



Entomological Society of Saskatchewan Inc.

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ESC / ESS Joint Annual Meeting

(Lorraine Braun)

The ESC / ESS joint annual meeting attracted 182 registrants from 4 countries. Attendees included 84 regular members, 16 non-members, 56 students, 7 companions, and 19 registrants for single day sessions / symposia. The ESC / ESS Scientific program consisted of the Gold Medal Address by Lubomir Masner, lectures by David Pimentel and Josef Schmutz in the Plenary Session, two symposia spread over three morning sessions, the Heritage Lecture given by Paul Riegert, four contributed paper sessions, four President's Prize student paper sessions, and one poster session. As well, there were Workshops: Lygus Bugs, Leafhoppers, Preparing and Assessing Grant Applications, and Internet Resources for Entomologists. Of the 122 scientific papers accepted, 11 were symposia papers, 33 were contributed papers, 21 were workshop presentations, 32 were President's Prize student papers, and 25 were poster papers. The symposia, oral, and student-contributed papers were presented with a maximum of three concurrent sessions being scheduled. There were 33 presentations entered in the student competition. Four awards of \$100.00 were presented for oral presentations, with one prize winner from each of the four President's Prize sessions. A Millennium Poster competition was also held, and one poster prize for \$75.00 was presented by Saskatchewan Wheat Pool.

The meetings started with a "Student's Meet The Board" mixer on Sunday evening, followed by a wine and cheese reception for all participants. On Monday evening, invited guests attended the president's reception, hosted by ESC President Gilkeson. The banquet took place in the Michelangelo Ballroom of the Radisson Hotel. After enjoying a fine meal of carved baron of beef and roast turkey, delegates were treated to three dance sets from the Oriental Arts Dance Troupe. Awards were presented for the ESC Graduate Student Research Travel Grant, the Keith Kevan Scholarship, and the Postgraduate Award. President's Prize and Millennium prizes were also presented, as well as the Criddle Award. Special presentations were made to George Ball for the first-to-register and to Ed Becker for 40 consecutive years attendance at ESC annual meetings.

ESS Web-Site News

(Larry Grenkow)

In April, 1999 the ESS was launched into cyberspace with the installation of the ESS web-site. The University of Saskatchewan biology department hosts the site at www.usask.ca/biology/ess. There is no charge to the ESS. Since its inception, the site has attracted a steady stream of over 350 visitors.

Month	April	May	June	July	August	September
Visitors	93	51	66	61	83	63

The site was updated this November, and includes new links to other web pages, including the International Congress of Entomology, and the Orthoptera Database. To save time, browsers will cache on your computer a copy of a web page you recently visited. When you visit the page again, your browser will use the cached version rather than get a new copy from the server. To make sure you see the latest version of the web page, click on "refresh" or "reload" on the tool bar on your browser, to force the browser to retrieve a fresh copy from the server.

The ESS web site is not static; soon to be posted on the site will be pictures from the 1999 ESC/ESS Joint Meeting. Please send any ideas or information that might make the site a more useful and interesting tool to Larry Grenkow, Secretary, ESS (e-mail: grenkowl@em.agr.ca).

AAFC Saskatoon Research Centre Insect Pathology Laboratory News

(Martin Erlandson)

We welcome Dr. Qian-Jun Li ("Chen") who is in a 2 year post-doctoral fellow position in the insect pathology lab. Previously, Dr. Li worked at the AAFC laboratory in Summerland, BC with Dr. David Theilmann on a project characterizing early genes of baculoviruses. Before that Dr. Li was at the Carnegie Mellon Institute in Philadelphia working on hormonal regulation of oocyte development in the blow fly, *Phormia regina*. Dr. Li will be working on a project to develop cell lines from bertha armyworm that support replication of a baculovirus, MacoNPV, from bertha armyworm. He will also be involved in a collaborative project to sequence the MacoNPV genome and identify novel genes.

There are two graduate students working in our lab. Bryan Ulmer, a PhD student from the Department of Biology, is looking at interactions of bertha armyworm with a range of brassicaceous host plants. Bryan has already identified some significant differences in larval feeding preferences and nutritional suitability across a variety of host plant species. Bryan is now moving on to look at interactions of adult females, in particular oviposition behaviour with various host plants. Elijah Atuku, an M.Sc. student from the Department of Applied Microbiology and Food Sciences, is studying the effect of temperature on baculovirus replication in bertha armyworm.

During 1999 I had the opportunity to do a "transfer of work" for six months in the Virology Department at the Agricultural University of The Netherlands in Wageningen, Netherlands. I was working with Dr. Just Vlak's group on a baculovirus from *Spodoptera exigua*.

In the Netherlands, *S. exigua* is a pest in greenhouse production of flowers and vegetables. The baculovirus (SeMNPV) has been commercialized as a virus insecticide against *S. exigua* and I had an opportunity to see how this system was developed as a commercial product. In addition, I picked up several new techniques for producing recombinant baculovirus *in vivo* using DNA transfection methods adapted from cell culture protocols. It was a very productive and enjoyable time. I can recommend some particularly good Dutch cheeses and excellent beers!

Biology Department News

(Cedric Gillott)

Cedric Gillott retired from the Biology Department on June 30, 1999, after 34 years in the service of the University of Saskatchewan. The event was celebrated by a "farewell" (?) party at the Faculty Club on June 24, which included a strong contingent of colleagues (many his former graduate students) from Agriculture and Agri-Food Canada. Cedric has been granted "Professor Emeritus" status and expects to continue to have strong links with both the Department and AAFC through continued co-supervision of graduate students, service on student advisory committees, and some exciting writing projects (not all entomological!). Nevertheless, Cedric is looking forward to spending more time on the tennis court, at home with the garden and exotic birds, and travelling to warmer climes for winter breaks.

(Art Davis)

Michael Langenberger (this year's Brooks Award winner, as it turned out) and I attended the international congress of bee scientists and beekeepers entitled "Apimondia 99", held in Vancouver from September 12-18, 1999. Michael presented a talk about his M.Sc. research on caraway pollination by bees and other insects. I had been asked to prepare a talk entitled "Pollination on the Canadian Prairies", during the plenary symposium entitled "Melliferous Flora and Pollination". Other Plenary Symposia held during the Congress were entitled Beekeeping Economy, Beekeeping for Rural Development, Bee Pathology, Apitherapy, Bee Biology, and Beekeeping Technology. As well, over 20 other symposia with key international speakers, and a large poster session were presented. Furthermore, the annual American Bee Research Conference, normally scheduled each January, was moved up a few months to be held during Apimondia 99 in Vancouver.

The meeting, which attracted a few thousand delegates travelling from beekeeping countries around the planet, had been organized over the past four years by members of the Canadian Association of Professional Apiculturists and Canadian Honey Council. The Apimondia congress is held every two years, but this was the first time for several decades that the congress was held outside Europe. Along with the largest trade-show (ApiExpo) of its kind, the meeting will go down in history as the new standard for other organizers to attain. Unfortunately, this will likely not happen in my career, making future Apimondia meetings a little bit of a disappointment from the standpoint of this meeting's excellent scientific content and impeccable organization.

(Dennis Lehmkuhl)

1. Loys Maingon just defended a thesis - "Community diversity in two subalpine seepage springs, Gambier Island, B.C.: the role of allochthonous carbon inputs in community structure after deforestation".

It involved species level identification of the entire insect community of each site. Loys is thinking about continuing on in a Ph.D. project.

2. Greg Pyle is in the final stages of a Ph.D. on "The toxicity and bio-availability of nickel and molybdenum to standard toxicity-test fish species and fish species found in northern Canadian lakes".

3. Scott Lipsit is in the final stages of a thesis "Comparative efficacy of four dosages of blackfly larvicide, *Bacillus thuringiensis*, using artificial substrate monitors".

4. Jeff Webb is starting a thesis on mayfly taxonomy which will have a ecological component, yet to be determined.

5. In December, I will be visiting friends in Tokyo, and at that time I hope to visit the study area of a Japanese student who is working with me on an informal basis. Her study area is a mountain river where a dam is being constructed, located in Iwate, northern Honshu, near Hokkaido. I also hope to visit a friend in Kumamoto, an Agriculture Engineer I met as a Japanese / English conversation partner. He is working on water quality and we have discussed working on some joint projects. I will likely also visit friends in Osaka and Seoul, and I will at least have a chance to see these areas, though perhaps not take any biological samples.

CABI Bioscience Centre - Switzerland

(Stephanie Harris)

The chocolate was incredible, but there were no St. Bernards or people yodeling from the mountainsides. I was fortunate enough to have spent seven weeks this summer as a visiting technician at the CAB International Bioscience Centre in Delémont, Switzerland. The purpose of my trip was to collect and rear field populations of the egg parasitoids *Telenomus sp.* and *Trichogramma buesi*. These species are native to Switzerland and help to control populations of *Mamestra brassicae*, a serious pest on canola, cabbage, broccoli and cauliflower crops. The parasitoids are then used in laboratory competition experiments to determine the effectiveness of those species as egg parasitoids.

Several shipments of *Telenomus* have been sent to Saskatoon for use in a variety of experiments to determine their effectiveness as a control agent of the bertha armyworm, *Mamestra configurata*. These experiments include competition trials, similar to those performed in Switzerland, using one of our native egg parasitoids, *Trichogramma inyoense* as the competitor.

During my stay at CABI, I worked in the agriculture section under the supervision of the section head, Dr. Ulli Kuhlmann. In addition to having an agriculture section, CABI also consists of forestry and weed biocontrol sections. The station in Delémont employs approximately 30 people during the summer months, but this number declines dramatically in the winter. It is a very culturally diverse station with employees coming from Germany, Switzerland, England, Ireland, and Canada. Most of the employees rent rooms from local Delémont residents; however, the rooms rarely have kitchens so almost all of the cooking is done in the communal kitchen at CABI. It took very little time before I began to feel I was part of a big family.

Workdays at CABI begins at 8:00 sharp and ends at 5:30, but many stay at the station late into the evening to finish their work.

It is common occurrence to see most people at the station on the weekends, and the hard work and extra hours did not go unrewarded. Ulli treated everyone in the agriculture section to a hiking trip in Zermatt. For those who are not familiar with Switzerland, this is home to one of Europe's most famous mountains, the Matterhorn. Tourists come here by the hundreds. We all had a fabulous time hiking, site-seeing, and shopping.

Several of us were able to get away for weekend trips to Basel and to the capital city of Bern. Here we enjoyed swimming in the River Aare, shopping in the markets, fine dining, and English movies. It was wonderful to be surrounded by people speaking so many different languages and to see the amazing architecture and the depth of their history. The trip was an unforgettable experience and I would like to thank everyone who made it possible and all those who helped me to learn the languages and feel comfortable in my new surroundings.

New species of insects discovered in Saskatchewan

(Ronald R. Hooper)

Lepidoptera

Nymphalidae - *Speyeria idalia* (Drury) [Regal Fritillary] One worn specimen was collected by Ross Layberry as it was flying northward, near Big Muddy Lake, SK on July 26, 1998. It has formerly been taken as a stray north to Riding Mountain National Park in Manitoba and west to Miles City, Montana.

Noctuidae - *Spodoptera frugiperda* (Sm.) [Fall Army Worm Moth] One fairly fresh specimen was taken at an ultraviolet light trap near Fort Qu'Appelle, SK on September 07, 1998 by Ron Hooper. It was formerly taken west to Aweme, Manitoba. This species is a serious pest of crops in the southern states, where it has several broods per year. It is not expected to become a pest this far north.

Noctuidae - *Euretagrotis attentata* (Grt.) [Attentive Dart] One specimen was taken near Fort Qu'Appelle, SK at an ultraviolet light trap by Ron Hooper on July 11, 1994. Formerly it was taken west to the Binscarth area of Manitoba.

Coleoptera

Carabidae - *Elaphrus lapponicus* Gyll. Five were taken by Tyler Cobb in pitfall traps near Upper Cummins Lake (southwest of Buffalo Narrows, SK) on July 17, 1998, where there had been a forest fire. This subarctic species was formerly taken south to Gillam, Manitoba and Great Slave Lake, Northwest Territories. The identity was confirmed by Dr. George Ball of Edmonton, Alberta.

Carabidae - *Harpalus innocuus* Lec. Three were collected near Amyot Lake (south of Ile La Crosse, SK) on July 27, 1998, and one was collected near Minnow Lake (northwest of Green Lake, SK) on June 06, 1998, in pitfall traps by Tyler Cobb. They were taken where there had been forest fires. This species has formerly been found at Sioux Lookout, Ontario, Fort Smith, Northwest Territories, south in the mountains to Lake Louise, Alberta, and also in the Cypress Hills at Elkwater, Alberta. Although this species has formerly been taken in the east, north, and west, it has been missed in Manitoba, Saskatchewan, and northern Alberta. These records indicate that it probably occurs across the northern forests of the prairie provinces. The identification of this species was confirmed by Dr. George Ball of Edmonton, Alberta.

ESC Research Travel Grants

The following is an excerpt from the revised instructions for the ESC Research Travel grants. The deadline for this grant is January 15, 2000. Interested students can get electronic copies of the application form (rtf format) from me, and the form should be available on ESC's web site (<http://www.biology.ualberta.ca/esc.hp>) in the near future. Note that there are some minor changes to the application form, specifically there are now page limitations for the application. Also, each application must be provided in one original plus three copies.

Please distribute this message to potential applicants and encourage them to contact me directly for the entire package (including the French version), which I can send as attachments.

SCHOLARSHIPS AND GRANTS

Entomological Society of Canada Graduate Research-Travel Grants Invitation for Applications

Preamble

To foster graduate education in entomology, the Entomological Society of Canada will offer two research-travel grants, awarded annually on a competitive basis. The intent of these grants is to help students increase the scope of the graduate training. These grants, up to a maximum of \$2,000, will provide an opportunity for students to undertake research or course work pertinent to their thesis subject that could not be carried out at their own institution, and that represents a significant addition to the planned thesis research or course work.

Eligibility

To be eligible, a student must:

- 1) be enrolled as a full-time graduate student
- 2) be an active member of the Entomological Society of Canada

Format of the Application

The application will be in the format of a grant proposal, where the applicant will provide the following information:

- 1) the subject of the thesis;
- 2) a pertinent review of the literature in the field
- 3) a concise presentation of the status of the ongoing thesis research;
- 4) a description of the research or course work to be undertaken, clearly indicating
 - a) the relevance to the overall goal of the thesis
 - b) an explanation of why such work cannot be carried out at the student's own university, and
 - c) the justification of the site where the research/course work will be carried out;
- 5) a budget for the proposed project, including a justification for how costs not covered by the grant will be covered;
- 6) anticipated dates of travel and date on which grant money is needed.

The grant proposal should not exceed 4 pages in length.

The application shall also be accompanied by:

- 1) an up-to-date C.V.;
- 2) a supporting letter from the senior advisor; and
- 3) when appropriate, a supporting letter from the scientist or Department Head at the institution where the applicant wishes to go.

Evaluation Procedure

The scientific merit of each application will be evaluated by a committee that has the option of sending specific projects out for external review by experts in the field. Written comments from the Awards Committee members will be returned to the applicant.

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