agriculture et en foresterie. Ses travaux ont donné lieu à 21 publications scientifiques, 3 symposiums, 39 présentations lors de congrès, ainsi que 7 conférences invitées.

Maya a été tout aussi prolifique en enseignement. Elle dirige présentement quatre étudiants à la maîtrise, deux étudiants au doctorat, et attend deux autres étudiants à la maîtrise en septembre 2007. Ses étudiants ont reçu 477 416\$ en bourse depuis 2003. Elle enseigne plusieurs cours, dont celui d'entomologie agricole et d'écologie chimique.

L'implication de Maya dans les sociétés scientifiques est également notable. Elle était responsable du comité de l'information au public (Public Information Committee) pour la section Est de la Société d'Entomologie Américaine en 2003. Elle a ensuite été responsable des annales (2004), vice-présidente (2005) et présidente (2006- présent) pour la Société d'Entomologie de l'Alberta. Elle a aussi participé à l'organisation de plusieurs congrès.

Les bourses attribuées à Maya remontent en 1986, mais les plus notables comprennent la bourse d'étude post-gradué de la SCE (1991); prix B.P. Beirne pour étudiant exceptionnel en maîtrise en lutte contre les ravageurs de l'Université Simon Fraser (1994); deux prix du président pour les présentations étudiantes de la Société d'Entomologie Américaine (1994, 1996); ainsi que la bourse APU du CRSNG (2003-2008).

En plus de tout cela, Maya est l'heureuse mère de 2 enfants : Hannah (6 ans) et Nyssa (10 mois).

Jeune entomologiste déjà remarquable et possédant une carrière tout aussi productive devant elle, Maya L. Evenden mérite clairement le prix C. Gordon Hewitt de la Société d'Entomologie du Canada.

The student wing / L'aile étudiante



Mike Borkent

Chris Borkent



Jessica Smith

Greg Smith

The field season is over and now the fun of sample processing and data analysis begins! Hopefully you all remember that the ESC-ESS JAM is fast approaching. It would be great to see everyone in Saskatoon and hear what they have found so far from this year's hard work. A student mixer will take place on the second evening of the meetings, allowing students to mingle and find out what others are up to, or just say hi to old friends. Don't forget to support your fellow students that have been selected to speak this year at the Graduate Student Symposium on the third day of the meeting. Many thanks to the University of Saskatchewan for sponsoring the symposium this year and covering the registration fees of the participants. On another note, please remind your professors that donations for the graduate scholarship silent auction are being accepted up to the minute it starts on September 30th. If you know someone who is not coming but would like to contribute something to the silent auction, they can send their items to Julie Soroka (email sorokaj@agr.gc.ca for mailing address).

Hope to see you all in Saskatoon!

Greg and Chris

Seeking Graduate Students

Université Laval (Québec)

We are looking for a PhD candidate to study insect diversity and abundance in relation to disturbances caused by deer over-browsing on Anticosti Island, Gulf of St-Lawrence, Quebec Canada. The overall objective is to characterize the recovery of forest communities from deer over-browsing using experimental control of deer abundance. Major guilds of insects

(herbivores, pollinators, ground and foliage hunting predators, and insect decomposers) will be characterized, over a range of controlled experimental levels of deer abundance in large enclosures. The study provides the opportunity to elucidate links between insect diversity, ecosystem integrity and forest productivity, in boreal forests through post disturbance experimental manipulation of deer abundance. From a practical viewpoint, knowing how insect diversity and abundance

react to vegetation recovery with deer control should help to predict which deer densities are compatible with ecological stability, and to examine the potential for ecological restoration of this large forested island ecosystem. The project will be part of the research program of the NSERC Industrial Research Chair-Produits Forestiers Anticosti, with a stipend available as financial support to the candidate and depending on merit. For more information, please contact:

Conrad Cloutier
ph: (418) 656 3183
email: Conrad.Cloutier@bio.ulaval.ca

or

Christian Hébert
ph: (418) 648 5896
email: chhebert@rmcan.gc.ca

Memorial University (Newfoundland & Labrador)

Graduate student position available in plant-insect interactions. The project focuses on understanding the mechanisms behind which plants attract insects by examining the ecology and evolution of spore dispersal by flies in Splachnaceae mosses. See http://www.mun.ca/biology/pmarino/PMarino_bryophyte_research.php for more detailed information on the research project. If interested, please contact:

Paul Marino
ph: (709) 737-7497
email: pmarino@mun.ca

Lethbridge Research Centre (Alberta)

The Insect Pest Management at the Lethbridge Research Centre (Agriculture and Agri-Food Canada) is looking for a graduate student, maybe two, to conduct research to integrate biological and cultural control strategies to manage the wheat stem sawfly (*Cephus cinctus*). The second student would work on development of economic injury levels and chemical management for the pea leaf weevil

(*Sitona lineatus*) in field peas. For more information, please contact:

Héctor Cárcamo
email: carcamoh@agr.gc.ca.

University of Calgary (Alberta)

Are you interested in insect taxonomy, and in carrying out research that uses insect communities to detect effects of human disturbance? Would you enjoy field work in Kananaskis Country, in the front range of Alberta's Rocky Mountains?

If yes, and if you're interesting in beginning work on MSc research that considers distance-based detection of ecological impacts in the fall or winter of 2007, please contact:

Dr. Ralph Cartar
Department of Biological Sciences,
University of Calgary,
Calgary, Alberta. T2N 1N4
ph: (403) 220-3640
email: cartar@ucalgary.ca

Wright State University (Ohio)

I am seeking a student to pursue a MSc degree in Biological Science at Wright State University focused on the systematics and biology of tachinid flies. This position is supported as part of larger NSF-funded biological surveys and inventories project to document the diversity of Lepidoptera and parasitoid taxa and their interactions in the montane rainforest of Ecuador. We have collected and reared (from Lepidoptera) an enormous diversity of tachinids from Ecuador, many of which are undescribed. The student will work with me (as well as apprenticing with J.E. O'Hara, Agriculture and Agri-Food Canada) to select a manageable taxon to revise and analyze phylogenetically, as well as contribute to research analyzing ecological associations and patterns of diversity of Ecuadorian tachinids.

The project will involve travel to and collecting in Ecuador, travel to the Canadian National Collection, and travel to the United States National Museum for museum work.

Funds are available to support travel and research and partial stipend support, but the student is also expected to spend at least one year as teaching assistant for various biology courses at Wright State University and must be academically competitive to obtain these assistantships. Stipend and teaching assistantship support are ca. \$US4000/quarter.

If interested, please send your curriculum vitae and a statement of interests to:

Dr. John O. Stireman III
 Department of Biological Sciences
 3640 Colonel Glenn Hwy
 Wright State University
 Dayton, Ohio 45435
 email: john.stireman@wright.edu

Thesis Roundup / Un foisonnement de thèses

- Aguayo Fuentealba, Ingrid Andrea; PhD, January 2007. *Reproductive behaviour and larval development of Monochamus scutellatus scutellatus (Say) (Coleoptera: Cerambycidae) in three pine species from the Great Lakes region.* Supervisors: Sandy Smith and Peter de Groot, University of Toronto.
- Barkway, Michelle; michelle.barkway@ualberta.ca, MSc, May 2007. *Forest harvesting effects on benthic macroinvertebrate abundance in the boreal foothills of Alberta.* Supervisor: John Spence, University of Alberta.
- Gautreau, Sonia; soniagaut@hotmail.com, MSc, March 2007. *Infestation of Leatherback turtle (Dermochelys coriacea) nests by dipteran larvae on Gandoca Beach, Costa Rica.* Supervisor: Ronald J. Brooks, University of Guelph.
- Johnson, Marc Thomas; johnson@botany.utoronto.ca, PhD, December 2006. *The community genetics of plant-arthropod interactions: The importance of genetic variation and evolution in Oenothera biennis (Onagraceae) for its arthropod community.* Supervisor: Anurag Agrawal, University of Toronto.
- Kaun, Karla Renea; kkaun@utm.utoronto.ca, PhD, May 2007. *Neurogenetic and plastic components of food-related behaviours due to the foraging gene in Drosophila melanogaster.* Supervisor: Marla Sokolowski, University of Toronto.
- Otterstatter, Michael Christopher; michael.otterstatter@utoronto.ca, PhD, February 2007. *Dynamics of an intestinal pathogen within and between bumble bee hosts.* Supervisor: James Thomson, University of Toronto
- Schmidt, Chris; schmidtc@inspection.gc.ca, PhD, June 2007. *A tale of many tigers: What mitochondrial DNA reveals and conceals about a taxonomically complex genus of tiger moths.* Supervisor: Felix Sperling, University of Alberta.
- Sharp, Amy; sharp.amy@gmail.com, MSc, March 2007. *Mermithid (Nematoda: Mermithidae) infections of black flies (Diptera: Simuliidae): seasonal variation and developmental characteristics.* Supervisor: Fiona Hunter, Brock University.

Application for membership (new members only)

Demande d'adhésion (nouveaux membres seulement)

Entomological Society of Canada / Société d'entomologie du Canada

393 Winston Ave., Ottawa, Ontario, Canada K2A 1Y8

Tel: (613) 725-2619, Fax: (613) 725-9349

Name & Address (please print): / Nom & Adresse (lettres moulées SVP) :

Telephone (bus.) / Téléphone (au travail) : () _____

E-mail/courriel : _____ Fax : () _____

Membership is a personal affiliation; publications are the personal property of the individual member. / Cette cotisation s'adresse aux individus; les publications payées ici sont la propriété personnelle du membre.

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et Bulletin Print/Imprimé Web or/ou or/ou Both/Les deux
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\$46.00 Cdn (HST/TVH incl.)

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Joint annual meeting of the Entomological Society of Canada and Entomological Society of Saskatchewan

Insects: Microscale Subjects for Megascale Research

Delta Bessborough Hotel

29 September – 3 October 2007, Saskatoon, Saskatchewan

On behalf of the Entomological Societies of Saskatchewan and Canada we cordially invite you to attend the 2007 Joint Annual Meeting to be held at the Delta Bessborough Hotel in Saskatoon, Saskatchewan.

The Delta Bessborough is a venerable Canadian Pacific-style hotel on the bank of the South Saskatchewan River. It is adjacent to the Meewasin Valley Trail which follows the river through the heart of Saskatoon. The Trail encompasses over 21 kilometres of cycling, jogging, and walking routes that travel through beautifully landscaped parks and natural areas. Hundreds of species of birds and other wildlife make their home near the Trail and by Meewasin Riverworks Weir, one of Saskatoon's most popular visitor attractions for viewing wildlife. We encourage you to stay at the Hotel to enjoy the ambience and to help keep our meeting costs down. When registering, please indicate you are with ESC. The meeting room rate is \$128 per night plus taxes. Reservations can be made by phoning 1-800-268-1133, or on the web at <http://www.deltahotels.com/hotels/hotels.php?hotelId=8>.

The theme of 2007 JAM is Insects: Microscale Subjects for Megascale Research. Our Plenary Session features Roy Ritzmann from Case Western Reserve University, who investigates how animals move in their natural environment in order to design and build hexapod robots; and Helen Nichol, from the University of Saskatchewan, who utilizes transgenic *Drosophila* and synchrotron technology to investigate how cells store and detoxify metals and metalloids. Our first general symposium focuses on different aspects of insect-microbe interactions, and our second symposium examines basic and applied aspects of neuroethology.

To take a break from the innovative science program, we plan to have a mid-meeting excursion to Wanuskewin Heritage Park. Here we will see the prairie as it was before European settlement, and we may even have an opportunity to do some insect observation. Our Heritage Lecture and Annual General Meeting are scheduled to take place at Wanuskewin.

More information is posted on the websites of ESC (www.esc-sec.org) and ESS (www.sfn.saskatoon.sk.ca/science/ess/ESS-ESC/intro.html). Remember, abstracts are due by 29 June, and registration at the low rate must be received before 25 August.

For further information contact:

Dwayne Hegedus, JAM 2007 Organizing Chair
Agriculture and Agri-Food Canada
107 Science Place
Saskatoon, SK S7N 0X2
tel: 306-956-7667
e-mail: hegedusd@agr.gc.ca

JAM 2007: Tentative Program

Saturday, 29 September

Morning and afternoon: ESC Governing Board Meeting
Afternoon & evening: Registration

Sunday, 30 September

Morning: Opening ceremonies, ESC awards, Gold Medal Address and Plenary Session
Afternoon: President's Prize sessions
Evening: General mixer

Monday, 1 October

Morning: President's Prize sessions
Afternoon: Wanuskewin Tour, Heritage Lecture – Peter Harris, Scientist Emeritus AAFC,
ESC Annual General Meeting
Evening: ESC Governing Board Meeting, President's reception and student social
(by invitation)

Tuesday, 2 October

Morning: Symposium I – Insect-Microbe Interactions
Afternoon: Student-organised symposium, poster presentations, contributed paper sessions
& workshops
Evening: Banquet and student award presentations

Wednesday, 3 October

Morning: Symposium II - Basic and Applied Aspects of Neuroethology,
Contributed paper sessions

Associated meetings

Friday, 28 September - AAFC Biological Control Working Group Meeting at AAFC
Contact Peter Mason (AAFC Ottawa) masonp@agr.gc.ca

Monday, 1 October - Canadian Forum for Biological Control
Contact Kevin Floate (AAFC Lethbridge) floatek@agr.gc.ca

Wednesday, 3 October - Biological Survey of Canada
Contact: Susan Goods sgoods@mus-mature.ca

NOTICE

The Student Affairs Committee of the Entomological Society of Canada plans to hold a silent auction at the 57th Joint Annual Meeting at Saskatoon. The Committee is in search of entomology-related articles that patrons are willing to donate for auction. Here is an opportunity to downsize your entomological library, find a home for those collecting materials that you haven't used in years, or recycle useful entomological material in general. Proceeds will go towards student activities of the ESC.

REGISTRATION FORM

Deadline for early registration is 25 August. Note: On line secure-site registration can be made through: www.sfn.saskatoon.sk.ca/science/ess/ESS-ESC/intro.html

Please fill out a separate registration form for each registrant, even if paying for several. Accompanying persons need not fill out an additional form.

Name:.....
As you wish it to appear on your name tag

Title and Affiliation:.....

Address:.....

City:..... Province/State:.....

Postal Code..... E-mail:.....

Telephone..... FAX.....

Registration fee in \$Cdn includes Program and admittance to meetings, trip to Wanuskewin, mixer and banquet, and GST. Extra banquet tickets also may be purchased at the registration desk.

Table with 4 columns: Member Type, Before August 25, After August 25, Amount. Rows include Regular member, Non-member, Student members, etc.

Name of accompanying person.....

Cancellation policy: before 25 August – full refund; before 15 September – 40% refund, on or after 15 September, no refund.

Please indicate if banquet preference is a vegetarian dish..... []

Accommodation: Rooms at \$129/night have been reserved for participants at the Hotel Bessborough. To obtain this reduced rate indicate that you are attending "ESC" when making reservations. This rate will end 27 August. Any groups requiring additional meeting rooms should contact the conference organizers.

Hotel reservations are available through:

Delta Bessborough Hotel
601 Spadina Crescent East
Saskatoon, SK
Tel: 1-800-268-1133 / (306) 244-5521
FAX (306) 665-9769
www.deltahotels.com/hotels/hotels.hp?hotelId=8

If registering by mail, return this form and a cheque made out to "ESC Meeting 2007" to:

Julie Soroka – ESC JAM 2007
Agriculture and Agri-Food Canada
107 Science Place
Saskatoon, SK S7N 0X2
Email: sorokaj@agr.gc.ca
Tel: 306-956-7294, FAX: 306-956-7247

Congrès conjoint de la Société d'entomologie du Canada et de la Société d'entomologie du Saskatchewan

Les insectes : Petits sujets pour de grandes recherches

Hôtel Delta Bessborough

29 septembre – 3 octobre 2007, Saskatoon, Saskatchewan

La Société d'Entomologie de la Saskatchewan et la Société d'Entomologie du Canada vous invitent cordialement à participer à leur réunion annuelle conjointe, qui se tiendra à l'hôtel Delta Bessborough à Saskatoon, Saskatchewan.

L'hôtel Bessborough est un ancien hôtel construit par la compagnie de chemin de fer "Canadien Pacifique", sur les bords de la rivière Saskatchewan. De l'hôtel, il est facile d'accéder au sentier de randonnée de Meewasin qui longe les bords de la rivière sur 21 km, sans sortir de la ville. Le sentier, réservé aux cyclistes, randonneurs et coureurs, traverse plusieurs parcs d'activités et zones d'espaces naturels. Les promeneurs peuvent y observer de nombreuses espèces d'oiseaux et autres animaux sauvages qui y ont élu domicile. Le sentier passe également à hauteur du barrage de Meewasin, endroit idéal pour y observer la faune sauvage.

Nous vous encourageons à séjourner à l'hôtel Bessborough afin de profiter de l'ambiance locale et des avantages liés à sa situation géographique. Par ailleurs, votre présence regroupée dans ce lieu d'accueil nous permet de maintenir au plus bas les coûts de la conférence. Au moment de votre réservation, n'oubliez pas d'indiquer que vous participez à la réunion SEC/SES. Le prix des chambres pour les participants est de \$128/nuit + taxes. Les réservations peuvent se faire par téléphone (1-800-268-1133), ou par internet: <http://www.deltahotels.com/hotels/hotels.php?hotelId=8>.

Le thème de la réunion annuelle conjointe de 2007 est défini comme suit "Les insectes: petits sujets pour de grandes recherches". Les invités à la session plénière sont Roy Ritzmann de l'Université Case Western Reserve, qui étudie la dynamique du mouvement chez les animaux dans le but de concevoir et construire des robots hexapodes ainsi que Helen Nichol de l'Université de la Saskatchewan, qui se sert de drosophiles modifiées génétiquement et des techniques du synchrotron pour étudier les mécanismes de conservation et de détoxification des métaux et métalloïdes par les cellules. Les interactions « insectes - microbes » et la recherche fondamentale et appliquée en neuro-éthologie seront les thèmes des deux sessions plénières.

Si vous souhaitez vous détacher du programme scientifique pendant quelques heures, une excursion à Wanuskewin est prévue pendant la conférence. Vous pourrez alors bénéficier d'un aperçu sur l'aspect des prairies avant l'arrivée des pionniers européens et y observer de nombreuses espèces d'insectes. La conférence sur le patrimoine et l'Assemblée Générale auront lieu à Wanuskewin. Nous vous invitons à trouver plus d'informations sur les sites de la SEC (www.esc-sec.org) et de la SES (www.sfn.saskatoon.sk.ca/science/ess/ESS-ESC/intro.html) et nous vous rappelons que la date d'envoi limite des résumés est fixée au 29 Juin et que les tarifs d'inscription à la conférence augmentent après le 25 Août.

Pour plus ample information, contactez :

Dwayne Hegedus, JAM 2007 Organizing Chair
Agriculture and Agri-Food Canada,
107 Science Place, Saskatoon, SK, S7N 0X2
tel: 306-956-7667; courriel: hegedusd@agr.gc

RAC 2007: Programme provisoire

Samedi 29 septembre

Matinée et après-midi: Réunion du Conseil d'Administration de la SEC
Après-midi et soirée: Inscriptions

Dimanche 30 septembre

Matinée: Inscriptions, cérémonie d'ouverture, remise de la médaille d'or,
Assemblée plénière
Après-midi: Communications scientifiques, prix du Président
Soirée: Réception générale

Lundi 10 octobre

Matinée: Communications scientifiques, prix du Président
Après-midi: excursion à Wanuskewin: conférence sur le patrimoine, Assemblée Générale de la SEC
Soirée: Réunion du Conseil d'Administration de la SEC, Réception du Président et soirée étudiante (sur invitation)

Mardi 2 octobre

Matinée: Symposium I – Interactions « insectes - microbes »
Après-midi: Symposium étudiant, présentations des posters, communications scientifiques et groupes de travail
Soirée: Banquet et présentations des prix étudiants

Mercredi 3 octobre

Matinée: Symposium II - Recherche fondamentale et appliquée en neuroéthologie.
Communications scientifiques.

Autres réunions

Samedi 29 septembre - Groupe de travail AAC, Contrôle Biologique
Contact: Peter Mason (AAC-Ottawa) masonp@agr.gc.ca

Lundi 1 octobre - Forum Canadien sur le Contrôle Biologique
Contact: Kevin Floate (AAC-Lethbridge) floatek@agr.gc.ca

Mercredi 3 octobre - Commission Biologique du Canada
Contact: Susan Goods sgoods@mus-mature.ca

AVIS

Le comité des affaires étudiantes de la SEC souhaite organiser une vente aux enchères par écrit à l'occasion de la 57ème réunion annuelle à Saskatoon. Le comité recherche toute donation d'articles reliés de près ou de loin à l'entomologie. Cette vente est une excellente opportunité pour réduire l'excès de livres dans leurs bibliothèques, trouver un nouveau foyer pour ces articles que personne n'a utilisé depuis plusieurs années ou participer à un recyclage général des articles relié à l'entomologie. Les bénéfices iront directement aux bourses d'études pour les étudiants.

BULLETIN D'INSCRIPTION

Note: L'inscription peut se faire en ligne sur le site sécurisé suivant : <http://www.sfn.saskatoon.sk.ca/science/ess/ESS-ESC/intro.html>, ou en envoyant les bulletins ci-dessous dûment remplis.

Chaque participant doit remplir et envoyer un bulletin d'inscription, même dans le cas de paiements combinés. Les invités n'ont pas besoin de remplir de bulletin d'inscription.

Nom :

Titre et affiliation :

Adresse :

Ville : Province/État :

Code postal : Courrier électronique :

Téléphone : Télécopieur :

	Avant le 25 août	Après le 25 août 2007	Sommes dues
Membre régulier	\$215	\$315
Non membre	\$305	\$410
Étudiant membre, retraité	\$100	\$160
Étudiant non membre	\$140	\$180
Accompagnateur	\$ 80	\$120
Banquet billet supplémentaire	\$ 50	\$ 50
Somme totale due			\$.....

Nom de l'accompagnateur :

Remboursement en cas d'annulation : complet si la demande est faite avant le 25 août 2007, 40% si la demande est faite avant le 15 septembre 2007, pas de remboursement si la demande est faite le 15 septembre 2007 ou après.

Indiquer le nombre de repas végétarien au banquet :

Logement : des chambres à un tarif réduit de \$128/nuit ont été réservées pour les participants à l'hôtel Delta Bessborough. Indiquer votre participation à la réunion ESC-ESS lors de la réservation pour obtenir ces tarifs réduits. Ces tarifs réduits ne seront plus disponibles après le 27 août 2007. Tout groupe souhaitant réserver des chambres additionnelles doit contacter les organisateurs de la conférence.

Pour les réservations à l'hôtel, contacter :

Hotel Delta Bessborough,
601, Spadina Crescent
Saskatoon, SK
Téléphone: 1-800-268-1133 / (306) 244-5521
Télécopieur: (306) 665-9769
www.deltahotels.com/hotels/hotels.php?hotelID=8

Envoyer votre bulletin d'inscription dûment rempli et un chèque libellé au nom de "ESC meeting 2007" à :

Julie Soroka
Agriculture et Agro-Alimentaire Canada
107, Science Place,
Saskatoon, SK, S7N 0X2
Courrier électronique : sorokaj@agr.gc.ca
Téléphone: (306) 956-7294
Télécopieur: (306) 956-7247

CABI Europe – Switzerland

CABI Europe - Switzerland has for many years been a leading global institution in the promotion of safe biological control of invasive weeds and insect pests, worldwide. CABI is a not-for-profit, intergovernmental organisation and its mission and direction is influenced by over 40 member countries that help guide the activities undertaken as a business. CABI's activities encompass scientific publishing, research and communication and we link science directly with rural communities (for further information see www.cabi.org). One of the unique comparative advantages that CABI has in carrying out its mission is its global network of regional centres; one of these is our centre in Switzerland, at Delémont, the capital of Canton Jura. Our Centre is organised in four programmes: agricultural pest research, forestry and ornamental pest research, weed biological control, and ecosystems research. These provide services in biological control, pest management research and implementation, integrated crop production, ecological research, consultancies, participatory knowledge transfer, training and contributing to the overall programmes in CABI's key scientific areas: invasive species and knowledge for development. The Centre has attracted much attention from North America because of its high standards, exemplary research and highly skilled, dedicated staff. Much of the work of the Centre in Switzerland has been based on so-called classical biological control. Naturally, this approach depends upon a careful study and evaluation of the risks before any natural enemy can be introduced, and this is a major focus of the Centre's work. Historically, most of the work at the Centre was directed towards the control of pests that originated in Europe, but were deliberately or accidentally introduced into other parts of the world without any natural enemies. Thus many pests

and weeds in North America, Australia, New Zealand, and the temperate parts of other continents came from Europe, and CABI Europe – Switzerland has been working towards their control in those areas. Because of the Centre's substantial activities in biological control, it is not surprising that its staff play an active role in CABI's contribution to aspects of biological control policy, linking with organisations such as Food and Agricultural Organization (FAO), Organization for Economic Co-operation and Development (OECD) European and Mediterranean Plant Protection Organization, (EPPO) and national authorities, to provide inputs to protocols and guidance documents, as well as cutting edge research on the development of methods to assess risks associated with potential biological control agents. The Centre's activities extend beyond biological control and recent developments have focussed on the application of the science of insect-plant interactions and soil ecology to address fundamental and applied research problems, in collaboration with partners internationally.

The Agricultural Pest Research Section of CABI Europe - Switzerland

Some readers may wonder why a laboratory in Switzerland is profiled in the *Bulletin*. There are two good reasons. First, we will soon celebrate our 60th anniversary of cooperation between Agriculture and Agri-Food Canada (AAFC) and CABI Europe-Switzerland. Second, we are proud that during the last 13 years, a total of 54 Canadian students have come to visit our centre and work with us. Many of these students have used their time with us to successfully complete partial requirements to obtain higher degrees at Canadian universities. For good reason, our laboratory has sometimes been regarded as a "Canadian" laboratory.

Traditionally, research within the Agriculture Section explores integrated pest management and biological control of insect pests. Our work includes exploration for natural enemies



CABI Agriculture Crew 2007; front row from left to right: Lars Andreassen, Hong-mei Li, Emma Hunt, Samantha Magnus, Ulli Kuhlmann. Back row: Amber Zabarauskas, Tim Hays, Michael Wogin, Jonathan Lundgren, Wade Jenner.

of designated targets, and then characterisation of their identity, life history parameters, ecology, and behaviour. We have a special interest in field and laboratory studies to assess the effects of exotic biological control agents on non-target native species. By developing and testing new methodologies for assessing host specificity of entomophagous insects, we are constantly striving to improve the way in which we identify and avoid the risks of biological control. Current projects address biological control of several insect pests in Canada, e.g. cabbage seedpod weevil (*Ceutorhynchus obstrictus* Marsham), plant bugs (*Lygus* spp.), leek moth (*Acrolepiopsis assectella* Zeller), cabbage root maggot (*Delia radicum* L.) and cherry bark tortrix (*Enarmonia formosana* Scopoli).

Ulli Kuhlmann, Section Head
(u.kuhlmann@cabi.org)

My first contact with CABI Delémont goes back to 1989 when I started as a summer student in the Forestry Section under the supervision of Nick Mills. As I was very excited about the research being conducted in the Commonwealth Institute of Biological Control (CIBC), I returned the same year to start working with Klaus Carl in the Agriculture Section, focusing on the biological control of the European Earwig (*Forficula auricularia* L.), one of the many projects carried out at that time for AAFC. Later on I convinced Hubert Pschorn-Walcher, my former Professor in the Department of Ecology at the University of Kiel in Germany, that this would be a good opportunity to carry out an MSc project. Therefore, I returned to CABI in 1990 and in the same year the CIBC became the International Institute of Biological Control (IIBC). I finished my MSc thesis

on earwig parasitoids in 1992 and started my PhD conducting a life-table study on the apple ermine moth (*Yponomeuta malinellus* Zeller), a project requested and funded by AAFC. This work was co-supervised by Klaus Carl (IIBC), Thomas Hoffmeister and Thomas Bauer (both University of Kiel, as Hubert Pschorn-Walcher retired in 1993). After finishing my PhD in early 1996, I left the IIBC for my post-doc training at the University of California at Berkeley working with Nick Mills again. There, I studied *Trichogramma* for the first time, spending hours and hours observing their oviposition behaviour. In agreement with Nick Mills, I left Berkeley already in April 1997 to take up an opportunity presented to me by Jeff Waage (Director IIBC) and Matthew Cock (at that time responsible for all IIBC overseas stations) to replace the retiring Klaus Carl in his role of Section Leader of the Agriculture Programme at IIBC. Now, ten years later I am still working here as the Section Head of the Agricultural Pest Research Programme. In the meantime, IIBC merged into CABI Bioscience Switzerland Centre and then in 2006 became CABI Europe – Switzerland. Despite these name changes, the nature of our work has remained the same and we still collaborate with a number of AAFC scientists. After my return to CABI in 1997 I started to establish cooperation with a number of Canadian universities to enable co-supervision of MSc and PhD students in our collaborative research activities with AAFC. Over the last ten years, the AAFC and CABI collaboration has developed into a strong partnership and we have a number of excellent collaborators at different Canadian universities. Through this partnership and collaboration, a number of joint papers are also published in ISI journals every year. Apart from this “Canadian” programme, the Agriculture team is involved in a number of European activities such as the IPM of the western corn rootworm and designing and setting up regulation of biological control agents in Europe. My team is also working in different regions of the world facilitating the implementation of IPM with national part-



Tim Hays and Ulli Kuhlmann collect cabbage root maggot, *Delia radicum*.

ners in the Kosovo, Turkey, Argentina, DPR Korea, and Pakistan. Because of these other activities I travel quite often and Tim Hays is now responsible for running the “Canadian” laboratory on a daily basis.

Tim Hays, Research Scientist and Project Coordinator North America
t.hays@cabi.org

Born and raised in northern Germany, I developed a passion for insects during my early childhood. These early experiences with insects led me to study biology at the Christian-Albrechts-University at Kiel (Germany) in 1994. After investigating marine zoology, I returned to insects in 1998, working as a summer student in the Forestry Section of the CABI Europe – Switzerland Centre in Delémont. Marc Kenis introduced me to various aspects of biological control of Canadian forest pests, such as gypsy moth (*Lymantria dispar* L.) and pine false webworm (*Acantholyda erythrocephala* L.). In the following years, I investigated the parasitoid complex of the lily leaf beetle (*Lilioderis lili* Scopoli) in Europe, completing a diploma in Entomology in 2000. Switching from the Forestry to the Agriculture Section, I started a PhD under the supervi-

sion of Prof. H.J. Braune and Ulli Kuhlmann on the ecology of European *Peristenus* spp. (Hymenoptera: Braconidae) and their potential for the biological control of *Lygus* spp. (Hemiptera: Miridae) in Canada. My major interest in this work was investigating potential non-target risks of biological control agents. During my PhD I also got the opportunity to work for several months in Peter Mason's (AAFC, Ottawa) and Bruce Broadbent's (AAFC, London) laboratories in Canada. Finishing my PhD in 2004, I moved to Switzerland to do postdoctoral research on biological control of the cabbage seedpod weevil. Since 2007 I have been responsible for coordinating and developing projects on biological control of agricultural pests in North America.

Emma Hunt, Post-Doctoral Research Scientist

I had my first taste of CABI in 1998, when I had a rare and fortunate opportunity to work in the Agriculture Section as a summer student for three months before starting my university studies. During these months at CABI, I worked as part of the Agriculture team on a number of different biological control projects, enabling me to learn a vast amount about invertebrate biological control whilst gaining fantastic experiences in the lab as well as in the field. I consequently spent the following three summers returning to Switzerland as a summer student while I completed my BSc in biological sciences at the University of Birmingham in the UK. I then continued on at Birmingham University to do my PhD on insect-plant interactions, investigating the effects of individual plant gene mutations on aphid behaviour and fecundity, using a green peach aphid (*Myzus persicae* (Sulzer)) – thale cress (*Arabidopsis thaliana* (L.)) model system. Following on from my PhD, I decided to return to CABI to pursue a post-doc research position on the biological control of cherry bark tortrix, an introduced pest of North America. My research is varied, covering areas such as the chemical ecology, host-specificity as well as molecular

diagnostics of *Campoplex dubitator* Horstmann, a European parasitoid and candidate biological control agent of cherry bark tortrix. To carry out the molecular side of my research I was fortunate enough to be able to spend the last two winters working with Andrew Bennett and Peter Mason at AAFC, Ottawa.

Stefan Töpfer, Senior Research Scientist

After finishing my MSc on bird communities in agricultural areas (University of Halle, Germany), and my PhD on behavioural ecology of the apple blossom weevil in orchards (ETH Zurich, Switzerland), I began searching for a possibility to conduct applied and "green" field research. As my home country, Germany, did not offer anything of interest, I started to search worldwide. I only heard about the Swiss Centre of CABI in 2000, mainly because I had never worked on biological control before. However, they offered me an interesting postdoctoral position on the classical biological control of a major agricultural invader in Europe, the western corn rootworm (WCR), *Diabrotica virgifera virgifera* LeConte. Thus,



Stefan Toepfer, our expert on biological control of western corn rootworm.

I learned to work with parasitoids and other beneficials whilst broadening my focus to a worldwide scale, in this case towards Mexico and South America. I moved to Hungary, because field experiments with WCR were more feasible there, and I am still in Hungary today. Between 2003 and 2005, I was a Marie Curie Research Fellow of the EC based at the University of Godollo, Hungary, and during this time I conducted basic research on the invasiveness of WCR. Since 2006, I have been a researcher with CABI again but have remained in Hungary working on the biological control of agricultural pests as well as organising and managing a variety of projects on different aspects of invasions, interactions between natural enemies and their hosts, and development of biological control products.

Hong-mei Li, Post-Doctoral Research Scientist

Growing up in the Hebei province, I started my career in biology at the department of plant protection at the Southwest University in Chongqing (China). After finishing my BSc in 1999, I moved to the Chinese Academy of Agricultural Sciences (CAAS) in Beijing, where I studied the physiology and biochemistry of wheat aphid migration under the supervision of Dengfa Cheng (MSc, 2002). I then joined the Institute of Zoology at the Chinese Academy of Sciences (Beijing), where I worked until 2007. During this time I investigated potentially suitable areas for significant invasive insects and molluscs in China (PhD, 2006). In summer 2007, I joined the CABI team to do postdoctoral research on western corn rootworm. I will measure the variation in WCR fitness between independent invading populations in Europe (e.g. Serbia, Italy). I will also analyse the effect of crossing those populations on adult fitness and invasion success (through increasing their genetic diversity), since an increase in these factors would pose an additional threat to European maize production.



Wade Jenner and Michael Wogin collect cherry bark tortrix in the Alsace.

Wade Jenner, PhD candidate

It was not until I started my BSc at Augustana University College that I was certain I would pursue a career in biological sciences. By the third year of that degree, I felt that my entomologically-aligned fate had been sealed. My introduction to CABI came in 2000 with the start of my MSc, jointly supervised by Bernie Roitberg and Gerhard Gries at Simon Fraser University, Joan Cossentine at AAFC, Summerland and Ulli Kuhlmann at CABI Europe-Switzerland. The focus of the AAFC-funded MSc research was to obtain and evaluate candidate classical biological control agents (parasitoids) of cherry bark tortrix. Although based at Simon Fraser University during the winters, virtually all my field work took place in Switzerland, France and Germany for three summers and CABI was an ideally-situated base from which to operate. My MSc work was highly varied, including numerous days of field work, foraging experiments, chemical ecology assays, reproductive biology studies and insect rearing. The allure of CABI was so great that I returned for a fourth summer to pick up where my thesis work had left off. Within months of finishing my MSc, I leaped into a PhD programme, which brought me once again to the pleasant CABI Europe-Switzerland Centre. I am currently assessing the host range and efficacy of *Diadromus pulchellus*

Wesmael, a potential classical biological control agent of leek moth. This AAFC-funded project is supervised by Naomi Cappuccino at Carleton University, Peter Mason at AAFC, Ottawa, John Arnason at Ottawa University and again Ulli Kuhlmann.

Lars Andreassen, PhD candidate

I grew up in rural Alberta, and many of my friends were farm kids. After completing a BSc at Augustana University College, and enjoying courses about insects there, I decided a career in agricultural entomology would be both helpful for farmers and interesting. Biological control struck me as a fascinating concept, so I came to CABI to work as a summer student in 2004. The same fall I started my MSc at the University of Manitoba with Neil Holliday. For the next two years I was in Winnipeg for the winter and at CABI in the summer, working on the host range of a parasitoid which might be released in Canada to control the cabbage root maggot. This summer I am in Switzerland working on papers, helping with the other projects, and looking forward to starting a

PhD in the fall.

Summer students

CABI Europe – Switzerland hosts international student placements on a yearly basis, offering the chance for biology and agriculture students to receive hands-on training in practical aspects of applied biological control research. Students experience first-hand what it is like to work as part of a project team with high-impact outcomes. There is also a graduate student programme, with links to universities around the world. As a result, this is a truly international centre, with staff and students from more than a dozen countries working together each summer. Currently, three Canadian summer students, Samantha Magnus (University of Victoria), Michael Wogin (University of Guelph), and Amber Zabarauskas (Carleton University, Ottawa) are working in our agriculture section. This is what our students say about their CABI experience:

“Summer students don’t regularly get to work in a place where they can visit French castles and chocolate factories on the way back from the field, but we knew working for



Summer students Amber Zabarauskas, Michael Wogin and Samantha Magnus collect cabbage seedpod weevils.

CABI Switzerland would not be a regular job. With our team's many research projects, we are continually taking on new duties, and are always more than busy (if we aren't combing canola for weevil parasitoids, then we're overwhelmed with leek moth pupae). Fortunately, our team is dedicated and enthusiastic, making the work rewarding. The institute has a wonderful atmosphere. Students and scientists from all over the world work and study here, and one of our more unusual duties is to take turns cooking lunch for all of them. Lunch together, however, is just part of the social life at CABI. Sports teams, barbecues, hiking in the Alps, and traditional fondue dinners are all part of the package. As well as having a great social and work environment, CABI has introduced us to different biological systems and experimental designs. We have met with many visiting scientists and have learned about their international initiatives and research projects. Our time here has left us with great friends and memories, invaluable skills and experiences, and ideas for the future."

At this point we would like to motivate all Canadian students that are interested to work in the field of biological control to apply for a summer student position in 2008. For

further information, please contact Tim Haye (t.haye@cabi.org).

Jonathan Lundgren, Visiting Scientist & Research Entomologist, USDA-ARS, Brookings, SD, U.S.A.

Western corn rootworm is arguably one of the worst pests of agriculture worldwide, causing billions of dollars in damage to corn each year. The recent invasion of Europe by this pest has afforded the opportunity for international collaborations to develop that focus on biological control of this notorious pest. Undoubtedly, predators are playing an important role in suppressing populations of this pest, but the role of biotic mortality factors in the life history of WCR are largely undescribed. The shared goals of CABI and my research programs are to develop biological control as a tool that can be applied against this pest, and provided the opportunity for doing some mutual research. This summer, I moved to CABI Switzerland for nine weeks to examine similarities in the predation patterns of WCR immatures between Europe and North America, and lay the groundwork for future joint research pertaining to biological control of this pest.

New electronic forum on insect rearing!

Insect rearing problems are often a critical issue in projects on biological control of weeds, and published literature often offers little guidance on how to successfully rear new or little-studied insect species.

A forum has now been set up for weed biological control workers to discuss insect rearing techniques, problems, and solutions. The forum moderator is Alec McClay.

For information and to register, go to <http://mcclay-ecoscience.com/phpBB2/viewforum.php?f=2>.

Annual Photo Contest

Seeking a Few Good Photos!

The Third Annual Photo Contest to select images for the 2008 covers of *The Canadian Entomologist* and the *Bulletin of the Entomological Society of Canada* is underway. The cover images are intended to represent the breath of entomology covered by the Society's publications. Insects and non-insects in forestry, urban or agriculture; landscapes, field, laboratory or close-ups; or activities associated with physiology, behaviour, taxonomy or IPM are all desirable. A couple 'Featured Insects' (for the spine and under the title) are also needed. If selected, your photo will grace the cover of both publications for the entire year.

Contest rules are as follows:

1. Photos can be submitted as an electronic file (preferred), a slide or a print (negative will be required if chosen). Digital images must have a resolution of at least 50 pixels/cm.
2. Entrants can submit more than one photo. A brief description (i.e. caption) should be provided with each photo submitted.
3. Photos must be taken by the entrant, or the entrant must own the copyright.
4. The copyright of the photo remains with the entrant, but use must be granted to the Entomological Society of Canada for inclusion on the cover of one volume (i.e. 6 issues) of the *Canadian Entomologist* and one volume (i.e. 4 issues) of the *Bulletin of the Entomological Society of Canada*.
5. The entrant must be a member in good standing of the Entomological Society of Canada.
6. The judging committee will be chosen by the Chair of the Publications Committee of ESC.
7. Photos are not restricted to insect "portraits". To represent the scope of entomological research we encourage photos of field plots, laboratory experiments, insect impacts, sampling equipment, non-insect arthropods, etc.
8. A selection of the entries will be exhibited and the winners announced at the Annual Meeting of the Entomological Society of Canada.
9. There is no cash award for the winners, but, photographers will be acknowledged in each issue the photos are printed.
10. Submissions should be sent **AS SOON AS POSSIBLE** to:

Kenna MacKenzie,
Chair, ESC Publications Committee
Agriculture and Agri-Food Canada
32 Main St.
Kentville, NS
CANADA B4N 1J5
Tel: 902-679-5731 Fax: 902-679-2311
E-mail: mackenziek@agr.gc.ca

Concours annuel de photographie

À la recherche de quelques bons clichés!

La troisième édition du concours annuel de photographie visant à sélectionner des images pour les couvertures de *The Canadian Entomologist* et du *Bulletin de la Société d'Entomologie du Canada* de 2008 est présentement en cours. Les images des couvertures doivent représenter l'étendue de l'entomologie couverte par les publications de la Société. Des photos représentant des insectes et non-insectes forestiers, urbains ou agricoles, des paysages, du travail de terrain ou de laboratoire, des gros plans, ainsi que des activités associées à la physiologie, au comportement, à la taxonomie ou à la lutte intégrée seraient souhaitées. Nous avons également besoins de quelques «Insectes vedettes» (pour le dos et sous le titre). Si vos photographies sont sélectionnées, elles seront utilisées pour la couverture des deux publications pour l'année entière.

Les règlements du concours sont les suivants :

1. Les photos peuvent être soumises sous forme de fichiers électroniques (de préférence), de diapositives ou imprimées (le négatif sera requis si la photo est choisie). Les images numériques doivent avoir une résolution minimale de 50 pixels/cm.

2. Les concurrents peuvent soumettre plus d'une photo. Une brève description doit être fournie avec chaque photographie soumise.

3. Les photos doivent avoir été prises par le concurrent, ou ce dernier doit en posséder les droits d'auteur.

4. Les droits d'auteur de la photo appartiennent au concurrent, mais l'utilisation doit être accordée à la Société d'Entomologie du Canada pour son utilisation sur la couverture d'un volume (i.e., 6 numéros) dans *The Canadian Entomologist* et un volume (i.e., 4 numéros) dans le *Bulletin de la Société d'Entomologie du Canada*.

5. Le concurrent doit être un membre en règle de la Société d'Entomologie du Canada.

6. Le jury d'évaluation sera choisi par le président du Comité des publications de la SEC.

7. Les photos n'ont pas à être restreintes à des « portraits » d'insectes. Afin de représenter l'étendue des recherches en entomologie, nous encourageons les photographies de terrain, d'expériences de laboratoires, d'impacts des insectes, d'équipement d'échantillonnage, d'arthropodes non insectes, etc.

8. Une sélection des candidats sera exposée et les gagnants seront annoncés à la réunion annuelle de la Société d'Entomologie du Canada.

9. Il n'y a pas de récompense monétaire pour les gagnants, mais les photographes seront remerciés dans chacun des numéros où les photos apparaîtront.

10. Les soumissions devraient être envoyées **LE PLUS TÔT POSSIBLE** à :

Kenna MacKenzie,
Présidente, Comité des publications de la SEC
Agriculture and Agri-Food Canada
32 Main St.
Kentville, Nouvelle-Écosse,
CANADA B4N 1J5
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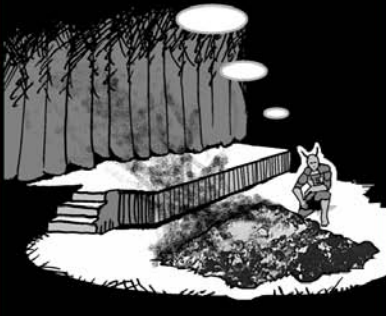
THE ADVENTURES OF ENTO-MAN (EPISODE IX)

TEXT: ANDREW BENNETT

ART: GAETAN MOREAU

When last we met, Ento-Man was investigating a smoking pyre of broken microscopes and entomology texts.

Who would do such a thing?



TRAPPED!!!



Later, elsewhere in *melanogaster's* compound...



You might say that my advertisement had a *Halteria* motive!

Soon you will have the privilege of experiencing my latest biotechnological creation. The *Extractatrix 3000* simply and efficiently removes a portion of a specimen's DNA. In order to ensure a high enough yield for my purposes, I have set it to 100. Percent that is...

Join us next issue to see if Ento-Man can escape the tarsal grasp of Dr. *melanogaster*.

Weathering a media ‘storm’

Stefan Kimmel

University of Koblenz-Landau/Campus Landau, Germany

I have worked with Drs. Stever and Kuhn (University of Landau, Germany) to study the effects of non-ionizing radiation on the foraging behaviour of honey bees. Base stations for standard commercial DECT (Digital European Cordless Telecommunications) telephones are placed in bee hives (Fig. 1). The base stations continuously emit electromagnetic radiation ($fS \approx 1900$ MHz) to irradiate hive occupants. Comparisons are then made of the percent returns for bees foraging from control hives versus bees foraging from irradiated hives (Fig. 2). A preliminary study in 2005 showed a significant treatment effect with returns of 39.7% for non-irradiated bees versus 7.3% for irradiated bees. Data for 2006 confirmed this finding, although the results were not as statistically significant. Results of this and our related research are available on the internet at: <http://www.uni-landau.de/agbi/materialien.htm>.

Media response

On 15 April, the British newspaper *The Independent*, published a story that referenced

*Colony collapse disorder refers to the sudden death of honey bee (*Apis mellifera*) colonies characterized by the absence of adult bees. This phenomenon has attracted a great deal of media attention in recent months and was featured in the June issue of the Bulletin (p. 73-76). MSc student Stefan Kimmel was the recent recipient of some of this attention and recounts his experiences here.*

Stefan can be contacted via email at: kimmel@uni-landau.de



Figure 1. Bee hives are irradiated by placing within them a base station for a DECT telephone.

our preliminary and unpublished results from 2005. The story, titled “*Are mobile phones wiping out our bees?*” and subtitled “*Scientists claim radiation from handsets are to blame for mysterious ‘colony collapse’ of bees*” (<http://environment.independent.co.uk/wildlife/article2449968.ece>) started an overwhelming cascade of media inquiries. Although we never presented our findings as a possible explanation for colony collapse disorder (CCD), many media reports subsequently did so. TV, radio and newspaper reporters from Canada to New Zealand asked us for interviews, comments and further statements. Dr. Stever and Dr. Kuhn have studied the effects of irradiation on bee behaviour for nearly ten years. However, never before had their research been the subject of such media scrutiny.

Of greatest concern to us, was the (mis)interpretation of our data by the media. Many reports and news headlines presented ‘facts’ attributed to our research without ever talking to us. For weeks we had to defend ourselves for making statements that we, in fact, had never made. (I still have horrible memories of talking to reporters on the phone, while visualizing their fingers flashing over a keyboard, and thinking of the potential consequences of each single word I said.)

At one point during this media ‘storm’, I was forbidden by my university to provide



Figure 2. Percentage returns are recorded for bees foraging from nonirradiated (control) hives versus irradiated hives.

information to anyone calling or mailing me. I found this really annoying. As an upcoming scientist, I want to talk about my research, talk about certain aspects that could have been improved, more sophisticated researches and so on. However, with the continued distortion of our research by the media, further interviews seemed pointless - especially when none of my words were ever published exactly as given. TV interviews were edited in ways you would never imagine. Telephone interviews that lasted one hour were stripped to few "spectacular" sentences completely out of context.

There were a few reporters who really tried to present the correct information. The *New York Times* really cared about our statements and, after some phone calls and emails, published an article without distorting the facts. I also got a chance to publish further articles - some like this one, others more on the nature of our experimental design.

We also had a nice interaction with reporters for Discovery Channel Canada, with whom we did a TV interview. But then, after filming, we were asked to sign a contract to waive any rights we might have over the fate and form of the filmed material. This was too much of

a risk for me.

In recent months, we have had no involvement with most of the media reports that have appeared on our honey bee study. My colleagues and I have simply refused to provide further comments. Partly, this is because our research was suffering from the amount of time spent on interviews. Partly, this was because we didn't appreciate talking to reporters who subsequently misrepresented our research in their articles.

The findings of our 2005 study were in no way as sensational as reported in the media. Research at Landau concerning radiation and bees was underway years before reports of CCD. And I'm still not growing tired of saying that our studies were never meant to explain CCD. However, because of the recent media storm, all research at Landau has been cancelled concerning the influence of electromagnetic radiation on the learning behaviour of honey bees.

Lessons learned

My experience with the media has taught me a lot, and that's at least something posi-

tive I can say.

Be prepared - I've learned that you have to be well prepared when it comes to media interviews. I remember a Swedish journalist who really got me sweating early in the morning with very specific questions asking about, for example, "figure xyz on page 123".

Never provide your private number - Never, ever. If reporters want to interview you, it should be your choice where and when.

Limit interviews - It is not your job to give interviews. I caught myself more than once doing nothing but answering the phone and writing emails all day long. This is very unsatisfying when work is piling up on your desk collecting dust.

Be careful what you sign - Most of the TV reporters who interviewed us, had us sign contracts to relinquish any control we might have had concerning the filmed material. Neither my colleagues nor I have much experience with legal contracts and signed them without fully appreciating the consequences. This subsequently made it very difficult to correct misrepresentations of our research in filmed interviews prior to broadcast.

Be careful what you say - I never use to be overly concerned doing telephone interviews. After learning the extent to which some reporters were taking my words out of context, I'll never be that naïve again.

Find the positive - My experience has provided me with contacts from around the globe. Completely apart from media and press, a lot of scientists (like you), bee keepers and other interested people contacted me for further information, to suggest improvements on our experimental design, or simply to offer their congratulations for stirring up a hornet's nest. As one example, I attended a conference last May in Portugal, where I was quite astonished when a scientist from Nova Scotia recognized me as "*one of the German bee guys*".

In the light of these new connections, I have new possibilities for future research collaborations. This is important to me as a MSc student who will soon be seeking a job or PhD position.

The aftermath

After months of answering emails from Canada, USA, Argentina, Namibia, Kenya, the WHOLE European Union (excluding Bulgaria), Korea, Japan, Australia and New Zealand... after a huge number of telephone calls and interviews with newspapers from all of the countries mentioned above... after TV interviews with Discovery Channel Canada, Korea News Broadcasting and several German news magazines... I have tried to ignore the media storm generated by our research to focus on finishing my MSc degree in Environmental Sciences. However, if I ever have the opportunity to work with bees again, maybe in the context of my main interest of ecotoxicology, I will certainly grab the chance. I'm too much fascinated by social insects of all kinds to be scared off by potential future contacts with the media.

Books to be reviewed

If you would like to review the following book, please contact Kenna MacKenzie, Chair of the Publications Committee.

Takahashi, H. and Ôhara, M. 2006. Biodiversity and Biogeography of the Kuril Islands and Sakhalin Volume 2 by, The Hokkaido University Museum. [Reviews millipedes, hydrophilid beetles, staphylinid beetles, and vascular plants of the region].

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Biological Survey of Canada: Terrestrial Arthropods

Survey Report

The Scientific Committee met in Ottawa on 19–20 April 2007. A more detailed account of the meeting appears in the *Newsletter of the Biological Survey of Canada (Terrestrial Arthropods)* 26(2), 2007, which is also on the BSC web site at <http://www.biology.ualberta.ca/bsc/english/newsletters.htm>

Scientific Projects

1. Grasslands

The editorial committee for the first grasslands volume has been expanded to include Joe Shorthouse, Kevin Floate and Rose DeClerk-Floate. Authors should soon receive communication about the project and will have an opportunity to update their chapters. A list of potential authors for the second volume on Arthropods and Altered Grassland Ecosystems has been compiled and letters of invitation will soon be sent by Kevin Floate.

2. Canadian Journal of Arthropod Identification

Several papers for *CJAI* have been accepted, submitted or are in advanced stages of preparation. The *CJAI* should gather considerable momentum over the next year and have a positive impact on biodiversity studies in Canada as well as on the Survey's profile. The *CJAI* has been offered the opportunity to publish on the University of Alberta library website using the Open Journal System (OJS) and this system is currently being tested for its suitability to the *CJAI*. Provision for edited but non-refereed additions to papers in the form of dated subsequent postings by the authors or others are being considered as is a section for editorials and reviews.

3. Terrestrial arthropods of Newfoundland and Labrador

Work continues on the key to the Curculionoidea of Newfoundland and Labrador, a checklist of macromoths and identification of material from the Memorial University of Newfoundland collection. The full staphylinid key will be completed by mid-2008. Some taxonomists have offered to identify flies but there is a need for somebody to take on the Hymenoptera. A comprehensive bibliography of works dealing with NL Entomology is making good progress.

4. Forest arthropods

The database of forest arthropod biodiversity projects is updated regularly and currently includes about 68 projects. Volume 3 of the *Arthropods of Canadian Forests* newsletter will be published in early May. Synthesis papers stemming from the 2005 BSC-sponsored symposium are near completion and should be submitted to *The Canadian Entomologist* soon. Previous BioBlitzes continue to yield data, especially from Gros Morne and Waterton Lakes National Parks where survey work is continuing. Work continues on the handbook to the Cerambycidae (Coleoptera) of Canada and Alaska.

5. Insects of the arctic

Arctic field work in 2007 includes the Primorya region north of Vladivostok and Norman Wells (Doug Currie), and Dempster Highway (Felix Sperling). Donna Giberson collected along the Dempster highway in 2006. Donna Giberson and Steve Burian have completed work on the mayflies of Nunavut. Ken Stewart and Donna Giberson are beginning to work on the stoneflies of the area not covered by Stewart and Oswood's recent publication. Donna Giberson is also working on material collected from the Mackenzie River in the

1970's.

The subcommittee charged with developing a proposal for a large collaborative northern project is considering how best to move forward with the project.

6. Seasonal adaptations

Hugh Danks reviewed his current work on this project including the status of several papers. Although the subject is linked to the Survey's goals of understanding the northern fauna, the Committee will review the status of the project after Hugh Danks retires.

7. Invasions and reductions

The proceedings of the symposium on Ecological Impacts of Non-Native Insects and Fungi on Terrestrial Ecosystems held at the 2006 Joint Annual Meeting will be published by Springer in the journal *Biological Invasions*. Progress on capturing data for the coccinellid project continues. Work continues on the comprehensive list of non-native terrestrial arthropods and a synthesis of the data should be published in about a year.

Other scientific priorities

1. Arthropods and fire

The *Journal of Insect Conservation* had tentatively agreed to host a series of papers on the topic of arthropod conservation and fire from the BSC symposium. However, only six titles have been confirmed so the taxonomic or geographic coverage is limited. A decision on how to proceed will be made soon.

2. BioBlitzes

The 2007 BioBlitz will be held in Riding Mountain National Park, 16-20 July 2007. There is some interest in having the 2008 BioBlitz in Bruce Peninsula National Park.

A proposal to organize a series of Collection Blitzes to assess material and give particular curatorial attention to chosen collections was

discussed. The possibility of organizing one in Saskatoon in conjunction with the joint annual meeting of the ESS and the ESC will be investigated.

3. Arthropods of the Gulf of St. Lawrence Islands

The focus of the project for the short term is to visit approximately 20 small collections in the Maritimes, leaving these small collections with curated and databased material, and start some synthetic work.

4. Databasing

The BSC database of collecting localities should soon be ready for posting on the BSC web site.

5. Survey web site

The BSC web site continues to be updated on a regular basis when new information is received. For 1 April 2006 to 31 March 2007 there were 61,403 unique visitors.

6. Endangered species

Given current interest and funding in endangered species legislation it seems timely to proceed with a proposal for a publication dealing with endangered species in Canada.

7. Biodiversity sampling brief

Interest is insufficient to prepare a revision of the Survey's 1994 biodiversity brief on planning a study and recommended sampling techniques. However, a reference list giving the various new sources for techniques would be useful and is being considered.

8. Monitoring of continuing priorities

Ongoing interests of the Survey were reviewed including arthropod fauna of soils, arthropods of aquatic habitats, arthropod ectoparasites of vertebrates, and arthropods of the Yukon.

Liaison and exchange of information

1. Canadian Museum of Nature

Mr. Roger Baird, Director, Collection Services, reported on the competition for the one-year position for the Head of the Biological Survey. The Museum continues to emphasize renovation of the Victoria Memorial Museum Building, fundraising and revenue generation, and the CMN's national service role.

2. Agriculture and Agri-Food Canada

Lianne Dwyer is now the Science Director for the Biodiversity Theme of the national Environmental Health Program at Agriculture and Agri-Food Canada. A new research project structure has been implemented whereby project proposals receive external peer-reviews and, if approved, obtain guaranteed multi-year funding. Databasing of selected CNC specimens began in early January and is proceeding very well.

The Canadian Food Inspection Agency has hired four insect taxonomists to supplement its national diagnostic services that have long been located at ECORC in close proximity to CNC resources and taxonomic expertise. They will greatly enhance the critical mass of expertise associated with the CNC.

3. Entomological Society of Canada

Peggy Dixon, President of the Entomological Society of Canada reported that Society's finances and membership are more-or-less stable. Robb Bennett is the new editor of *The Canadian Entomologist*. Kevin Floate is now the editor of the *Bulletin*. The new ESC Office Manager is Derna Lisi. Two of the initiatives stemming from the 2005 strategic review being implemented are overhauling the web site and developing an online submission and review system for *The Canadian Entomologist*.

4. Natural Resources Canada, Canadian Forest Service

Mr. Christian Malouin, Biologist, Forest Science Division, Natural Resources Canada, reported that the department is now working around 5 strategic directions. Biodiversity is captured under Inter-forest sustainability. Some of the short-term actions around this strategic direction include developing a national forest pest management strategy, designing a forest research agenda on climate change impacts and adaptation, identifying threats to healthy forests and mitigating risk, and developing a boreal forest strategy. One of the first activities under the biodiversity outcomes framework will be to develop an ecosystem status and trend assessment for Canada. The pilot stage for a forest biodiversity information gateway is underway.

5. Canadian Wildlife Service

Ms. Lisa Twolan, Scientific Project Coordinator, General Status of Species in Canada reported that a work plan for the 2010 Wild Species report is being developed and welcomed comments on the draft plan. Currently groups such as spiders, macro moths, mosquitoes, black flies, horse flies, deer flies, some wasps, mayflies, ladybird beetles, carrion beetles, water beetles, robber flies and grasshoppers are being considered. Some groups may only have a list with no ranks and be flagged as needing more information.

Donna Giberson pointed out that many students would like to do inventory work that would assist this process, but funding and publishing basic inventory work continues to be a problem. She also encouraged the working group to use the common names recommended by the Entomological Society of Canada, in conjunction with the Entomological Society of America. Steve Marshall emphasized the importance of regional or national reviews prior to considering a taxon. The BSC's *Canadian Journal of Arthropod Identification* is an ideal outlet for such reviews, including regional ones.

6. Parasitology module, Canadian Society of Zoologists

Dr. Marcogliese commented that there has been no progress with formalizing a parasitology module. Dr. Marcogliese's work on the national stickleback parasite project has moved ahead. Some progress has been made with the EMAN protocols for parasites.

7. Pollination Canada

The Pollination Canada Monitoring Program had requested the participation of the Biological Survey of Canada in their citizen science initiative being run in conjunction with EMAN. The Committee agreed that it is important to get the general public interested in pollinators and their roles; however, they had concerns about the scientific aspects of the program.

Other items

1. Regional developments

Information of potential interest from different regions was reported, including work being carried out by graduate students and others (not noted in detail here), and the following examples.

In British Columbia construction for the new Beaty Museum at the University of British Columbia has begun. There is renewed interest in doing insect surveys in some national parks including the Gulf Islands National Park. Public hearings for the biodiversity conservation strategy will be held in September. An atlas of biodiversity of British Columbia will be published. In Alberta, the Royal Alberta Museum and the University of Alberta have plans to expand their buildings. The two pests of concern for 2007 are expected to be wheat midge and bertha army worm. In Manitoba, a successful joint meeting North Central branch of the Entomological Society of America and the Entomological Society of Manitoba was held in Winnipeg. In Ontario, the first phase

of the Royal Ontario Museum renovation will open on 2 June 2007. There have been several recent hirings in the science area at the ROM. Negotiations are underway for a "Butterflies of Ontario" volume in the ROM field guide series. The insect collection at the University of Guelph is being expanded. There is much activity at the Biodiversity Institute at the University of Guelph. In Quebec the journal *Faberies* has not been able to find a new editor and this peer-reviewed publication is in limbo. Forest entomology and biodiversity work are going strong in Quebec. The annual meeting of the Acadian Entomological Society will be held on 10-12 June at Saint Mary's University, Halifax. Tom Chapman has been hired at Memorial University of Newfoundland. For the arctic, Doug Currie noted that he will be going to Norman Wells, NWT, in June. A group at York University is doing work at Rankin and Iqaluit, including some sampling. An undergraduate student from l'Université du Québec à Rimouski collected interesting material from Bylot Island in 2006 and will collect again in 2007.

2. BSC Transition

The Museum had decided to fill the position of the Head of the Biological Survey for a one-year period following the retirement of Hugh Danks in August, and pending completion of the Museum's 5-year strategic plan.

3. Other matters

The Committee briefly discussed other matters such as a proposal to help entomologists with knowledge transfer, the annual report to the CMN, general operations of the Biological Survey Secretariat, communications with the new editor of *The Canadian Entomologist*, the BSC scholarship, the faunal analysis project, arthropods of the Queen Charlotte Islands and arthropods of special habitats. The Annual Meeting of the Biological Survey Foundation was also held.



D.J. Gberson

30 years of leadership for the Biological Survey of Canada (Terrestrial Arthropods).

From left to right: George Ball - Chair, Scientific Committee (1977–1979, 1986-1995); Hugh Danks - Head of the Biological Survey (1977–2007); Geoff Scudder - Chair, Scientific Committee (1979–1986); Joe Shorthouse - Chair, Scientific Committee (1995–present).



Ovipositing ichneumonid wasp, probably *Megarhyssa nortoni*. Photo courtesy of B.Burton, The Butchart Gardens (Victoria, BC).

Hugh Danks retires as Head of the Biological Survey of Canada (Terrestrial Arthropods)

By Joe D. Shorthouse

Hugh V. Danks retired as Head of the Biological Survey of Canada (Terrestrial Arthropods), on 31 August 2007. Hugh was employed by the Canadian Museum of Nature in Ottawa and ran the BSC which is administered by the CMN and supported by the Entomological Society of Canada. Hugh was hired on a contract in 1977 as the scientist-in-charge of the Biological Survey Project of the ESC. In 1980, the CMN (then the National Museum of Natural Sciences) became a co-sponsor of the Survey and in 1982 Hugh was hired as the Head. The day-to-day work of the BSC is done by a small Secretariat located at the CMN in Ottawa. Broader consultation is done through an advisory Scientific Committee, established by the ESC, that meets twice a year. The two past Chairs of the SC who worked closely with Hugh on BSC initiatives were George Ball and Geoff Scudder. The current Chair is Joe Shorthouse.

Hugh has been responsible for nurturing the BSC from the time of its inception to the successful organization we see today. His outstanding organizational skills resulted in the BSC becoming a model for coordinating scientific research among specialists. Hugh became an expert at synthesizing knowledge and ideas and focusing available expertise on topics that are particularly significant, such as the insect fauna of the Yukon and Canada's grasslands. The BSC has become a catalyst for scientific progress which provides national direction for work on Canada's invertebrate fauna. The BSC has become highly successful under Hugh's tutelage, with its productivity recognized nationally and internationally. The BSC has produced 13 major books since 1981, some written by multiple authors, along with

56 papers and 15 briefs and Hugh has played a major role in them all. He has also coordinated the production of 77 newsletters and convened 16 symposia or workshops.

Besides his daily involvement with the administrative and coordinating activities of the BSC, Hugh found time to collect and digest the contents of hundreds of articles on the physiological and ecological adaptations of insects. His uncanny ability to produce thought-provoking and thorough syntheses of many complex entomological issues made him well known internationally and not only drew attention to the BSC, but to Canadian entomology as well. He was frequently asked by scientific organizations around the world to make presentations on his insights. For synopses of Hugh's scientific work, titles of presentations, and a list of his 113 publications, see <http://www.biology.ualberta.ca/bsc/english/danks.htm>.

Hugh has also been credited with stimulating the careers of dozens of entomologists across the country. There likely are few entomologists in Canada under the age of 40 who have not heard several of his seminars presented as part of his cross country tours to enhance the coordinating activities of the BSC. He also made a point of meeting nearly every graduate student after their presentations at annual meetings, offering them kind words of encouragement. Hugh was honoured by the ESC in 2003, for his contributions to Canadian entomology, when he was awarded the Gold Metal at the annual meeting in Kelowna, B.C. For a more general outline of Hugh's career up to 2003 when he received the Entomological Society of Canada's Gold Medal Award see the *Bulletin of the Entomological Society of Canada*: 35(4): 200-202, (2003)

Sometimes life, or at least research, comes full circle and this certainly occurred with Hugh. For example, Hugh's early work on seasonal adaptations was published in *The Canadian Entomologist* in 1971, and his continuous interest in the subject culminated in a series

of review articles over the past few years. His most recent ‘The elements of seasonal adaptations in insects’ appeared in the January issue of *The Canadian Entomologist*. Another of his early interests, the ecology of aquatic insects in cold climates, was revisited this year when he made a presentation on the topic at the annual meeting of the Royal Entomological Society of London, presented a keynote address at the 2007 International Symposium on the Ecophysiology of Ectotherms and Plants” in Dunedin, New Zealand, and published the review article ‘How aquatic insects live in cold climates’ in the July issue of *The Canadian Entomologist*. In addition, Hugh is currently working on a revised and expanded edition of *The Bug Book and Bottle*, (first published in 1987) that will be published by Workman Publishing in the spring of 2008.

A farewell dinner in Hugh’s honour was held on 19 April 2007 in Ottawa and was attended by current members of the Biological Survey’s advisory Scientific Committee as well as local entomologists, and representatives of the Canadian Museum of Nature and the Entomological Society of Canada. As part of the many speeches at the dinner acknowledging Hugh’s contributions to entomology, Entomological Society of Canada President Peggy Dixon presented the following parody of the many resolutions Hugh made at the annual general meetings of the Society:

Whereas Dr. Hugh Danks has had a full and interesting career in entomology, writing numerous scientific monographs, reviews and articles; and

Whereas he has Chaired the Biological Survey of Canada (Terrestrial Arthropods) with care and concern; and

Whereas the ESC took the opportunity in 2003 to thank Hugh for his years of service by awarding him our highest honour, the Gold Medal...

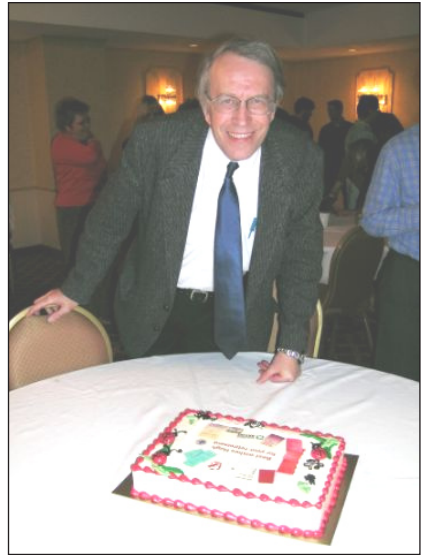
Be it resolved that the ESC express its

sincere thanks to Hugh for his hard work and skill; and

Be it further resolved that Dr. Danks have a long, fulfilling retirement with Thelma, doing all the things they want to do without pressure or deadlines...to even become dormant if he so wishes; and

Finally be it resolved that he is able to do this somewhere sufficiently warm that his own cold-hardiness is not in question, unless of course he wishes to further his travels in the Arctic.

Congratulations Hugh!



J.D. Shorthouse

Hugh Danks ‘surveys’ his retirement cake.



Winners of the student award competition at this year's meeting of the Acadian Entomological Society: (from left to right) Taro Saito (St. Mary's University, Best Poster); Sean LeMoine (Acadia University, Oral Presentation Runner-Up); Kenna MacKenzie (AES President); Melissa Reekie (University of Western Ontario, Best Oral Presentation).

Congratulations!

Gold Harvest Award Winners

Kudos to Peggy Dixon, Juliana Soroka, Carolyn Parsons and Janet Coombes who received a Gold Harvest Award for their efforts in developing an integrated pest management strategy for cabbage maggot, *Delia radicum* (L.). Their efforts have been helping farmers and researchers worldwide. Gold Harvest Awards are presented to employees of Agriculture and Agri-Food Canada to recognize exceptional research contributions.



R. Underwood

Cabbage maggot, *Delia radicum*.

Entomologists at work / Entomologistes au travail

By Kenna MacKenzie



D. Giberson

Acadian Entomological Society field trip participants walking along trails through the forest on McNabb's Island.

The Acadian Entomological Society held a field trip to McNabb's Island in the Halifax harbour on 10 June 2007 as part of their Annual General Meeting. About 20 people braved the cool, wet weather to explore the island led by Jon Sweeney, Natural Resources Canada and Jeff Ogden, Nova Scotia Department of Natural Resources. At approximately 395 ha, it is the largest island in the harbour and holds important historical significance for the Mi'kmaw, Acadians and British. Numerous ruins including military fortifications can be found on the island. Forests on the island were badly damaged by Hurricane Juan in September 2003 and large areas of blow down were seen. This has exacerbated the Brown Spruce Longhorn Beetle population which is established on the island. Jon Sweeney described his current research projects on BSLB to the group. It was an interesting and educational day!

Officers of Affiliated Societies, 2006-2007 Dirigeants des sociétés associées, 2006-2007

Entomological Society of British Columbia

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President-Elect John McLean
Past President Karen Needham
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Rédactrice adjointe : Marj Smith

Le Bulletin de la Société d'entomologie du Canada, publié depuis 1969, présente trimestriellement des informations entomologiques, des occasions, des renseignements sur les opérations de la Société, des dossiers scientifiques d'importance et des analyses d'ouvrages.

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The Buzz / Bourdonnements

By Kevin Floate, Editor / Rédacteur



Each year produces a fresh crop of reports on invasive insect species in Canada. Past examples include stories on pea leaf weevil (*Sitona lineata*), cabbage seedpod weevil (*Ceutorhynchus obstrictus*), emerald ash borer (*Agrilus planipennis*), soybean aphid (*Aphis glycines*), pea leafminer (*Liriomyza huidobrensis*) and the multicoloured Asian lady beetle (*Harmonia axyridis*).

These reports are sometimes misleading and occasionally humorous. One newspaper reported the recovery of the Asian longhorned beetle (*Anoplophora glabripennis*) in Alberta based on a specimen collected in the 1960s. Given that this pest only was discovered in North America in 1996, this report generated considerable interest until the specimen subsequently was identified as the relatively common white-spotted sawyer (*Monochamus scutellatus*). In a second incident, the release of 4-mm long beetles to control noxious weeds in Canada, appeared in print as the release of '40-cm long beetles'. I'm sure that more than one reader paused to ponder the wisdom of releasing insects the size of house cats throughout the country.

This spring, I purchased a wasp control product that was illustrated with the image of a rather fierce-looking wasp. Intrigued, I

Chaque année apporte une nouvelle vague de rapports d'espèces invasives d'insectes au Canada. Par le passé, nous avons entendu parler du charançon rayé du pois (*Sitona lineata*), du charançon de la graine de chou (*Ceutorhynchus obstrictus*), de l'agrite du frêne (*Agrilus planipennis*), du puceron du soja (*Aphis glycines*), de la mouche mineuse sud-américaine (*Liriomyza huidobrensis*), ainsi que de la colorée coccinelle asiatique (*Harmonia axyridis*).

Ces rapports sont parfois trompeurs, et occasionnellement amusants. Un journal a rapporté la trouvaille d'un longicorne asiatique (*Anoplophora glabripennis*) en Alberta d'après un spécimen récolté dans les années 1960. Considérant que ce ravageur n'a été découvert en Amérique du Nord qu'en 1996, cet article a suscité un intérêt considérable jusqu'à ce que le spécimen en question soit par la suite identifié comme étant le relativement commun longicorne noir (*Monochamus scutellatus*). Dans un second incident, le lâcher de coléoptères de 4 mm de long afin de contrôler des mauvaises herbes nocives a été rapporté comme étant un lâcher de coléoptères de 40 cm de long! Je suis certain que plus d'un lecteur s'est arrêté afin de juger de la sagesse de relâcher ainsi des insectes de la taille d'un chat domestique dans tout le pays.

Ce printemps, j'ai fait l'achat d'un produit pour le contrôle des guêpes sur lequel est illustrée une guêpe à l'allure plutôt enragée. Intrigué, j'ai envoyé des copies de cette image à James Carpenter (Musée Américain d'Histoire Naturelle) et Doug Yanega (Université de Californie, Riverside). Les deux ont identifié la guêpe comme appartenant au genre *Synagris*. Les membres de ce genre sont des guêpes maçonnes solitaires, insignifiantes en tant que ravageur et, hélas, endémiques aux régions Afro tropicales. 'Hélas', parce que l'utilisation de cette image afin de vendre le produit au Canada m'a créé certaines attentes de trouver ces insectes incroyables dans mon jardin.

sent copies of the image to James Carpenter (American Museum of Natural History) and Doug Yanega (Univ. of California, Riverside). Each identified the wasp as a species of *Synagris*. Members of the genus are solitary potter wasps, insignificant as pests and, alas, endemic to the Afrotropics. ‘Alas’, because use of their image to sell a product in Canada had given me some expectation of seeing these incredible insects in my backyard.

Do you have a story of insects being misrepresented to the public? Send it along and we’ll publish it in the next issue.

Connaissez-vous des histoires où les insectes ont été mal représentés au public? Envoyez-les et nous les publierons dans le prochain numéro.



‘Tusked’ males of *Synagris* spp. (Hymenoptera: Vespidae: Eumeninae). Photographs courtesy of R. Longair (top) and P. Blanchot (bottom, <http://www.philippeblanchot.com>).

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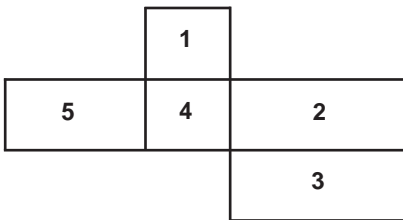
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Images

On the spine: The mountain pine beetle, *Dendroctonus ponderosae* Hopk. (Curculionidae), an eruptive bark beetle that periodically kills large areas of pine forests in western North America. Photo: D. Linton.

Beneath the title: The white underwing, *Catocala relictata* Wlk. (Noctuidae), feeds on poplars, aspens, and willows. Photo: A. Carroll.

Photos on front cover:

1. Collecting bark beetles (Curculionidae) from a Lindgren funnel trap at Angstad Creek near Merritt, British Columbia. Photo: J. Smith.

2. *Leptomantispa pulchella* (Banks), photographed at Ojibway Prairie in Windsor, Ontario. This species is otherwise known in Canada only from the Okanagan Valley. Photo: S. Marshall.

3. A Cooley spruce gall adelgid, *Adelges cooleyi* (Gill.) (Adelgidae), parthenogenetic exulis with its eggs on Douglas-fir. Photo: B. Bains.

4. *Formica aserva* Forel (Formicidae), an aggressive ant that nests in large pieces of woody debris throughout Canada, carrying a pupa. Photo: R. Higgins.

5. Female wheat midge, *Sitodiplosis mosellana* (Géhin) (Cecidomyiidae). Photo: R. Lamb.

Back cover: *Tetragnatha viridis* Walck. (Tetragnathidae), the only bright green longjawed orb-weaving spider found in Canada, ranges from eastern Ontario and Nova Scotia south to the northern coast of the Gulf of Mexico. Photo: M. Larrivière.

Français à l'intérieur de la couverture avant