



# Entomological Society of Saskatchewan Inc.

VOLUME 17 ISSUE 1 ESS NEWSLETTER AUGUST 14, 1996

Editor: Wayne Goerzen  
107 Science Place, Saskatoon, SK S7N 0X2

---

## **ESS FALL MEETING ANNOUNCEMENT** **Lloyd Harris, President**

The 1996 Annual Meeting of the Entomological Society of Saskatchewan will be held in conjunction with a Badlands Tour planned for September 14 and 15, 1996 (Saturday and Sunday). The tour will depart Saskatoon (Agriculture Canada Research Station) at 8:00 am. on Saturday, September 14 and return on Sunday afternoon. Activities planned for the tour are outlined in detail in the Annual Meeting announcement included with this newsletter. For additional information, contact Lloyd Harris at (306) 787-4669.

## **ESC-AES 1996 JOINT MEETING** **Wayne Goerzen**

The 1996 joint meeting of the Entomological Society of Canada and the Acadian Entomological Society will be held at the Lord Beaverbrook Hotel in Fredericton, New Brunswick on October 5 - 9, 1996. A registration form, program details, and contacts for additional information are included in this newsletter.

## **NEWS FROM THE ENTOMOLOGICAL SOCIETY OF CANADA** **Keith Moore, Regional Director**

In the Report of the Subcommittee on Organizational Structure of Executive Council, Governing Board, and Committees of the Entomological Society of Canada, the subcommittee has recommended that the executive council of ESC remain as it presently is, that the number of directors-at large on the governing board be reduced to three, and that the offices of Assistant Bulletin Editor and Scientific Editor (Memoirs) either be eliminated or remain unfilled until there is an established need to fill either of these positions.

The final report of the ESC Strategic Review Committee: Subcommittee to Investigate the Role and Impact of the ESC in Relation to Regional Societies contained the following recommendations of note (highlights only)...

### 1. Representation on ESC Committees

"many standing committees are simply too large, because of the requirement of regional representation; so, it has been proposed that this requirement be removed... any regional society could negotiate membership on any ESC committee, either permanently, or for a period of time acceptable to said society and the ESC."

#### Recommendations:

1.1 Every regional society should be strongly encouraged to recommend (with justification provided) to the President of the ESC, candidates for appointment to any committee for which regional representation is not mandated, but where there is particular societal interest and there are qualified individuals willing to do the job.

1.2 Mandated membership on the Science Policy and Education Committee is desirable.

1.3 Mandated membership on the Insect Common Names Committee is not recommended. However, it is recommended that this committee be maintained as a standing committee.

1.4 Regional directors should serve on the Science Policy and Education Committee, at least. They might serve on other committees, though other representatives from regional societies could be appointed to serve on the non-mandated committees.

### 2. Communication

#### Recommendations:

2.2 ESC Bulletin editors should continue to encourage regional directors (and other members) to submit for publication in the Bulletin those items regarded as newsworthy.

2.3 A section should be established in the ESC Bulletin for regional news.

### 3. Revenue Enhancement for the ESC

#### Recommendations:

3.1 Revenue-sharing between the ESC and a host regional society should be an operating principle, subject to working out details of shared effort and monetary contributions, such as seed money provided by the ESC and assumption of responsibility for debts incurred by regional society as a result of hosting a joint annual meeting.

3.2 National annual meetings should normally continue to be sponsored jointly by the ESC and a regional society, with the ESC from time to time assuming full responsibility for these meetings.

3.3 All members, including regional directors, should be treated the same with regard to funding of attendance at annual meetings of the governing board.

**NEWS FROM AAFC BIOLOGICAL CONTROL OF INSECTS PROGRAM  
SASKATOON RESEARCH CENTRE  
Martin Erlandson**

It has been a busy spring and summer at AAFC. Sheping Li, a graduate student co-supervised by Martin Erlandson and Dr. Cedric Gillott, successfully defended his Ph.D. thesis on May 31, 1996. His thesis was entitled "Molecular cloning and physical mapping of bertha armyworm, *Mamestra configurata*, nuclear polyhedrosis virus genome and preliminary study of geographic isolates". Dr. Li is now working as a post-doctoral fellow in Martin Erlandson's lab. Li is continuing to work on baculoviruses in collaborative project with Martin and Dr. David Theilmann (AAFC, Vancouver).

Lorraine Braun has returned to the AAFC labs in Saskatoon after doing graduate work with Dr. Andrew Keddie at the University of Alberta. Lorraine's Ph.D. thesis defence is slated for September 20, 1996. She has been involved in a very exciting study of the interaction of *Bacillus thuringiensis*  $\delta$ -endotoxins with lepidopteran midgut cells. She will be continuing to work on various aspects of the interaction of microbial pathogens with lepidopteran midgut cells as part of the insect biological control project at AAFC.

The biocontrol program has had busy summer of field work. Peter Mason's group has set up field studies of both larval and egg parasites of bertha armyworm. Peter and Owen Olfert have also coordinated a larger western Canadian field study of bertha armyworm and diamondback moth populations in canola. My group has undertaken further field trials with baculoviruses for control of lepidopteran insects in canola. We continue our long tradition of pre-selecting field application dates that fall in the midst of periods of wind and torrential rains.

**NEWS FROM THE UNIVERSITY OF SASKATCHEWAN / BIOLOGY DEPT.  
Cedric Gillott / Art Davis**

Cedric has a new post-doctoral fellow, Dr. Shuxia Yi, who started work in his laboratory on June 01, 1996 replacing Ismail. Ismail and his family have moved to Texas where he has taken a further post-doctoral position with Dr. Bhaskaran at Texas A & M University. Dr. Yi received her Ph.D. from the University of Gent, Belgium, and did a year's post-doctoral work at the Forest Pest Management Institute, Sault Ste. Marie, with Dr. Kees Van Frankenhuisen.

Art Davis reports that he attended the 7th International Symposium on Pollination (sponsored by the International Commission for Plant-Bee Relationships) at the University of Lethbridge from June 23-28, 1996. The symposium was organized by Dr. Ken Richards, who has since transferred to AAFC, Saskatoon Research Centre.

The emphasis of the symposium was on bees (e.g. *Apis*, *Bombus*, *Megachile*, and *Osmia*) and their contribution as pollinators to crops and native plants. Approximately 120 delegates from North America and Europe attended. Ten Canadian scientists spoke on various topics ranging from modelling pollination to analysis of pollen loads of honey bees, use of leafcutting bees as pollinators of cranberry in eastern Canada, and the study of rainforest pollination ecology in Brazil. Refereed manuscripts are to appear in a special edition of **Acta Horticulturae** sometime early in 1997. Hungary and Turkey were put forward as possible venues for the 8th International Symposium, tentatively planned for the year 2000.

**ENTOMOLOGY COURSES OFFERED AT THE UNIVERSITY OF SASKATCHEWAN**  
**Cedric Gillott**

Department of Biology

- BIOL 364.3 Economic Entomology
- BIOL 365.3 Insect Diversity and Evolution
- BIOL 366.3 Insect Structure and Function
- BIOL 466.3 Aquatic Insects
- BIOL 871.3 Advanced Insect Physiology
- (BIOL 898.3 Special Topics. This course has been given with an entomological theme to various graduate students over the years)

Department of Applied Microbiology and Food Science

- AP MC 433.3/833.3 Microbial Insecticides
- AP MC 838.3 Laboratory in Microbial Insecticides

Department of Horticulture Science

- APIC 311.3 General Apiculture
- HORT 330.3 Horticulture Entomology

School of Agriculture

- AGRIC 15.3 Insect Identification and Control

**ENTOMOLOGICAL SOCIETY OF SASKATCHEWAN LIBRARY**

**Nancy Melnychuk**

The following textbooks were donated to the ESS by Mr. L. Harris and are available for use by members. For more information contact Owen Olfert @ (306) 956-7288.

**ECOLOGY**

- Andrewartha, H.G. 1971. Introduction to the Study of Animal Populations.
- Poole, R.W. 1974. An Introduction to Quantitative Ecology.
- Smith R.L. 1974. Ecology & Field Biology.
- Southwood, T.R.E. 1978. Ecological Methods with Particular Reference to the Study of Insect Populations.

**ENTOMOLOGY- GENERAL**

- Chapman, R.F. 1971. The Insects - Structure and Function.  
 Hutchins, R.E. 1966. Insects.  
 Metcalf, R.L. & W.H. Luckman. 1982. Introduction to Insect Pest Management.  
 Otte, D. 1981. The North American Grasshoppers-Acrididae: Gomphocerinae & Acridinae.  
 Romoser, W.S. 1973. The Science of Entomology.  
 Rohdendorf, B. 1974. The Historical Development of Diptera.  
 Villiard, P. 1975. Moths and How to Rear Them.  
 Wigglesworth, V.B. 1964. The Life of Insects.

**ENTOMOLOGY- BEEKEEPING & SOCIAL INSECTS**

- Dadant & Sons (eds.). 1975. The Hive and The Honey Bee.  
 Dadant & Sons (eds.). 1978. Beekeeping Question and Answers.  
 Laidlaw, H.H. 1977. Instrumental Insemination of Honey Bee Queens - Pictorial Instructional Manual.  
 Laidlaw, H.H. 1979. Contemporary Queen Rearing.  
 Laidlaw, H.H. & J.E. Eckert. 1962. Queen Rearing.  
 Michener, C.D. 1974. The Social Behaviour of the Bees - A Comparative Study.  
 Morse, R.A. 1974. The Complete Guide to Beekeeping.  
 Morse, R.A. 1978. Honey Bee Pests, Predators, and Diseases.  
 Morse, R.A. 1979. Rearing Queen Honey Bees.  
 Pellett, F.C. 1976. American Honey Plants.  
 Richards, O.W. 1953. The Social Insects.  
 Snodgrass, R.E. 1956. Anatomy of The Honey Bee.  
 Stanley, R.G. & H.F. Linskens. 1974. Pollen - Biology, Biochemistry, Management.  
 Wilson, E.O. 1971. The Insect Societies.

**OTHER**

- Eisen, H.N. 1974. Immunology - An introduction to Molecular and Cellular Principles of the Immune Responses.  
 Frazier, C.A. 1969. Insect Allergy - Allergic reactions to Bites of Insects and Other Arthropods.  
 Snedecor G.W. & W.G. Cochran. 1967. Statistical Methods (Sixth Edition).  
 Sokal R.R & F.J. Rohlf. 1969. Biometry (First Edition).

**RON HOOPER RETIREMENT - A TRIBUTE****Keith Roney**

On April 28, 1996, Ron Hooper reached the age of 65 and as an employee working for the provincial government that can signify either a happy or a sad time. It is that time of mandatory retirement. It certainly was a sad time for the Royal Saskatchewan Museum (RSM) as we lost a valued and long-time employee. Ron had been associated with the RSM for 32 years.

Ron was born just north of Carragana and raised in the Somme area. He had a twin brother, Don who recently passed away in 1993, one older brother (Dale) and one sister (Edna). In 1963, Ron was married to Barbara. They were blessed with 3 children: 2 boys, David and Johnny, and a girl, Esther. David is married, has a baby girl (Alisha), and lives in Eston where he teaches English to foreign students. Esther works with a drama group called "Life Force" that travels to schools and talks to students about the dangers of alcohol and drugs. Johnny lives at home with them.

Ron and his twin, Don, shared a lot of interests while growing up, not the least of which was an interest in nature. Around 1950, they started collecting insects and plants, and took a taxidermy course by correspondence. Their techniques for mounting insects left a little to be desired as they used brown sticky tape and stuck them to the wall! His techniques, I'm happy to report, have vastly improved since then. As for their taxidermy, they felt they needed some practical, hands-on experience, so in 1953, they came to a museum, which was located in the Normal School on College Avenue at that time, and spent a week learning how to study birds and do bird mounts. Their mentor was Fred Lahrman, who has painted many of the museum's dioramas. Some of their mounts are still displayed in the Porcupine Plain Museum.

Another passion and life's work of Ron's started in 1956. That passion was his love for the Lord and he embarked on his ministerial work which he continues with vigour and commitment to this day.

As mentioned earlier, Ron married in 1963. Ron and Barb honeymooned in the Cypress Hills area. That was a very memorable occasion for Ron, as you can well imagine. For you see, he collected 4-5 new butterfly species records for Saskatchewan. And while on the Alberta side he collected 2 new butterfly records for Alberta. Now I call that dedication and commitment. I trust it was as memorable for Barb as it was for Ron!

Ron first started work with the Saskatchewan Museum of Natural History when he went on a field trip to Stony Rapids in the July of 1964. In the winter, Fred Bard, the director at the time, asked Ron to come in and mount the insect specimens collected on that trip. That was the beginning of a long-term relationship with the Museum (32 years to be exact) and the beginning of "THE" provincial collection of insects. At that time, there were a few insect specimens in the museum's collection but it has been expanded to around 100,000 specimens due in large part to Ron's efforts. That field trip in 1964 was the first of 58 field trips Ron has been on for the museum.

Over the years, Ron has many accomplishments and has been involved in many capacities dealing with, as Ron would say, God's green earth. Following, I have listed a few of them...

- 1) He has collected 32 new butterfly species for the province and 7 that were new to Canada (2 of which remain the only Canadian records).
- 2) He was instrumental in putting together the museum's large insect display during the late 1960's; the display remained in the lower gallery until it was dismantled to make room for the development of the new First Nations Gallery.
- 3) He has been very active in the Natural History Societies (NHS) serving as an associate editor of the Saskatchewan NHS and the President of the Fort Qu'Appelle NHS.
- 4) He regularly conducts field trips for butterfly and bird counts which assist in providing information on geographic distribution and population size for the species counted; this in turn helps monitor population changes due to changes in weather or habitat.
- 5) He has written and published the book on "The Butterflies of Saskatchewan".
- 6) He has written numerous articles in the Blue Jay since the 1950's and is presently doing a series on moths of Saskatchewan, of which 14 parts have been completed and published.
- 7) He is the prairie reporter to the Lepidoptera Society, providing seasonal summaries for the butterflies and moths.
- 8) He has amassed his own private collection of swallowtail butterflies of the world.
- 9) He was part of a team that conducted a bioinventory of the Wildcat Hill Wilderness Area in the Pasquia Hills of east central Saskatchewan. A published report was produced from the study.
- 10) Ron is a member of the Lepidoptera Working Group, part of COSEWIC that reviews and makes recommendations on the status of Lepidoptera in Canada.
- 11) He has produced a publication on the flora and fauna of the Fort Qu'Appelle area.
- 12) He is presently completing a publication started by his brother Don, on the plants of east central Saskatchewan (comprising 750-800 species).
- 13) Ron received the "Fellow of the SNHS" award in 1992.
- 14) He was also recognized in 1983 by the Entomological Society of Canada when they presented him with the Norman J. Criddle award which recognizes the contributions made by an amateur to entomology in Canada.
- 15) Besides all this, Ron has also learned to speak Cree and partially understand the Saulteaux language.

In order to recognize and honour Ron's accomplishments and contributions not only to the RSM but to nature in general, a retirement party was held on May 15, 1996 at the Brass Lantern in Regina. There were 33 friends in attendance to make this a memorable occasion. Best wishes were presented by Paul Reigert on behalf of the ESC and ESS, by Curt Schroeder for the Nature Saskatchewan, and by Ron Borden for the Department of Municipal Government and the RSM.

Ron also received a number of telegrams from people unable to attend in person. Gifts presented to Ron were a pair of rubber boots, a fishing rod and reel, a book entitled "A Photographic Guide to the Raptors", a portable electric cooler/heater for the vehicle, and a monetary gift.

Ron has been a tireless and dedicated worker for the RSM and has required little limelight. He has taught many people, including me, a lot about nature over the years and I am sure he will continue to do so in the years ahead. But I am certain Ron is not ready or willing to retire from one of his loves, and that is nature. I'm sure I am not alone in wishing Ron all the best in his future endeavours.



MINUTES OF THE E.S.S. 1996 SPRING MEETING  
AGRICULTURE CANADA RESEARCH STATION, SASKATOON

13:00, May 10, 1996

**PRESENT:** Alf Arthur, Jeff Balone, Art Davis, Bob Elliott, Martin Erlandson, Coreen Franke, Brian Galka, Wayne Goerzen, Lloyd Harris (Chairman), Lloyd Jeffs, Peter Mason, Keith Moore, Owen Olfert (Secretary), Juliana Soroka.

1. Call to order at 13:00 by President Lloyd Harris
2. Introductions were made, new members were welcomed.
3. **MOTION:** Olfert/Mason. THAT the agenda as amended be approved.  
**CARRIED.**
4. **MOTION:** Olfert/Goerzen. THAT the minutes of the September 8, 1995, meeting be accepted as circulated.  
**CARRIED.**
5. Business arising from the minutes.
  - 5.1 Oilseed Pests Video - L. Harris  
Approximately \$42 thousand have been received from CSAGP, CPI members, Alberta Agriculture, Saskatchewan Canola Development Council, Canola Council of Canada. Most of the footage for bertha armyworm, diamondback moth, cabbage butterfly and blister beetles has been completed. More is required for flea beetles, red turnip beetle, aphids, lygus bugs and thrips. The plan is to have the filming completed by August. The script is also being developed at the same time. The option of transferring the information to CD-ROM is being investigated.
  - 5.2 Memorial Tree for Eric Whiting - J. Soroka  
A conifer has been purchased by the society in memory of Eric. The dedication ceremony is scheduled for June 1, 1996, 13:00, in the bowl area in front of Innovation Place.
6. Treasurer's Report.  
See Appendix A.  
**MOTION:** Soroka/Elliott. THAT the report be accepted as circulated.  
**CARRIED.**
7. Secretary's Report. In the past few months, the duties of the secretary consisted

of drafting agendas, putting together the minutes, and forwarding the names of committee appointees to ESC to the chairpersons of the respective appropriate committees. The Society continues to receive copies of catalogues of rare periodicals, serials and books on entomology. Members were asked to contact the secretary if interested in these issues. The issue of obtaining copies of Proceedings of the joint meeting with Alberta is still outstanding. This will be pursued with the organizing committee of SEA.

**MOTION:** Olfert/Soroka. THAT the verbal report be accepted as presented.  
**CARRIED.**

8. Newsletter Report - Wayne Goerzen

The ESS Newsletter, Volume 16(2), was published on February 15th, 1996. This issue contained reports on the ESS fall meeting held in Leader, SK and the ESC/ESBC joint annual meeting held in Victoria, as well as updates from the Saskatoon Research Centre, the University of Saskatchewan, and individual ESS members. The next issue of the ESS Newsletter will be published in June, 1996. Any ESS members interested in submitting an articles for inclusion in the newsletter are invited to do so at their earliest convenience.

**MOTION:** Goerzen/Moore. THAT the newsletter report be accepted as presented.

**CARRIED.**

9. Regional Director's Report. - Keith Moore

**1. Highlights of the E.S.C. Midterm Executive Meeting**

- The Headquarters committee reported that back issues of society publications have been moved from the warehouse on Morrison Drive to the main floor of the E.S.C. Winston Avenue office.

- The Publications committee has decided to charge authors for extras (figures, tables etc.), if they exceed 40% of the length of the paper. Authors will be billed at the Society's cost.

- Nominations for the E.S.C. executive for 1996-7 are: Second Vice President- Linda Gilkeson, Cedric Gillott; Director at Large- Lloyd Dosedall, John Spence, Jeff Stewart; Fellowship Committee- George Gerber, John McLean, Bernard Roitberg. The Fellowship committee has nominated George Gerber as a Fellow of the E.S.C.

- The Achievement awards Committee has selected Jarmila Kukalova-Peck as the recipient of the Gold Medal Award for and Tim Lysyk as the recipient of the C. Gordon Hewitt Award for 1996.

- Annual meetings will be held in Fredericton in 1996 and in Edmonton in 1997. The 1998 meeting location will be determined in the coming weeks, depending upon the location of the E.S.C.- E.S.A joint meeting in 2000. If Montreal is chosen as the host in 2000, ESS may be asked to host the ESC Annual Meeting in 1998.

## **2. First Draft of the Strategic Review Committee to Investigate the Role of the E.S.C. in relation to the Regional Societies**

- Four areas are being examined; representation on E.S.C. committees, revenue enhancement, the role of E.S.C. publications in communication with the regional societies and the role of the E.S.C. in public education.

- On the issue of committee membership the feeling was that committee chairs need individuals committed to the job at hand and in most cases regional representation isn't important. In a few situations such as: Science Policy and Education, Insect Common Names, Membership and Endangered Species Committees mandated regional representation is likely.

- On the issue of revenue enhancement there is a possibility of periodically having the E.S.C. as sole sponsor of annual meetings and to have regional representatives or possibly the whole board pay their own travel expenses for governing board meetings. There was no consensus on either of these proposals.

- To improve communication the committee recommended that a section of the E.S.C. Bulletin be set aside for regional news to be provided by the editors of regional newsletters.

- The committee recommended that the role of promotion of entomology continue to be the responsibility of the regional societies with the parent society kept up to date on regional activities. The societies may undertake joint projects using a yet to be established www site.

**MOTION:** Moore/Soroka. THAT the Director's report be accepted as presented.

**CARRIED.**

### **10. Committee Reports.**

#### **10.1 Teaching of Entomology in Saskatchewan - M. Erlandson, C. Gillott**

No report. The committee was asked to put together a list of entomology courses offered by the U of S and U Regina, and publish it in the Newsletter.

#### **10.2 Student and Amateur Encouragement**

N. Melnychuk reported on the activities of the committee:

Gardenscape - Little Green Thumbs. The ESS had to withdraw support for the LGT school tours because we were unable to meet the time commitments required.

School Talks:

P. Mason, M. Braun, O. Olfert and M. Erlandson have agreed to give presentations at schools in the City.

Text Books:

A number of entomology text books have been donated to the Society by L. Harris. These books may be borrowed for use as reference material. A list of titles will be included in the next Newsletter

**10.3** Proceedings and Archives.

K. Roney reports that the Proceedings are currently being printed.

**10.4** Honors and Awards

No report.

**MOTION:** Soroka/Mason. THAT the all committee reports be accepted as presented. **CARRIED.**

**11.** New Business.

**11.1** Fall Meeting. - L. Harris

L. Harris suggested a similar format to last year for a fall meeting. The consensus was that it would be desirable to again have a field trip early in fall as a substitute for a scientific meeting. Members present were encouraged to discuss the latter option with others and bring forward their suggestions to L. Harris.

**11.2** Insect Field Guide for Zeneca - L. Harris

L. Harris reported that Zeneca had approached ESS about publishing a pocket sized field guide to insect pests. Members were asked to consider such an endeavour.

**12.** Adjournment

Goerzen moved that the meeting adjourn at 15:00

# ENTOMOLOGICAL SOCIETY OF SASKATCHEWAN

## Treasurer's Interim Report

May 10, 1996

### Membership:

Currently, there are 49 members in the Society, 45 of which are regular members and 4 of which are students. Four new members have joined the Society since last September. They are Jeff Balone, Brian Galka, Raymond Hankey, and Chrystel LeFol.

### Canola Film:

Since September, \$30,975 has been received (\$19,275 from PFRA/Green Plan Grant, \$11,700 from industry) for production of the canola insect video. In this time period, \$ 9,339.21 was spent on filming, film, and camera equipment.

### Finance:

Our assets include:

a) ESS Maximizer Account		\$ 2,212.63
ESS term Deposits	01	10,362.87
	02	<u>3,102.28</u>
		15,677.78
b) Film Chequing Account		\$ 9,839.90
Film Term Deposits	01	10,000.00
	02	<u>5,015.41</u>
		24,855.31
Total Assets		\$ 40,533.09

Julie Soroka  
Treasurer





# ESC-AES 96

## The 1996 Joint Meeting of the Entomology Society of Canada and the Acadian Entomological Society

Lord Beaverbrook Hotel, Fredericton, New Brunswick October 5-9, 1996

### TENTATIVE PROGRAM

#### Saturday, 5 October 1996

08:30 - 17:00 Entomological Society of Canada Governing Board Meeting - Garrison Room

#### Sunday, 6 October

10:00-15:00 Registration  
13:00-17:00 Workshop (2)  
17:00-18:30 Linnaean Games  
19:30-20:30 Students meet the Board - Petitcodiac Room  
20:30-23:00 Wine and Cheese - Ballroom

#### Monday, 7 October

08:00-10:00 Registration  
08:30-10:00 Opening remarks, ESC Awards, Gold Medal Address  
10:00-12:00 Plenary Symposium: Practical Applications of Basic Research - Graham Thurston  
Bob Denno - University of New Maryland

##### **Basic Ecology to Pest Management: Reality or Hyperbole**

Jean-François Landry (Agriculture and Agri-Food Canada)

##### **Systematics, the Dean of Biological Sciences: Does it have a Future in a Technology-driven World? Emerging Practical Applications for an Old-timer.**

David Levin (University of Victoria)

##### **Insect Biotechnology: The Evolution of the Revolution**

John Spence (University of Alberta)

##### **Tools and Tomorrows: Collections, Communities and Conservation**

13:30-15:00 Submitted Paper/Graduate Student Papers (President's Prize)  
13:30-16:30 Workshop (1)  
15:30-16:30 Poster Session  
15:30-16:30 Heritage Lecture  
16:30-17:30 Acadian Entomological Society Annual General Meeting  
19:00-22:00 President's Reception (by invitation only)  
17:00-21:00 Linnaean Games: Finals

#### Tuesday, 8 October

09:00-12:00 Symposium: Tree Resistance to Insects - Dan Quiring  
Daniel Herms (East Lansing, U.S.A.)  
**The Dilemma of Plants: to Grow or Defend**  
Eric Bauce (Quebec City, Canada)  
**Phenotypic resistance of balsam fir to the spruce budworm**  
Stig Larrson (Uppsala, Sweden)  
**Intraspecific variation in willow resistance against a gall-forming cecidomyiid**  
Kiss et al. (Kalamalka, Canada)  
**Resistance of interior spruce to white pine weevil**  
Dan Quiring (Fredericton, Canada)  
**Explanation for variations among sites: tree growth rate, previous herbivory and densities of natural enemies and herbivores**  
Robert S. Fritz (Poughkeepsie, U.S.A.)  
**Effects of Plant Hybridization on Herbivore Resistance**

13:30-16:00 Submitted Papers  
Poster Session  
16:30-17:30 Entomological Society of Canada Annual General Meeting.  
18:30-23:00 Banquet

**Wednesday, 9 October**

09:00-12:00 Symposium "Insects of Wetlands" Donna Giberson  
Submitted Papers  
Workshop (1)  
12:00-13:00 Entomological Society of Canada Governing Board Meeting.

**TENTATIVE WORKSHOPS**

IPM in Apple Orchards - Rob Smith  
Population Dynamics and Management of Hemlock Looper - Rick West  
Entomopathogenic Nematodes and IPM - Graham Thurston  
Research in Support of IPM programs for Colorado Potato Beetle - Gilles Boiteau  
Insect Management in Seed Orchards - Jon Sweeney

**For additional information, please contact:**

Jon Sweeney (Chair)  
Canadian Forest Service - Fredericton  
P.O. Box 4000  
Fredericton, New Brunswick  
E3B 5P7  
Tel: (506) 452-3499, Fax: (506) 452-3525; Email: [jsweeney@fcmr.forestry.ca](mailto:jsweeney@fcmr.forestry.ca)

Graham Thurston (Program Chair)  
Canadian Forest Service - Fredericton  
P.O. Box 4000  
Fredericton, New Brunswick E3B 5P7  
Tel: (506) 452-3026, Fax: (506) 452-3525; Email: [gthurston@fcmr.forestry.ca](mailto:gthurston@fcmr.forestry.ca)

**The Logo**

The Short-tailed Swallowtail, *Papilio brevicauda bretonensis* McDunnough, is a distinctly Acadian insect, restricted to salt marshes along the northern coasts of New Brunswick, Nova Scotia, and Newfoundland. The larvae feed on scotch lovage, *Ligusticum scoticum*. The original pen and ink drawing was made by Nova Scotian artist, Twila Robar-DeCoste, from a photograph taken by Dr. Tony Thomas. T-shirts and/or coffee mugs with the logo will be available for sale at the meeting.





