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393 Winston Avenue
Ottawa, Ontario, Canada K2A 1Y8
E-mail: entsoc.can@sympatico.ca
http://esc-sec.org/

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Executive Council / Conseil exécutif

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Faculty of Forestry
33 Willcocks St., University of Toronto
Toronto, ON M5S 3BS
Tel: (416) 978-5482, Fax: (416) 978-3834
E-mail: smith@larva.forestry.utoronto.ca

First Vice-President / Premier vice-président
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Horticultural Research & Development Centre
Agriculture and Agri-Food Canada
430 Gouin Blvd., Saint-Jean-sur-Richelieu
QC J3B 3E6
Tel: (450) 346-4494, ext. 202
Fax: (450) 346-7740
E-mail: vincentch@agr.gc.ca

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Cereal Research Centre
Agriculture and Agri-Food Canada
195 Dafoe Rd., Winnipeg, MB R3T 2M9
Tel: (204) 983-1458, Fax: (204) 983-4604
E-mail: rlamb@agr.gc.ca

Past President / Président sortant
Bernard Roitberg
Department of Biological Science
Simon Fraser University
Burnaby, BC V5A 1S6
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E-mail: roitberg@sfu.ca

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Entomological Society of Canada
393 Winston Ave., Ottawa, ON K2A 1Y8
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Secretary / Secrétaire
Rick West
31 Drover's Heights
Portugal Cove-St. Philips, NF A1M 3G6
Tel: (709) 895-2734, Fax: (709) 895-2734
E-mail: reely.west@roadrunner.nf.net

Bulletin* Editor / Rédacteur du *Bulletin
Paul Fields
Cereal Research Centre
Agriculture and Agri-Food Canada
195 Dafoe Rd., Winnipeg, MB R3T 2M9
Tel: (204) 983-1468, Fax: (204) 983-4604
E-mail: pfields@agr.gc.ca

Webmaster / Webmestre
Barry Lyons
1219 Queen St. E.
Sault Ste. Marie, ON P6A 2E5
Tel: (705) 541-5617, Fax: (705) 759-5700
E-mail: blyons@nrcan.gc.ca
http://esc-sec.org

The Canadian Entomologist
Editor-in-Chief / Rédacteur en chef
Jean Turgeon
1219 Queen St. E.
Sault Ste. Marie, ON P6A 2E5
Tel: (705) 759-5764
E-mail: editor.canent@nrcan.gc.ca

Divisonal Editors / Rédacteurs de division
Michel Cusson, E-mail: cusson@cfl.forestry.ca
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Don Lafontaine, E-mail: lafontained@agr.gc.ca

Head Office / Siège social
Entomological Society of Canada
393 Winston Ave., Ottawa, ON K2A 1Y8
Tel: (613) 725-2619, Fax: (613) 725-9349
E-mail: entsoc.can@sympatico.ca
http://esc-sec.org/

Up Front / Avant-propos

Sandy Smith, President of ESC / Présidente de la SEC

As another field season draws to a close, I hope you all have had a busy and productive summer. Being a forest entomologist by trade, my attention of course has been focused on mountain pine beetle expansion in the west and the introduction of the emerald ash borer in the east. But like all of us, the high profile of the mosquito-borne West Nile Virus continuing its spread across the country has not been missed.

As President of the Society, I have been pleasantly surprised by the number of e-mails I receive each week from the general public asking a range of entomology-related questions. Some are simple inquiries, such as where can one obtain entomological training in Canada, while others require a little more depth, like which Canadian insect is the fastest! At such times, I am only too glad to pass these requests on to my many colleagues in the Society whose wealth of expertise is much admired and appreciated.

On the other hand, it never fails to amaze me in what a specialized light we entomologists are often viewed. Our Secretary recently informed me that a poll conducted by Environics in August 1999 to gauge public opinion found that 55% rejected the idea of designating a national bird, 57% a national flower, and a lofty 84% a national insect. Needless to say, as a result of this study we did not recommend a national insect to Heritage Canada in 2000!

The most exciting and pertinent news for the Society that I am pleased to report on is the appointment of Richard Ring, University of Victoria, as our new Editor-in-Chief of *The Canadi-*

Comme la saison de terrain se termine, j'espère que vous avez tous eu un été occupé et productif. Étant une entomologiste forestière par profession, mon attention a été attirée principalement par l'expansion de l'aire du dendroctone du pin pondérosa dans l'Ouest et l'introduction de l'agrile du frêne dans l'Est. Mais la grande activité du virus du Nil occidental transmis par les moustiques, continuant sa progression à travers le pays, n'est pas passée inaperçue.

En tant que présidente de la Société, j'ai été agréablement surprise par le nombre de courriels que je reçois du public chaque semaine, touchant toute une gamme de sujets reliée à l'entomologie. Certaines questions sont de simples demandes de renseignements, comme où peut-on obtenir une formation en entomologie au Canada; alors que d'autres demandent un peu plus de recherche comme quel est l'insecte le plus rapide au Canada! Dans ces moments-là, je suis heureuse de pouvoir passer la demande à mes collègues de la Société dont la profusion en expertises est très admirée et appréciée.

D'un autre côté, je ne manque pas de m'émerveiller en m'apercevant sous quelle lumière spécialisée nous les entomologistes sommes perçus. Notre secrétaire m'a informé récemment qu'un sondage de l'opinion publique conduit par Environics en août 1999 a trouvé que 55% des gens rejetaient l'idée de désigner un oiseau emblème national, 57% une fleur emblème national, et un gros 84% un insecte emblème national. Il va sans dire qu'à la suite de ce sondage nous n'avons pas recommandé de désigner un insecte emblème national à Patrimoine canadien en 2000!

La nouvelle la plus excitante et pertinente pour notre Société est la nomination du Richard Ring de l'Université de Victoria en tant que rédacteur en chef du *The Canadian Entomologist*. Il sera en poste à partir de janvier 2004. Je suis vraiment heureuse que Richard ait décidé d'accepter ce rôle majeur dans notre Société et je suis certaine qu'il maintiendra les hauts standards définis par le rédacteur en chef actuel, Jean Tur-

an Entomologist, effective January 2004. I am really happy that Richard has decided to accept this major role in our Society and am confident that he will maintain the same high standards set by our current Editor-in-Chief, Jean Turgeon. Having said that, I know, as with all Editors, he will bring a new perspective to the journal, one particularly sensitive to the issues of our taxonomists.

In closing, I hope you all are making plans to attend the Joint Annual Meeting of the ESC and British Columbia in Kelowna this year. The meeting officially starts on Sunday afternoon (2 November) and runs until Wednesday (5 November), but there are a number of associated meetings either before or after. Kelowna is in the beautiful Okanagan Valley, the primary winery and fruit growing region of BC, and the meeting is being held in the spectacular Grand Okanagan Lakefront Resort and Conference Centre on the shores of Okanagan Lake. If you haven't already, take a look at http://esbc.harbour.com for registration and program information. Remember, the hotel will release our block of rooms (at the excellent price of $99/night after 30 September!), so book sooner rather than later. I hope to see you there.

geon. Ceci dit, je sais qu'il apportera une nouvelle perspective à la revue comme tous rédacteurs, une vision particulièrement sensible aux besoins de nos taxonomistes.

Finalement, j'espère que vous planifiez tous d'assister au Congrès conjoint annuel des Sociétés du Canada et de la Colombie-Britannique à Kelowna cette année. Le congrès commencera officiellement le dimanche après-midi (2 novembre) et se terminera mercredi (5 novembre), mais un certain nombre de réunions associées se tiendront soit avant ou après le congrès. Kelowna est située dans la magnifique Vallée de l'Okanagan, la région vinicole et de culture fruitière de la Colombie-Britannique. Le congrès est tenu dans le spectaculaire "Grand Okanagan Lakefront Resort" et son "Conference Centre" sur les bords du lac Okanagan. Si vous ne l'avez déjà fait, consulter le site pour l'inscription et les informations concernant la programmation http://esbc.harbour.com. Souvenez-vous, l'hôtel débloquera nos chambres réservées (au prix excellent de $99/nuit) après le 30 septembre! Donc, réserver plus tôt que trop tard. J'espère vous y voir.

Meeting Announcements / Réunions futures

51st Annual Meeting of the Entomological Society of Alberta
Athabasca University, Athabasca, Alberta, Canada, 2-4 October 2003
robert@athabascau.ca, http://www.biology.ualberta.ca/courses.hp/esa/esa2003.htm

59th Annual Meeting of the Entomological Society of Manitoba
Winnipeg, MB, 24-25 October 2003
iranpour@ms.umanitoba.ca, http://home.cc.umanitoba.ca/esm/meet.html

51st Annual Meeting of the Entomological Society of America
Cincinnati, Ohio, USA, 26-29 October 2003
http://www.entsoc.org/annual_meeting/2003/index.html

The XVth International Plant Protection Congress,
Beijing, China, **Postponed** until 11-16 May 2004.
ippc2003@ipmchina.net, http://www.ipmchina.net/ippc/ippcwelcome.html

22nd International Congress of Entomology
Brisbane, Australia, 15-21 August 2004
http://www.ccm.com.au/icoe/index.html

Entomologist receives award

Jay Whistlecraft was awarded a 2003 Gold Harvest Award from Agriculture and Agri-Food Canada (AAFC). He received this award for the excellent work he has done in rearing insects for a wide variety of projects. Gold Harvest Awards are presented annually to recognize extraordinary achievements by AAFC employees. He is responsible for developing and maintaining one of the best insect rearing facilities in the country. His research interests focuses on the development of rearing techniques for both beneficial and pest insects; efficacy tests of biological control candidates in controlled environments and small scale field releases; development of mass production processes and transfer of technology to industry. For more information on Jay's program see: http://res2.agr.gc.ca/london/emp/whistlecraftj_e.htm

Jay Whistlecraft (right) receiving his Golden Harvest Award in Ottawa, July 2002, from the Deputy Minister of Agriculture, Samy Watson.

Mass production of Colorado potato beetle *Leptinotarsa decemlineata* for a national insecticide resistance screening project organized by Jeff Tolman, applied entomologist at London. Summer student, Mandy MacGillivray produces more than 500 larvae and adults per day for this and other bioassay projects.

Waxing Nostalgic

By Cathy Shearer

In 1978, Bob Lamb was a keen new Ag Canada scientist. I was a fresh Aggie grad looking for my first real job. I was hired as an entomology technician assigned to Bob in what was then the Integrated Pest Management group. My first assignment was to place sheet metal cones over soil samples that we set up in the greenhouse. Each cone had a plastic cup on the tip to trap flea beetles as they emerged from the soil. Lacking Bob's creative approach to science and his deep understanding of insect behaviour, (and being a self-absorbed 20-something with little work experience) I thought this whole exercise was well, kind of lame.

What I soon learned was that Bob was a gifted scientist with a flare for designing deceptively simple experiments that produced practical and money-saving results for farmers.

Bob's interest in flea beetle control led to techniques for screening canola seedlings for resistance to flea beetle attack. His expertise in modeling biological and meteorological processes led to advances in the identification of new sources of flea beetle resistance in canola and economic thresholds for a number of pests. His recent contributions to the development of midge-resistant wheat stand to save farmers $50 million a year.

All of these accomplishments were achieved in spite of the fact that throughout the formative years of his career, Bob had a technician who was both entomologically and ecologically-challenged...

One summer we erected huge 3x3 metre screen tents at Glenlea around our flax plots. Tornado-force winds made quick work of those, but Bob? He was unflappable.

Then there were the birds. We wrapped our plots in special tape that whined in the wind. It was supposed to deter birds – it became music to their ears. Bob kept his cool.

Later, we learned still more valuable lessons about wildlife: Deer love peanut butter. Mice like to nest in those sheet metal cone traps. A moose can make mincemeat out a row of canola quicker than you can say *Brassica campestris.* Through it all, Bob remained calm and collected.

I wasn't a model technician, but Bob never criticized, even when my fear of heights got the better of me. He might remember the time he asked me to climb an extension ladder propped up against a hydro pole at the farm at Glenlea. We wanted to install sticky traps to monitor high-flying insects. I was scared witless. "Hey, suck it up," I told myself, "it's your job." I cautiously climbed to the top, took one look at the hard ground below, and promptly climbed back down. Bob knew I was petrified. He could have insisted I scale the ladder again, but instead, he went up himself. Someone else might have said, "Get over it" but not Bob. Kindness is one of his strongest characteristics. Humility is another.

Quietly and without pretension, Bob has become one of our department's most prolific scientists. He has authored nearly 100 scientific publications. His creativity has resulted in a diverse portfolio of completed projects, and he hasn't limited his research to one or two insects. In fact, he has worked with at least 20 insect species on 10 different crops.

Bob has mentored many students over the last 25 years. He has helped to shape the careers of several MSc and PhD students. In the early 80s, he supervised George Maiteki, a Ugandan PhD candidate, and later Rick Butts, who is now the Director at the Potato Research Centre in Fredericton. Both George and Rick were married with small children when they undertook their grad studies.

The rigours of studying for a PhD must be stressful, but the challenge was made even

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Cathy Shearer worked as a technician for Bob Lamb for several years before making a career change into the communications field. She currently works at Agriculture and Agri-Food Canada's Cereal Research Centre in Winnipeg in the Media Services Unit.

Bob Lamb, circa 1980, sampling pea aphids.

more so for George and Rick with the added worries and responsibilities of caring for young families. Bob and his wife Pat MacKay adopted them all. They went beyond the obligations of academic advisors, helping George and his family adjust to a life very different from the one they left behind in Africa.

Although Rick was a Canadian, he also had a difficult time while he was in Winnipeg. A life-threatening illness put his studies on hold, but Bob and Pat were there to help Rick's family cope while he was hospitalized, and afterward during his long recovery.

So many people have been touched by Bob and Pat's kindness and so many have enjoyed their warm hospitality at the countless parties and receptions they have hosted.

Many of us have also traveled vicariously through them as their travels have taken them around the globe – across Africa and Australia (Bob and Pat really should be granted dual citizenship!) – to Japan, the Baja and the Caribbean. I always looked forward to Bob's tales of tranquil paddles in Quetico, though some trips were far less tranquil than others. If you want to hear a good thunderstorm story, ask Bob.

Wherever they go, Bob and Pat pack a shared love of natural history and a load of camera equipment, and they return with fascinating stories and beautiful images. If they ever to decide to leave entomology behind, I see a whole new career path for the couple as the John and Janet Fosters of Wildwood Park.

Bob's the type of employer everyone wishes they had: always trusting, never doubting, a true professional. But I'll bet you didn't know that Bob is also a bit of a ham? About 20 years ago, Danny Finkleman, a saucy CBC radio host, interviewed Bob about earwigs. Toronto was in the throws of an earwig infestation and Bob, having done his doctorate on the ecology of this pest, was contacted as a national earwig expert.

Danny tried to take the mickey out of Bob, but Bob played right into his hands. The two bantered back and forth, Danny playing the joker to Bob's straight man. We were heading back to field after a break when the interview aired. Bob, our summer students and me listened and laughed to what turned out to be a lighthearted look at bugs, but as light as it was, we all learned a thing or two about earwigs that day!

These days when you step into Bob's lab, you immediately sense that it's a warm and friendly place to work. He has assembled a great team. I know that they and the rest of the Cereal Research Centre staff look forward to continuing to work with Bob after his official retirement on July 31.

Congratulations Bob for 25 productive years, and thanks for many fond memories!

Editor's Note: Although Bob Lamb "officially" retired in July 2003, he is an Emeritus Research Scientist at Agriculture and Agri-Food Canada, and continues to serve as an Adjunct Professor at the University of Manitoba, Divisional Editor ; Behaviour and Ecology for The Canadian Entomologist *and is Second-Vice President of the Entomological Society of Canada. If you know of some news of an ESC member, contact me and I will let the rest of the Society know.*

Following the Flight of the Bumble Bee

By Anna Birmingham

Most research projects require inventive problem solving skills at one time or another and investigators require innovation and quick-thinking skills in many situations. The field of bee research provides many tests of agility and creativity, as bees have behaviours that communicate distress in a rather painful way. This article hopes to outline a few ways to decrease contact with bees and avoid potential hurt and stress for the researcher and his/her assistants.

Some bee species live in social groups, and conspecific interactions are integral to the study of sociality (Bloch *et al.* 2000; Crespi and Yanega 1995; Duchateau and Velthius 1989; Heinrich 1979). Researchers working closely with bumble bees have devised many ways to observe the interactions within a hive while avoiding as many stinging events as possible. For example Gamboa et al. (1987) would use an "opaque, black plastic sack", which I think means garbage bag, to quiet bumble bee colonies in nest boxes removed from the ground. In our lab, observations of honey bees and their parasites took place under red light, as the bee retina does not contain that particular receptor class (Srinivasan and Lehrer 1986), which may prevent bees from gaining a sense of direction in their flight. My colleague Robin Whittington and I studied bumble bees in commercial greenhouses with these factors in mind. We used black landscape cloth and leftover red curtain material sewn in the dimensions of an enormous patio umbrella. We draped this over the umbrella, with a double entrance to reduce the amount of light filtering through the opening. The umbrella height was adjustable to accommodate the different amounts of hives taken from the greenhouse for assessment. I am sure this scene provided amusement for the greenhouse workers, especially when a popular song with easy to sing lyrics was on the radio. To observe the bees, we placed red cellophane over the light bulb of a head lamp, leaving our hands free for note taking and catching the bees with forceps.

Other observation huts are more permanent

Anna Birmingham

Figure 1. A commercial *Bombus occidentalis* colony in a greenhouse

Anna Birmingham has just finished her Masters' degree at Simon Fraser University, BC which focused on the orientation and behaviour of bumble bees in the greenhouse environment. She continues to work with bees that cannot sting and at staying on her bike. Contact information: alb@sfu.ca; Tel: (604) 291-4163, Department of Biological Sciences, Simon Fraser University, Burnaby, BC V5A 1S6

structures. In his studies of the honey bee dance, von Frisch (1967) built outdoor, wooden structures to house glass walled observation hives from which bees had access to outside forage. Terence Laverty and his students at UWO constructed flight cages using a simple wooden frame surrounded with plastic or wire mesh. Cages can be large enough to include both the hive and an observer or two, or just big enough for a single colony. A walkway fashioned from a tube of wire mesh or breathable plastic can be inserted to allow bees to enter or leave the observation area without investigator disturbance. Hives must remain closed to outside light, as ultra violet light is disruptive to the colony (O'Toole and Raw 1986; von Frisch 1967). When testing begins, stray bees in the arena can be caught with soft or hard forceps, modified tongs with a basket of mesh at the base (von Frisch 1967), or different types of lidded jars. It is advisable to catch a bee by the legs if hard forceps are being used, and the thorax otherwise, being careful not to apply too much pressure. The addition of a blue flower-shaped figure to the hive entrance may facilitate a bee's return to their hive.

Prior to the availability of commercially reared bumble bees (*Bombus impatiens, B. occidentalis, B. terrestris* and *B. canariensis*), investigators hoping to perform experiments had to hunt out either spring queens or entire colonies. There is a particular type of skill involved in this endeavour, and researchers could be likened to the honey hunters of Nepal, risking life and limb to collect honey in baskets, while dangling from cliff heights of 120 m (Valli and Summers 1988). The slightest error of judgement may not mean death if one is simply searching through fallow fields for a colony, but the thrill of locating a colony is comparable. I am also reminded of researchers who have followed bees up narrow chimneys or into the engine room of a silk factory in temperatures of 49ºC (Fabre 1921). Researchers intending to work with species of bumble bees other than those commercially available can capture spring queens at the end of April and attempt to raise them in the lab, however keep in mind that a success rate of 50% is very

Anna Birmingham

Figure 2. Inside a commercial *Bombus occidentalis* colony.

good (Heinrich 1979). A wild-caught queen requires a nesting domicile, which can be constructed from plywood with dimensions of approximately 15x15x15 cm high. Chip foam, old mattress foam or other forms of cotton provide insulation and cover for the brood and must be kept dry. The nesting domicile should be attached to a smaller arena that contains both a 40-50% sugar solution and pollen. The sugar solution can be provided in plastic wells or via a gravity feeder. Pollen can be bought from some health food stores, local bee-keepers or collected directly from honey bees and should be stored in a freezer. Dry pollen needs to be mixed with sugar solution to form a consistent mash. A lump that is 1-2 cm in diameter should be sufficient at the onset and left over pollen should be replaced with fresh pollen on a daily basis. Water may also be provided for the queen and adult workers in a small dish and also helps maintain humidity levels.

Queens or workers may be followed back to their hive for feral colony collection (Heinrich 1979). These colonies can be picked up off the ground or dug up with a spade and transferred to any type of box, such as a secured shoe box with some ventilation. A bee-veil is recommended for larger colonies and aggressive species.

Nest boxes may also be constructed prior to a field season, and placed in areas where a queen would most likely nest. These might include

hollow trees, piles of detritus on the edge of a forest, a fallow field, or near a stream. The area should have sufficient forage for the queen and her subsequent offspring. Nest boxes should be larger than a queen nesting domicile (approximately 25x30x30 cm high) placed underground with a covering of sod or other material may have a glass or plexiglass lid, to facilitate easier observations (Gamboa *et al.* 1987). It's important not to be too invasive when observing bee colonies. In greenhouse settings, large or aggressive hives would be quickly opened, covered with a plate of plexiglass, and given 20-30 minutes to acclimatise to the disturbance.

As I followed flying bees with my forceps while sitting in a cloth igloo in the greenhouse, I often wondered where would such skills be of greatest use? The ability to identify that flying behaviour was most likely a sign of aggression was helpful in the immediate situation. The hand eye co-ordination I developed from snatching countless bees from the air would probably not land me a role in *Karate Kid IV*, but would definitely be helpful in many other research and everyday situations. Having developed an allergy to bees, I value my knowledge of their subtle behaviours.

The relation of all these accounts provides inspiration and potential relief to fellow experimenters. This is by no means an exhaustive list of methodologies for colony collection, inception and manipulation or observation, but hopes to provide a starting point for investigation. A few more hints include determining whether you are allergic to bee venom before you start collecting live specimens, wearing darker coloured clothing when in the presence of an open hive and appreciating that bees arise at dawn.

Where to get bumble bees on the web:
http://www.koppert.nl/e0216.shtml
http://www.agrobiologicals.com/company/C1157.htm

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Crespi BJ, Yanega D. 1995. The evolution of eusociality. *Behavioural Ecology* **6:** 109-115

Duchateau MJ, Velthius HHW. 1989. Ovarian development and egg-laying in workers of *Bombus terrestris*. *Entomologia Experimentalis et Applicata* **51:** 199-213

Fabre J-H. 1921. *Fabre's book of insects.* Dover Publications Inc., Mineola, NY

Gamboa GJ, Foster RL, Richards KW. 1987. Intraspecific nest and brood recognition by queens of the bumble bee *Bombus occidentalis* (Hymenoptera: Apidae). *Canadian Journal of Zoology* **65:** 2893-2897

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O'Toole C, and Raw A. 1986. *Bees of the world.* Blandford Publishing Inc., New York, NY

Srinivasan M, and Lehrer M. 1986. Temporal resolution of colour vision in the honeybee *Apis mellifera. Journal of Comparative Physiology A: Sensory Neural and Behavioral Physiology* **157:** 579-586

Valli E, Summers D. 1988. Honey hunters of Nepal. *National Geographic* **174:** 660 - 671

von Frisch K. 1967. *The dance language and orientation of bees.* Harvard University Press, London, UK pp. 331-464

53rd Annual General Meeting and Governing Board Meeting

The Annual General Meeting of the Entomological Society of Canada will be held at The Grand Okanagan Lakefront Resort and Conference Centre, Kelowna B.C. on Tuesday, 4 November 2003 at 16:30. The Governing Board Meeting will be held at the same location on Saturday, 1 November 2003 from 8:30 to 17:00. Matters for consideration at either of the above meetings should be sent to Rick West, Secretary of the ESC.

Le labo Boivin
CRDH - Agriculture et Agroalimentaire Canada

Le laboratoire de Guy Boivin est situé au Centre de Recherche et Développement en Horticulture d'Agriculture et Agroalimentaire Canada à St-Jean-sur-Richelieu, au Québec. Ouf! Un bien long nom pour un labo! Pour ceux qui ne connaissent pas St-Jean-sur-Richelieu, il s'agit d'une petite ville située sur la rive sud de Montréal et dont je ne connaissais que le nom avant mon entrée au labo. Les différents sujets de recherche abordés au laboratoire tournent autour de l'écologie comportementale des parasitoïdes. Que ce soit pour approfondir les connaissances sur la biologie des différentes espèces étudiées ou pour une application en lutte biologique, les parasitoïdes constituent notre point de mire.

Guy Boivin; chercheur, boiving@agr.gc.ca, (450) 346-4494 poste 210,
http://res2.agr.gc.ca/stjean/index.htm
Guy est un excellent directeur de recherche! Toujours présent pour répondre aux questions ou pour encourager, il sait être patient et écouter ce que ses étudiants ont à dire. Il sait aussi féliciter ou complimenter un travail qui le mérite, qualité essentielle pour le moral des troupes! Il a fait son BSc en biologie et sa maîtrise en entomologie à l 'Université de Montréal, puis son PhD, aussi en entomologie, à l'Université McGill. Il s'intéresse à l'écologie comportementale des parasitoïdes, et plus spécifiquement à la localisation et l'acceptation des hôtes, à l'écologie des stades immatures et à la reproduction des parasitoïdes.

Les employées :

Danielle Thibodeau; technicienne
Danielle est LA personne ressource du labo! Efficace et rapide, elle règle tous les problèmes en moins de deux! Elle est technicienne du labo depuis le début et veille au bon fonctionnement du labo, fait du travail de terrain et exécute des expériences sur différents sujets. Elle a un DEC en sciences naturelles du Cégep de Sainte-Foy, au Québec.

Josiane Vaillancourt; technicienne
Josiane est également technicienne au labo. Elle a fait un BSc en biologie, option écologie, à l'UQÀM, à Montréal. Elle s'occupe de différents projets de recherche, mais travaille présentement sur l'effet des paramètres environnementaux sur l'envol de la pyrale du maïs et sur l'isolement d'une kéromone afin d'attirer *Aleochara* (Coleoptera: Staphylinidae) dans des champs désignés.

Julie Frenette; technicienne
Toujours à son affaire, Julie est aussi toujours prête à donner un coup de main lorsque le besoin se fait sentir. Elle aussi, technicienne au labo, elle s'occupe de plusieurs élevage au labo: le charançon de la carotte, deux espèces d'*Anaphes* (Hymenoptera: Mymaridae) et elle collabore à l'élevage d'*Aleochara bilineata* et de la mouche

Guy Boivin au labo

de l'oignon. Elle fait également des bio-essais avec *Aleochara bilineata*. Elle a un DEC en Technique des sciences naturelles, option Inventaire et recherche en biologie.

Les étudiants :

David Damiens; post-doctorat
Et oui! C'est lui le Français qui perturbe les sex ratios! Arrivé en avril dernier, il veut déterminer si les mâles *Trichogramma evanescens* (Hymenoptera: Trichogrammatidae) sont capables ou non de produire des spermatozoïdes après leur émergence. Grâce à une technique de coloration des spermatozoïdes, il va évaluer le stock des gamètes en début de vie, ainsi que lors des séries d'accouplement multiples des mâles. David a fait ses études en biologie des populations à Lille et à Tours, en France, et a fait son PhD avec Claude Chevrier également sur les stratégies de reproduction et la caractérisation des stocks de spermatozoïdes, mais chez des parasitoïdes de bruches.

Annabelle Firlej; étudiante au doctorat
Annabelle est une étudiante française dont l'accent est plutôt difficile à cerner… Étant au Québec depuis 5 ans, les Français ne la reconnaissent pas comme étant des leurs et les Québécois décèlent un petit accent étranger…! Annabelle a fait l'équivalent de son BSc en France et sa maîtrise à l'UQÀM avec Daniel Coderre et Gérald Chouinard. Elle fait présentement son PhD au labo sur *Dinocampus coccinellae* un parasitoïde de la coccinelle asiatique afin de déceler des adaptations comportementales, physiologiques et immunitaires du parasitoïde et de la coccinelle selon un gradient nord-sud.

Josée Doyon; étudiante à la maîtresse
Josée est une fille plutôt discrète et réservée qui ne dérange jamais personne! Elle est présentement en rédaction pour sa maîtrise, donc pas très

Le labo de Guy Boivin, de gauche à droite : Pierre-Aldric Jeanne (stagiaire français), David Damiens, Julie Frenette, Josiane Vaillancourt, Danielle Thibodeau, Annabelle Firlej, Catherine Bernier (employée d'été). Les absents de la photo : Michel Cournoyer, Anthony Daniel, Josée Doyon, Sébastien Jacob, Éléonore Tremblay et moi-même, Véronique Martel.

Paul Fields

Josiane Vaillancourt s'habille pour éviter le contact avec les écailles de lépidoptère. On élève des lépidoptères pour leurs oeufs qui servent à l'élevage de trichogrammes.

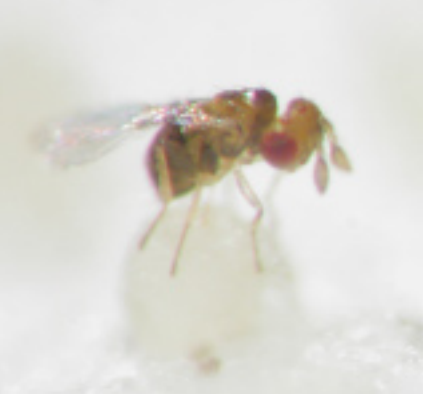
présente au labo! Son projet consistait principalement à évaluer la raison pour laquelle les mâles *Trichogramma evanescens* émergent avant les femelles en testant plusieurs hypothèses. Elle a fait son BSc à l'UQÀM en biologie.

Véronique Martel; étudiante à la maîtresse, martelv@agr.gc.ca
Pour ma part, j'ai déposé mon mémoire cet été à McGill et en attend les corrections!!! Mon projet de recherche consistait à étudier l'effet de différents facteurs (inbreeding et LMC) sur l'allocation des sexes et l'importance des accouplements précédents la dispersion chez le parasitoïde des œufs, *Trichogramma*. Après de nombreuses hésitations, j'ai finalement décidé de ne pas faire de PhD, mais plutôt de me chercher un emploi: avis aux intéressés…!

Éléonore Tremblay; étudiante à la maîtresse, tremblayel@agr.gc.ca
Éléonore, après son BSc en agronomie à McGill, a travaillé pendant 5 ans au centre de recherche de St-Jean-sur-Richelieu avant de commencer une maîtrise. Elle la fait donc avec Guy Boivin, sur l'effet d'un savon insecticide sur la survie, le comportement et la valeur adaptative de *Myzus persicae* (Homoptera: Aphididae) et de son parasitoïde, *Aphidius colemani* (Hymenoptera: Braconidae) en laboratoire

Étudiants en rédaction

Je ne voudrais pas passer sous silence les étudiants en rédaction, qui sont maintenant rarement présent au laboratoire.
Sébastien Jacob; étudiant à la maîtresse
Anthony Daniel; étudiant à la maîtresse
Michel Cournoyer; étudiant à la maîtresse



Mathieu St-Louis

Trichogramma sur un oeuf de lépidoptère.

Editor's Note: If you would like to share what is happening in your laboratory, please contact me. This is good way for potential graduate students to learn about your lab.

The Student Wing / L'aile étudiante

By Tonya Mousseau


M. Alperyn

Greetings to everyone from the ESC student representative! I hope everyone is becoming excited at attending the ESC 2003 meeting in British Columbia. The annual Society meetings are especially important for us students, as they allow us to meet experts in the field of entomology, become actively involved with the Society, and provide experience in effective communication skills through public speaking. I would really like to thank all the students who have offered to volunteer as projectionists for the meeting. The Graduate Student Symposium will also take place again this year, giving students a profile as they move into the next stage of their careers and allowing them to talk about their research in greater detail than the regular paper session.

I will be looking for your new ideas and comments every issue of the Bulletin. If you know of someone that is a Canadian abroad or from a Canadian university that has successfully completed his or her thesis in the last six months, send the information to me to be published in the next Bulletin. Grad students are also encouraged to write in questions, which can then be answered by experts in the field.

Thesis roundup / Un foisonnement de thèses

Xingwei Hou: houx@agr.gc.ca, PhD, June 2003. *Control of stored-product insects with protein-rich pea flour and its extract.* Supervisor: Paul Fields, University of Manitoba.

Audrey Leatemia: leatemia@interchange.ubc.ca, PhD, May 2003. *Development of botanical insecticides from Ambon and surrounding areas (Indonesia) for local use.* Supervisor: Murray Isman, University of British Columbia.

Questions and answers / Questions et réponses

Are there any programs to facilitate exchange of students (three to six months) between provinces among universities and government or private industries? **Dominique Fleury**, Institut des Sciences de l'Environnement (UQÀM).

Most universities in Canada do have such programs. For example the University of New Brunswick works in conjunction with Quebec and Prince Edward Island. It is best to contact the university that you attend or are planning to attend to see what they have to offer. **Nicole Morrow**, Student Employment Service, UNB & STU.

I'll soon be finishing my graduate degree in entomology and I am thinking ahead to getting a job. What are some different career paths in entomology? What can I do with my degree? **Jen Perry**, Simon Fraser University.

There are three things I can suggest: 1) if you have a general background in entomology, investigate the environmental sciences (Environment Canada, Provincial Departments), 2) contact pesticide companies or 3) think about teaching, we need properly educated science teachers. **Bernard Philogène**, Department of Biology, University of Ottawa.

In this day and age, I think one should view a specialization in the context of ecosystem and/or resource management. Insects and disease are still primary agents of loss, and expertise for their management will always be needed, I should hope. While there are still some opportunities in "pure" entomology, these tend to be restricted to PhD graduates. It is much more likely that MSc level entomologists will be involved in what might narrowly be defined as pest management. Entomologists' (= completed a degree where entomology was a component), I am aware of, rarely have jobs as "entomologists", although exceptions do occur. Forest and agricultural entomology are clearly possibilities, but the options are few and far between - the BC Forest Service just eliminated a number of forest entomology positions. Consulting is an option, but would be difficult without expertise in resource management as opposed to insect management. Biodiversity positions are becoming more available, and in a few cases, invertebrates (rather than insects per se) have been the focus of these. Private industry needs experienced people e.g., pest management companies and good PCO's.

Knowledge of entomology would be an excellent background for anyone teaching biology at pretty much any level, I think. You can pretty much exemplify any biological principle with insects. **Staffan Lindgren**, Ecosystem Science and Management, University of Northern British Columbia.

The prospects for graduating students to get traditional jobs as scientists in government laboratories or faculty positions in universities are understandably limited. Yet some able and fortunate students will get such jobs. It may help to make sure that one is registered with the federal Public Service Commission (or whatever the correct name of the outfit is), to search assiduously and far afield for available positions, and to make sure one's *curriculum vitae* is clear, complete (including some personal information that makes one appear human, e.g. a passion for gardening), and contains not even one minor error in grammar or spelling.

If scientific and academic jobs are not forthcoming, it is important to remember that a graduate education prepares one for much more than these traditional jobs. Among my 97 graduates to date are individuals who have worked in professional non-research jobs for numerous federal and provincial ministries, done technical writing, taught in regional colleges and high schools, worked abroad for non-governmental organizations, managed an electrical engineering company, set up their own consulting companies in medical, urban, agricultural and forest pest management or worked for larger companies offering similar services, managed an organic growers association, and gone on to become lawyers and physicians. It is vitally important not to undersell oneself, and not to focus too narrowly. I wish all new graduates every success in their search. **John Borden**, Simon Fraser University.

Editor's Note: If you have a question or an answer to the above questions, or you have other items for The Student Wing, *please contact Tonya Mousseau,* tonyabeetle@hotmail.com, *Department of Entomology, University of Manitoba, Winnipeg, MB, Canada R3T 2N2.*

Graduate student position available

Comparative study of responses of conifers to herbivory: Funding ($16,500 per year minimum) is available for a graduate student to examine the responses of black and white spruce to herbivory by defoliators. White spruce is one of the most, and black spruce one of the least, tolerant conifers to herbivory. The successful applicant will have access to white spruce stands attacked by spruce bud moth in northern New Brunswick and black spruce stands attacked by yellow-headed spruce sawfly in central Newfoundland, as well as to experimental sites with both species planted near Fredericton. Results from the study will be used to evaluate the effects of herbivory on carbon sequestration. To apply, contact by e-mail or send *curriculum vitae* with names, addresses and phone numbers of two references to Dan Quiring or Dave MacLean.

Dan Quiring or Dave MacLean
Population Ecology Group
FOREM
University of New Brunswick
Fredericton, New Brunswick
Canada E3B 6C2

Dan Quiring
Telephone: (506) 453-4922
E-mail: quiring@unb.ca
Dave MacLean
Telephone: (506) 453-7552
Fax: (506) 453-3538
E-mail: macleand@unb.ca

ESC awards and scholarships

Postgraduate awards
Two postgraduate awards of $2000 will be offered to assist ESC student members beginning study and research leading to a first post-graduate degree in entomology. The postgraduate awards will be made on the basis of high scholastic achievement. **Deadline: 10 June 2004**

Research-travel grants
Two research-travel grants of a maximum of $2000 will be awarded to help ESC student members increase the scope of the graduate training. Applications will be judged on scientific merit. **Deadline: 14 February 2004**

For complete details, consult;
http://esc-sec.org/students.htm, *Bulletin ESC* 2002 34 (4): 165-173, or Dave Gillespie at gillespied@agr.gc.ca

Prix et bourses de la SEC

Bourse pour étudiants post-gradués
La Société d'entomologie du Canada offrira deux bourses d'une valeur de 2000 $ chacune pour aider des étudiantes et étudiants de la SEC qui débutent des études post-graduées et des recherches en vue de l'obtention d'un premier diplôme d'études supérieures en entomologie. Les bourses seront accordées aux étudiants ou étudiantes en raison des seuls critères de réussite académique. **Date limite : le 10 juin 2004**

Subventions de recherche-voyage au niveau des études supérieures
Deux subventions de recherche-voyage, d'un maximum de 2000 $, ont pour objet d'aider les étudiants et étudiantes de la SEC à élargir le champ de leur formation supérieure. Les candidatures seront jugées selon leur mérite scientifique. **Date limite : le 14 févier 2004**

Pour de plus amples renseignements consulter;
http://esc-sec.org/students.htm, *Bulletin SEC* 2002 34 (4): 165-173, ou Dave Gillespie à gillespied@agr.gc.ca

Application for membership (new members only)
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The Prairie Gardener's Book of Bugs: A Guide to Living with Common Garden Insects. Bryan N, Stall R. 2003, 89 colour, 2 black & white illustrations, 208 pp. Fifth House Ltd., Calgary, AB. ISBN: 1-894004-87-6, CAN$19.95, paperback, http://www.fitzhenry.ca/whatsnew.htm

The authors, Calgary gardeners, have combined their enthusiasm for and knowledge of insects, spiders, mites and slugs with excellent illustrations by Grace Buzik to produce an excellent book for gardeners who wish to experience a wider view of the garden ecosystem. The book will help readers to understand the many species that share our yards. The descriptions of insect structure, development and life histories are easily understood and generally sound. Errors, such as the wrong kind of antenna in the fly on page 6, are few. Whether and when to use insecticides is covered, with the umbrella advice that one should relax and consider whether you really do have a problem. The individual profiles of the pests, their enemies, and the benign species include a description (usually with a full colour drawing) and information on distribution, foods, and what to do if you find one.

The advice is practical, stressing that most species are benign, so relax. The information is usually reliable, but the statement that "Each (species of lady beetle) has a distinctive number of spots or markings on the wings." is misleading. Several common species can be so identified, but other common species vary widely in their markings and colour. The book's claim that all the bugs described within it may be encountered in the gardens of the Canadian prairies and the northern Great Plains of the United States is generally justified. However, evidence of a mild parochialism occurs. For example, the two-spotted lady beetle may be common in Calgary, but in the eastern prairies it is rare and the thirteen-spotted lady beetle is as common as the seven-spotted. The Canadian tiger swallowtail is conspicuous in all areas, but the adults of the equally beautiful black swallowtails commonly occur across the southern prairies and their larvae are found in gardens feeding on carrots, parsley, dill, parsnip, etc. Nevertheless, I heartily recommend this useful and delightful book for its practical information, for good reading and for expanding your knowledge and appreciation of the wildlife in your garden.

Bill Turnock
Winnipeg, Manitoba

The Systematics of Lasiopogon (Diptera: Asilidae). Cannings RA. 2002, Royal British Columbia Museum, Victoria, Canada. 354 pp. ISBN 0-7726-4636-8, CAN$65.00, colth, http://rbcm1.rbcm.gov.bc.ca/serv_prod/friends/publicat/zoology.html

Chronically and universally underfunded and inadequately staffed, insect taxonomy and systematics appear to be growing once again as professions in Canada. However, in spite of recent hirings at the Canadian National Collection, professional insect taxonomists and systematists remain rare in Canada and hard-pressed to fund publication of their research results. The Royal British Columbia Museum is to be commended for easing this task for Rob Cannings by supporting the publication, in book form, of his PhD dissertation on the taxonomy and systematics of the widespread Holarctic robber fly genus *Lasiopogon*.

This volume provides an overview of the phylogeny of *Lasiopogon* based on character analysis of exemplars of 13 species groups and a detailed taxonomic treatment of the "opaculus section" (comprising about ¼ of the 118 *Lasiopogon* species recognized by the author).

Formatting of *The Systematics of* Lasiopogon follows the pattern of modern insect taxonomic monographs. Chapter titles and section captions head each left- and right-hand page respectively - this makes for easy navigation. Several preliminary chapters lay the groundwork for understanding the taxonomy and systematics of the genus. An introductory chapter presents short overviews of the general biology of Asilidae and *Lasiopogon* and a detailed discussion of the tax-

onomic history of the genus. Eleven pages of materials and methods list specimen sources and provide details of specimen and illustration preparation, descriptions formatting, species concepts, and character analysis. A very well illustrated chapter is devoted to discussion of critical morphological details, especially male and female genitalic characters.

The bulk of the text (over 220 pages) is devoted to taxonomy, especially the opaculus section species descriptions - the material that will be of primary interest to most potential readers. This is prefaced by short genus-level discussions of synonymy, diagnosis, natural history and distribution. Three keys covering all known Nearctic and east Palaearctic species of *Lasiopogon* follow these. Nearctic species are covered by two keys of 31 (for species occurring east of the Rocky Mountains) and 76 (in and west of the Rockies) couplets. East Palaearctic species are covered with 15 couplets. Undescribed species are included for consistency and ease of usage and Cannings has made an effort to utilize characters that are relatively easy to observe. Descriptions of the 29 species (14 new) of the opaculus section follow in alphabetical (thank you Rob) order. These are detailed and well illustrated - few users of this book will have trouble identifying specimens in hand.

Cladistic analyses (developed using Hennig86 and CLADOS 1.2) follow and proceed from the inclusive subfamily level (Stichopogoninae - 19 characters, 10 genera) through *Lasiopogon* itself (48 characters, 28 exemplars of 13 species group) to the opaculus section (40 characters, 29 species in 7 species groups). Some confusion is generated here by the appearance of three new species groups (not discussed previously) in the opaculus section analysis. This is explained (p. 300) as the result of the difference between analyses based on exemplars of groups (within *Lasiopogon*) and analysis of all species of several groups (opaculus section). Fortunately Cannings' prose and relevant cladograms and character state tables are clear making it a simple task to follow his logic and minimize befuddlement.

In a penultimate chapter, Cannings discusses the historical biogeography of *Lasiopogon* within the constraints of the knowledge he has now accumulated of its species relationships and distributions. As he points out, most of the relevant phylogeny remains unresolved and therefore much of his discussion is tentative. However, being based on logical analysis and argument rather than "just so" stories, Cannings' biogeographic hypotheses will be testable as new data accumulate.

Concluding chapters provide direction for further work, acknowledgement of the support network, and extensive references. An appendix provides an annotated checklist of all species and species groups - I found this to be a highly valuable aid as I stumbled through the phylogeny chapter.

Obviously this book isn't going to be a best seller. As with vintage motorcycles and bandoneons, a small but select group of people will appreciate the quality of Cannings' work and the fact that, unlike so much scientific literature, the value of excellent taxonomic work increases over time. Some may complain about the high level of detail (pages to species ratio >12), non-standard publication (book instead of journal monograph), or the lack of reprints but then, there are people who are unable to appreciate Phillip Vincent's Series A *Rapide* or Astor Piazolla's treatment of a tango. *The Systematics of* Lasiopogon is a practical guide to an interesting component of the Asilidae as well as a thoughtful exercise in the theory and practice of phylogenetic systematics. Clean, well-executed illustrations (the true measure of a taxonomic publication) and cheaper than a subscription to the journal that would have published it.

Robb Bennett
Victoria, BC

Insect Lives. Hoyt E, Schultz, T. (Editors). 1999, Harvard University Press, Cambridge, MA, 360 pp, ISBN 0-674-00952-5, US$18.95, paper, http://www.hup.harvard.edu/catalog/HOYINX.html

This eclectic collection of essays, poems and cartoons about insects, subtitled *Stories of Mystery and Romance* from a Hidden World, offers "a sweeping tour of the human fascination with insects". Sweeping is an apt description as the book includes contributions from Aristotle and the *Bible* to Dave Barry and Gary Larson. Although the range is truly broad, most articles cluster about a relatively narrow mode represented by naturalists or the professional entomologist with a gift for popular writing. These trace the historical pedigree from Darwin and Fabre through Beebe and von Frisch to Berenbaum, Wilson, and Heinrich.

There are some fine examples of popular, and scholarly, scientific literature here but fewer examples of entomological discourse from the true literati. I am not sure even Robert Burns would have counted *To a Louse* among his most inspired rhymes. Excerpts from novelist A.S. Byatt's *Morpho Eugenia* and playwright Maeterlinck's *The Life of the Bee* provide some redemption from that quarter with well-crafted writing and humanist perspective. At the other literary extreme, and welcome for the contrast, is an excerpt from the B-film *Them!* where the entomologists cries "Get the other antennae, he's helpless without them". Not quite as comical as Michael Caine's "Stand back, I'm an entomologist" but a reminder that Hollywood can make even entomology seem ridiculous. Shame.

The format of *Insect Lives* is almost systematically scientific. Most of the articles are short, three to six pages, and are excerpted from larger works which are fully referenced. The contributions are organized into sections with titles such as "Wonders of Creation: Insects Praised" and "Lives under the Microscope: Insect Behavior". Each section is prefaced with commentary from the editors. Several black and white illustrations grace the book, many from the 19th century when scientific illustration was admirable for its poetic license and attention to detail. The whole package is backed up with detailed acknowledgments and author and subject indices.

This is an enjoyable popularization for an entomologist. The editors have done a good job in assembling a compendium that is diverse but has this quirky unifying theme. It is one of those books that you can leave by the bed or in other favorite reading spots where you might want to browse something entertaining and neither too long nor challenging.

Vince Nealis
Victoria, BC

Entomology and the Law: Flies as Forensic Indicators. Greenberg B, Kunich, JC. 2002, Cambridge University Press, Cambridge, U.K. 306 pp. ISBN 0-521-80915-0, CAN$146.95 US$95, £70, hardcover, http://us.cambridge.org/titles/catalogue.asp?isbn=0521809150

This is a book that has been long awaited. Bernard Greenberg is one of the earlier forensic entomologists in the United States and has a wealth of experience in the fields of medical, veterinary and forensic entomology. Kunich was originally an entomologist but later trained in law. This book presents a tremendous amount of information for the forensic entomology practitioner and all those interested in entering the intriguing field of forensic entomology.

The book is divided into two quite separate sections. The first, authored by Greenberg, concentrates on carrion insects, identification keys and forensic entomology cases, whereas the second section, authored by Kunich, describes the relevant case law and legal issues that relate to the use of forensic entomology in the courtroom.

The book begins with a unique introduction to the history of the Calliphoridae or blow flies, from antiquity to today. It then continues with a detailed examination of blow fly biology, followed by keys to the different life stages of the Calliphoridae. Not only are keys to North American species of Calliphoridae provided, but also keys to Calliphoridae in many different regions

of the world. Greenberg also provides developmental data when available. The keys are beautifully illustrated with line drawings, photographs and scanning electron micrographs. Later successional insect species are not covered.

The entomology section of the book concludes with an intriguing look into many cases, from both the analytical point of view and the actual courtroom presentation. In several cases, the reports of forensic entomologists appointed by opposing counsels, are presented, and the reader is asked to judge which report and entomologist they would side with, before the court's decision is given.

The second section of the book takes a detailed look at case law, code provisions and legal issues related to the admissibility and use of forensic entomology in the courtroom. It explains the general rules governing admissibility of evidence, from primarily an American point of view, although Canada and other countries are also covered, to a lesser degree. Kunich explains why evidence is or is not admitted into a court of law, and points out that forensic entomology has never been excluded from a case as a matter of law. After providing basic legal details, Kunich goes into forensic entomology case law, using actual cases to illustrate his points. He discusses what constitutes an expert in court, and what qualifications an expert requires. This section is written in a readable format but is well annotated with detailed footnotes for the person who wishes to delve more deeply into the legal issues surrounding the presentation of forensic entomology, and other forensic sciences, in court.

The book contains a prodigious amount of information. Some data are presented in tables, but other data are only discussed within the text. Although much of these data are published, a great deal of information is based on observations made by Greenberg over his lengthy career, or from personal communications to Greenberg. However, the reader must search for each piece of information as the index is poor. This book is excellent reference material for any forensic entomologist, however, when specific information is required about a species or stage, the reader must search the entire book or section, as the index covers only large themes and not details, nor even insect species. It would have been extremely helpful if a detailed index, including an author index, had been provided to allow the reader to easily access the specific data they require. Nevertheless, the book is a valuable addition to any library.

Gail S. Anderson
Burnaby, BC

Books to be reviewed

If you are interested in reviewing one of the following books, please contact Allan Carroll, Chair of the Publications Committee.

Hallman GJ, Schwalbe CP (*Editors*). *Invasive arthropods in agriculture: Problems and solutions.* Enfield NH: Science Publisher Inc.

Basset Y, Novotny V, Miller CE, Kitching RL (*Editors*). *Arthropods of tropical forests: Spatio-temporal dynamics and resource use in the canopy.* New York NY: Cambridge University Press

Shuster SM, Wade MJ. *Mating systems and strategies*. Princeton NJ: Princeton University Press

Held LI Jr. *Imaginal discs: The genetic and cellular logic of pattern formation*. New York NY: Cambridge University Press

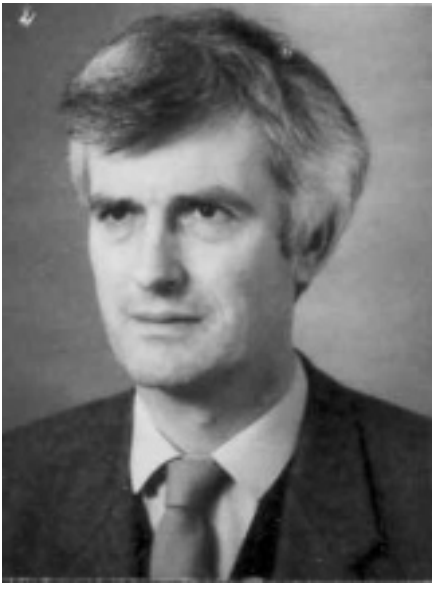
Walter GH. *Insect pest management and ecological research.* New York NY: Cambridge University Press

Peck SB. *Smaller orders of insects of the Galapagos Islands, Ecuador: Evolution, ecology and diversity.* Ottawa ON: NRC Research Press

Vandermeer JH, Goldberg DE. *Population ecology: First principles.* Princeton NJ: Princeton University Press

Please send correspondence concerning book reviews to the Chair of the Publications Committee:
Allan Carroll
506 West Burnside Rd, Pacific Forestry Centre
Victoria, BC, Canada V8Z 1M5
Tel: (250) 363-0639, Fax: (250) 363-0775
E-mail: acarroll@pfc.cfs.nrcan.gc.ca

Jim Hudson
1925-2003



James (Jim) E. Hudson was born in Salisbury, England on 17 April 1940. As a school boy, he had a keen interest in natural history, and spent much of his time collecting and studying insects. It was not surprising that Jim chose zoology and chemistry for his undergraduate studies at the University of Sheffield, graduating in 1963. In 1966, he accepted a job as a Research Officer/Entomologist at the Tropical Pesticides Research Institute in Arusha, Tanzania, where he studied mosquito ecology and evaluated insecticides for mosquito control, with special emphasis on vectors of malaria. He met his future wife, Johanna, in Arusha, and they were married in 1968 while on leave in Europe. In 1971, Jim undertook post-graduate work in medical entomology under the supervision of Brian Hocking at the University of Alberta in Edmonton, studying the overwintering habits of mosquitoes in central Alberta, in relation to the ecology of Western Equine Encephalitis virus. While in Edmonton, Jim and Johanna had three children, Edward, David and Helen. Jim received his PhD in 1977.

After graduating from his doctoral studies, Jim accepted a contract as Insect Ecologist with the National Council for Scientific Research (Pest Research Institute) in Zambia, where he studied tsetse fly ecology. However, the challenging living conditions proved difficult for his young family. In 1978, Jim and his family moved to Suriname in South America where he worked for 4 years as an entomologist for the Ministry of Health, primarily studying the ecology and control of *Anopheles darlingi*, the principal malaria vector, in the rainforest. In 1983, Jim worked as an entomology consultant for the World Health Organization where he gave lectures and conducted laboratory sessions on malaria, vector biology and control in Baghdad. In 1985, he was an entomology consultant for the Regional Development Corporation in Belgium, conducting surveys of malaria mosquito vectors in Indonesia, and making recommendations on methods of control. Jim became very ill while in Indonesia and spent several months in hospitals in Holland and England. After his recovery, Jim and his family moved to Holland and from there emigrated to Canada. During the 15 months he spent in Holland, Jim worked as a guest researcher at the Department of Environmental & Tropical Health at the Agricultural University of Wageningen, the Netherlands. Upon arriving in Ottawa in 1988, Jim taught at Algonquin College and worked as an entomology consultant for the Canada Biting Fly Centre (University of Manitoba), where he monitored the black fly control program at the Canadian Forces Base in Petawawa, Ontario.

Upon receiving his Canadian citizenship in 1992, Jim joined Agriculture Canada (now Agriculture and Agri-Food Canada) in the area of pesticide regulation, a federal function which was transferred in 1995 to the Pest Management Regulatory Agency of Health Canada. Among his many other tasks, Jim worked at length on the official re-evaluation of DEET (diethyl-m-toluamide), the active ingredient found in the majority of personal insect repellent products in

Canada. Jim conducted an extensive review of all the in-house efficacy data on DEET as well as relevant information from the scientific literature. One of the outcomes of Jim's work was that he clearly demonstrated that products containing low concentrations of DEET were as effective as products containing high concentrations of DEET, and that by applying the lower concentration products more frequently, exposure to DEET could be reduced without compromising efficacy. This work provided the scientific foundation that supported regulatory action which limited the concentration of DEET in personal repellent products in Canada. The calibre of Jim's work was exceptional and reflected the commitment that Jim brought to the workplace and his other scientific endeavours. Jim celebrated ten years of service with the federal government in 2002.

Over his career, Jim had 29 publications in entomology, vector control and microbiology. He was a dedicated naturalist, as well as an avid outdoor enthusiast who enjoyed hiking, canoeing, and cross-country skiing. Jim had an insatiable curiosity in all aspects of the world around him - not a day went by without him adding some new information to his already vast and eclectic knowledge.

Jim joined two musical bands as a clarinettist while in Ottawa. On 14 July 2002, Jim had just arrived to play at a concert for a seniors residence when he suddenly collapsed. He died the next day. A ginkgo tree was planted in his memory on 16 May 2003 on the grounds of the Sir Charles Tupper Building in Ottawa were he worked. Jim was a devoted and dedicated professional, who had great integrity, character, wit, and kindness. He was a true original who will be sadly missed by all who had the privilege of knowing him.

Martha Farkas
Ottawa, Ontario

Cal Sullivan
1925-2003

C.R. "Cal" Sullivan passed away peace fully at his home in Sault Ste. Marie on 27 March 2003. Cal departed this world much as he had lived it, quietly and with dignity, after a valiant struggle with a slowly but steadily failing heart that seriously curtailed his activities over the past few years. He leaves behind his wife Marjorie, his daughter Patricia and her two sons Michael and Matthew, his son James and James' daughter Christine, all of Sault Ste. Marie, and his eldest son Bill and his wife Susan of Ottawa.

Cal was born in Englehart, Ontario in 1925 where life in the north instilled in him a strong love for the outdoors and for nature in its unspoiled form. He served with the RCAF during the Second World War and graduated from the Ontario Agricultural College (now University of Guelph) in 1949 with a BSc in entomology. His postgraduate degrees were earned at the University of Toronto (MSc, biology) and at MacDonald College, McGill University (PhD, forest en-

Biology Division, Canadian Department of Agriculture first as a student assistant, and upon graduation from O.A.C., as a Research Officer where he developed his early expertise in the effects of weather and climate on forest insects under the guidance of W.G. Wellington. During an active research career that spanned 38 years he worked on a number of forest insects including the eastern spruce budworm, various species of tent caterpillars, the white pine weevil and a number of *Neodiprion* sawflies. His research was directed at determining the effects of weather, climate and other environmental factors on insect behavior and activity at both individual and population levels as a basis for the development of environmentally acceptable control techniques. Cal's pioneering research on the effects of physical factors on the activity and behavior of the white pine weevil became a cornerstone of silviculture approaches to the control of this damaging pest. His research career was marked not only by an extensive publication record in leading scientific journals and activity on many national and international scientific societies, councils and committees but also by his innate ability to stimulate and/or lead cooperative research projects with colleagues from diverse fields of expertise.

In 1975, Cal was persuaded to leave research for management becoming Program Manager Forest Resources, Forest Protection and Environmental Forestry at the Great Lakes Forest Research Centre in Sault Ste. Marie, and in 1983 he was appointed Director Research and Technical Services, GLFRC a post which he held until his retirement from public service in 1988. His management career was marked by his unfailing dedication to the job at hand, his ready assumption of extra management duties and responsibilities (e.g. Deputy Director 1980-1982) and his open, straightforward and honest interaction with staff for whom he had management responsibilities.

Cal's activities extended well beyond his chosen profession. Among his many contributions to the community and district in which he spent his working career are President of the Sault and District Red Cross Society; Campaign Chairman Algoma Unit and Algoma-Sudbury District Canadian Cancer Society; Chairman, Advisory Committee, Biological Sciences Program, Canadore College; Vice-President Wing 432 Air Force Association of Canada; and a member of the Sault and District Conservation Foundation for a number of years. Cal loved hunting, fishing, skiing and golf and it was indeed unfortunate that health problems precluded his participation in these sports through many of his retirement years. However, he continued to draw enjoyment from them through the exploits of his friends and tales of his own personal prowess in these sports that he recounted to his grandchildren on a regular basis.

Cal's passing is a loss for all who were fortunate enough to know him and he will be remembered forever by his family, his friends and his colleagues as a loving husband, father and grandfather, a dedicated scientist, a true gentleman and a gentle man.

George Green
Sault Ste. Marie

Recently deceased
Compiled by Ed Becker

Fred Urquhart died on 3 November 2002 at age 90. By tagging Ontario specimens of the monarch butterfly, he discovered that the butterfly migrated from Canada to Mexico.

Antony Downes, father of Martin Downes, # 6, 255 Nepean St., Ottawa ON K2P 0B7, died on 24 June 2003 in Ottawa at age 89. Antony worked on diptera taxonomy for Agriculture and Agri-Food Canada in Ottawa.

Lucien St. Laurent, husband of Françoise, #402 2400 Virginia Dr., Ottawa ON K1H 8L3, (613) 733-3124, died peacefully in his sleep on 15 August 2003 at age 89. As Lucien told me, back in September 1998, "I do not know the people, but I have done photographic work for many of them in years past"!!

Maurice Edgar Taylor 1915-2003

Maurice "Maurie" Taylor died 9 April 2003 at the age of 87 in Saskatoon. Maurice was born on the family farm near Truax Saskatchewan on 31 October 1915. He obtained his primary education at the local schoolhouse and highschool through correspondence courses. He continued to farm with his father during the "dirty thirties" and worked on a dairy farm in B.C. for a year (1936-37). In 1938, he enrolled in the School of Agriculture, University of Saskatchewan and graduated in 1940. Maurice joined the R.C.A.F in 1941, and trained as a wireless and electrical mechanic and served in several Air Observers Schools in Canada. In 1944, he married Doris Irwin, whom he had met during his R.C.A.F service in Montreal. Maurie was discharged from the service in 1945, and returned to the University of Saskatchewan and the College of Agriculture in 1946, from which he graduated in 1950.

In 1947, he worked as a summer student in Entomology at the Dominion Entomology Laboratory in Saskatoon assisting Howard Macdonald with the investigations on pale western and red-backed cutworms. He became a permanent staff member of the Saskatoon laboratory in 1950, and continued research on cutworms and on control of bertha armyworm and diamondback moth. Maurice was appointed as the Station's first Scientific Information Officer in 1959, and served in this capacity until his retirement in 1980. He had a vast knowledge of insect pests in general, and was able to cooperate with other scientists to answer a wide range of farmer's questions on agriculture problems. His diplomatic and conscientious approach made him a great asset to the Station.

Maurie was a founding member of the Entomological Society of Saskatchewan and President in 1963. He was also a charter member of the Saskatchewan Institute of Agrologists and received a Distinguished Graduate Award in Agriculture from the University of Saskatchewan in 1986 on the occasion of the seventy-fifth anniversary of the College of Agriculture.

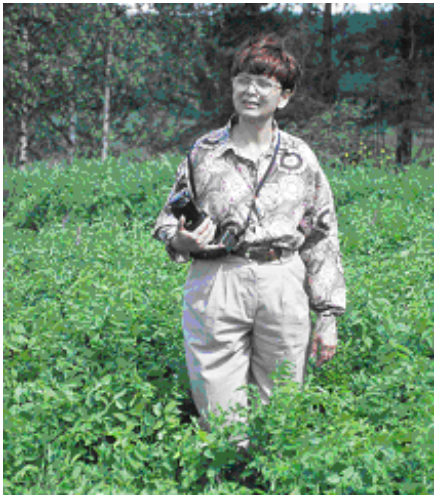
After his retirement his activities included volunteering at the Western Development Museum where his help was recognized when he was named as an Honorary Life Member of the "Boomtown" Volunteers. Also, he was active in charities such as "Meals on Wheels" and in service to his church. He is survived by his loving wife Doris, three children and nine grand children and was a great fan and supporter of all their endeavors and accomplishments.

John Doane
Saskatoon

53e L'assemblée générale annuelle et la réunion du comité directeur

L'Assemblée générale annuelle de la Société d'entomologie du Canada aura lieu au Grand Okanagan Lakefront Resort and Conference Centre, Kelowna C.-B. le mardi 4 novembre 2003 à 16 h 30. La Réunion du comité directeur de la SEC aura lieu au même endroit le samedi, 1 novembre 2003 de 8 h 30 à 17 h 00. Veuillez faire part au secrétaire, Rick West, de tout sujet pouvant faire l'objet de discussion à ces réunions.

Daphne Terese Fairey 1946-2003



Nigel Fairey

Daphne Terese Fairey was born 6 January 1946 in Secunderabad, India. Raised in India, Daphne attended university and completed an undergraduate and graduate degree in India. The subject of her Master's research was assimilate translocation in wheat in relation to defoliation. After completion of her Master's degree, Daphne worked briefly with the wheat-breeding programme of the Rockefeller Foundation. She then moved to Australia where she obtained a PhD in Agronomy at Adelaide University, specializing in the environmental control of apical morphogenesis in wheat. She came to Canada in 1972 as a post doctoral fellow working in the wheat-breeding programme at the University of Guelph. She initially planned to return to Australia after her post doc., but fortunately for us, she met and married Nigel Fairey.

In late 1976, Daphne and Nigel, moved to Agassiz in the Lower Fraser Valley of British Columbia. They have two sons, Adrian born in 1976 and Julian born in 1977. From 1978 to 1981, Daphne worked, part-time, on the intensification of cereal production in the Fraser Valley of British Columbia and summarized studies, previously conducted at the Agriculture Canada Research Station at Agassiz, on the evaluation of turf grasses. In 1981, she was appointed as a Research Scientist in Seed Production and Pollination of Forage Legumes with Agriculture Canada at Beaverlodge, Alberta.

Daphne had contributed greatly to the Canadian and international forage seed industries; she was responsible for breeder seed production of the forage varieties bred at Beaverlodge. Her research publications and appointments to both national and international organisations have advanced the science of forage seed production. As a member of the Alberta Forage Seed Council, Daphne participated in a number of initiatives such as the feasibility of establishing a Forage Seed Commission for the Peace River region of Alberta and British Columbia. She was a Scientific Advisor to the Alberta Alfalfa Seed Producers' Association, Peace Branch. She represented this association on the Canadian Alfalfa Seed Council and of the Advisory Board of the Canadian Cocoon Testing Centre at Brooks, the independent authority for testing the quality of leafcutting bees produced in Canada.

As President of the International Herbage Seed Production and Research Group, she was co-editor of a book on forage seed production published in 1997 by the Commonwealth Agricultural Bureau International. Scientists and seed trade personnel from a number of temperate forage seed growing regions of the world contributed to this monograph. In addition, she helped organize workshops in New Zealand and Canada that provided an opportunity for seed growers, trade and research personnel to exchange information on forage seed production and marketing.

In 1997, Daphne left Agriculture Canada to pursue her interests in forage seed production and pollination in the private sector.

Daphne Fairey passed away peacefully at home on 6 March 2003 at the age of 57, after a lengthy battle with cancer.

Barbara Nelson
Lethbridge

Bulletin of the Entomological Society of Canada

Editor
Paul Fields

The *Bulletin of the Entomological Society of Canada*, published since 1969, presents quarterly entomological news, opportunities and information, details of Society business, matters of wider scientific importance and book reviews.

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http://esc-sec.org
entsoc.can@sympatico.ca

The Entomological Society of Canada was founded in 1863 primarily to study, advance and promote entomology. It supports entomology through publications, meetings, advocacy and other activities.

Send correspondence to:

Paul Fields
Bulletin Editor
Cereal Research Centre
195 Dafoe Road
Winnipeg, MB, Canada R3T 2M9
Telephone: (204) 983-1468
Fax: (204) 983-4604
E-mail: pfields@agr.gc.ca

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Rédacteur
Paul Fields

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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La Société d'entomologie du Canada a été établie en 1863 principalement pour promouvoir l'étude et l'avancement de l'entomologie. Elle soutient l'entomologie par l'entremise de publications, de réunions et d'autres activités.

Envoyer vos sousmissions à :

Paul Fields
Rédacteur du Bulletin
Centre de recherche sur les céréales
195, chemin Dafoe
Winnipeg, MB, Canada R3T 2M9
Téléphone : (204) 983-1468
Télécopieur : (204 983-4604
courriel: pfields@agr.gc.ca

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Biological Survey of Canada: Terrestrial Arthropods

Survey Report

The Scientific Committee met in Ottawa on 24-25 April 2003. A more detailed account of the meeting is included in the Newsletter of the Biological Survey (Terrestrial Arthropods) 22(2), 2003. Much of the meeting was devoted to a review of the Survey and of its scientific projects.

A review of the Survey - taking stock

The Scientific Committee undertook a wide review of the Survey's activities, ranging from details of the meetings to scientific and other policies.

Discussions included Scientific Committee membership (the possibility of including post-doctoral fellows as members is being considered), attendance by government representatives (including the relevance of the Committee's expertise and work to different agencies), and the location of the twice annual meetings (as a test, the 2003 meeting will be held in Kelowna after the ESC/ESBC meeting there).

The Survey's relationship with the Entomological Society of Canada was highlighted, given that the ESC initiated the Survey and remains involved in several ways, as it appoints the individual members of the Scientific Committee, is represented by the President at meetings, submits the Survey's Annual Report to the Canadian Museum of Nature, and acts as sales agent for Survey publications produced through the Biological Survey Foundation. It was agreed that the Survey should submit a brief report twice yearly to the ESC Executive and Board, in addition to the general reports prepared for the Bulletin. The Survey is also considering the possibility of an ESC award sponsored by the Survey.

It was agreed that a full review of Survey projects and priorities should continue to be made relatively infrequently, because rapid changes are not feasible or desirable, given the relatively limited resources of personnel and funding available for the work. An extensive discussion of funding confirmed that the Survey should continue to use existing funding avenues (from co-operating individuals, Biological Survey Foundation), and not tailor projects to facilitate funding at the expense of content, nor establish a continuing subcommittee to seek funding.

In a broader context, the value of the Survey and its scientific productivity was reinforced as a bottom-up, individually driven entity that focuses the efforts of individual scientists, coordinating that work to generate and analyze data about the fauna. The ground-level work on faunas undertaken by the BSC contrasts with the top-down "strategic" initiatives favoured by most other organizations that have developed recently under the general umbrella of biodiversity, chiefly to collate existing data through internet platforms.

Finally, it was agreed that many existing activities and procedures that are working well should continue, such as major projects and reviews, symposia, wide committee representation, national secretariat tours, Survey newsletters and the web site. The Committee concluded that the Survey continues to exercise an important influence on the direction and quality of Canadian entomology.

Scientific projects

1. Review of projects

The Scientific Committee reviewed all Survey projects to confirm which ones should remain fully active and to consider any changed priorities. Following the review, active current projects are Arthropod fauna of Canadian grasslands (the Survey's major current project), Illustrated keys to the families of arthropods in Canada, Insects of the arctic (combining Insects of Keewatin and Mackenzie and Arctic invertebrate biology projects), Insect fauna of Newfoundland and Labrador (undergoing development), Forest insects (the content of which is being reviewed), and Modes of seasonal adaptation in the insects.

Other current initiatives, some of them still being evaluated for development as full scientific projects, are Invasions and reductions, Endangered species, Faunal analysis, Arthropods

and fire, Naturalists publications, Survey website, and Survey publicity. Current general topics, providing the subject of several Survey briefs over the years, are Collections and collections policies (including voucher specimens), Systematics and entomology, Study of biodiversity, and Databasing.

A large number of topics are no longer the focus of specific current activities, but they continue to be monitored. Such topics include Arthropod fauna of Canadian soils, Arthropod fauna of aquatic habitats, Arthropods of Les Îles de la Madeleine (Magdalen Islands), Arthropod ectoparasites of vertebrates (including biting flies), Small regional projects, and Agroecosystems. Many other past projects or major components of projects have already been completed, such as Spatial and temporal changes in the Canadian insect fauna, Arctic arthropods review, Insects of the Yukon, Environmental appraisal, Aquatic insects of freshwater wetlands in Canada, Arthropods of Canadian peatlands, Arthropod fauna of freshwater springs in Canada, Origins of the North American fauna, Ecological review of insect dormancy, Insects of Canada, Funding for biodiversity projects, and Damaged ecosystems.

2. Grasslands

Letters of invitation have been sent out for the volume on ecology and interactions in grassland habitats. Fourteen chapters have been confirmed so far. Another issue of *Arthropods of Canadian Grasslands* has been produced. A Biological Survey grasslands field trip is planned for 18-21 July to Dunvegan Provincial Park and Historic Site, at the heart of the Peace River region.

3. Family keys

Apterygote and exopterygote keys for British Columbia are nearly complete and the version is in the layout stage for printing. These BC keys, with some additions, can be used to prepare the Canadian key.

4. Seasonal adaptations

Papers derived from a cooperative project and from reviews are now in press. Other work is in progress, including papers for national and international symposia. A potential book treating all insect seasonal adaptations has been deemed unfeasible, especially given the fact that a more or less exhaustive monograph is impracticable (and publishers would not accept a very lengthy book) whereas a streamlined treatment would be unsatisfying.

5. Insects of the Arctic

A collecting trip is planned in 2003 to the western Hudson Bay region. Interesting results have been obtained for aquatic insects. Next year's trip will be held farther east.

6. Forest projects

A subcommittee is considering how best to develop existing Survey interests in various forest faunas for discussion at the next meeting

Other scientific priorities

1. Invasions and reductions

A range of work with invasive species was reviewed. Two aspects of interest to the Survey were identified - an interest in coccinellids (chaired by McCorquodale), and a synthesis for which the Survey would expect to develop a symposium or publication in three or four years time.

2. Endangered species

A status report on an endangered species was shown as an example of the amount of work it takes to develop such a report. Concern was expressed about the potentially serious consequences of listing endangered species. For example, a need to obtain permits will preclude scientists from doing research because the applicants have to identify what and how many species they plan to collect, which cannot be done for most insect groups. Butterflies, dragonflies and freshwater molluscs might instead be used as surrogates for invertebrate groups. However, there is some recognition of the need for a different approach for arthropods, which in effect would involve family-level rather than species-level status reports.

3. Survey web site

Additions to the Survey's website continue to be made, including French translations for several briefs, and recent newsletters. Usage of the site is greater than was previously believed, with about 18,000 annual visits.

4. Voucher specimen brief

A draft of the voucher specimen brief was reviewed. (It has now been published.)

5. Other priorities

The Committee also considered updated information on earlier or currently less active Survey projects, faunal analysis, Survey publicity, naturalist publications, the cost of insect identifications (no further action on this complex topic was deemed feasible), databasing (the Survey will keep actively informed on this matter), and other issues.

Liaison and exchange of information

1. Canadian Museum of Nature

Roger Baird, Director, Collection Services reported that the CMN has undertaken the development of a strategic vision for where it wants to be in 2008. As a result of public surveys the issue of environmental change came to the forefront, leading to three main points of focus for all of the Museum's activities - 1. Factors that influence environmental change, 2. The place in the environment and role of the dominant species (humans) and its positive or negative influences on the environment, 3. Preserving a record of baseline data and scientific knowledge. There is also a strong focus on increased international outreach and working with other organizations.

An Alliance of Natural History Museums of Canada has been formed to work with 11 other museums with significant natural history collections to define some broad common goals and to unite in addressing those goals collectively. A proposal on West Nile virus under the Global Biodiversity Information Facility is being developed. Science departments in the federal government have confirmed a federal biodiversity information partnership (FBIP). The longer range objective is to develop a Canadian Biodiversity Information Facility (CBIF) and influence policy to ensure that digitisation of collections and specimen data is a priority.

2. Agriculture and Agri-Food Canada

Jean-François Landry reminded the Committee that the department has been undergoing a reorganization for the last 2 years, and there are new national programs and themes. Program and theme leaders may reside anywhere in Canada and oversee and supervise people and programs across the country. In Ottawa most entomologists are under the auspices of the Biodiversity theme led from Charlottetown. Biodiversity research is being encouraged. Unfortunately, resources are still tight, and budgets have been delayed.

Agriculture has just hired three new taxonomists, the first hirings at the CNC in 13 years. However, these additions will not be sufficient to maintain current professional staffing levels in the long term, because in the next five years about five retirements are scheduled.

3. Entomological Society of Canada

Sandy Smith, President of the Entomological Society of Canada, reported that the Society is financially sound. She reviewed recent developments in the Society with respect to electronic publishing, editorship, fee structure, copyright for ESC publications, the web site, ESC awards, and other issues.

4. Canadian Forest Service

John Huber reported that changes continue at the Canadian Forest Service, with a new Director of Science and restructured CFS research networks. The Canadian Forestry Innovation Council has recently been formed. CFS is part of the FBIP and is contributing to its support. Tony Hopkin explained the work of the Forest and Insect Disease Survey (FIDS) at Sault Ste. Marie. There is some interest to make the Forestry Centre's collections available through online access. As in other organizations there is insufficient taxonomic expertise for both insects and diseases, and there is concern about the constant reduction in the status of taxonomy. He pointed out that FIDS is constantly dealing with new species and often struggles to find people even to make preliminary identifications. The database is being updated in order to bring the synonymy up to date but whether re-identification is made depends on the particular database.

5. Association des entomologistes amateurs du Québec

Landry explained that the society has become more active in publishing its entomological journal *Fabreries* and its Supplement series. The most recent Supplement is a guide to the identification of the spiders of Quebec.

6. Parasitology module, Canadian Society of Zoologists

David Marcogliese explained that funding has not been available for the Parasitology module. Nevertheless, it continues to function and has produced a directory of parasitologists, an evaluation of systematics expertise and a number of other products despite being a very small community with no support. Scientific projects include those on perch parasites and on the biodiversity of stickleback parasites, with many participants. He provided a variety of information and publications related to taxonomy and biodiversity.

7. National Parks

The Survey had sent a letter to appropriate politicians and officials to encourage support for research in national parks, given the recent establishment of new parks. Seven out of 25 politicians and two heads of national parks responded, and one longer response was received that could be followed up.

Other items

1. Regional developments

Information of interest to the Survey from different regions of the country was summarized. Many entomology projects were described, and examples of some other information are given below.

In British Columbia, Wayne Maddison is now at the University of British Columbia. "Hot spots" of biodiversity do not coincide with any of the protected areas in B.C. Richard Ring is nearing retirement the University of Victoria. The pest management program at Simon Fraser University remains in limbo.

In the Prairies, Danica Baines is a new entomologist at Lethbridge. Maya Evenden is a new entomologist at the University of Alberta. A CFI proposal is being developed to database natural science collections across Alberta. The Annual Meeting of the Lepidopterists' Society takes place in Olds, AB, during July.

In Ontario, the Renaissance ROM project to renovate the Royal Ontario Museum continues. The ROM is seeking a new Vice-President of Collections and Research. The Blackflies of North America book is scheduled to be published in 2003.

In Quebec, the applied zoology department at McGill University has undergone a program revision and now has an entomology option. The Université de Montréal attempted for a second consecutive year to fill a position in systematic entomology; the position will again be advertised in the fall.

In Newfoundland and the Maritimes, an examination of beetles in the University of Prince Edward Island collection revealed many species newly recorded from PEI. Databasing work is underway in several places. The ESC annual meeting will be in Charlottetown in 2004 in mid-October. A major collection of forest insects from Acadia University has been saved by the Nova Scotia Museum.

For the Arctic, information was provided about the Northern Regional Impacts and Sensitivity to Climate Change and other projects. Associated with the January SICB meeting was a letter-writing campaign to the Prime Minister urging support of Arctic research. The only entomological work done in the Arctic last year was that under the Survey's arctic project. An arctic and boreal entomology course will be held in Churchill in August 2003.

2. Other matters

The Committee also considered recent Survey publications, the annual report to the CMN, developments at the University of Nebraska collections, and additional information on publications of interest.

The Canadian Entomologist and past issues of the *Memoirs* are available from the Ottawa office, and may be purchased by Mastercard, Visa, cheque or money order.

Gold Medal for Outstanding Achievement in Canadian Entomology and The C. Gordon Hewitt Award

Members of the Society are invited to nominate individuals whom they regard as eligible for these awards (for the year 2004). The information should include a statement of relevant achievements (3 pages maximum) and a *curriculum vitae* (c.v.). Nominations should be sent in an envelope marked "Confidential" to the following address:

Achievement Awards Committee
Entomological Society of Canada
393 Winston Avenue, Ottawa, Ontario K2A 1Y8

and should comprise: (1) the name and address of the nominee(s); (2) a statement of relevant achievements; and (3) the name of the nominator and at least one seconder. To be considered by the Achievement Awards Committee, nominations must bear a postmark no later than 28 February 2004.

The following conditions govern these awards:

1. Outstanding contributions should be judged on the basis of

(a) superior research accomplishment either as a single contribution or as a series of associated endeavours and which may be either in entomology or a related field where the results obtained are of great consequence; or (b) dedicated and fruitful service in the fields of Society affairs, research, administration or education.

2. No more than one of each award shall be granted per year but, where circumstances warrant, more than one individual may be mentioned in a single award.

3. Recipients need not be members of the Society providing their contribution is judged to have a major impact on entomology in Canada.

4. The award may be granted on different occasions to the same recipient but for different contributions to entomology in Canada.

5. Nominees for the C. Gordon Hewitt Award must be less than 40 years of age throughout the calendar year in which the award is both announced and awarded.

Médaille d'Or pour Contributions Exceptionnelles à l'Entomologie Canadienne et Prix C. Gordon Hewitt

La Société invite les membres à lui faire parvenir les noms des personnes qu'ils considèrent éligibles à ces deux prix. L'information devrait comprendre un énoncé pertinent des accomplissements (3 pages maximum) et un *curriculum vitae* (c.v.). Veuillez envoyer vos nominations (pour l'année 2004) au:

Comité des décorations
La Société d'entomologie du Canada
393 Winston Avenue, Ottawa, Ontario K2A 1Y8

dans une enveloppe portant la mention "Confidentiel". La nomination doit contenir: (1) le nom ainsi que l'adresse du (ou des) candidat(s) désigné(s); (2) un compte rendu des réalisations pertinentes; et (3) le nom du parrain et celui d'au moins une deuxième personne appuyant la mise en nomination. Pour être acceptées par le Comité, les nominations devront porter un sceau postal d'au plus tard le 28 fevrier 2004.

Les conditions suivantes régissent le choix des récipiendaires de ces prix:

1. Les contributions exceptionelles devraient être jugées dans le contexte

(a) d'un accomplissement hors pair en recherche, soit comme résultat d'une seule contribution ou d'une série d'efforts reliés et ayant abouti à des résultats de grande valeur. Cette recherche aura été realisér en entomologie ou tout autre domaine connexe; ou (b) de service dévoué et fructueux au profit de la Société, de l'administration de recherche, ou de l'éducation.

2. Chaque prix ne sera décerné qu'une seule fois par année. Cependent, lorsque les circonstances le justifient, plusieurs personnes peuvent collectivement devenir récipiendaires d'un prix.

3. Les récipiendaires ne doivent pas nécessairement être membres de la Société pour autant que l'on juge que leur contribution à eu un impact majeur sur l'entomologie au Canada.

4. Chaque prix peut être décerné plus d'une fois au même récipiendaire mais pour différentes contributions à l'entomologie au Canada.

5. Le candidat désigné pour le prix C. Gordon Hewitt doit être agé de moins de 40 ans pour toute la durée de l'année au cours de laquelle le prix est annoncé et décerné.

Election Results

Dan Quiring was elected as Second Vice-President, and Rosemarie De Clerck-Floate was elected as Director-At-Large

Dan Quiring is a Professor in the Faculty of Forestry and Environmental Management at the University of New Brunswick, Fredericton, New Brunswick. His research focuses on insect-plant interactions, silvicultural approaches to insect pest management, biological control and population ecology of insects.

Kevin Floate

Rosemarie De Clerck-Floate is a research scientist at the Agriculture and Agri-Food Canada, Lethbridge Research Centre, in Lethbridge, Alberta. Her research examines the biological control of weeds using insects.

Joint Annual Meeting of The Entomological Society of Canada and The Entomological Society of British Columbia

The Grand Okanagan Lakefront Resort and Conference Centre Kelowna B.C., November 1 – 5, 2003

On behalf of the Entomological Societies of British Columbia and Canada we cordially invite you to attend the Joint Annual Meeting to be held in the beautiful Okanagan Valley of British Columbia.

The Grand Okanagan is a spectacular facility on the shores of Okanagan Lake in the downtown area of Kelowna. We have negotiated an excellent room rate with the hotel ($99 regular, $135 suite) and encourage you to stay there **and to tell them you are with the Entomology Society of Canada conference**. It is this room subscription that enables the organizers to provide this caliber of facility. Hotel reservations can be made at (800) 465-4651, or see their website at http://www.grandokanagan.com/.

The Okanagan Valley is the wine, fruit and recreation centre of British Columbia and provides a host of extracurricular activities. Kelowna is a thriving city with a population of about 100,000. It is easily accessible via several major airlines including Air Canada and WestJet, or is approximately a five-hour drive from Vancouver.

For information on some social activities associated with the meeting including dining, wine tours and golf, see http://www.corkandcaddie.com/ESBCJAM.htm.

The theme for this meeting will be *Insects in Shifting Environments*. This theme is meant to focus on two similar and topical issues: 1) invasive species 'shifting' to new environments and effecting a change, and 2) impacts on insects of 'shifting' environments such as climate or anthropogenic changes.

Several additional meetings are scheduled to take place in conjunction with the JAM including the Canadian Forum for Biocontrol, Western Forum on Pest Management, Western Committee on Crop Pests, Western Committee on Plant Diseases, and Mountain Pine Beetle Symposium.

Keep an eye on our meeting webpage for further information as we continue to develop the program. It can be reached through the Entomological Society of British Columbia webpage at http://esbc.harbour.com/ or the Entomological Society of Canada webpage at http://esc-sec.org/.

For further information contact:

Terry Shore
JAM 2003 Organizing Chair
Canadian Forest Service
506 West Burnside Road
Victoria, British Columba, Canada V8Z 1M5
Telphone: (250) 363-0666
E-mail: tshore@pfc.forestry.ca

Tentative Program

Saturday, November 1

08:30-17:00 ESC Governing Board Meeting
Contact: Rick West, Secretary, ESC

Sunday, November 2

13:00-14:15 Opening Session, ESC Awards, Gold Medal Address
14:30-16:30 Plenary Session: Insects in shifting environments
Moderator: Bernie Roitberg (Simon Fraser University)
Francis Zwiers, Canadian Centre for Climate Modelling and Analysis
Climate change in the 20th and 21st Centuries
Jacques Régnière, Natural Resources Canada, Canadian Forest Service
Modeling potential impacts of climate change on insects in North American forest ecosystems: A basic phenological approach
L. Philip Lounibos, University of Florida
Impact of human activities on invasions by insect vectors of disease
Rosemarie De Clerck-Floate, Agriculture and Agri Food Canada
Intentional releases of insects into novel environments: Lessons from classical biocontrol
19:00-21:00 President's Reception (By invitation)
18:00-22:00 Student Mixer (no-host bar and food, Kelowna Curling Club)

Monday, November 3

08:30-11:00 Symposium A: Adaptations and constraints:
A symposium in honour of Richard Ring
Moderators: Robb Bennett (BC Ministry of Forests)
Neville Winchester (U. of Victoria)
Symposium B: Insects in a changing climate
Moderator: Richard Fleming (CFS, Sault Ste. Marie)

11:00-13:00 Poster Session: Contributed and President's Prize
Lunch provided

13:00-16:30 President's Prize Papers – Concurrent Sessions
Workshop A: Resistance of two kinds: Insecticides and host plants
Organizers: Yvan Pelletier (AAFC, Fredericton)
C. Vincent (AAFC, St-Jean-sur-Richelieu)
(vincentch@agr.gc.ca)
13:30-16:30 Workshop B: Temperate fruit flies: Ecology, behaviour, and management
Organizer: Howard Thistlewood (AAFC, Summerland)
(thistlewood@agr.gc.ca)
19:30-20:30 Student Reception – Wine Museum
20:30-22:30 General Reception – Wine Museum

Tuesday, November 4

08:30-11:00	Symposium C: Introduced species: Friends and foes and those we do not know Moderator: Judy Myers (UBC)
	Symposium D: Biodiversity Moderator: Geoff Scudder (Emeritus, UBC)
11:00-12:30	Contributed Papers – Concurrent Sessions
12:30-13:30	Lunch (on your own)
13:30-16:30	Symposium E: Graduate student symposium Moderator: Jacques Brodeur (Université Laval)
13:30-16:30	Workshop B: Ecology and structure of aphid populations Organizers: Kevin Floate (AAFC, Lethbridge) (floatek@agr.gc.ca) Bob Lamb (AAFC, Winnipeg) (rlamb@agr.gc.ca)
13:30-16:30	Contributed Papers – Concurrent Sessions
16:30-17:30	ESC Annual General Meeting
18:30-19:30	No host bar
19:30-22:00	Banquet and Entertainment

Wednesday, November 5

09:00-10:00	Heritage Lecture: Richard Ring (Unversity of Victoria) Insect Adaptations: A personal perspective
10:00-10:30	ESBC Annual General Meeting
10:30-12:00	Contributed Papers – Concurrent Sessions

Associated meetings

Thursday, October 30
Friday, October 31

Mountain Pine Beetle Symposium
Contact: Terry Shore (CFS Victoria)
tshore@pfc.forestry.ca

Thursday, October 30
08:30-17:00

Canadian Forum for Biological Control
Contact: Rose De Clerck-Floate (AAFC, Lethbridge)
floate@agr.gc.ca

Friday, October 31-
Saturday, November 1

Western Forum and Western Committees on Crop Pests and Plant Diseases
Contact: Hugh Philip (B.C. Ministry of Agr. and Fisheries, Kelowna)
hugh.philip@gems8.gov.bc.ca

INSTRUCTIONS FOR PRESENTERS

Presenters will receive confirmation of their presentation title and method of presentation, as well as an assigned session number and time of presentation by early October. Note that all President's Prize presentations (oral and poster) will be on Monday, 3 November. *Please notify Vince Nealis of withdrawals by 1 September 2003.*

Language: Presentations may be in French or English.

Oral presentations: 12 min + 3 min questions and discussion
PowerPoint. All presentations will be installed on a common computer provided by the conference for each session. To minimize potential incompatibilities between software versions, we recommend limited use of animation, use of common Windows fonts for text and symbol fonts for equations, and pre-testing your presentation on a different machine. Files should be named "Session_speaker.ppt", where "session" is the name and number of the session (to be provided to you in October) or symposium, and "speaker" is your last name. Files must be submitted by FTP to: ftp://ftp.for.gov.bc.ca/hti/external/incoming/ESBC/. Send Ward Strong an e-mail confirming your submission (ward.strong@gems7.gov.bc.ca). As a back-up, bring the file to the meeting on diskette or CD. There will be a room and computer available to pre-view your presentation.
Slides. If using 35 mm slides, please provide your own carousel, and submit to the audio-visual room no later than the morning of your presentation. Bring overhead transparencies to your session. Please notify Ward Strong in advance if you plan to use slides or transparencies.

Poster presentations:

Each poster will be allocated a space 1.2 m x 1.2 m. Posters are attached to the bulletin board with push-pins. Posters may be set up on Sunday, November 2, and must be in place by 10:00 AM, Monday, 3 November. They may be left in place until 12:00 noon Wednesday, 5 November, by which time they must be removed. Presenters are requested to attend their posters in particular during the designated poster session on Monday, November 3. President's Prize participants must attend from 11:30 - 12:30 on Monday.

Website: This and additional information is available on: http://esbc.harbour.com/jam.html

Inquiries:

Ward Strong
Telephone: (250) 549-5696
Fax: (250) 592-2230
E-mail: ward.strong@gems7.gov.bc.ca

or

Vince Nealis
Telephone: (250) 363-0663
Fax: (250) 363-0775
E-mail: vnealis@pfc.forestry.ca or vnealis@nrcan.gc.ca

Congrès Conjoint des Sociétés d'entomologie du Canada et de la Colombie-Britannique

Le Grand Okanagan Lakefront Resort et au Conference Centre, Kelowna, C.-B., du 1-5 novembre 2003

Au nom des Sociétés d'entomologie de la Colombie-Britannique et du Canada, nous vous invitons cordialement à assister au Congrès annuel conjoint qui aura lieu dans la splendide Vallée de l'Okanagan en Colombie-Britannique.

Le Grand Okanagan est un magnifique hôtel sur les bords du lac Okanagan au centre-ville de Kelowna. Grâce au nombre anticipé de réservations, nous avons négocié des prix plus qu'avantageux (chambre régulière $99; suite $135) pour des chambres de cette qualité. Nous vous encourageons donc à réserver dans cet hôtel **et à mentionner que vous venez à la conférence de la Société d'entomologie du Canada**. Les réservations pour l'hôtel peuvent se faire par téléphone au numéro sans frais (800) 465-4651 ou sur le site Internet de l'hôtel http://www.grandokanagan.com/.

La Vallée de l'Okanagan est le centre vinicole, fruitier et récréatif de la Colombie-Britannique et offre un éventail d'activités. Kelowna est une cité prospère. Sa population est d'environ 100,000 habitants. Elle est facilement accessible via toutes les lignes aériennes majeures y compris Air Canada et WestJet. Elle est approximativement à 5 heures de route de Vancouver.

Pour plus d'information sur les différentes activités sociales associées au congrès (repas, tour des vignobles, et golf), veuillez consulter le site Internet suivant : http://www.corkandcaddie.com/ESBCJAM.htm.

Le thème de ce congrès sera les insectes dans des milieux changeants. Ce thème vise à faire le point sur deux sujets similaires et d'actualité : 1) les espèces envahissantes qui s'établissent dans de nouveaux milieux en provoquant des changements, et 2) les impacts des changements comme le climat ou les changements du milieu découlant de l'activité humaine sur les insectes.

Plusieurs autres réunions auront lieu conjointement avec le JAM. Ce sont le Forum canadien pour la lutte biologique, le Forum de l'Ouest sur la gestion des ravageurs, le Comité de l'Ouest sur les ravageurs des cultures, le Comité de l'Ouest sur les maladies des plantes, et le Symposium sur le dendroctone du pin ponderosa.

Consultez fréquemment le site Internet du congrès pour de plus amples renseignements puisque l'on continuera à développer le programme. Vous pouvez accéder à ce site par le site Internet de la Société d'entomologie de la Colombie-Britannique (http://esbc.harbour.com/) ou celui de la Société d'entomologie du Canada (http://esc-sec.org/)..

Pour plus amples renseignements contacter :

Terry Shore
Président du comité organisateur JAM 2003
SCF, 506 West Burnside Road
Victoria CB, Canada V8Z 1M5
Téléphone: (250) 363-0666
Courriel: tshore@pfc.forestry.ca

Programme provisoire

Samedi, 1 novembre

08:30-17:00 Réunion du comité directeur de la SEC
Contact : Rick West, Secrétaire, SEC

Dimanche, 2 novembre

13:00-14:15 Séance d'ouverture, prix et bourses de la SEC,
mot du récipiendaire de la médaille d'or

14:30-16:30 Séance plénière : Insectes dans des milieux changeants
Modérateur : Bernie Roitberg (Université Simon Fraser)

Francis Zwiers, Centre canadien de la modélisation et de l'analyse climatique
Changement climatique au cours du 20ième et du 21ième siècle

Jacques Régnière, Ressources naturelles Canada, Service canadien des forêts
Modélisation des impacts potentiels du changement climatique dans les écosystèmes d'Amérique du Nord : Une approche phénologique élémentaire

L. Philip Lounibos, Université de Floride
Impact des activités humaines sur l'invasion des insectes vecteurs de maladie

Rosemarie De Clerck-Floate, Agriculture et Agroalimentaire Canada
Lâchers intentionnels d'insectes dans de nouveaux milieux: Leçons tirés de la lutte biologique classique

19:00-21:00 Réception du Président (sur invitation)

18:00-22:00 Soirée-rencontre des étudiants
(bar payant et hors-d'œuvres, Kelowna Curling Club)

Lundi, 3 novembre

08:30-11:00 Symposium A : Adaptations et contraintes :
Un symposium dédié à Richard Ring
Modérateurs : Robb Bennett (Ministère des forêts, CB)
Neville Winchester (U. de Victoria)

Symposium B : Réponses des insectes aux changements climatiques
Modérateur : Richard Fleming (SCF, Sault Ste. Marie)

11:00-13:00 Séance des affiches : Ordinaires et en compétition pour le prix du président
Dîner fourni

13:00-16:30 Présentation en compétition pour le prix du président – Séances concomitantes
Atelier A : Résistance de deux types : Insecticides et plantes-hôtes
Organisateurs : Yvan Pelletier (AAC, Frédéricton)
C. Vincent (AAC, St-Jean-sur-Richelieu)(vincentch@agr.gc.ca)

13:30-16:30 Atelier B : Les drosophiles des zones tempérées : Écologie, comportement et gestion
Organisateur : H. Thistlewood (AAC, Summerland)

19:30-20:30 Réception des étudiants– Musée du vin

20:30-22:30 Réception générale – Musée du vin

Mardi, 4 novembre

08:30-11:00	Symposium C : Espèces introduites : Amis, ennemis et ceux que l'on ne connaît pas Modérateur : Judy Myers (UCB) Symposium D : Biodiversité Modérateur : Geoff Scudder (Professeur émérite, UBC)
11:00-12:30	Présentations ordinaires – Séances concomitantes
12:30-13:30	Dîner (à votre choix)
13:30-16:30	Symposium E : Symposium des étudiants gradués Modérator : Jacques Brodeur (Université Laval)
13:30-16:30	Atelier B : Écologie et structure des populations de pucerons Organisateurs : Kevin Floate (AAC, Lethbridge), (floatek@agr.gc.ca) Bob Lamb (AAC, Winnipeg), (rlamb@agr.gc.ca)
13:30-16:30	Présentations ordinaires – Séances concomitantes
16:30-17:30	Assemblée générale annuelle de la SEC
18:30-19:30	Bar payant
19:30-22:00	Banquet et réception

Mercredi, 5 novembre

09:00-10:00	Conférence du patrimoine : Richard Ring (Université de Victoria) Adaptations des insectes : Une vision personnelle
10:00-10:30	Réunion générale annuelle de la SECB
10:30-12:00	Présentations ordinaires – Séances concomitantes

Réunions conjointes

Jeudi-vendredi, 30-31 octobre	**Symposium sur le dendroctone du pin ponderosa** Contact : Terry Shore (SCF, Victoria) tshore@pfc.forestry.ca
Jeudi, 30 octobre	**Forum canadien pour la lutte biologique** Contact : Rose De Clerck-Floate (AAC, Lethbridge) floate@agr.gc.ca
Vendredi-samedi 31 octobre - 1er novembre	**Forum et comités de l'Ouest sur les ravageurs des cultures et les maladies des plantes** Contact : Hugh Philip, (B.C. Min. of Agr. and Fisheries, Kelowna) hugh.philip@gems8.gov.bc.ca

DIRECTIVES AUX PRÉSENTATEURS

Les présentateurs recevront confirmation en début octobre du titre et du type de présentation, ainsi que l'heure et le numéro associé à la séance de leur présentation. Notez que les présentations en compétition pour le prix du président (orale ou affiche) se tiendront lundi le 3 novembre. *Veuillez informer Vince Nealis de tout désistement avant le 1er septembre, 2003.*

Langue: Les présentations peuvent être données en français ou en anglais.

Présentations orales: 12 min + 3 min pour les questions et la discussion
PowerPoint. Les présentations de chacune des sessions seront installées sur un ordinateur commun fourni par le comité organisateur. Afin de minimiser les risques d'incompatibilités potentielles entre les différentes versions du logiciel, nous recommandons de limiter l'utilisation des animations, d'utiliser des caractères d'éditions de Windows communs au traitement de texte, les caractères symboles pour les équations et de tester votre présentation à l'aide d'un ordinateur différent de celui qui a été utilisé pour sa conception. Votre fichier devra être nommé " Séance_présentateur.ppt ", où " séance " est le nom et numéro de la séance (informations que vous recevrez en octobre) ou symposium, et " présentateur " est votre nom de famille. Les fichiers devront être soumis par FTP à : ftp://ftp.for.gov.bc.ca/hti/external/incoming/ESBC/. Envoyez un courriel à Ward Strong (ward.strong@gems7.gov.bc.ca) pour confirmer votre soumission. Pour plus de sécurité, apportez votre document sauvegardé sur une disquette ou un DC au congrès. Une pièce ainsi que des ordinateurs seront à votre disposition afin de visualiser votre présentation.
Diapositives. Si vous utiliser des diapositives 35 mm, veuillez les placer dans un magasin circulaire que vous apporterez à la salle audio-visuelle au plus tard le matin de la journée au cours de laquelle vous présenterez. Apportez les transparents à votre séance. Veuillez informer Ward Strong à l'avance si vous utilisez des diapositives ou des transparents.

Présentation d'affiches:
Chacune des affiches se verra allouer un espace de 1.2 m x 1.2 m et sera fixée au panneau d'affichage au moyen de punaises. Les affiches pourront être placées dès dimanche le 2 novembre et devront être exposées au plus tard à 10:00 AM, lundi, le 3 novembre. Elles pourront rester en place jusqu'à 12:00 PM (midi) mercredi, le 5 novembre, heure à laquelle elles devront impérativement être enlevées. Nous demandons aux présentateurs d'être présents pour répondre aux questions particulièrement pendant la séance prévue à cet effet lundi le 3 novembre. Les participants en compétition pour le prix du président devront être présents lundi de 11:30-12:30.

Site Web: Le présent document ainsi que des informations additionnelles sont disponibles à : http://esbc.harbour.com/jam.html

Demande de renseignements:

Ward Strong
Téléphone: (250) 549-5696
Fac.: (250) 592-2230
Courriel: ward.strong@gems7.gov.bc.ca

Vince Nealis
Téléphone: (250) 363-0663
Fac.: (250) 363-0775
Courriel: vnealis@pfc.forestry.ca
vnealis@nrcan.gc.ca

The Buzz / Bourdonnements

Paul Fields, Bulletin Editor / Rédacteur du Bulletin

Agriculture and Agri-Food Canada (AAFC) is the largest single employer of scientists in Canada. In 2001, it employed over 600 professionals, most of them scientists, with 1800 support staff, and a budget of over $ 250 million. Traditionally, AAFC was organized into a number of branches and agencies, with the Research Branch taking the lead in scientific matters. The research centre was the functional unit of the Research Branch. For example, I was part of a section, Cereal Quality Protection, that grouped all the scientists working on storage and grain quality at our research centre, which had three other sections, with a total of about 30 scientists. All reported to one director, who had the overall responsibility of the programs and employees at the centre.

Over the last two years there have been extensive changes in the way AAFC is organized. Branches and agencies have been reorganized. Now, my own working group is made up of 14 entomologists from across Canada, and my immediate supervisor is 2000 km away in Harrow, Ontario.

So why should the members of the Entomological Society of Canada follow the internal machinations of AAFC? The immediate consequence is that there will be an increased attendance by AAFC entomologists at this year's meeting in Kelowna. Four study groups, containing about 50 scientists, will have their first meetings just before the conference in Kelowna. It is difficult to say what the long term consequences of putting a bunch of entomologists from across the country in the same working group will be, but for now it means greater participation by AFFC scientists at our ESC meetings, and perhaps an increase in collaboration between them.

Agriculture et Agroalimentaire Canada (AAC) est le principal employeur de scientifiques au Canada. En 2001, 600 professionnels oeuvraient au ministère (la plupart d'entre eux des scientifiques) en plus de 1800 employés de soutient, partageant un budget de 250 millions. Anciennement, ce ministère était divisé en directions et en bureaux dont la Direction générale de la recherche était le moteur en matière scientifique. L'unité de base de la direction générale de la recherche était le centre de recherche.

Dans mon cas, je faisais partie d'une section nommée Qualité et Protection des Céréales, un regroupement de tous ceux qui travaillaient sur l'entreposage et la qualité du grain au sein de notre centre de recherche, lequel comptait 3 sections et une trentaine de chercheurs. Tous répondaient à un seul directeur, qui avait la responsabilité de l'ensemble des programmes et des employés du centre.

Les deux dernières années on vu la transformation de l'organisation du ministère. Toutes les directions et les bureaux ont été restructurés de fond en comble. En ce moment, mon groupe consiste en 14 entomologistes répartis sur l'ensemble du Canada et mon supérieur immédiat est à 2000 kilomètres, à Harrow en Ontario.

Pourquoi les membres de la Société d'entomologie du Canada devraient-ils suivre les méandres décisionnels d'Agriculture et Agroalimentaire Canada? Parce que la conséquence immédiate pour nous est la hausse de participation au congrès de Kelowna des entomologistes du ministère. Quatre groupes d'étude, comprenant une cinquantaine de chercheurs, auront leurs premières rencontres immédiatement avant le congrès. Quels seront les effets à long terme de ce regroupement d'entomologistes des quatre coins du pays? Pour le moment cela stimulera la participation des chercheurs d'AAC au réunions de la SEC et peut-être même encouragera leur collaboration mutuelle.

Officers of Affiliated Societies. 2002-2003
Dirigeants des sociétés associées, 2002-2003

Entomological Society of British Columbia

President	Lorraine MacLauchlan
President-Elect	Gail Anderson
Past President	Rob Cannings
Editor (Journal)	Ward Strong
Editor (Boreus)	Cris Guppy
Sec.-Treasurer	Robb Bennett

B.C. Ministry of Forests, 7380 Puckle Rd.
Saanichton, BC V8M 1W4
Tel: (250) 652-6593, Fax: (250) 652-4204
E-mail: robb.bennett@gems6.gov.bc.ca
http://www.harbour.com/commorgs/ESBC/

Entomological Society of Alberta

President	Derek Kanashiro
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Past President	Hector Carcamo
Editor (Proceedings)	Andrea Kalischuk
Editor (Website)	Troy Danyk
Secretary	Mike Undershultz
Treasurer	Trevor Hindmarch

#62, 52152 RR 225, Sherwood Park, AB T8C 1C6
E-mail: tdhindmar@yahoo.ca, Tel: (780) 732-7238
http://www.biology.ualberta.ca/courses.hp/esa/esa.htm

Entomological Society of Saskatchewan

President	Cedric Gillott
President-Elect	Jack Gray
Treasurer	Dwayne Hegedus
Newsletter Editors	Wayne Goerzen
	Brian Galka
Secretary	Larry Grenkow

Agriculture and Agri-Food Canada
107 Science Place, Saskatoon, SK S7N 0X7
Tel: (306) 956-7293
E-mail: grenkowl@agr.gc.ca
http://www.usask.ca/biology/ess/

Editor's note: Society Directors and Officers are reminded to check these lists, and submit corrections, including the names and positions of new officers.

Entomological Society of Manitoba

President	Neil Holliday
President-Elect	John Gavloski
Past-President	Paul Fields
Treasurer	Ian Wise
Newsletter Editor	Nicole Lauro
Editor (Proceedings)	Terry Galloway
Member-at-Large	Tonya Mousseau
Secretary	Noel White

Agriculture and Agri-Food Canada
195 Dafoe Rd., Winnipeg, MB R3T 2M9
Tel: (204) 983-1452
E-mail: nwhite@agr.gc.ca
http://home.cc.umanitoba.ca/esm/

Entomological Society of Ontario

President	Bruce Gill
President-Elect	Jim Corrigan
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Treasurer	Blair Helson
Editor (Journal)	Yves Prévost
Secretary	David Hunt

Agriculture and Agri-Food Canada
2585 Country Rd. 20, Harrow, ON N0R 1G0
Tel: (519) 738-2251 ext 427
E-mail: Huntd@agr.gc.ca
http://www.entsocont.com/

Société d'entomologie du Québec

Président	Daniel Gingras
Président-sortant	Yves Mauffette
Vice-président	Michel Cusson
Trésorier	Stéphane Villeneuve
Rédacteur (Antennae)	Christine Jean
Secrétaire	Annabelle Firlej

Agriculture et Agroalimentaire Canada
430 Boul. Gouin
St-Jean-sur-Richelieu, QC J3B 3E6
E-mail: secretariat@seq.qc.ca
http://www.seq.qc.ca/

Acadian Entomological Society

President	Andrei Alyokhin
Vice-President	Cassie Gibbs
Treasurer	Charlene Donahue
Secretary	Charlene Donahue

Department of Biological Sciences
5722 Deering Hall, University of Maine
Orono, ME 04469 USA
E-mail: charlene.donahue@maine.gov
http://www.upei.ca/~aes/

The Bulletin of the Entomological Society of Canada, published since 1969, presents quarterly entomological news, opportunities and information, details of Society business, matters of wider scientific importance and book reviews.

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.

Illustrated on the front cover is Tephritis angustipennis (Loew) (Diptera: Tephritidae). This fruit fly is markedly boreal in distribution in North America, and also in northern and eastern Europe. Habitus drawing by B. Flahey, from McAlpine *et al*. (Editors) 1981-1989, "Manual of Nearctic Diptera, Vol 2", reproduced with permission from Agriculture and Agri-Food Canada.

On trouvera sur la couverture une illustration de Tephritis angustipennis (Loew) (Diptera:Tephritidae). Cette mouche a une répartition principalement boréale et se rencontre d'un bout à l'autre de l'Amérique du Nord. On la trouve également en Europe orientale et septentrionale. Habitus dessiné par B. Flahey, d'après McAlpine *et al.* (éditeurs) Manual of Nearctic Diptera Vol. 2, reproduit avec la permission d'Agriculture et Agroalimentaire Canada.

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La Société d'entomologie du Canada a été établie en 1863 principalement pour promouvoir l'étude et l'avancement de l'entomologie. Elle soutient l'entomologie par l'entremise de publications, de réunions et d'autres activités.