

Bulletin

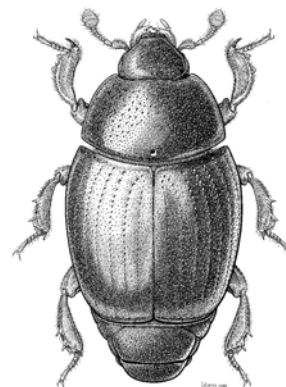
Volume 34

Entomological Society
of Canada

No. 1

Société d'Entomologie
du Canada

Mar - mar , 2001



Cover for 2002: The Predaceous Hister Beetle, *Carcinops pumilio*

List of contents/Table des matières

Society Business / Affaires de la Société	1
Call for Nominations – Second Vice President & Director-at-Large	1
52 nd Annual General Meeting	1
Notice of Executive Council Meeting	2
Bulletin on the Website	2
President's Midterm Report	3
Rapport de mi-mandat du président	4
2002 Joint Annual Meeting Highlights	5
Committees and Representatives 2002 / Comités et Représentants 2002	7
Postgraduate Awards	9
BOURSE POUR ÉTUDIANTS POST-GRADUÉS	10
News and Announcements	12
Personalia	18
Our Heritage (John D. Tothill)	18
In Memory	20
Book Reviews	22
Instructions for Reviewers	28
Biological Survey of Canada (Terrestrial Arthropods)	
Survey Report	29
News of Organizations and Meetings	34
Membership form	38
Scholarship form	39
Officers of Affiliated Societies, 2001-2002	inside back cover

ENTOMOLOGICAL SOCIETY OF CANADA - 2001/2002
LA SOCIÉTÉ D'ENTOMOLOGIE DU CANADA - 2001/2002

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Owen Olfert (2003)

Regional Directors/Directeurs régionaux:

Terry Shore (ESBC), Rob Bourchier (ESA),
Robert Elliot (ESS), Patricia MacKay (ESM),
David Hunt (ESO), Nancy Laroque (SEQ),
Gilles Boiteau (AES).

SOCIETY BUSINESS / AFFAIRES DE LA SOCIÉTÉ

Call for Nominations – Second Vice President & Director-at-Large

Nominations for Second Vice President and Director-at-Large must be signed by three members in good standing and received by 30 April 2002 by the Secretary, Dr. Rick West.

Nominations pour Deuxième Vice Président et Directeur doivent être signées par trois membres de la Société et envoyées avant le 30 avril 2002 au secrétaire, Dr. Rick West.

52nd Annual General Meeting

The Annual General Meeting of the Entomological Society of Canada will be held at the Delta Winnipeg, in Winnipeg, Manitoba, on October 6-9, 2002.

La réunion annuelle générale de la Société d'entomologie du Canada aura lieu au Delta Winnipeg, à Winnipeg, Manitoba, le 6-9 octobre, 2002.
(<http://home.cc.umanitoba.ca/esm/meet-esc.html>)

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.

Please send correspondence concerning the Bulletin to:

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Please send all correspondence concerning Book Reviews for the Bulletin to:

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Chair, Publications Committee
506 West Burnside Road
Pacific Forestry Centre
Victoria, BC, V8Z 1M5
Tel: (250) 363-0663
Fax: (250) 363-0775
E-mail: vnealis@pfc.forestry.ca

The deadline for submissions to be included in the next issue, Vol. **34(2)**, is **May 1, 2002**. La date limite pour recevoir vos contributions pour le prochain numéro (Vol. **34(2)**) est le **1 mai 2002**.

Notice of Executive Council Meeting

The mid-term meeting of the Executive Council will be held at the Entomological Society of Canada office (393 Winston Ave., Ottawa) April 27, 2002. Matters for consideration at any of the above meetings should be sent to the secretary at the address below.

La réunion de mi-session du Conseil Exécutif aura lieu au Siège social de la Société d'entomologie du Canada 27 avril, 2002. Veuillez faire part au secrétaire de tout sujet pouvant faire l'objet de discussion à l'une ou l'autre de ses réunions en communiquant à l'address suivante:

Dr. Rick West
31 Drover's Heights
Portugal Cove-St. Philips, Newfoundland A1M 3G6
Phone and fax: (709) 895-2734
E-mail: reely.west@roadrunner.nf.net

Bulletin on the Website

Beginning with the December, 2001, issue, the Bulletin of the Entomological Society of Canada is available on the website in PDF format. Tell us what you think about this option, and the links for selected topics in Bulletin content.

The new website of the ESC is <http://www.esc-sec.org>. Comments and questions concerning the ESC-SEC website should be directed to the webmaster, Dr. Barry Lyons, blyons@NRCan.gc.ca.

President's Midterm Report

I assumed my new position in October at our AGM in Niagara Falls. It was a pleasure to attend such a well-organized and stimulating meeting. I applaud all members of the ESO and ESC that helped make the meeting a great success.

I am pleased to report that the Society continues on sound financial footing, that our membership numbers are stable and all the committees are full and functional. My thanks to those who completed their terms in 2001. The ESC appreciates your many contributions.

Several important issues currently revolve around the publishing arm of our society. First, Jean Turgeon will step down as editor of *The Canadian Entomologist* at the end of this calendar year. We are currently in the process of recruiting a new editor. Jean has done a tremendous job and he deserves our thanks.

Second, our contract with NRC Press expired on Dec. 31, 2001. In mid-January Jean Turgeon, Gary Gibson and I completed negotiations on a new contract with NRC that will take us through Dec. 2004.

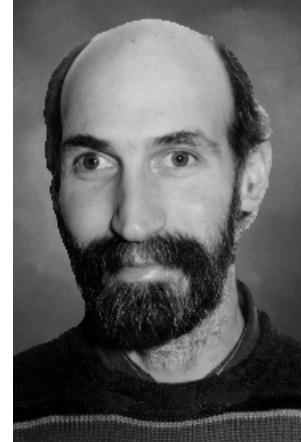
Third, Paul Fields joined Dan Johnson on an ad hoc basis as *Bulletin* co-editor (later in 2002). Despite the obvious talents of these two individuals, *The Bulletin* can only function well when members submit news items, points-of-view, notice-of-meetings, etc. Please remember to submit your items promptly and frequently.

Fourth, the Editor, Publications Committee and Executive continue to develop new guidelines for electronic publishing and copyright assignment. In this era of rapidly changing technology it is imperative that our guidelines are flexible and do not inhibit dissemination of information. Within that same framework, we need to think about how best to integrate our web site (<http://esc-sec.org>) and our bulletin. More on this at the next AGM. In the meantime, check our web site and tell us what you think of it.

Plans for our next AGM at Winnipeg (Oct. 6-9) are well underway. In addition to the plenary session, workshops and feature symposia, the Student Affairs Committee plans to present an all-student symposium. Experience from other society meetings suggests that this could be a highlight of our meeting; I invite all of you to attend.

Happy New Year.

Bernie



Rapport de mi-mandat du président

J'ai assumé ma nouvelle fonction en octobre à notre réunion générale annuelle de Niagara Falls. C'était un plaisir d'assister à un congrès si stimulant et bien organisé. J'applaudis tous les membres de la société d'entomologie de l'Ontario et de la SEC qui ont contribué à faire de ce congrès un grand succès.

Je suis content de vous signaler que la Société est toujours en bonne santé financière, que le nombre de nos membres est stable et que tous les comités sont complets et fonctionnels. Mes remerciements les plus sincères à ceux qui terminent leur mandat en 2001, la SEC apprécie votre contribution.

Plusieurs importantes questions tournent actuellement autour de la section des publications de notre Société. Premièrement, Jean Turgeon terminera son mandat d'éditeur du 'The Canadian Entomologist' à la fin de cette année et nous recherchons actuellement un nouvel éditeur. Jean a fait un travail fantastique et mérite nos remerciements.

Deuxièmement, notre contrat avec Les Presses RNC finissait le 31 décembre 2001. À la mi-janvier, Jean Turgeon, Gary Gibson et moi avons complété les négociations d'un nouveau contrat avec RNC qui s'étendra jusqu'en décembre 2004.

Troisièmement, Paul Fields se joint à Dan Johnson comme coéditeur du Bulletin. Malgré les talents évidents de ces deux individus, le Bulletin ne peut bien fonctionner que si les membres soumettent des nouvelles à transmettre, leur point de vue, des avis de congrès, etc. Veuillez soumettre vos articles sans plus tarder et faites-le fréquemment.

Quatrièmement, l'éditeur, le comité des publications et le conseil d'administration continuent à développer les nouvelles directives de publication électronique et de cession des droits d'auteur. Dans cette ère de rapides changements technologiques, il est impératif que nos règlements soient flexibles et ne nuisent pas à la dissémination des informations. Dans le même ordre d'idée, nous devons penser à la meilleure façon d'intégrer notre site Internet (<http://esc-sec.org>)



Insects and Humans: Confrontation and Coexistence

On behalf of the Entomological Societies of Manitoba and Canada, we are pleased to extend an invitation to join us at the 2002 Joint Annual Meeting which will be held at the Delta Hotel in Winnipeg, Manitoba. The theme for the 2002 ESC/ESM Meeting will be "Insects and Humans: Confrontation and Coexistence". We are confident that this theme will provide the basis for an interesting and informative series of Plenary Sessions, Symposia and Workshops. Please refer to the tentative agenda.

The Delta Hotel, the largest hotel in Winnipeg, is connected through a series of walkways to a variety of shopping, entertainment and restaurant options in downtown Winnipeg. In addition, the hotel is within walking distance of the historic Forks area at the junction of the Assiniboine and Red Rivers. The meeting is scheduled to coincide with the spectacular bird migration along the Red River Valley, the pleasant autumn weather we experience in early October, and the possibility of late season insect collecting.

The ESC/ESM 2002 organizing committee has decided to make some important changes to the meeting format. We believe these changes will provide a more efficient use of time and will enhance enjoyment of the meeting by participants. Specifically, the opening ceremonies and plenary session will commence after lunch on Sunday, October 6, rather than on Monday morning. Please ensure that you adjust your travel plans accordingly.

In addition to the JAM, there are several additional meetings scheduled to enable entomologists to get the best bang for their travel dollar. The Organizing Committee welcomes suggestions for additional program items or participants in symposia and workshops. Please visit our webpage at <http://home.cc.umanitoba.ca/esm/meet-esc.html>

For further information: Don Dixon
Manitoba Agriculture and Food
545 University Crescent
Winnipeg, Manitoba, R3T-5S6
204-945-3861
Ddixon@gov.mb.ca

Associated Meetings:

Wednesday, October 2	Canadian Forum for Biocontrol
Thursday, October 3	Agriculture and Agrifood Canada working group on biocontrol
Friday, October 4	Western Committee on Crop Pests; Western Committee on Plant Diseases
Saturday, October 5	Western Forum and ESC Board Meeting

**Joint Meeting of the Entomological Societies of Manitoba and Canada
Delta Winnipeg Hotel, Winnipeg, Manitoba
5-9 October 2002**

TENTATIVE PROGRAM

Sunday, October 6

13:00-14:15	Opening Ceremonies, ESC Awards, Gold Medal Address
14:45-16:45	Plenary Session: "Insect and Humans: Confrontation and Coexistence"? Professor David Schindler, University of Alberta Expert in: Environmental Significance of Global Movement, Sequestration and Re-release of Pesticides Professor Mark Rausher, Duke University Expert in: Management of Evolutionary Change in Pest Insects
19:30-20:30	Students Meet the Board followed by Reception
20:30-22:30	Mixer (included)

Monday, October 7

08:30-12:00	Symposium: Forest Age Structures: Consequences for Insects - Richard Westwood (University of Winnipeg)
08:30-12:00	Symposium: Crops as New Habitats for Insects - John Gavloski (Manitoba Agriculture and Food)
13:30-16:00	Symposium: Biological Control and the Native Fauna and Flora - Neil Holliday (University of Manitoba)
13:30-16:00	President's Prize Papers
16:00-17:30	Poster Session

Tuesday, October 8

08:30-12:00	Symposium: Managing Insects with Pheromones - Desiree Vanderwel (University of Winnipeg)
08:30-12:00	Symposium: Measuring the Interaction between Insects and Plants - Rosemarie DeClerck-Floate (AAFC Lethbridge)
13:30-16:00	Symposium: Ecology and Diversity of Grassland Arthropods - Terry Wheeler (McGill University)
13:30-16:00	Contributed Papers
18:00-23:00	Banquet

Wednesday, October 9

08:30-12:00	Hands-On Workshop: North American Dragonflies - Terry Galloway (University of Manitoba)
08:30-12:00	Contributed Papers

Ces renseignements sont disponibles en français sur le site Web de la société entomologique du Manitoba:
<http://home.cc.umanitoba.ca/esm/reunion.html>

**Entomological Society of Canada / Société d'entomologies du Canada
Committees and Representatives 2002 / Comités et Représentants 2002**

Standing committees/Comités permanents

Nominations/Nominations

R. Foottit, Chair, Ottawa
R. Bennett, Victoria
J. Delisle, Sainte-Foy
B. Roitberg, ex officio, Burnaby

Elections/Elections

R. Hallett, Chair
J. MacIntyre-Allen, Guelph
A. Martin, Guelph
B. Roitberg, ex officio, Burnaby

Continuing Committees/Comités en cour

Achievement Awards/Prix d'excellence

S. Smith, Chair, Ottawa
B. Roitberg, ex officio, Burnaby

Annual Meeting/Réunion Annuelle

P. de Groot, Chair, Sault Ste. Marie
B. Roitberg, ex officio, Burnaby

Bilingualism/Bilinguisme

L. Royer, Chair, Corner Brook
H. Chiasson, St-Marc-sur-Richelieu
M. Roy, Québec
B. Roitberg, ex officio, Burnaby

Bylaws, Rules & Regulations/Règlements M.

Goettel, Chair, Lethbridge
N.J. Holliday, Winnipeg
G. Boiteau, Fredericton
B. Roitberg, ex officio, Burnaby

Finance/Finance

J.E. O'Hara, Chair, Ottawa
D. Parker, Ottawa
P. Mason, Ottawa
M. Sarazin, Ottawa
G. Gibson, Treasurer, Ottawa
B. Roitberg, ex officio, Burnaby

Headquarters/Siège social

V. Behan-Pelletier, Chair, Ottawa
J.M. Cumming, Ottawa
G. Gibson, ex officio, Ottawa
B. Roitberg, ex officio, Burnaby

Heritage/Heritage

D.C. Eidt, Chair, Fredericton
P.W. Riegert, Regina
E.C. Becker, Ottawa
B. Roitberg, ex officio, Burnaby

**Insect Common Names/
Noms communs d'insectes**

H. Chiasson, Chair,
St. Marc-sur-Richelieu
M. Roy, Sainte-Foy
B. Roitberg, ex officio, Burnaby

Marketing/Comité du marketing

L. Braun, Chair, Saskatoon
H. White, Winnipeg
O. Olfert, Saskatoon
B. Roitberg, ex officio, Burnaby

Membership/Adhésion

J. Sweeney, Chair, Fredericton
T. Shore, ESBC, Victoria
R. Bouchier, ESA, Lethbridge
R. Elliot, ESS, Saskatoon
P. MacKay, ESM, Winnipeg
D. Hunt, ESO, Harrow
N. Larocque, SEQ, Québec
G. Boiteau, Fredericton
B. Roitberg, ex officio, Burnaby

Publications/Publications

V. Nealis, Chair, Victoria
G. Boivin, St.-Jean-sur-Richelieu
R. Bennett, Victoria
P. de Groot, Sault Ste. Marie
P. Kevan, Guelph
L. Gilkeson, Victoria
D.B. Lyons, Sault Ste. Marie
J. Turgeon, ex officio, Sault Ste. Marie
D. Johnson, ex officio, Lethbridge
B. Roitberg, ex officio, Burnaby

**Science Policy and Education/Politique
scientifique et éducation**

C. Vincent, Chair, Saint-Jean-sur-Richelieu
K.G. Davey, Downsview
P. Kevan, Guelph
T. Shore, ESBC, Victoria
R. Bouchier, ESA, Lethbridge
R. Elliot, ESS, Saskatoon
P. MacKay, ESM, Winnipeg
D. Hunt, ESO, Harrow
N. Larocque, SEQ, Laval
G. Boiteau, AES, Fredericton
B. Roitberg, ex officio, Burnaby

Student Affairs/Affaires étudiantes

J. Savage, Chair, Montréal
C. Schmidt, Edmonton
B. Sarauer, Saskatoon
D. Gillespie, ex officio, Agassiz
B. Roitberg, ex officio, Burnaby

**Student Awards/Prix aux étudiantes
et étudiants**

D. Gillespie, Chair, Agassiz
J. Delisle, Sainte-Foy
B.K. Mitchell, Edmonton
D. Quiring, Fredericton
T.A. Wheeler, Ste-Anne-de-Bellevue
D.C. Currie, Toronto
D.J. Larson, St. John's
B. Roitberg, ex officio, Burnaby

Ad hoc Committees / Comites ad hoc

Joint Meeting Document

T. Shore, Chair, Victoria
J. Sweeney, Fredericton
R. Footitt, ex officio, Ottawa

**Postgraduate Awards
Entomological Society of Canada**

The Entomological Society of Canada will offer two postgraduate awards of \$2,000 each to assist students 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.

Invitation for Applications

Eligibility

Applicants for either scholarship must be members of the Entomological Society of Canada at the time of application. The successful applicants must be either Canadian citizens or landed immigrants with Bachelor's degrees from Canadian universities. Applicants must be entering their first post-graduate degree in entomology, and must begin their first year of postgraduate studies between 15 June 2000 and 31 December 2002. The studies and research must be carried out at a Canadian university. Each award is conditional upon certification by the Department Head that successful applicants have been accepted into the first year of a program of study and research for an advanced degree with full graduate status. A student who was unable to gain admission or enters graduate school as a qualifying candidate is not eligible to receive an award.

Method of Application

Applicants must submit a properly completed form, with support documents. Application forms are available at <http://www.biology.ualberta.ca/esc.hp/form.htm>, or from the Chair of the ESC Student Awards Committee. The original and three copies of the application and supporting documents, must be submitted to the Chair of the Student Awards Committee postmarked no later than 10 June 2002. Only one original transcript is required. Please specify on the application form if you are applying for the Postgraduate Award, or the Keith Kevan Scholarship. Separate applications and documentation packages must be submitted with each award application.

Process of Selection and Award Presentation

Applications will be reviewed by a committee of the Society. An announcement of the two winners will be made at the annual meeting of the Society and each winner will receive a certificate. Payment of the award will be made in October 2002.

Regulations

Earnings from Other Sources: Award holders are permitted, under normal circumstances, to demonstrate, instruct or assist in non-degree related research for a maximum of 200 hours per annum, provided that the Head of their Department considers this is desirable and that it does not hinder the progress of their studies. Apart from these assistantships, award holders will devote their full time to study and research and will not undertake any paid work during the school term. They may hold other awards and scholarships.

Transfers: Awards are made on the condition that the winners engage in a program of graduate studies and research for an advanced degree in entomology in Canada. Students who, after receiving the award, wish to change their graduate program or transfer to a foreign university may be asked to decline the award. Any change in the course of study, department or university in which an award winner is registered requires prior

approval of the Scholarship Committee. A request for permissions to transfer must be supported by statements from Heads of Departments.

Additional Allowances: The award stipends are all-inclusive. There is no provision for additional grants by the Society for any purpose. Additional grants, for example, to attend meetings, pay course fees, meet publications costs, etc., will not, under any circumstances, be authorized.

All communications regarding these awards, including requests for applications, should be addressed to:

Dr. David R. Gillespie, Chair
ESC Student Awards Committee
Pacific Agri-Food Research Centre (Agassiz)
Agriculture and Agri-Food Canada
P.O. Box 1000 , Agassiz, B.C., V0M 1A0
E-mail: GillespieD@em.agr.ca (ESC-SEC <http://esc-sec.org/>)

BOURSE POUR ÉTUDIANTS POST-GRADUÉS Société entomologique du Canada

La Société d'entomologie du Canada offrira deux bourses d'une valeur de \$2,000 chacune pour aider des étudiants 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.

Avis

Éligibilité

Les candidats doivent être membres de la Société d'entomologie du Canada au moment de la demande. Les candidats doivent aussi être Canadiens ou résidents reconnus du Canada et détenir un baccalauréat d'une université canadienne. Les candidats doivent obligatoirement avoir débuté leur première année d'études post-graduées entre le 15 juin 2000 et le 31 décembre 2002 en vue d'obtenir leur premier diplôme d'études supérieures en entomologie, et effectuer leur étude et recherche dans une université canadienne. Les bourses ne seront accordées que lorsque les directeurs de Département auront certifié que les candidats choisis sont inscrits en première année d'un programme d'études supérieures, et ce avec tous les privilèges attachés au statut d'étudiant gradué. Un étudiant qui n'a pu être admis à l'École des Gradués, ou qui s'inscrit en vue de compléter l'obtention de crédits, n'est pas éligible à la bourse.

Procédure

Les candidats devront soumettre leur candidature à l'aide du formulaire approprié et y joindre tous les documents requis. Les formulaires sont disponibles auprès du président du Comité des bourses aux étudiants de la Société ou sur notre site internet à l'adresse suivante: <http://www.biology.ualberta.ca/esc.hp/form.htm>. L'original ainsi que trois copies de la demande et des autres documents qui l'accompagnent doivent être

soumis au Président du Comité des Prix au plus tard le 10 Juin 2002. Seulement un original de la demande complète est exigé. Veuillez préciser sur le formulaire si vous soumettez votre candidature pour la Bourse Post-graduée ou la Bourse Keith Kevan. Des formulaires distincts accompagnés des documents requis doivent être soumis pour chacune des Bourses.

Sélection et remise des bourses

L'analyse des candidatures se fait par un comité de la Société, et l'annonce des récipiendaires se fera à la réunion annuelle de la Société où ils recevront un certificat. Le paiement de la bourse aura lieu en octobre 2002.

Règlement

Autres sources de revenus: Un boursier pourra normalement donner des séances de cours ou de démonstration et être auxiliaire de recherche jusqu'à un maximum de 200 heures par année, en autant que le Directeur de son département considère cela profitable et que ces tâches additionnelles ne nuisent pas au progrès de l'étudiant. Mises à part ces exceptions, un boursier devra consacrer tout son temps à ses études et recherches et n'accepter aucune autre rémunération. Il peut cependant jouir d'une autre bourse ou d'un prix.

Transferts: Les bourses sont accordées à condition que les boursiers entreprennent des études graduées en vue de l'obtention d'un diplôme en entomologie au Canada. Les boursiers qui décideront de changer de champ d'études, ou de transférer dans une université hors du Canada peuvent se voir retirer leur bourse. Après acceptation de la bourse, tout changement de programme d'études, de département ou d'université devra recevoir au préalable l'approbation du Comité de la Bourse de la SEC. Une telle demande doit être accompagnée de documents provenant des Directeurs des départements concernés.

Frais supplémentaires: La somme offerte est invariable. En aucun cas la Société n'accordera de montant supplémentaire. Des frais additionnelles, par exemple, pour assister aux réunions scientifiques, payer des frais de cours, défrayer des coûts de publications, etc..., ne seront autorisés sous aucune considération. Toute correspondance relative aux bourses, incluant les demandes de formulaires doit être adressée à:

Dr. David R. Gillespie, Président
Comité des prix aux étudiants de la SEC
Centre de recherches agricoles du Pacifique - Agassiz
Agriculture et Agroalimentaire Canada
Case Postale 1000, Agassiz, C.B., V0M 1A0
Courriel: GillespieD@em.agr.ca

(ESC-SEC <http://esc-sec.org/>)

Le masculin est employé dans ce texte pour désigner les personnes des deux sexes.

News and Announcements

Collecting in Siberia

Dolf Harmsen, who recently retired as editor of the Proceedings of the ESO, is organizing an 'expedition' to central Siberia. From 12 August to 10 September this year, he and Bori Sheftel, a Russian ecologist, will guide a group of enthusiasts from the tundra of the Taymir Peninsula down south up the Yenisei River to the steppes and deserts on the Mongolian border. The entire journey, excluding travel from home to Moscow and back costs US\$1980. This should be a great opportunity to collect insects in a part of the world until recently closed to Western visitors. No permits are needed for collecting in Russia, but some of the nature reserves we will visit do not allow collecting. Student members should note that the expedition can be taken as a credit course from Moscow State University. For further information contact Dolf Harmsen at dolf@harmsen.net, or visit: <http://www.interuniversity.ca>.

Graduate

Student or Postdoc Opportunity

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The research will be carried at Agriculture and Agri-Food Canada's Research Centre at Agassiz under the supervision of Dr. David Gillespie with training in insect pathology, if required, at the Lethbridge Research Centre.

For more information, please contact
Mark Goettel
Research Scientist
Insect Pathology
Lethbridge Research Centre
& Adjunct Professor
Simon Fraser University
e-mail: Goettel@em.agr.ca
Tel: 403-317-2264
Fax: 403-382-3156

BIOPESTICIDES D'ORIGINE VEGETALE

REGNAULT-ROGER Catherine, PHILOGENE Bernard, VINCENT Charles

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Cet ouvrage pluridisciplinaire présente les perspectives de développement de nouveaux composés phytosanitaires d'origine végétale et de leur place dans la lutte biologique et intégrée. La recherche de nouvelles sources d'approvisionnement, leur implication dans des formulations phytopharmaceutiques et les développements commerciaux actuels ou futurs y sont abordés. Toutes les contributions rassemblées dans cet ouvrage sont originales dans leur approche et n'ont jamais été abordées dans la littérature en tant que telles.

Produits phytosanitaires insecticides d'origine végétale: promesses d'hier et d'aujourd'hui. De nouveaux phyto-insecticides pour le troisième millénaire ? Prospection d'insecticides phytochimiques de plantes tempérées et tropicales communes ou rares. Contribution de la chimie à la compréhension de l'activité biopesticide de produits naturels d'origine végétale. Action synergique des composés d'origine végétale. Substances soufrées des Allium et des Crucifères et leurs potentialités phytosanitaires. Place des phytoecdystéroïdes dans la lutte contre les insectes phytophages. Cellules oléagineuses idioblastiques : une nouvelle source de produits botaniques actifs dans le contrôle des insectes. Utilisation de composés secondaires des végétaux pour la protection des graines d'une légumineuse, le niébé. Conséquences sur les insectes ravageurs et leurs parasitoïdes. Composés allélopathiques : herbicides de demain ? Contribution des polyphénols aux mécanismes de défense des plantes. Plantes nématocides et plantes résistantes aux nématodes. Impact de protéines d'origine végétale, exprimées dans des plantes transgéniques, sur des insectes pollinisateurs et auxiliaires. Protéines liant les odeurs (OBP) et protéines chimiosensorielles (CSP) : cibles moléculaires de la lutte intégrée. Huiles végétales et monoterpènes en formulation phytosanitaire. Problèmes et perspectives de commercialisation des insecticides d'origine botanique. Annexe : Post-récoltes et biopesticides en Afrique.

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Pollination Conservationist Wins Prestigious Synergy Award

“The pivotal role of pollinators such as honeybees in sustainable agriculture is starting to receive the attention it deserves, says a University of Guelph professor who is the recipient of a 2001 Synergy Award from the Natural Sciences and Engineering Research Council of Canada and the Conference Board of Canada.

“Environmental biologist Peter Kevan and the Ontario Beekeepers' Association were among the six university-industry partnerships to receive the prestigious award, which is designed to foster innovation, creativity and entrepreneurship in university-industry research and development. The university partner receives a \$25,000 research grant.”

University-Industry Partnerships Driving Innovation
(See www.nserc.ca/about/award_e.htm for a full description)

The Entomological Society of British Columbia marked its 100th anniversary in 2001.

To commemorate the occasion, Volume 98 of the Journal of the Entomological Society of BC presents 14 invited papers sampling the numerous entomological subjects explored in British Columbia during the last 50-100 years:

Belton, P., J.C. Arrand and H.R. MacCarthy. The second 50 years of entomology in British Columbia a brief perspective. 7 pp.

The G.J. Spencer Memorial Lecture Series at the University of British Columbia. 2 pp.

The H.R. MacCarthy Pest Management Lecture Series (Simon Fraser University and the University of British Columbia). 2 pp.

Cannings, R.A., S.G. Cannings and G.G.E. Scudder. Insect collections, surveys and conservation in British Columbia in the 20th century. 16 pp.

Cannings, R.A. and G.G.E. Scudder. An overview of systematics studies concerning the insect fauna of British Columbia. 27 pp.

Scudder, G.G.E., K.M. Needham, R.D. Kenner, R.A. Cannings and S.G. Cannings. Aquatic insects in British Columbia: 100 years of study. 21 pp.

Bennett, R.G. Spiders (Araneae) and araneology in British Columbia. 8 pp.

Gillespie, D.R. Arthropod introductions into British Columbia the past 50 years. 7 pp.

Ring, R.A. Research in adaptations of arthropods in British Columbia. 8 pp.

Myers, J.H. and D.A. Raworth. Insect population ecology in British Columbia. 6 pp.

Roitberg, B. and G. Gries. Behavioral and chemical ecology in British Columbia. 5 pp.

Belton, P., A. Borkent and B. Costello. Arthropods that attack man and domestic animals in British Columbia (1951 - 2001). 7 pp.

Anderson, G.S. Forensic entomology in British Columbia: A brief history. 9 pp.

van Westendorp, P. and D.M. McCutcheon. Bees and pollination in British Columbia. 5 pp.

Vernon, R.S. Fifty years of entomological research in orchard and vegetable crops in British Columbia. 9 pp.

Hall, P.M., J.M. Kinghorn, B.S. Lindgren, J.A. McLean and L. Safranyik. History of forest insect investigations in British Columbia. I. Forest entomology education, research, and insect management. 15 pp.

Van Sickle, A., R.L. Fiddick and C.S. Wood. History of forest insect investigations in British Columbia. II. The Forest Insect and Disease Survey in the Pacific Region. 8 pp.

Rajala, R.A. History of forest insect investigations in British Columbia. III. The Vernon Laboratory and federal entomology in British Columbia. 12 pp.

A limited number of copies of JESBC, Vol. 98 are available at \$25 each. Please contact: Robb Bennett -- BC Ministry of Forests, 7380 Puckle Road, Saanichton, BC, Canada V8M 1W4; (250) 652-6593; Robb.Bennett@gems6.gov.bc.ca

ESC Minutes: Some members asked about the presence of the minutes in the December issue. To answer these queries, the following was submitted by Secretary Rick West:

The following Standing Rules pertain to the Bulletin:

Standing Rule VI.2 (b)

The Secretary shall record the minutes of all meetings of the Board and of the Society, prepare all ballots, notify the Board Members and Members of the Society of forthcoming meetings, and shall distribute reports and other material as required, using the Bulletin when appropriate.

Standing Rule VI.6 (c)

The Bulletin Editor shall give publication priority to Society affairs, including announcements of meetings, minutes of general meetings, actions of the Governing Board, actions of committees, appointments, honours, etc.

The Biological Survey of Canada has moved the BSC web site to a different directory on the U of A server. Volume 7 of the Grasslands Newsletter is now at:

<http://www.biology.ualberta.ca/bsc/pdf/grass7webversion.pdf>.

The new BSC home page is: <http://www.biology.ualberta.ca/bsc/bschome.htm>.

Contact: Susan Goods
Biological Survey of Canada
(Terrestrial Arthropods)
Canadian Museum of Nature
P.O. Box 3443, Station "D"
Ottawa, ON K1P 6P4
tel. 613-566-4250
fax. 613-364-4022 (note change)
email: sgoods@mus-nature.ca

The **ESC insect photographs project** (on the WEB): The Entomological Society of Canada is preparing a collection of photographs of insects to be offered free of charge to the public through its web site. Insect photographs (as JPEG files, preferably 300 dpi, 1200x1800 pixels, or 4x6 inches) are requested. Send images to Charles Vincent, vincentch@em.agr.ca. Please provide the name of the insect and the name of the photographer, so that we could post these information. It is understood that the photographs are copyright-free and will be made available without obligation from the ESC.

Le projet de collection de photos d'insectes (sur le WEB) de la SEC: La Société d'entomologie du Canada prépare une collection de photographies d'insectes qui seront offertes gratuitement au public à partir de son site WEB. Veuillez les faire parvenir vos photos d'insectes par courriel (préférentiellement en fichiers JPEG, 300 dpi, 1200x1800 pixels, ou 4x6 po) à: Vincentch@em.agr.ca. Veuillez mentionner le nom de l'insecte et du photographe, pour que l'on puisse afficher ces informations. Il est entendu que les photographies sont exemptes de Copyright et qu'elles seront disponibles au grand public sans obligations de la SEC.

FAO IPM information:

www.fao.org/globalipmfacility

FAO E-list: Global IPM Facility, FAO Plant Protection Service

To subscribe or unsubscribe contact E. Tagliati, elisabeta.tagliati@fao.org

The third newsletter of the **DIVERSITAS - International Biodiversity Observation Year (IBOY) 2001-2002** is now available at <http://www.nrel.colostate.edu/iboy/news/janiboynews.pdf>

The IBOY Newsletter contains information on current research findings and upcoming activities of IBOY Core Network Projects and the IBOY Secretariat, including reports and publications, international meetings, research expeditions and funding opportunities.

Gina Adams, PhD, Program Director

DIVERSITAS-International Biodiversity Observation Year (IBOY) 2001-2002

IBOY Website <http://www.nrel.colostate.edu/IBOY/>

DIVERSITAS Website <http://www.icsu.org/diversitas/>

The **Nature Discovery Fund (NDF)**, administered by the Canadian Museum of Nature, invites applications for funding in support of “discovering and naming Canada’s insect biodiversity”. Established in December 1998, NDF is a non-profit fund seeking to provide resources to recognized entomologists in support of field-based scientific exploration and research in systematics. Application materials and more information can be obtained from

Robert Anderson, randerson@mus-nature.ca

Canadian Museum of Nature,

P.O. Box 3443, Station D, Ottawa, ON K1P 6P4

Special book price offer: **Biological Control Programmes In Canada**, Mason, P.G. and Huber, J.T. (eds.) 2001. CABI Publishing, Wallingford, UK, 608p. ISBN 0 85199 527 6
£95.00 (US\$175.00)

CABI is offering members of the Entomological Society of Canada a 20% discount on this new book, available after February 1, 2002. A URL needed to order the book at a 20% discount can be obtained by ESC members by contacting the ESC Bulletin Editor, the ESC President, ESC Headquarters, or the Chair of the Publications Committee by e-mail.

Dave Hardwick Memorial Fund: The CanaColl Foundation has established a fund in memory of David F. Hardwick. As with the other funds established by the Foundation (W. J. Brown, G. P. Holland, G. E. Shewell, etc.), the money generated will be used to support the general principles of CanaColl. In the past, approximately \$25,000 has been received in memory of various people. For those of you who may not realize the value of the Canadian National Collection of Insects (CNCI) and associated arthropods, it is considered to be the best research collection in North America and among the top 10 in the world. Nevertheless, there is still curating that needs to be done and this is where CanaColl comes in. Since 1972, CanaColl has issued a total of 281 grants; these amounted to \$211,472 and provided 570.2 person/weeks of research and curation on the CNCI. The time factor is roughly equivalent to 11 full years of work--no vacations! About 10% of the grants were for collecting, bringing collections to Ottawa, etc., therefore the person/weeks were not counted in the above figures. If you have any questions about CanaColl, I will be glad to try to answer them.

- Edward Becker (ec.becker@sympatico.ca)

Personalalia

Our Heritage...

The Ten Buck Trousers by John D. Tothill

The events described in this article took place about 1912. The story was told in a letter dated 1952 to H. G. Crawford, then Associate Chief, Division of Entomology. At that time Tothill was serving with FAO of the UN in Jeddah, Saudi Arabia. (See Bull. 31:69 for a biography.) - Doug Eidt.

I can still see them fluttering in shreds on the branches of a moth eaten tree on the bonny bonny banks of the Miramichi. Fred McKenzie, a grand and promising young naturalist later killed in France, and I, a couple of greenhorns, had been trying to get into the heart of the New Brunswick forest, or woods as we called 'em, to get an idea of the distribution of a new Spruce Budworm outbreak. The woods had beaten us but we returned to the challenge full of hope; and as I had paddled a canoe for some ten miles along the Rideau Canal we decided on a frontal attack by canoe.



We went upstream from Chatham Junction in a short and stubby canoe designed for taking one's best girl to those liquid backwaters beloved of youth. Poling we had never heard of and paddle we couldn't because we needed six inches to float and there were only three to four when once we got to the shallows. Nothing daunted, we dragged it sixteen miles up the wide, almost dry, bed of the stream and learned quite a lot about making repairs by slipping a piece of painted canvas under the cut and tying down with copper tacks. We then gave birth to the notion that it would be much quicker to walk.

As it had been planned a canoe trip, our baggage, food, and gear were stowed in boxes and dunnage bags. We decided to go ahead with tent, sleeping bag, food and sundries stuffed into a dunnage bag that stuck out each side like antlers. Each carried one bag.

After floundering about for thirty miles or so through good old N.B. forest on a compass course that included bogs, snags, burned areas, and a recent blowdown we came upon a trail and so to an empty lumber camp with stove and bunks and all the trimmings. Having slept hard, despite the bugs which seemed to be extremely hungry after three months starvation, we held animated council on the subject of dunnage bags and decided not to carry the unspeakable things another inch.

We would now defy Dame Nature, and all her artful little ways of impeding progress, by travelling light. So we put a change of socks and a dry shirt into the canvas school bag each of us carried, and sallied gaily forth armed with compass, boy's axe, tent, a four piece steel trout rod, and a slightly rusty billy can.

Having done our first 12 miles we caught some trout in a brooklet and baked them in ashes, only to discover we had forgotten to put tea or salt into our school bags. That first salvo of salvelinus did not taste too bad however.

When, a few days later, we got to the foot of our mountainous objective we could scarcely see the tops of the trees for smoke, ashes were falling, and it was useless to do the final climb, so back we trudged to our lumber camp.

For the five very long days of this our baptism in the wild wet woods of good old New Brunswick we had nothing to eat but trout. No salt, no tea, no milk, no sugar, no nothing and for ten years thereafter I was unable to look a trout in the face.

On the return journey we camped one night about 16 miles above or upstream of our canoe and this was the place for discarding our blackened and tattered clothes. Fred's pants were left fluttering in the breeze on the branches of moth-eaten tree in full view of the Miramichi.

Next day we made the canoe; and the day following we hauled out at Chatham Junction Station. Fred went to buy the tickets to Fredericton but his face was quite a study when he remembered that our total cash resources were now fluttering in the breeze in the hip pocket of those shredded pants impaled on a scraggy tree some forty miles away.

We went to the store and got a 'reverse charges' call put through to F'ton; but it was an eight party line and after shouting our loudest all we heard in reply was a little squeak that we guessed was saying "speak louder I cannot hear a word". We made so much racket that the exasperated storekeeper rushed over with ten bucks and said "For the love of God lads stop that blank blank noise." Bless him. Those were the days.

In Memory

Charles “Charlie” Edward Lilly (1920-2001)

Submitted by Alex Harper

Charlie Lilly, a native Albertan, was born in Edmonton and grew up in Wainwright. Charlie was a veteran of World War II, serving from June 1941 to December 1945. He was with the Royal Canadian Signal Corps, in Special Wireless and attached to the Intelligence Corps. His job was to intercept and decipher enemy communications.

In March 1944 Charlie married Anne Bengtson. After the war he attended the University of Alberta where he obtained a BSc degree in Entomology and Plant Pathology in 1949, and a MSc in 1951. After graduation in 1949 Charlie joined the Entomology Division of Agriculture Canada at Lethbridge, Alberta, and retired in 1982 after 33 years as a Research Scientist.

Charlie worked with Gordon Hobbs on pollination studies of alfalfa in Alberta. Their studies on ecology of species of *Megachile* Latreille and other pollinators of alfalfa in Alberta, and the biology, ecology and control of the alfalfa pests, provided a basis for the very successful alfalfa seed business in Western Canada and parts of the United States.

Charlie was involved in studies of sugar beet insects and wireworms. He discovered a sex attractant in the females of the sugar beet wireworm, *Limonius californicus* (Mann.) and was able to identify the attractant in collaboration with Martin Jacobson of the USDA. This was the first recorded isolation and identification of a sex attractant from click beetles. Charlie also discovered a sex attractant in the females of the 10-lined June beetle, *Polyphylla decemlineata* (Say) and the beet webworm, *Loxostege sticticalis* (L.). He was also involved in studies of attractants in the early cutworm, *Euxoa tristicala* (Morrison) and the two striped cutworm, *Euxoa tessellata* (Harris).

Charlie and Anne lost their only son, Robert, who was a banker, to Hodgkins disease when he was 22. Nine years later their daughter-in-law remarried and when she and her husband had children they made Charlie and Anne honorary grandparents. They both took a real interest in their honorary grandchildren and Charlie often took them for walks to introduce them to the sights and sounds of nature.

Charlie was a very good naturalist and really enjoyed nature. He had lots of patience when studying insects in the field and made careful observations. He was also an avid bird watcher and spent a lot of time at his hobby. One of Charlie's great interests was his church. He taught Sunday School for children and Bible Classes for adults. He was a Life Member of the Gideon Society and also a Life Member of his church.

Charlie was an active ball and hockey player when younger and also fished. In his retirement he took up golf and thoroughly enjoyed it. After retiring Charlie traveled in Canada, USA, and Britain. He is greatly missed by his wife, Anne, and his honorary grandchildren Todd and Jackie.

Recent deaths

Beverly Jaques, wife of Bob Jaques, 166 Augustine Dr., Kingsville ON, N9Y 1C5, 519-733-9685, <rpjaques@aol.com>, died in May 2000 from lung cancer.

The following gentlemen were not entomologists, nevertheless they were known to several readers. Lew Cass wrote saying that Charlie Jackson died in November 2001 in Ottawa. Charlie was a worker in the "shop" in the olden (=Holland) days of entomology in the Neatby Building. He was an expert carpenter and when he fixed or made something, you knew it was well done.

In an e-mail from Ken Davey, he noted that Leon Wolfe died on 3 December 2001 in Montreal. Born in New Zealand, Leon journeyed to Cambridge, UK, and received his Ph.D. in insect physiology under Wigglesworth. Leon was well remembered by Ken as a MSc student at the University of Western Ontario and as a member of the remarkable group of insect physiologists / toxicologists at the Science Service Laboratory on campus. Leon then turned his attention to medicine and graduated from Western in 1954. After an internship at the Royal Victoria Hospital in Montreal, he returned to England. In 1960 he returned to McGill University and became very well known in neurochemistry. In the mid 1960's Leon was able to hold his own in insects when Ken organized a dinner for Wigglesworth at McGill. Besides the above, Leon was an accomplished pianist throughout his life.

In an e-mail, Bill Varty noted that Floyd Wood (brother of George) (all from Fredericton) died on 15 December 2001. Floyd was an agricultural chemist and known to many entomologists through his work on analyses and measurements of pesticides and their residues, and he published a number of papers. Floyd often volunteered to do little jobs for old ladies in the rural community. On one occasion, having unloaded the trunk of a neighbour's car, Floyd leaned with his hand on the rim of the trunk while she told him some news. Unthinkingly she slammed the lid down, trapping his hand and putting him in considerable pain. But he calmly let her finish her conversation before politely asking her to bring her car keys so he could get his hand back!

Rick West recently sent an e-mail noting that Tadeusz J. Poprawski, Weslaco, TX, died. Rick got the information from K. P. Lim, a classmate of Tad. Tad received his BSc (with honors) and PhD (dean's honor list) from Macdonald College, McGill University. Tad was born on 25 October 1947 in Belgium and died on 7 January 2001. For those of you who have access to the American Entomologist, there is an excellent obituary in the Summer 2001 issue on pp. 126-127. He is survived by his wife Natalia and a daughter (who lives in Montreal).

Submitted by Ed Becker (ec.becker@sympatico.ca)

Book Reviews

Capinera, J.L. 2001. Handbook of Vegetable Pests. Academic Press, San Diego and London.
ISBN: 0-12-158861-0. 729 pp. US\$150.00.

This book presents a comprehensive treatment of vegetable pests of North America for use as a reference by agricultural professionals. Scientific terminology has been minimized to make it easier for specialists in disciplines other than entomology to use it. The "Introduction" to the *Handbook* provides an overview of North American vegetable crops, their major pests and some philosophy and practices of pest management. The "Pest Identification" section in two parts follows this. The first part is a guide listing the major and minor pests found on each vegetable crop, while the second part – which constitutes the bulk of the book – provides details of each of the pests themselves including substantial descriptions under sections entitled "Natural History," "Damage" and "Management." Although the *Handbook* concerns itself primarily with insect pests, other invertebrate pests of vegetables (i.e., Acari, Collembola, Diplopoda, Isopoda, Gastropoda and Symphyla) are also discussed. The "Insecticides" subsections under "Management" tend to be general in nature, which is just as well as recommendations are forever changing and differ amongst various jurisdictions.

The Appendices include simple keys to some important groups of pests, and a list of sources from which information on vegetable crop pests can be obtained in the U.S.A. and Canada (e.g., some relevant academic departments and research centres). The sources listed for Canada are somewhat hit and miss; while more sources are listed for Ontario than for any other province or state, the University of Guelph, the agricultural university in Ontario, has been inexplicably missed. Also included in the Appendices are lists of vegetable plant names and of journal abbreviations with their corresponding journal titles, a glossary of terms used in the book, an extensive reference list and an index. I note that the authority is included for pest names but not for crop names.

The *Handbook* includes hundreds of black and white line drawings sprinkled throughout the text and 270 colour photographs of the damaging and nondamaging forms of pests and of the damage caused by some of them. These are of excellent quality, but an indication of actual size of the pests in association with each drawing or photograph would be helpful. Nevertheless, each colour photograph is indexed to the section of the text that fully describes the pest and where size information can be found. Users of the *Handbook* should in many cases be able to make positive identifications based on the drawings, colour photographs, descriptions under life histories, and keys.

I evaluated the quality of information provided on two species of insects with which I am especially familiar, while a colleague commented on that for a third insect with which he is well acquainted. All were found to be excellent. I also found information on other species of insects with which I am less familiar to be highly readable and informative. In short, the *Handbook* is an excellent guide to pests – particularly insects – of North American vegetables and is suitable for use by both entomologists and other agricultural professionals.

C.P. Dufault
PMRA, Ottawa, Ontario

Krinsky, William L. and Michael K. Oliver. 2001. *Ground Beetles of Connecticut (Coleoptera: Carabidae, excluding Cicindellini) an Annotated Checklist*. Connecticut State Geological and Natural History Survey Bull. 117. 308 pp. ISBN 0942081-11-0.

(Copies may be purchased for \$25.95 (US) from DEP Store, 79 Elm Street, Hartford, Connecticut 06106-5127, <http://dep.state.ct.us>, (860) 424-3555, FAX (860) 424-4088.

Carabid beetles exist in many habitats and are abundant, diverse, and sensitive indicators of habitat disturbance. They are often used in biodiversity and ecosystem studies, and information about carabid species can be useful in furthering conservation efforts.

This book is a checklist of 362 carabid species in 70 genera found in Connecticut. As the title implies, the tiger beetles (Cicindellini) are not included. Each genus is briefly described. The population status [very common, common, uncommon, rare, restricted habitat, at limit of geographical range, stray, status unknown, known from published record only, or species of special concern (i.e., listed on Connecticut Endangered, Threatened and Special Concern Species 1998 list)] is given for each species, and any changes in status with time are noted. The first and last seasonal collection dates are listed, as is the year when the species was first collected in Connecticut. The last year collected is also indicated if a beetle has not been collected after 1970. The depositories having specimens of each species that the authors examined are listed. For 302 of the beetles, brief bionomic data are presented.

In addition to giving the general geographical distribution (NE, NW, SE, SW, Transamerican), Connecticut species distributions are displayed with maps on the right page directly opposite the appropriate species listing. The maps are large (6 x 8.5 cm), and in most cases, show the township-wide distribution of each beetle (townships are contiguous in Connecticut). When township records are missing, distributions are presented at the county level in lighter shading. A completely labeled full-page map of Connecticut townships, and another of counties, in the front of the book makes it easy to quickly determine the known distribution for species in the checklist.

A 4.5 x 5.3 cm dorsal view color photograph of a representative of each genus is presented in a series of colored plates in the middle of the book. Most of these are of acceptable quality and should aid in identification, but a few lack contrast or are slightly blurred. In the list, the species that have been photographed are indicated, as is the page on which the photograph is located.

Forty-six cited references are present. An alphabetical listing of all Connecticut Carabidae is located in the back of the book. Species not collected in Connecticut in the last 50 years are marked, as are those not seen by the authors and only based on published reports. Species reported from

Connecticut for the first time in this publication are also singled out. The index has genus and species names only. For genus, the page number of the main entry is given in italics. The page number of photographs for those species for which photographs are present are emphasized in bold type under species index entries. It would have been helpful if the page numbers for photographs had been given under genus names as well.

There is a good deal of information packed into this little book. To keep the size manageable, the authors have used abbreviations extensively. These are defined in the introduction, but the authors do not specify a format or indicate the order in which these data are presented. As a consequence, I found it somewhat confusing to pick out specific information. A single page showing the method of placement of data for each species together with the meaning of abbreviations would have been helpful.

This checklist will be useful to anyone who wishes to become acquainted with the carabids of Connecticut. Some of the distinctive carabid genera should be possible to identify from the photographs alone, and the depository listings will make it convenient to find actual specimens. The distribution maps tell at a glance the general frequency of collection and population status in Connecticut. This book is a useful update and will be a good introduction of the family for anyone in Northeastern America who wishes to undertake a study of these beetles.

Ronald M. Weseloh
Connecticut Agricultural Experiment Station
New Haven

Alfred G. Wheeler, Jr. *Biology of the Plant Bugs (Hemiptera:Miridae) Pests, Predators, Opportunists*, Cornell University Press, 2001, 507 pp, \$ US 90.00.

Biology of the Plant Bugs provides a major resource to the entomological community. Uniformity of style and care in presentation is evident throughout the text. The consideration of the world of plant bugs with a central and practical emphasis on plant bug feeding results in a book which is of particular interest to applied researchers in the fields of agriculture, forestry, natural resources and the environment. The effort to place information within a systematic study of this family of insects may be of assistance in encouraging others to continue in this effort.

One of the striking features of this book is the consistent incorporation and integration of both current and older literature within the discussion of each aspect plant bug biology being addressed. The result is a comprehensive review of knowledge of Miridae. The extent of the literature reviewed can be measured in the 113 pages of references cited.

The organization of the book is explicitly defined as part of the background provided in Part I. The Background, Perspectives, Phytophagy, Zoophagy, and Conclusions sections provide a roadmap for the clear, readable information contained in each chapter. In addition, the text is illustrated with a number of line drawings and photographs. A visual highlight is 24 pages of colour plates in the centre of the book which illustrate the association of mirids with plants and which illustrate feeding injury.

There are a number of tables presented which provide further organization of the information known about mirids. The tables which generally include information about the mirid, its host plant, locality, comments and references, allow the reader to quickly identify information about a particular mirid, or to view patterns of information about similar responses to a series of mirid insects.

The book is completed by the Appendix and index and reference sections. With these tools it is simple to find both specific information and nomenclature contained in the book, and appropriate references.

The book will be of particular value to biology and entomology university and college departments as a valuable reference text about mirid insects. It would also be a practical resource for integrated pest management professionals.

I am left with a sense of gratitude to the author for publishing such a complete, clear, readable text on a topic of interest to many, a text which may encourage others to prepare a synthesis of knowledge of other insect families. I recommend the book to students, researchers, teachers, and those who have a sense of curiosity and wonder about the world of insects.

S. O . Gaul
Kentville

P.K. McEwen, T. R. New and A. E. Whittington (eds.) 2001. *Lacewings in the Crop Environment*. Cambridge University Press, New York, xviii + 546 p. Hardcover (25 x 20 x 3 cm) ISBN 0 521 777217 6 (\$130US)

Lacewings (Order Neuroptera; Families Chrysopidae, Hemerobiidae and Coniopterygidae) are ubiquitous predators that play an important role as biocontrol agents in numerous habitats. This book, written by 43 international authorities under the editorship of P. McEwen, T. R. New and A. E. Whittington, represent a unique contribution since the publication of the *Biology of Chrysopidae* by Canard et al. (1984). Both basic and applied material is presented, and the intent is applied, as rightfully conveyed in the title.

The book is mostly laid in two columns, allowing more information to be presented in a pleasant and efficient manner. All figures, i.e. line drawings or black and white photographs, are of excellent quality. Several large tables present a wealth of valuable information. The authors work in various parts of the world and several of them are multilingual. That is happily reflected in the numerous references cited from papers published in English, Italian, German, French, Russian and Portuguese. Extensive taxonomic and general indexes (25 p.) will help the readers to find information.

Lacewings in the Crop Environment constitutes a thorough treatment of the subject from several complementary angles. The book is divided into five parts. **Part 1** (Lacewings systematics and ecology: 7 chapters, 145 p.), includes a chapter on the systematics of lacewings, and a very interesting chapter on the common green lacewing (*Chrysoperla carnea s. lat.*) and the sibling species problem. Other chapters features illustrated keys to known sub-families and genera of larval Neuroptera, late instars hemerobiid genera, and New World genera of chrysopid larvae. Basic information about the ecology of lacewings is also presented, namely on ecology and habitat relationships, natural food and feeding habits, and on lacewing development. **Part 2** (Lacewings in crops: 3 chapters, 138 p.) has three chapters that covers lacewings in field crops, in fruit and nut crops and in vegetables, forests and other crops. **Part 3** (Principles: 7 chapters, 92 p.), addresses several issues related to the use of lacewings as biocontrol agents, e.g. mass rearing, release techniques, nutrition of Chrysopid larvae and larval diets, ecological studies of released lacewings in crops, sampling lacewings and interaction with pest management strategies (including pesticides and Btk). A chapter present the principles of biological control with particular reference to lacewings. **Part 4** (Case studies: 13 chapters, 134 p.) is a pot-pourri of 13 case studies of unequal length, importance and quality. Altogether they represent an interesting selection of texts related to the use of lacewings as biocontrol agents. The case studies range from a chapter restricted to one species (*Micromus tasmaniae*) of Australasia to a broad chapter entitled "An evaluation of lacewings releases in North America". Examples of other topics are: *Chrysoperla carnea* on strawberry in Italy, Lacewings in Andalusian olive orchards, the green lacewings in Romania, *Chrysoperla lucanisa* against *Aphis fabae* in artichoke in Brittany, artificial overwintering chambers for *Chrysoperla carnea*. With only two pages, **Part 5** (Conclusion) is a bit succinct, but it presents critical and informative statements on the subject.

In the Preface, the editors stated that the book was a team effort. In my view, they did an excellent work and they achieved high standards. My overall judgement of *Lacewings in the Crop Environment* is very positive. The book has no competitor on the market and it will appeal to biocontrol specialists and practitioners.

Charles Vincent
Saint-Jean-sur-Richelieu, Qc

Krebs, C.J. 2001. **Ecology: The Experimental Analysis of Distribution and Abundance**. 5th ed., Benjamin Cummings, San Francisco, CA, 695 pp. ISBN 0-321-06879-3. US\$ 91.00 (cloth)

Promoting the individual ecologist in the field of ecology

When I took my first ecology course as an undergraduate (back in the 70's), our text book was Eugene Odum's "*Fundamentals of Ecology*", which succeeded in presenting ecology in a rather dry manner. I recall the portrayal of ecology as a series of boxes connected by arrows. The implications were that ecology was indeed dynamic, but the message was anything but. The role of ecologists was in effect to dutifully measure everything and the ecological insights would emerge as long as we successfully measured abundances (the 'boxes') and rates (the 'arrows'). The portrayal was of the ecologist in a relatively passive role. Text books published since then could only improve on this portrayal. The first edition of Charlie Krebs' "*Ecology: The Experimental Analysis of Distribution and Abundance*", emphasized an experimental approach to ecology and in doing so emphasized the role of the ecologist as more active and prominent. By conducting manipulative experiments, the ecologist was to better able to separate confounding factors (i.e. remove some of Odum's confounding [confounded?] arrows and move ecology forward more quickly).

On the frontispiece of the latest (5th) edition of "*Ecology: The Experimental Analysis of Distribution and Abundance*" (2001) there is a tribute to the 'unknown ecologist' and their role in preserving ecological integrity of the Earth. In the book, Krebs continues to emphasize the role of the ecologist in conducting manipulative experiments. As expected, he updates the literature cited to include exciting, recent developments in ecology, in particular how various sub-disciplines (behaviour, population dynamics, population genetics) have contributed to the burgeoning field of conservation ecology. Of particular note, is the addition of photos and personal profiles of 55 famous ecologists within the relevant sections of the book (see Robert May on a 'bad hair' day). The inclusions of these personalities is Krebs' response to the his own notion of the 'unknown ecologist' by showing how the careers of individual scientists have shaped the discipline. It is an opportunity for the student of ecology to become familiar with at least some of the personalities in their field, and underscores the fact that ecology has developed through the work of individuals. The inordinate number of entomologists among these scientists affirms the importance of insect ecologists in the development of the modern ecology. Combined with excellent new graphics, an up to date literature cited, the 'personal' approach to the study of ecology, and several web sites as resources, this text book makes an excellent choice for a junior-level ecology course, at the stage in their career when many future ecologists can get turned on to the subject.

Jens Roland
Edmonton, AB

Instructions for Reviewers

(Submitted by the Chair of the Publications Committee)

Book reviews are solicited by the Chair of the Publications Committee of the Entomological Society and are published in either English or French in the *Bulletin of the Entomological Society of Canada*. Reviews should be approximately 600 words in length and submitted in electronic format to either the Chair of the Publication Committee or the Editor of the *Bulletin* for a final edit. We ask that reviews be submitted within 3 months of receiving the book. Reviewers may retain the book for their effort.

Each review will contain the full citation for the book including author(s), title, publisher, year and location of publication, number of pages, and availability in either cloth or paper. The ISBN and cost for both cloth and/or paper editions should be included in Canadian \$\$ if available from the publisher, or in the currency quoted by the publisher. Examples of recent reviews can be found in the *Bulletin of the Entomological Society of Canada* 33: 56-58 (2001). An example of the suggested format for the title header is:

Hochberg, M.E. and Ives, A.R. (eds.) 2000. **Parasitoid Population Biology**. Princeton University Press, Princeton, USA. xiv + 366 pp. ISBN 0-691-04981-5 (cloth) US75.00\$, ISBN 0-691-04982-3 (paper) US24.25\$.

At the end of each year, copies of the *Bulletin* containing reviews will be sent to the appropriate publishers both as a courtesy and to encourage future requests for reviews.

**Biological Survey of Canada (Terrestrial Arthropods)
Survey Report**

The Scientific Committee met in Ottawa on October 11-12, 2001. A more detailed account of the meeting is included in the Newsletter of the Biological Survey of Canada (Terrestrial Arthropods) 21(1), 2002.

Scientific projects

The various scientific projects of the Survey were discussed, including the following progress.

1. Grasslands

The draft of a grasslands prospectus was discussed. The final document will be posted on the Biological Survey website and its Executive Summary included in the Grasslands Newsletter. An update was provided about the grasslands project collecting expedition at the Onefour substation, held in 2001, and designed to bring people together to collect and share information. The expedition was well attended and successful. A second expedition will be run next summer in a different location. A symposium will take place at the 2002 ESC joint Annual Meeting in Winnipeg, focussing on habitat-based grasslands studies.

2. Seasonal adaptations

The project on seasonal adaptations continues to progress on several fronts, with papers published, submitted and in preparation on dormancy responses in insects and related themes.

3. Arctic invertebrate biology

An Alaska insect survey is being developed at the University of Alaska, modelled in part after the Biological Survey of Canada, and including various cooperators. Interesting arthropod material has also been collected from the Fort Severn area of Ontario.

4. Insects of Keewatin and Mackenzie

In 2001 there was a very successful collecting trip in the Great Slave Lake area. A trip to the Thelon River will be made in the summer of 2002. Interesting results have already come from material collected in 2000 from the Horton River.

Other scientific priorities

1. Arthropod fauna of soils

A detailed update appeared in a recent newsletter of the Biological Survey [Newsletter of the Biological Survey of Canada (Terrestrial Arthropods) 20(2): 51-57, 2001.]. Information on conferences and publications was circulated. Various collaborative projects on arthropods from grasslands soils and other habitats continue.

2. Invasions and reductions

A workshop on insect introductions was organized for the ESC annual meeting. The year 2001 was conspicuous for new introduced pests. The need for expertise and specimens in collections in order to deal with introduced species was recognized by the Committee.

3. Survey website

A detailed report on progress with and problems of the Survey website was given. The website is now independent of the ESC, at <http://www.biology.ualberta.ca/bsc/bschome.htm>. The database and other elements of the site continue to be implemented.

4. Brief on standards for specimen data labels

A brief on standards for specimen data labels has been produced and well received. Possible ways to make this and other Survey briefs available in French were discussed.

5. Publication of systematic and faunistic papers

Outlets for systematic and faunistic works are limited, especially a niche for species descriptions, faunal inventories, checklists, descriptions of life stages, descriptive ecological papers, and so on. The Lyman publication series will be revitalized as an outlet for such publications. The difficulty in finding publication outlets is a problem not only for entomologists, but also for botanists and other zoologists.

6. Voucher specimens

The Committee discussed how best to put forward the recommendations that: 1. Granting agencies should make it explicit that depositing voucher specimens is as important as other requirements; 2. The editorial policy of journals should require – not just recommend – that vouchers be deposited; and 3. Collections have to be encouraged to accept vouchers and provide guidance to those who wish to deposit voucher specimens. Possibilities for statements by the Survey on these matters will be pursued by a subcommittee.

7. The cost of insect identifications

The Committee considered the real cost of insect identifications, how the societal cost of identifications can be minimized, and guidelines for fair payments. These matters will be considered further by a subcommittee.

8. Other priorities

The Committee also discussed priorities such as systematics and the Natural Sciences and Engineering Research Council of Canada, old-growth forests, endangered species, damaged ecosystems, the faunal analysis project, funding for biodiversity projects, arthropods and fire, and monitoring of ongoing priorities.

Liaison and exchange of information

1. Canadian Museum of Nature

Dr. Robert Anderson reported, on behalf of Dr. Mark Graham, that the Museum is creating a new 5-year strategic plan to start in 2003. Renovations of the Victoria Memorial Museum Building are underway. Architectural plans and capital fundraising for new exhibits have begun. The current focus is on a new fossil gallery. The Museum has received funds to replace and update scientific equipment. The CMN is involved in the Global Biodiversity Information Facility (GBIF).

Ms. Joanne DiCosimo, President, Canadian Museum of Nature explained that the 5-year strategic plan is intended to provide a new definition of service for the national museum. The Museum has been intent on developing that vision within the framework of the museum family across the country and therefore particularly in the last few months other natural history museums are being involved in the process. A draft plan was presented to the staff and Board of Trustees last June and a revised document intended for a broader group of people is now near completion.

A draft CMN Collection Development Plan has been circulated among interested parties including some members of the Scientific Committee and comments are encouraged. Members of the Committee commented on aspects of the draft Collection Development Plan, and discussed potential responses at length during the course of the meeting with Dr. Anderson, Ms. DiCosimo, and Mr. Kieran Shepherd, Collection Manager of Earth Sciences.

2. Eastern Cereal and Oilseed Research Centre

Dr. Lianne Dwyer, Acting Director ECORC, reported that Dr. Jean-Marc Deschênes has a new temporary assignment and that she is acting in his position. As a result of the department's transition and desire to refocus resources 3.5% of funds were withdrawn from every unit (including non-discretionary items) for the last half of the fiscal year. Two systematists in entomology will soon retire. Staffing for a new coleopterist has been requested but such decisions are on hold. Dr. Dwyer reminded the Committee that the Centre's collections are dispersed in several buildings. An estimate to centralize and retrofit collections has been submitted.

Dr. Dwyer explained that the department wants to eliminate the various branches to give a very horizontal and inclusive structure. To date 17 teams have been formed to deliver program objectives. The research branch has developed four national program areas in environmental health (biodiversity has a high profile here, which ties in with biocontrol), sustainable production systems, bioproducts and processes, and food safety and quality. The environmental health program is being headed by Dr. Deschênes. For all of the programs, science plans are being developed and technical and scientific working groups are being assembled.

ECORC is a member of the Federal Biosystematics Partnership, and the advisory body for implementation and participation in GBIF. The strategy for a Biodiversity Knowledge and Innovation Network (BKIN) has recently been released following on from the Canadian Biodiversity Network Conference held in Ottawa last March with wide involvement. A collections website will be launched before the end of 2001 to provide real time research and search capabilities of multiple Canadian institutional collections, as the beginning of the first Canadian GBIF node. The Integrated Taxonomic Information System (ITIS) continues to be supported.

Several Committee members expressed concern that most of the initiatives recently discussed are harvesting information that is already available through existing collections and repackaging it, but little is being done to add to the information, e.g. revision of groups and the expertise to do them. Also, the effort put into regularly constructing plans to rearrange the focus and themes of the Research Branch might be better directed toward concrete action. Dr. Dwyer acknowledged the frustration expressed by those members of the Committee but maintained that activities just described as repackaging are necessary to garner resources for various purposes. No individual organization will be able to do everything that should be done, so that it is necessary to collaborate with other institutions in Canada and the United States. Moreover, the current restructuring exercise is recognizing the concepts of biodiversity (i.e. systematic biology) and the environment.

3. Entomological Society of Canada

Dr. Robert Footitt, President of the Entomological Society of Canada, reported that the Society is financially sound. Membership of the Society is stable with a good complement of students. Organization of the 2001 annual meeting is complete. The Society is setting up its own independent website.

4. Parasitology module, Canadian Society of Zoologists

Dr. Marcogliese reported that the Parasitology module has been involved in two main activities, the protocols for monitoring parasites in biodiversity studies, and the national stickleback survey. Various news items, reports and publications of interest to the Survey were discussed. For example, the extensive reprint collection of the late Dr. Leo Margolis on fish parasitology is no longer maintained at the Nanaimo Pacific Biological Station, and its disposition is uncertain. Dr. Marcogliese noted that every federal department is promoting actions for the environment, now a potential buzz word that is losing its meaning. He echoed earlier comments that there is little progress in support of concrete work and products, including lack of support for the parasitology module, the decline of the parasitology discipline in Canada (in contrast to some U.S. initiatives), and the lack of appropriate recognition of the systematics crisis, for example even within the Canadian Society of Zoologists.

5. Other agencies and societies

The Committee also considered items related to the Coleopterists Society, the All-species organization, and the North American Benthological Society.

Other items

1. Reports on regional developments of potential interest

Information of interest to the Survey from different regions of the country was provided. For example, in British Columbia, Forest Renewal BC funding is on the decline and provincial agencies are also experiencing difficulties. On the Prairies, the expanded Lethbridge Research Centre facilities will be operational by the summer of 2002. There have been several staff changes at universities in Alberta and Manitoba. Activities especially at the University of Alberta, as well as the University of Manitoba, were outlined. In Ontario, projects at Laurentian University, the University of Toronto, the Royal Ontario Museum and elsewhere were noted. In Quebec there are several new positions. Entomology and related

work is especially active at the Lyman Museum and through the Société d'entomologie du Québec and the Association des entomologistes amateurs du Québec. In Newfoundland and the Maritimes, the annual meeting of the Acadian Entomological Society was successful this year.

2. *Other matters*

The Committee also considered recent information on international liaisons, membership of the Scientific Committee, the timing of Committee meetings, operations of the Biological Survey Secretariat, and publications of interest.

Biological Survey Website Update

The website of the Biological Survey of Canada (Terrestrial Arthropods) has moved - (but not far). The Department of Biological Sciences at the University of Alberta is still kindly hosting our website but we have a new URL (see below). The Survey continues to update and expand its website. Some of the new or expanded features that invite your participation include:

Faunal Analysis Project. Detailed species lists from *Canada and its Insect Fauna* (Danks 1979) have been posted with links to updated, revised numbers for each group as they become available. Updated information for the Phthiraptera was recently added. Many groups still lack updates, however, and additions are encouraged.

List of Workers (database). This list of personnel is a source of information on individuals interested in the systematics and faunistics of the terrestrial arthropods of Canada. An online form is available to update your information.

Requests for Material or Information. This list of requests for material or information required for studies of the Canadian fauna, long a regular feature of the Biological Survey's newsletter, is now available on the website and will be updated as new requests are received.

The full text of survey publications such as newsletters and briefs continue to be posted. Recent additions include a brief that provides recommendations on how to prepare data labels for collections of terrestrial arthropods (***Publications - Briefs - Label Data Standards for Terrestrial Arthropods***). Of particular interest to students is a document that provides information on some of the available -funding sources for graduate study and research in biodiversity (***Publications - Briefs - Information on Biodiversity funding: Funding sources for graduate students in arthropod biodiversity***).

Those interested in the Survey's major project on ***Arthropods of Canadian Grasslands*** should check this area for project updates. A bibliography about prairie, tallgrass prairie, prairie arthropods and/or fire was recently added.

The Survey's website can be found at **<http://www.biology.ualberta.ca/bsc/bschome.htm>**.

News of Organizations and Meetings

The second **Annual General Meeting of the NSERC Biocontrol Network** will be held in the Waterton Lakes National Park, Alberta, June 12-15, 2002 at the Bayshore Inn (<http://www.bayshoreinn.com/>). There is no registration fee. The room rate for the Biocontrol Network group is \$99 per night single or double occupancy, 110\$ triple, 120\$ quad. Please make your hotel reservations BEFORE MAY 15 by calling the toll-free number: 1-888-527-9555 and mention the Biocontrol Network group rate.

For additional information on the "The BIOCONTROL Network" and meeting, please visit www.biocontrol.ca or contact: Lucie Lévesque via e-mail preferably: biocontrol-network@umontreal.ca or by phone: (514) 343-7950.

Announcing the **Second International Congress on Phthiraptera** (Lice), 8-12 July, 2002.

University of Queensland, Brisbane, Australia. Lice (Phthiraptera) are insects of major medical and veterinary importance as parasites, pests, and vectors of animal and human diseases. In recent years they have become a model organism for testing questions in ecology and evolutionary biology, and play a key role in the development of analytical models for assessing the patterns and rates of cospeciation. This Symposium will bring together the world's leading authorities on lice to produce a summary of our current knowledge of lice and louse-borne disease. A major objective of this conference will be to help coordinate further research into lice and louse-borne pathogens. Systematics plays an increasingly important role in this endeavour. This will be reflected by the conference participants, providing a rare opportunity for interaction between members of the medical, veterinary and systematic community. The conference will include invited plenary lectures from world authorities, sessions of oral presentations of submitted papers and poster presentations.

Sessions cover all aspects of lice and louse-borne pathogens: louse phylogeny and evolution, louse biology & epidemiology, louse species concepts & systematics, head lice & public health: policy & practice, louse-borne pathogens and disease, pediculicide resistance

Contact: Dr. Stephen Barker, S.Barker@imb.uq.edu.au, <http://www.imb.uq.edu.au/ICP2/>.

First Announcement of **5th International Conference of Hymenopterists**,
in Beijing on 22-26 July 2002.

Submitted by: Chao-dong ZHU, Ph. D.,
Institute of Zoology, Chinese Academy of Sciences,
Beijing, Haidian, Zhongguancun Road 19#,
P. R. China, 100080
Voice: 08610-82628389
<http://www.ioz.ac.cn/zcd/> Email: sea@panda.ioz.ac.cn

5ième Conférence Internationale Francophone d'Entomologie (CIFE 2002) qui se tiendra du
14 au 18 juillet 2002 à l'Université du Québec à Montréal. Le thème de cette conférence sera "La
recherche de pointe en entomologie". Informations : <http://www.seq.qc.ca/> puis suivez le lien
CIFE 2002.

The 5th 'Conférence Internationale Francophone d'Entomologie' will be held at Université du
Québec à Montréal, 14th to 18th July 2002. The theme will be "Advanced research in
entomology." All information available online at: <http://www.seq.qc.ca/>
then follow the link CIFE 2002.

M. Claude Godin, Entomologiste,
CRDH-Agriculture et Agroalimentaire Canada
godinc@em.agr.ca

The **53rd Annual Meeting of the American Institute of Biological Sciences** will be held March
22-24, 2002, in Washington, DC. Evolution: understanding life on earth. "Nothing in biology
makes sense except in the light of evolution". Attendance is limited to 250. For more
information, visit the website: www.aibs.org

II International Congress of Coleopterology

Prague, Czech Republic, Sept 14 - 21, 2003,

European Association of Coleopterology, Czech Entomological Society and
Forestry and Game Management Research Institute Jiloviste

Announcement of the Congress, Online Registration and Registration Form:

<http://www.coleocongress2003.cz/>

Milos Knizek, Secretary of the Congress
Forestry and Game Management Research Institute
Jiloviste - Strnady
Praha 5 - Zbraslav
CZ - 156 04, Czech Republic
Tel: +420-2-57921643
Fax: +420-2-57920648 or 57921444
email: knizek@vulhm.cz

ICOPA X: The 10th International Congress of Parasitology, "Parasitology in a New World". August 4-9, 2002, Vancouver Convention and Exhibition Centre, Vancouver, B.C. The call for abstracts and registration is now ONLINE at: www.venuewest.com/ICOPA. Deadline for abstract submission is March 1, 2002. Contact: The ICOPA X Secretariat, c/o Venue West Conference Services, Ltd., #645 375 Water Street, Vancouver, BC, Canada V6B 5C6
Tel: (604) 681-5226 / Fax: (604) 681-2503 e-mail: congress@venuewest.com

Environmental Impact of Crop Protection, organised by the Association of Applied Biologists, will be held in Edinburgh March 20-21, 2002. The meeting aims to address the impacts that crop protection as a whole (not just pesticides or genetic modifications) have on the environment. Contributed papers, posters or commercial exhibits are welcome. Details and forms are available at:

<http://www.aab.org.uk/meetings/mtgs2002/envirimp.htm>

The 22nd International Congress of Entomology will be held in Brisbane, Australia, August 15-21, 2004. See the website, <http://www.ccm.com.au/icoe/index.html>

The XVth International Plant Protection Congress, Beijing, China, July 6-11, 2003.

Sponsored by The International Association for the Plant Protection Sciences, and Organised by China Society of Plant Protection.

For further information, contact: Ms. WEN Liping,
Secretariat, 15th IPPC, c/o Institute of Plant Protection,
Chinese Academy of Agricultural Sciences, Beijing 100094 China,
Tel: 0086 10 62815913 Fax: 0086 10 62815913
e-mail: ippc2003@ipmchina.net <http://www.ipmchina.net/ippc/ippcwelcome.html>

The 5th International Congress of Dipterology, Brisbane, Australia, will be held Sept 29 to Oct 5, 2002. More information can be found at the meeting website:
<http://www.uq.edu.au/entomology/dipterol/diptconf.html>

International IPM Conference: The Ontario Ministry of Agriculture Food and Rural Affairs is hosting an international IPM conference in Toronto March 24-26, 2002. "Exploring New Frontiers in Integrated Pest Management" will cover a diverse range of perspectives on IPM. The presentation schedule is already set, but posters on any aspect of IPM are welcome. Visit the following conference website:

<http://www.gov.on.ca/OMAFRA/ipmconference/english/program.html>

If you submit your registration on or before February 1 the fee is \$300.00 Cdn. If after then the fee is \$350.00 Cdn. All registration must be submitted and paid by March 8, 2002. Registration form can be found at: <http://www.agcare.org/ipmconfreg.htm>

Hotel details can be found at: <http://www.gov.on.ca/OMAFRA/ipmconference/english/hotel.html>

The 8th International Working Conference on Stored Product Protection will be held in York, UK in 2002. Details about the conference are available on: <http://www.icscs.co.uk/iwcspp2002/>

The 62nd Annual Meeting of the Acadian Entomological Society will be held in Machias, Maine on July 21-23, 2002. The meeting will be held jointly with the Maine Entomological Society. The call for papers and registration information will be circulated at a later date. Address all inquiries to Andrei Alyokhin (andrei.alyokhin@umit.maine.edu) and Steve Woods (woods@maine.edu).

The Annual Meeting of the Canadian Society of Zoologists will be held May 8-11, 2002, at the University of Lethbridge, Alberta. Meeting web site: <http://home.uleth.ca/~goatcp/csz/>

Meeting Chair: Dr. Cameron Goater, Department of Biological Science,

University of Lethbridge, 4401 University Drive West, Lethbridge, AB T1K 3M4

Tel. (403) 329-2752

Fax: (403) 329-2082

goatcp@hg.uleth.ca

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