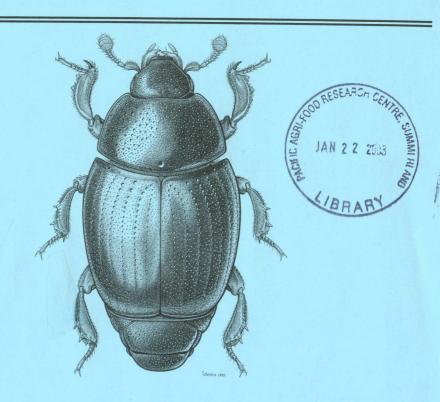
Bulletin

Entomological Society of Canada

Société d'Entomologie du Canada Volume 34

No. 4

December/décembre 2002



Entomological Society of Canada Sociéte d'Entomologie du Canada

393 Winston Avenue, Ottawa, Ontario, Canada K2A 1Y8

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Date of issue/Date de publication:

December 2002

Web Page for the ESC: http://esc-sec.org/ E-mail: entsoc.can@sympatico.ca 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 de Canada, publié depuis 1969, présente trimestriellment 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 Carcinops pumilio (Erichson) (Coleoptera: Histeridae). This cosmopolitan hister beetle is found all across Canada, from Newfoundland west to British Columbia. It is often found in stables, henhouses, granaries and milks, where it feeds mainly on insects and mites. Habitus drawing by R Idema, from "Bousquet Y.1990. Beetles associated with stored products in Canada-an identification guide", reproduced with permission from Agriculture and Agri-Food Canada.

On trouvera sur la couverture une illustration de Carcinops pumilio (Erichson) (Colcoptera: Histeridae). Ce coléoptère cosmopolite se rencomer d'un bout à l'autre du Canada, depuis Terre-Neuve jusqu'à la Colombie-Britannique. On le trouve surtout dans les écuries, les poulaillers, les silos-élévateurs et les minoteries où il se nourrit avant tout d'insectes et d'acariens. Habitus dessiné par R Idema, d'après "Bousquet Y. 1900. Beetles associated with stored products in Canada-an identification guide", reproduit avec la permission d'Agriculture et agroalimentaire Canada.

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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.

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.

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 2003 by the Secretary, Dr. Rick West.

Nominations pour Deuxième Vice Président et Directeur doivent être signee par trois membres de la Société et envoyée avant le 30 avril 2003 au secrétaire, Dr. Rick West.

53rd Annual General Meeting

The Annual General Meeting of the Entomological Society of Canada will be held at the Delta Winnipeg, in Kelowna, British Columbia, on November 2-5, 2003.

La réunion annuelle générale de la Société d'entomologie du Canada aura lieu au Delta Winnipeg, à Kelowna, Colombie-Britannique, le 2-5 novembre, 2003.

http://esbc.harbour.com/jam.html

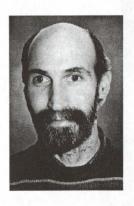
The ESC website is at http://www.esc-sec.org. Comments and questions concerning the ESC-SEC website should be directed to the webmaster, Dr. Barry Lyons, blyons@NRCan.gc.ca.

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	Please send all correspondence concerning				
concerning the Bulletin to:	Book Reviews for the Bulletin to:				
	그 아이들은 얼마를 가게 하는데 그렇게 먹었다.				
Dr. Dan Johnson (see p. 160)	Dr. Vince Nealis				
Bulletin Editor	Chair, Publications Committee				
Research Centre	506 West Burnside Road				
P.O. Box 3000	Pacific Forestry Centre				
Lethbridge, AB, T1J 4B1	Victoria, BC, V8Z 1M5				
Tel: (403) 317-2214 / 327-1209	Tel: (250) 363-0663				
Fax: (403) 382-3156	Fax: (250) 363-0775				
E-mail: JohnsonDL@em.agr.ca	E-mail: vnealis@pfc.forestry.ca				

The deadline for submissions to be included in the next issue, Vol. 35(1), is Feb 1, 2003. La date limite pour recevoir vos contributions pour le prochain numéro (Vol. 35(1)) est le 1 fevrier 2003.

President's Report



The main administrative activities this year can be summed up in one word, publishing. I firmly believe that it is the duty of any scientific society to disseminate information and toward that end our governing board has modernized several facets of this important activity. First, we developed a copyright policy that protects both authors and our society. Second, we signed a new publishing contract with NRC Press that includes the provision for parallel publishing. Third, under the direction of Editor Jean Turgeon, we developed a new editorial structure that utilizes the expertise of Division Editors. Finally, under the guidance of Barry Lyons we have expanded our offerings on the Web.

In addition to publishing, our executive and board continue to focus on students, the future of our society. We believe that students gain essential skills by participating at scientific meetings. Thus, we have initiated a graduate student symposium that showcases our student talent and provides valuable experience. In addition, we are implementing a new scholarship to help students attend ESC meetings. I urge all of you to donate to our scholarship fund.

In closing, I would like to thank the ESC executive and board for all the support that they have provided. Once again, Secretary Rick West and Treasurer Gary Gibson have done yeoman's work, Sandy Devine has run an efficient office and committee chairs have contributed mightily. In particular, I'd like to thank Vince Nealis and Jean Turgeon for all their help with publishing issues. It has been an honour and a pleasure to serve our society. Thank you for giving me the opportunity to do so.

Bernie Roitberg Oct. 1, 2002

RAPPORT DU PRÉSIDENT

La principale activité administrative de cette année peut être résumée en un mot, publication. Je crois fermement que le devoir de toute société scientifique est de disséminer l'information. Avec ce but en tête, notre conseil d'administration a modernisé plusieurs facettes de cette activité importante. Premièrement, nous avons développé une politique de droit de reproduction qui protège tant les auteurs que la Société. Deuxièmement, nous avons signé un nouveau contrat de publication avec les Presses RNC qui inclut une disposition permettant des publications parallèles. Troisièmement, sous la direction de Jean Turgeon, nous avons développé une nouvelle structure éditoriale qui utilise l'expertise des Rédacteurs de division. Finalement, avec l'aide de Barry Lyons, nous avons étendu nos activités sur Internet.

En plus de la publication, notre conseil exécutif et d'administration continue de se concentrer sur les étudiants, le futur de notre société. Nous croyons que les étudiants acquièrent des habiletés essentielles en participant aux réunions scientifiques. Conséquemment, nous avons institué un symposium des étudiant(e)s gradué(e)s qui dévoile le talent de nos étudiant(e)s et leur apporte une expérience précieuse. En plus, nous avons créé une nouvelle bourse pour aider les étudiants à participer aux congrès de la SEC. Je vous encourage tous à donner généreusement au fonds des bourses pour étudiants.

Pour finir, j'aimerais remercier les membres du conseil exécutif et d'administration pour le soutien qu'ils m'ont apporté. Encore une fois, le secrétaire, Rick West, et le trésorier, Gary Gibson, ont fait le travail de tranchées, Sandy Devine a fait fonctionner efficacement le bureau et les président(e)s de comités ont grandement contribué. J'aimerais particulièrement remercier Vince Nealis et Jean Turgeon pour toute leur aide au sujet de la publication. Ça a été un honneur et un plaisir de servir notre société. Merci de m'avoir donné l'opportunité de le faire.

Bernie Roitberg 1 oct. 2002

Submitting items to be published in the Bulletin

Beginning with the next issue (March, 2003), the Editor of the Bulletin of the Entomological Society of Canada will be Dr. Paul Fields. Following my position as ESC President in 2000, I (Dan Johnson) filled in as Editor for two years, after the departure of Bulletin Editor Hugh Barclay. The handover to Paul comes at just the right moment for me, following a massive loss of files and images in a PC crash. Despite the anguish this can cause (I am trying to be philosophical), the timing is somewhat fitting, considering that the biggest challenge during my time as Editor has been my lack of word-processing skills and resources required to negotiate a truce between the various formats of the submissions that I receive. I hope the new Editor is in a better position to handle the typing and re-formatting.

Paul Fields is requesting submissions for three new Bulletin columns, one on research tips, another on teaching tips, and another consisting of items of special interest to students. He can be reached at PFields@agr.gc.ca, or by mailing to:

Dr. Paul Fields
Editor, Bulletin of the Entomological Society of Canada
Agriculture and Agri-Food Canada
Cereal Research Centre
195 Dafoe Road
Winnipeg, Manitoba R3T 2M9
fax: (204) 983-4604

Thought for the day:

"Despite all the advances resulting from amazing new technologies and the facility of communication, there is not, and cannot be, any substitute for the people who love and know their insects..."

R.F. Chapman, "Entomology in the Twentieth Century", Annual Review of Entomology, 2000, Vol. 45: 261-285.

Achievement Awards Committee Call for Nominations

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 2003). 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 2003.

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.

Comité des décorations

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. Veuillez envoyer vos nominations (pour l'année 2003) 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 2003.

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.

E.S.C. Bulletin S.E.C.

Volume 34(4), Dec - dec, 2002

Entomological Sociey 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

F. Fournier, Montreal

H. Chiasson, St-Charles-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

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

E.C. Becker, Ottawa

B. Roitberg, ex officio, Burnaby

Insect Common Names/ Noms communs d'insectes

H. Chiasson, Chair, St. Charles-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

B. Roitberg, ex officio, Burnaby

Membership/Adhésion

- J. Sweeney, Chair, Fredericton
- T. Shore, ESBC, Victoria
- G. Pohl, ESA, Lethbridge
- R. Elliott, 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.G. Kevan, Guelph
- T.L. Shore, ESBC, Victoria
- R. Bourchier, ESA, Lethbridge
- R. Elliott, 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
- J. Myers, Vancouver
- 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
- B. Roitberg, ex officio, Burnaby

ENTOMOLOGICAL SOCIETY OF CANADA KEITH KEVAN SCHOLARSHIP 2003

In memory of Dr. D. Keith McE. Kevan, the Entomological Society of Canada is offering one postgraduate award of \$1,000 to assist students in post-graduate programs who are studying **systematics in entomology**. The award will be made on the basis of high scholastic achievement and excellence in insect systematics

Invitation for Applications

Eligibility: Applicants must be members of the Entomological Society of Canada at the time of application. The successful applicant must be a post-graduate student at the time of application, studying at a Canadian university or be a Canadian citizen studying abroad.

Method of Application -Applicants must submit a properly completed form, with support documents. Application forms are available at http://esc-sec.org/form.htm, or from the Chair of the ESC Student Awards Committee. The original and three copies of the application and all supporting documents, must be submitted to the Chair of the Student Awards Committee postmarked no later than 12 June 2003. 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.

<u>Process of Selection and Award Presentation</u> -Applications will be reviewed by a committee of the Society. An announcement of the winner 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 2003.

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.

<u>Transfers</u> -Awards are made on the condition that the winners engage in a program of studies and research for a post-graduate degree in entomology. 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

LA SOCIÉTÉ D'ENTOMOLOGIE DU CANADA BOURSE KEITH KEVAN 2003¹

En mémoire du Dr D. Keith McE. Kevan, la Société d'entomologie du Canada offrira une bourse de \$1,000 pour aider les étudiants gradués qui entreprennent des études supérieures en **taxonomie des insectes**. Cette bourse sera accordée selon des critères d'excellence académique et de la prééminence en taxonomie des insectes.

Avis

Éligibilité: Les candidats doivent être membres de la Société d'entomologie du Canada au moment de la demande. Ils doivent être étudiants diplômés inscrit à un programme d'études supérieures dans une université canadienne ou citoyens canadiens étudiant à l'étranger.

<u>Procédure</u>: 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://esc-sec.org/form.htm. Le formulaire original, ainsi que trois copies, devront être envoyés au président du comité des bourses aux étudiants de la Société et reçus au plus tard le 12 juin 2003. 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.

<u>Sélection et remise de la bourse</u>: L'analyse des candidatures se fera par un comité de la Société, et l'annonce du récipiendaire de la Bourse K. Kevan se fera à la réunion annuelle de la Société où le gagnant recevra un certificat. Le paiement de la bourse aura lieu en **octobre 2003**.

Règlement

<u>Autres sources de revenus</u>: 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 son projet de recherche. 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.

<u>Transferts</u>: Les bourses sont accordées à condition que les boursiers entreprennent des études graduées en vue de l'obtention d'un diplôme d'études supérieures en entomologie. Après l'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.

<u>Frais supplémentaires</u>: 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

¹ Le masculin est employé dans ce texte pour désigner les personnes des deux sexes.

ENTOMOLOGICAL SOCIETY OF CANADA POSTGRADUATE AWARDS 2003

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 2001 and 31 December 2003. 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://esc-sec.org/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 2003. 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 2003.

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@agr.gc.ca

LA SOCIÉTÉ D'ENTOMOLOGIE DU CANADA BOURSE POUR ÉTUDIANTS POST-GRADUÉS 2003

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 2001 et le 31 décembre 2003 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'incrit 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://esc-sec.org/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 2003. 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 2003.

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@agr.gc.ca

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

SCHOLARSHIPS AND GRANTS

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

Preamble

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

Eligibility

To be eligible, a student must:

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

Format of the Application

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

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

Evaluation Procedure

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

Timetable and Application Procedure

Application forms may be obtained from the Chair of the Student Awards Committee or at http://www.esc-sec.org/student.htm. These must be completed in full, and the original plus three copies of all documents returned to the Chair of the Student Awards Committee by 14 February 2003. The committee will evaluate all applications by 30 April 2003 and determine if, and to

whom, grants will be awarded. The successful applicants will be informed immediately, thereby providing sufficient time for students wishing to start in the fall to make necessary arrangements. Grants must be used in the 12 months following the award.

Recipients must provide a short final report, including a documented list of expenses relative to the proposed budget, in the three months that follow the trip. Any allocated funds not spent must be returned to the Society.

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@agr.gc.ca

BOURSES ET SUBVENTIONS

Subventions de recherche-voyage au niveau des études supérieures Société entomologique du Canada

Invitation à soumettre des demandes

Préambule

Pour promouvoir les études supérieures en entomologie, la Société d'entomologie du Canada offre deux subventions de recherche-voyage, qui seront décernées chaque année lors d'un concours. Ces subventions ont pour objet d'aider les étudiants et étudiantes à élargir le champ de leur formation supérieure. Le montant accordé, qui peut aller jusqu'à 2 000 \$, doit permettre aux récipiendaires de suivre des cours ou d'effectuer des travaux portant sur leur sujet de thèse, cours et travaux qu'ils ne pourraient pas entreprendre autrement dans leur propre établissement et qui constituent un ajout important au programme de recherche prévu. Les candidatures seront jugées selon leur mérite scientifique.

Admissibilité

Pour être admissible, un étudiant ou une étudiante doit :

- 1) être inscrit comme étudiant à temps complet au niveau des études supérieures
- 2) être membre actif de la Société d'entomologie du Canada

Présentation de la demande

La demande doit se présenter comme une proposition, dans laquelle le candidat ou la candidate

fournit les informations suivantes : 1) sujet de la thèse; 2) revue des documents pertinents; 3) résumé de l'état d'avancement de la thèse; 4) description de la recherche ou des travaux à effectuer, avec les précisions suivantes : a) pertinence de l'objectif global de la thèse,

- b) raisons pour lesquelles les travaux ne peuvent être effectués à l'université d'attache et
- c) raisons expliquant pourquoi le candidat ou la candidate a choisi un lieu plutôt qu'un autre pour effectuer ses recherches; 5) budget du projet proposé et des explications concernant le mode de règlement des dépenses non couvertes par la bourse; 6) dates prévues pour le voyage et date à laquelle le candidat ou la candidate aura besoin de la subvention.

Le candidat ou la candidate doit joindre à sa demande : 1) un CV à jour; 2) une lettre de référence de son directeur; 3) au besoin, une lettre d'appui du scientifique ou chef de département de l'établissement où il ou elle souhaite mener à bien son projet.

Méthode d'évaluation

Le mérite scientifique de chaque demande sera évalué par un comité qui pourra soumettre certains projets à l'examen d'experts compétents de l'extérieur. Sur demande, un rapport des commentaires du comité des prix sera remis à chaque candidat et candidate.

Échéancier et marche à suivre pour la présentation des demandes

Les formulaires de demande, qui sont disponibles auprès du président du Comité des prix aux étudiants de la Société ou sur notre site internet à l'adresse suivante: http://www.esc-sec.org/student.htm. Ceux-ci doivent être complétés (original, ainsi que trois copies de tous les documents), et retournés au président du Comité, au plus tard le 14 février 2003. Le comité évaluera toutes les demandes pour le 30 avril 2003 et il déterminera si des subventions seront accordées et, le cas échéant, à qui. Les heureux ou heureuses récipiendaires seront informé(e)s sans délai, de façon à ce qu'ils ou elles disposent de tout le temps voulu pour entamer leur projet dès l'automne suivant, si tel est leur souhait. Les subventions doivent être utilisées dans les 12 mois suivant leur attribution.

Dans les trois mois suivant leur voyage, les récipiendaires doivent remettre un court rapport final, incluant une liste des dépenses réelles accompagnées de pièces justificatives et comparées au budget proposé. Toute somme non dépensée doit être retournée à la Société.

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@agr.gc.ca

Reports

Finance Committee

A meeting of the Finance Committee was held on 23 September 2002 to discuss the Treasurer's 2003 budget and other matters relating to the mandate of the Committee. Present: J.E. O'Hara (Chair), P.G. Mason, D.J. Parker and G.A.P. Gibson (Treasurer). Absent: M.J. Sarazin.

This year the Treasurer has prepared two budgets, one based on a normal operating year and the other incorporating an expenditure of \$10,138 for start-up of online access to TCE. In the judgement of the Finance Committee, the latter budget will not cause the Society undue financial strain provided additional revenue is forthcoming in subsequent years to offset the additional costs of publishing online. Additional revenue would most likely involve increased fees for memberships and institutional subscriptions. The editor of TCE has already proposed a fee structure to cover online publishing, though that proposal did not include the cost to the Society of individual passwords for online access (\$5.00 per subscription and member). If the Governing Board approves the budget that includes start-up of online access to TCE, then the Finance Committee will investigate a revised fee structure for memberships and institutional subscriptions if actioned to do so.

Jim O'Hara, Chair

Treasurer's Report

The Society finished 2001 with a net surplus of \$69,782. As per recent history, gain on currency exchange contributed substantially toward revenues. A particularly successful year for the ESC Scholarship Fund also contributed to the surplus. The Scholarship Fund realized a net profit of \$14,364, derived largely from the Society's share of profits from the 2000 annual meetings in Montreal, donations to initiate the John Borden award, plus \$3,193 in general donations from members. Even with this funding increase I estimate a small net deficit for the Scholarship Fund in 2004, a year in which the Society offers \$9000 in scholarships, without additional donations above historic averages. Net cost of operating Headquarters totaled \$5,111, including \$2,649 for installation of a new furnace. The Endowment Fund, used to aid publication of *The Canadian Entomologist*, realized a net loss of \$532. Although the 2001 audit of the Society also indicated a net loss of \$1,554 for the 'Book Project' (Diseases and Pests of Vegetable Crops in Canada), \$7,500 was reimbursed to the ESC from sales of the book in 2001. The Society signed a new 3 year contract with National Research Council for publishing *The Canadian Entomologist*, which stabilizes publication costs and provides cost estimates for parallel electronic publication of the journal. The budget submitted for 2003 estimates a net surplus of only \$2,640 for the Society, resulting from decreased revenues and increased costs associated with parallel publication of *The Canadian Entomologist*.

Gary Gibson, Treasurer ESC

Publications Committee

1. A report was issued to the Executive for the April, 2002 meeting. The Publications Committee recommended that the *Bulletin* be posted as a PDF on the ESC website with no restrictions on retrieval. The posted version should be identical to the hardcopy (*i.e.* the final version) and should be posted as soon as the hardcopy goes to press.

Action: Committee chair asks the Executive to take action on this recommendation vis-à-vis any necessary changes to guidelines or by-laws and to clarify the duties in this regard for both the editor of the *Bulletin* and webmaster.

2. Guidelines for advertisements in the *Bulletin* were proposed in response to a request from the Finance committee. The current editor of the *Bulletin*, Dan Johnson, agrees to solicit advertisements.

3. No replacement for Jean Turgeon as editor of *The Canadian Entomologist* has been found. Instead, the Publications Committee endorsed a proposal from Turgeon to alter the structure of the editorial board to three divisional editors and an editor-in-chief. It is my understanding that this will be confirmed at this meeting.

Action: The Executive should seek confirmation from Jean Turgeon of his continuation as editor-in-chief and advise the Publications Committee of the proposed tenure for both this and the Divisional Editors' positions so that a new search with new terms of reference, if necessary, can be undertaken.

4. No resolution of the permission to reprint issue has been obtained. I have responded to recent requests to reproduce material published by the ESC by either sending the request directly to the President or by informing the requesters that we do not hold copyright and it will *probably* be OK if they go ahead. Prospective users are understandably wary of this implication. Respectable publishers are very sensitive to copyright and want to do the right thing. If they cannot, they will find their necessary material elsewhere and we will lose exposure. I continue to find this both unsatisfactory and frustrating.

Recently, it was suggested to me that a legal opinion would definitely be sought. I trust this is the case. We need to know:

- a) What is the ESC's obligation regarding copyright of material already published? Is there statute of limitations on this obligation so that we need only be concerned about recent years?
- b) In the case of single requests for reproduction, is any distinction to be made between commercial and non-commercial use? If so, what is the legal definition of commercial and non-commercial use?
- c) What is our status vis-à-vis royalties paid to Bell and Howell for reproductions of previous material?
- d) Do we have the right to offer our published material to Bell and Howell for archiving? This could be messy as they already have all back issues.

In connection with this issue, a form was developed by Turgeon and Gibson for authors to sign that will relieve us of this ambiguous situation in the future. The Publications Committee endorses this action and pleads that it be implemented immediately. **Action**: Please address this issue ASAP. It seems simple but it is causing me great headaches and is costing the ESC credibility.

Book reviews: Nine book reviews have already been published in the first two issues of volume 34 of the *Bulletin*. A set of instructions for authors was provided in No.2 (p. 102).

Libraries: Cataloguing and maintenance of the regional society libraries is an on-going issue. In particular, the variable state of attention makes it difficult for other libraries to find out holdings and therefore use the material. There is much storage and little retrieval.

With this is mind, the Publications Committee proposes the ESC foster a library maintenance grant program to help regional societies maintain and provide access to their libraries. The primary and secondary objectives for funding would be 1) to create electronic catalogues (in standard library formats) and 2) to compile a single national catalogue or some sort of searchable database containing all titles and their physical locations. **Action:** The Executive should raise the issue of the need and desirability of this with the regional representatives. If the suggestion is positive, the Publications Committee could work with regional societies to develop a budget, timeframe, set of standards and cost-sharing formula.

Committee membership: I will be stepping down as chair of this committee as soon as a replacement can be found.

Vince Nealis, Chair

Bulletin Editor

As of this writing, the first three issues of the ESC Bulletin Volume 34 (2002) have been published. The March 34(1) issue was 40 pages in length and contained a considerable number of news items, plus one heritage article, five books reviews and reports. The June 34(2) issue included pages 41-108, and contained financial statements, four book reviews, reports and details of the annual meeting. The September 34(3) issues included pages 109-156, and contained more news items, and one long article. An attempt was again made to include website addresses.

Production of a PDF version of the Bulletin, and an HTML version of the news links, was an innovation in 2002 that seemed to be useful. There is still discussion among the Executive, Chairs and Trustees as to how to handle this arrangement, for example with or without a password, when posted, &c. The issue of how long to wait before posting was discussed at length, and at one point I was instructed that the time of receipt of the overseas subscribers would have to be the guideline. We need to settle these questions to the satisfaction of the Executive, Office Manager, Webmaster, and Trustees before the Bulletin is regularly posted. Making the PDF format is a simple matter as soon as the file is ready for printing and sending to the publisher.

When I began this duty earlier this year, I did not have the Quark software that Hugh Barclay had been using, so I prepared the June issue in Word Perfect. This may have been a poor choice. I spend more time struggling with word processing, and fighting the software over the question of accepting the various forms of the submissions, than I spend as a usefully employed editor. Word Perfect problems caused one significant delay (other than the usual computer hangups, incompatibilities and shutdowns). When I e-mailed a completed file to the publisher, the receiver opened the file on a PC that reformatted the submitted file to match the printer on that machine. The change in page margins, &c., added extra blank pages and changed the page numbering. I recommend that we select a new software standard.

When I began as editor, I asked at an Executive meeting about advertising. Recently I was told that the Executive would decide this year about how advertising was to be sought, and at what price. I am interested in where we are going with this issue. We could bring in some extra income. Perhaps it could even support Bulletin costs, like proper software or some computer memory.

Lateness has been a problem for me this year. There are three separate problems. First, the "deadlines" for each issue are not early enough, given that the publication takes 5 to 6 weeks from leaving my hand and reaching the subscribers. Second, items arrive to me late, and before removing errors from the submissions I first spend time adding my own. Third, I do this work on weekends, and that means that if I have conferences or demanding fieldwork, I come into the office to do it and often take three weekends to complete an issue.

Beginning in January, 2003, Paul Fields will take over as the next Bulletin Editor. I hope he enjoys the task and finds solution to the problems such as concerning compatibility of submissions and formats.

Dan Johnson, Bulletin Editor

Nominations Committee

Drs. Robert Lamb and Lorraine Braun were nominated as Second Vice-President. Drs. Fiona Hunter, Cynthia Scott-Dupree and David Gillespie were nominated as Director-at-Large.

R. Foottit, Chair

Elections Committee

Dr. R. Lamb was elected as Second Vice-President and Dr. David Gillespie was elected as Director-at-Large.

R. Hallett, Chair

Achievement Awards Committee

The Achievement Awards Committee has recommended Dr. Bob Lamb as the 2002 recipient of the Gold Medal. No Hewitt Award will be given out this year, although two names were suggested; in one case the individual was over 40 years of age, and in the other, slightly too young and can be considered again next year. The committee also unanimously recommends that Rick West and Joe Shorthouse both be awarded an ESC Fellowship this year in recognition of their contributions to entomology in Canada and work for the Society. Although the nomination of two Fellows in one year is somewhat irregular, this is well within the limit set by the standing rule that the number of Honorary Members and Fellows does not exceed 10% of the Active Membership.

S.M. Smith (Chair), G. Boivin, V. Nealis, P. Dixon, B. Roitberg

Bilingualism Committee

In 2002, the Bilingualism Committee translated (1) President's reports, (2) biographies of candidates for the election, (3) biographies of recipients of the Gold Medal, (4) some modifications for the web site, (5) description of Entomological society of Canada awards and scholarships, (6) for the Committee of the common name list, (7) Membership renewal, and (7) forms for Donation to scholarship fund of the Society. The committee members did this work. I would like to ask the Governing Board to allocate a budget to the Bilingualism Committee, let's say \$500, in case we receive requests for translation too long to be done by the committee members. Francois Fournier is leaving the Bilingualism Committee after 3 years of service. I would like to thank him for his good work.

Lucie Royer, Chair

Bylaws, Rules & Regulations Committee

The Committee recommends to the Board that the following changes be made to the Bylaws, Standing Rules, and Committee Guidelines: (please refer to the minutes to see the changes – Secretary Rick West)

Mark Goettel, Chair

Heritage Committee

Since the Report to the 2001 Annual General Meeting, three articles in the Our Heritage... series were published in the Bulletin. These were:

Who was John Clark? By Doug Eidt 33:122-123 What was the Debert Laboratory? By Doug Embree 33: 124-128 The Ten Buck Trousers. By J. D. Tothill 34:18-19

Currently in the hands of the editor are two:

Who was Rose Marie Brown? By Doug Embree Just what was FIDS? By Laslo Magasi

Eidt has translated an article from the 1974 Annales de la Société entomologique de Québec, *Souvenirs d'un octogénaire*, by Georges Maheux, but is withholding it until he gets permission from the Société d'entomologie du Québec and because the Bulletin already has sufficient backlog of heritage material. The article, which is otherwise

not available in English, typifies the difficulties faced by pioneer entomologists in government whose job involved serving the public.

As this is being written, the Committee does not know when Biography of Entomologists in Canadian Publications will be published.

The program committee for the 2001 meeting in Niagara Falls deposited copies of the programme with the committee which have been deposited in the Archives of Canada.

The Heritage Committee is pleased to note that the ESBC celebrated its 100th anniversary in 2001. To this end they published a special issue of the Journal containing 295 pp of history and other information. If it has not already done so, we recommend that the ESC write a congratulatory letter to the ESBC or take other appropriate action.

We are saddened by the loss of our colleague, Paul W. Riegert, this year. Paul chaired this committee for many years, setting a standard of accomplishment extremely difficult to match.

E.C. Becker, D.C. Eidt (chairman), President B. Roitberg (ex officio)

Insect Common Names Committee

Activities of the committee are as described in the last report, i.e. update of the list and have French names approved for newly introduced agricultural pests in Quebec. We are presently selecting French names for greenhouse pests and beneficials. Another activity that is underway is the addition on the ESC and SEQ web sites of a form to accept proposals online for new English and French common names. The selection of French common names will take time because we have more than 20 names submitted so this report will tend to be repetitive.

Hélène Chiasson (Chair) , https://hchiasson@udainc.com, Michèle Roy (SEQ), michele.roy@agr.gouv.qc.ca
Bernie Roitberg (ESC, ex officio) roitberg@sfu.ca, 1 vacancy

Membership Committee

- Current Membership Committee members are Jon Sweeney (Chair), Greg Pohl (ESA), Donna Giberson (AES), Terry Shore (ESBC), P. MacKay (ESM), Dave Hunt (ESO), Bob Elliot (ESS), Nancy Larocque (SEQ), vacant (Student Rep.), and Bernard Roitberg (ex-officio).
- 2. **Membership Renewal.** Reminders were sent in March to about 135 members who had not yet renewed their ESC membership for 2002. The number of late renewals was greater in 2002 than in past years, possibly due in part to later (end of January) renewal deadline.
- Membership Annual Trend. Membership has been on a slight downward trend from 1997 to 2002, except for an upward blip in 2000 when the ESA/ESC/SEQ joint annual meeting was held in Montreal.

Year	Regular	Student	Emeritus	Total
1997	404	79	70	553
1998	396	76	76	548
1999	382	72	72	526
2000	400	114	77	591
2001	386	98	82	566
2002	364	90	65	519

- 4. **Suggestions on how to increase memberships.** The committee offers for discussion the following suggestions on possible ways of increasing membership in the ESC:
 - a. Option of regular membership without the Canadian Entomologist at a reduced rate. Some potential members, e.g., aquatic entomologists, find little incentive to publish in or receive Can. Ent., which they feel is focused more on publishing research from agricultural, forest, or systematic entomology.
 - Reduce costs to avoid increases in- or possibly reduce annual dues. Given the decline in entomology
 positions and entomologists it is not surprising that membership is dwindling. Perhaps we need to
 focus on reducing our costs proportionately.
 - c. Greater presence of the ESC in the Regions. Perhaps the profile of the national society could be raised and the ESC could become more of an umbrella organization if the interim board meeting could be held in a different region each year. If an extra day could be added to the trip, perhaps there could be some sort of event planned by the regional society, allowing them to interact with the Board. At the Annual Meetings of Regional Societies, the presence of someone from the Executive Council or the Regional Director at the registration desk (with application forms), who could make a brief appeal describing the benefits of ESC membership during the opening ceremonies, and do some informal lobbying during the mixers, etc., may pick up a few members who might otherwise belong only to the Regional Society.
 - d. Move the Annual Meeting date to late August-early September. Some members, particularly university professors, cannot easily attend the ESC Annual Meetings, traditionally held in October, due to teaching commitments. We recommend that the ESC explore the feasibility of holding the Annual Meeting during the first week of September, perhaps as early as 2004; increased costs due to the high tourist season might possibly be offset by increased attendance and membership, greater opportunities for field trips, tie in family vacation, etc.
- 5. **Membership list**. In the mid-term report to the Executive, the committee recommended that the list of ESC members and their email addresses be distributed to individual ESC members on request. Once per year, each member would be given the option of having his or her name and address removed from such a distribution list, perhaps by ticking the appropriate box on the membership renewal form. Once the membership list has been formatted it will be made password-accessible by members only from the web site; the Membership Committee will be responsible for maintaining and updating the web version of the membership list.

Jon Sweeney, Chair

Comité Politique scientifique et éduction/Science Policy and Education Committee

The Entomological Society of Canada (ESC) have funds available to affiliate Societies for activities fostering entomology. In 2002 the following Societies have been, upon their written request, granted funds for their educational activities: Acadian Entomological Society, Société d'entomologie du Québec, Entomological Society of Manitoba and Entomological Society of British Columbia. These Societies gracefully acknowledged support from the ESC during their activities.

To better address issues regarding Science Policy and Education, a new section of the ESC Web site has been created to foster exchanges and publicize the efforts of the ESC. For example, as of 16 September 2002, the following letters were published on our Web site: 1) Letter from President Roitberg to The Honorable David Anderson, Minister of the Environment, regarding proposed "Species at Risk Act" (1 March 2002), 2) Response from The Honorable Charles Caccia, M.P. for Davenport and Chair-Standing Committee on Environment and Sustainable Development, to President Roitberg (21 March 2002), 3) Letter from President Roitberg to Michelle Gauthier and Ole Hendrickson, Secretariat, Convention on Biological Diversity, Environment Canada (21 June 2002), and 4) Letter from President Roitberg to North American Pollinator Protection Campaign, Co-Evolution Institute (21 June 2002).

Peter Kevan represented the ESC at a meeting in Washington, D.C. to support the initiative of NAPPC in embracing and campaigning for issues of insect conservation and management as they relate to pollination in nature, and especially for agricultural productivity.

The ESC Web site invite people to ask, by e.mail, questions relevant to entomological issues to the President. President Roitberg received one question regarding the commerce of butterflies for releases during special occasions. The question was "Is this a good ecological thing to do, or can this harm natural butterfly populations/ balance of nature?" After consultation of the Science Policy & Education Committee members, the person was answered by e.mail.

Under the umbrella of the ESC Science Policy and Education Committee a collection of photos of insects is done with the intent to offer them freely to the public on the ESC website. Two members of the Committee pointed out that such projects are underway in Quebec and British Columbia. The ESC will proceed and should have insects photos available by fall of 2002, with links to other sites offering insect photographs. As federal employees do not own the Copyright of the result of their work (including photographs), a letter was sent to Acting Assistant Deputy Minister (Agriculture and Agri-Food Canada) Gordon Dorell to efficiently resolve Copyright issues, allowing federal employees to publish their insect photos on the ESC web site.

La Société d'entomologie du Canada (SEC) a des fonds disponibles aux sociétés affiliées pour des activités faisant la promotion de l'entomologie. En 2002, les Sociétés suivantes ont eu, suite à des demandes écrites, des fonds de la SEC: Acadian Entomological Society, Société d'entomologie du Québec, Entomological Society of Manitoba and Entomological Society of British Columbia. Ces sociétés ont gracieusement souligné la contribution de la SEC lors de leurs activités.

Afin de mieux considérer les dossiers relatifs à la Politique scientifique et à l'Education, une nouvelle section du site WEB a été créée pour favoriser des échanges et publiciser les efforts de la SEC. Par exemple, en date du 16 septembre 2002, on retrouvait dans cette nouvelle section: 1) une lettre du Président Roitberg à l'Honorable David Anderson, Ministre de l'Environnement, concernant le projet de loi des espèces menacées (1 mars 2002), 2) la réponse de l'Honorable Charles Caccia, député de Davenport et Président du Comité sur l'Environnement et le développement durable, au Président Roitberg (21 Mars 2002), 3) une lettre du Président Roitberg à Michelle Gauthier et à Ole Hendrickson, Secrétariat, Convention sur la diversité biologique, Environment Canada (21 Juin 2002), et 4) une lettre du Président Roitberg à la North American Pollinator Protection Campaign, Co-Evolution Institute (21 Juin 2002).

Peter Kevan a représenté la SEC lors d'une réunion à Washington, D.C., pour faire campagne concernant des dossiers relatifs à la conservation et à la régie des insectes, notamment en ce qui a trait aux pollinisateurs naturels trouvés en milieux agricoles.

Le site Web invite les gens à faire part au Président de la SEC, par couriel, de questions relatives à l'entomologie. Le Président Roitberg a reçu une question relative au commerce des papillons pour lâchers lors d'occasions spéciales. La question était: «Ces lâchers sont-ils bons écologiquement ou peuvent-ils affecter négativement l'équilibre des populations naturelles ? ». Après consultation auprès des membres du Comité Politique scientifique et éducation, la personne a reçu une réponse par couriel.

Sous l'égide du Comité Politique scientifique et éducation, une collection de photographies d'insectes sera disponible gratuitement sur le site WEB de la SEC. Deux membres du Comité ont fait remarquer que des projets similaires étaient en développement au Québec et en Colombie-Britannique. La SEC devrait avoir publier une première version d'une collection de photographies d'insectes à l'autonne 2002. Comme les employés fédéraux ne sont pas propriétaires des résultats de leurs travaux (incluant les photographies), une lettre a été adressée au Sousministre adjoint intérimaire (Agriculture et agroalimentaire Canada), M. Gordon Dorrell, pour qu'il puisse résoudre efficacement les problèmes de Copyright, ce qui permettra aux employés fédéraux de publier leurs photographies d'insectes sur le site Web de la SEC.

C. Vincent, Chair, Saint-Jean-sur-Richelieu, Qc

K.G. Davey, Downsview, Ont

P.G. Kevan, Guelph, Ont

T.L. Shore, ESBC, Victoria, BC

Greg R. Pohl, ESA, Edmonton, AB (replaced R. Bourchier, Lethbridge, Ab as of February 2002)

R. Elliot, ESS, Saskatoon, Sas

P. MacKay, ESM, Winnipeg, Man

D. Hunt, ESO, Harrow, Ont

N. Larocque, SEQ, Laval, Qc

G. Boiteau, AES, Fredericton, NB

B. Roitberg, ex officio, Burnaby, BC

Student Affairs Committee

There has not been much accomplished by our committee since the last progress report. We suggested last fall that a student lunch be included in the program on the day of the Banquet, in order to allow students to discuss the results that were presented throughout the meeting. Unfortunately, we did not manage to get this activity organized on time for the 2002 meeting, but we will definitely try to arrange it for the next meeting.

Jade Savage (Chair), Lyman Entomological Museum, McGill University; Tonya Mousseau, University of Manitoba

Marketing Committee

Entomological Society of Canada Marketing Committee
Lorraine Braun, Saskatoon SK, Chair
Heather White, Winnipeg MB
Owen Olfert, Saskatoon SK
Vacancy
Bernie Roitberg, Burnaby BC, ex officio

At the Executive Council meeting in the spring of 2002, the Executive directed the Marketing Committee to develop a marketing strategy for The Canadian Entomologist (TCE). In order to undertake this task, the Marketing Committee requests that additional members be recruited to serve on the Committee. The Committee members see three distinct marketing opportunities: marketing our journal, marketing our Society, and marketing saleable items and Society products (including DPVCC) etc. In addition, we recognize that scientists in general do not have the all the skills necessary to develop marketing strategies.

To assist in the development of marketing strategies for the Society, the Chair of the Marketing Committee has approached the Marketing Department in the College of Commerce at the University of Saskatchewan for help. After a brief conversation with Dr. David Williams in the Marketing Department, a short letter was sent giving a brief description of the Society and the TCE. Dr. Williams has forwarded the request to other members of his department to see if any would consider assigning this subject as a class project.

That being said, there are still some obvious routes to increase Society and journal visibility. One obvious strategy would be to increase TCE accessability on the World Wide Web by allowing access to TCE through various 'pointing' devices if and when TCE is available electronically. This type of marketing strategy would be developed in conjunction with the publishing house, NRC Press. In a previous conversation, Paul McClymont, Business Manager with NRC Research Press, has already offered some marketing strategies: exchange advertising with another NRC

Press journal (NRC will put an insert in their Journals for a minimal cost to Canadian subscribers); we make our journal title available to as many Aggregate sites as possible (Aggregators are the electronic world counterparts to Subscription Agents). In addition, the Committee is assessing our current visibility on WWW by determining what links are currently pointing to our ESC website. For example, one quick search showed that ESC and TCE do not appear on the site "Entomology on World-Wide Web (WWW)": http://www.colostate.edu/Depts/Entomology/links.html#C

In consultation with the Chair of the Student Affairs Committee, another small version of the JAM 2000 ESC poster, on Student Awards, is being prepared for the Winnipeg meeting. The poster will make use of the design currently in use on the website.

Committee members are still discussing the best approach for direct marketing of Society items (mugs, lapel pins etc.). The Chair takes responsibility for tardiness in this area. One drawback to sale of Society items is the transport of items to each AGM, and the lack of a sales person on site, since the ESC does not typically staff a booth during the meeting. The Committee recommends that a limited number of items be available for display purposes, and that stock will be kept at one location for orders. Once items are available, an advertisement will be placed in the Bulletin.

The Chair of the Marketing Committee and the CPS Information Products Marketing Committee Efforts continue with efforts to increase sales for the book Diseases and Pests of Vegetable Crops in Canada (DPVCC). A slight delay has occurred in the planned mail out to selected libraries, however this will occur later this fall. Alexandra Devine reports sales of 100 English and 80 French copies of DPVCC until 5th September 2002.

The Marketing Committee still has one vacancy. Members include Owen Olfert (AAFC Saskatoon) and Heather White (University of Manitoba), and Bernie Roitberg (ex officio).

Lorraine Braun, Chair

Annual Meeting Committee

Regional host societies and ESC annual meetings for 2003 to 2006 have been posted on the ESC website. In the forthcoming year, a host society for the 2007 meeting will be sought.

A reduced fee structure for ESC members (or those who are members of the host regional society) to attend the annual meetings was discussed with Terry Shore (ESBC representative). He indicated that a fee structure similar to the one in place by the ESM (and approved by ESC) for the 2002 meeting will be in implemented for the 2003 meeting.

There was no further business of the committee.

I regret not being able to attend my last ESC governing board meeting; I wish members much success in their work and that they enjoy this year's meeting.

I would be pleased to continue as chair of the annual meeting committee as long as the board would like me to.

Respectfully submitted, Peter de Groot, Chair

Reports from Affiliated Societies

Entomological Society of British Columbia

The society had their annual meeting Sept 24 at the Pacific Forestry Centre in Victoria. Approximately 50 people attended and an excellent program of talks was presented. The Harold Madsen and the James Grant awards for best student paper were combined this year and the winners, each receiving \$150 prizes, were Jennifer Perry and Maxence Salomon, both of Simon Fraser University. The society is pleased to note that one of its members, Dr. Geoff Scudder, received the Order of Canada this year. ESBC members are busy organizing the Joint Annual Meeting for next year. It will be held in Kelowna, BC at the Grand Okanagan Resort on beautiful Okanagan Lake. I am the Organizing Chair, Vince Nealis is the Scientific Program Chair, and Hugh Philip is the Local Arrangements Chair.

The new executive and officers for this year are:

President: Gail Anderson President-elect: Bob Vernon

Past President: Lorraine Maclauchlan Directors: Ian Wilson, ChrisGuppy, Sherah

VanLaerhoven, Lisa Poirier, Tamila McMullan

Terry Shore, Regional Director

Secretary Treasurer: Robb Bennett Regional Director to ESC: Terry Shore

Journal Editor: Ward Strong Web Editor: Bill Riel

Boreus newsletter: Cris Guppy

Entomological Society of Alberta

The Entomological Society of Alberta is 50 years old this year, and a special meeting is planned for October 24 - 26 in Lethbridge. A heritage symposium is planned, which will include the following talks:

Dr. George Ball: Heritage Lecture - 50 Years of Entomology in Alberta

Dr. Gordon Pritchard: Aquatic Entomology

Dr. Herb Cerezke: Forest Entomology

Dr. Doug Colwell: Medical and Veterinary entomology

Dr. Bob Byers: Crop Entomology

The program will also include many submitted papers and a tour of the newly completed AAFC Lethbridge Research Centre expansion.

The ESAB executive remains the same as was reported last year - elections will take place at the upcoming ESAB meeting.

G. Pohl, Regional Director

Entomological Society of Saskatchewan

The annual meeting of the Entomological Society of Saskatchewan was held on April 17 with 17 members present. Membership increased this year to 70 members including 13 students. Activities in 2002 related primarily to youth encouragement and public education. Ross Weiss and Chrystel Lefol gave several presentations on insects to preschool and elementary students in Saskatoon and in France. Brian Galka gave a talk on 'Good Bugs, Bad Bugs' to a Brownie group in Saskatoon. John Kozial gave a slide presentation on the 'World of Butterflies' to a group in Preeceville. Graduate students in entomology at the University of Saskatchewan along with staff from the Saskatoon Research Centre also participated in the 'Little Green Thumbs School Tour.' During the two-day event, nearly 1,000 students were given short presentations on insects and the opportunity to view pinned and live insects. ESS again

hosted a booth at Gardenscape - an outdoor living show attended by over 21,000 people at the Prairieland exhibition grounds. The booth featured pinned specimens of native and exotic insects as well as live cultures of cockroaches, locusts, diamondback moths and bertha armyworms.

This past year saw the passing of a long-standing member of ESS and ESC, Dr. Paul Riegert. Paul passed away on May 9 at the age of 78. Paul spent 24 years at the Dominion Entomology Laboratory in Saskatoon before joining the Department of Biology at the University of Regina in 1968. Paul was best known for his book, 'From Arsenic to DDT: A History of Entomology in Western Canada.' After retiring from the university, Paul was a frequent contributor to CBC Regina's 'Afternoon Edition' where he responded to a range of questions on insects and natural history.

The Executive for 2002 includes President - Chrystel Lefol; Past President - Martin Erlandson; Vice President - Cedric Gillott and Regional Director - Bob Elliott. Executive staff include Secretary - Larry Grenkow; Treasurer - Dwayne Hegedus; Proceedings Editor - Wayne Goerzen and Newsletter Editors - Wayne Goerzen and Brian Galka.

Details for the 50th Annual Meeting of ESS will be finalized shortly. Information will be available at our new website on the Saskatoon Free Net (<u>www.sfn.saskatoon.sk.ca</u>) or through a link from our former website (www.usask.ca/biology/ess/).

Bob Elliott, Regional Director

Entomological Society of Manitoba

The scientific component of the annual meeting of the Entomological Society of Manitoba (ESM) is being held in conjunction with the annual meeting of the Entomological Society of Canada (ESC), October 6-9 2002. The annual general business meeting of the ESM will be held at a later date, some time in November, at which time the new Executive will take office. Until then, the Executive of the ESM is:

Noel White President: Paul Fields Secretary: Neil Holliday President Elect: Treasurer: Bill Preston Past President: Ian Wise Proceedings Editor: Terry Galloway Pat MacKay Newsletter Editor: Nicole Lauro Regional Director: Member at Large: Robyn Underwood

Since the last report of the Regional Director, in April, the ESM has been occupied primarily with planning for the Joint Annual Meeting of ESM and ESC. The Organizing Committee consists of:

Don Dixon, Chair Bob Lamb, Scientific Program Pat MacKay, Treasurer JoAnne Buth, Fund-raising Marj Smith, Registration Brent Elliott, Printing & Publicity Paul Fields, Webmaster Ian Wise, ESM Executive Representative Robyn Underwood, Student Representative

The theme of the meeting is 'Insects and Humans: Confrontation and Coexistence' and the program includes two plenary speakers, seven symposia, two workshops, 27 student papers, 31 regular submitted papers, 32 poster presentations, the Gold Medal address, and the Heritage Lecture. In addition, there will be all the usual social events plus a juried art show featuring works with an entomological theme by Manitoba artists.

In June Neil Holliday Head of the Department of Entomology at U. Manitoba, and President-Elect of ESM was approached by the Entomological Society of America (ESA) and invited to host the 2007 meeting of the North Central Branch of the ESA, a meeting which usually attracts 200-300 entomologists. The Society is very seriously considering accepting this invitation.

On May 09 2002, the ESM held the New Members' Social. Seven new members were honoured, although only two were able to attend the potluck dinner. By way of after-dinner entertainment, the Chair of the Social Committee, Michael Alperyn administered an examination on the use of insects in movies. Most examinees failed miserably, but had great fun doing so.

Over the last few months the Youth Encouragement and Public Education Committee continued to be very active. They gave 14 presentations to approximately 290 children. Later in September they will participate in a program organized by Agriculture in the Classroom, during which they will expose about 1200 students in grades 4-6 to the wonders of insects.

P.A. MacKay, Regional Director

Entomological Society of Ontario

The newly elected executive for the ESO, which will be taking office at the October 2002 Annual General Meeting in Ottawa, is as follows:

President: Bruce Gill

President-Elect: Jim Corrigan Past President: Barry Lyons Secretary/ESC Rep.: David Hunt

Treasurer: Blair Helson Editor: Yves Prevost Librarian: Jim Brett

Newsletter Editor: Neil Carter

Student Representative: Heather Mattila

Directors:

(2001-2003):

Bruce Broadbent Kathryn Nystrom

(2002-2004):

Rebecca Hallett

Peter Mason

(2003-2005):

Tracey Baute

Miriam Richards

Dr. W.W. (Bill) Judd and Dr. Chris Sanders were elected as Fellows of the Entomological Society of Ontario this year. Fellows of the ESO are members or former members who have made outstanding contributions to the advancement of entomology. These two new Fellows of the ESO join our two existing Fellows: Drs. Anthony Brown and David Pengally.

The 139th Annual Meeting of the Entomological Society of Ontario will be held on October $18-20^{th}$ at the Embassy West Hotel and Conference Centre in Ottawa. The theme for the meeting is

"Invasive Species and Biodiversity", and the Plenary Session will feature invited presentations from Drs. Geoff Scudder, Stephen Darbyshire, Leland Humble and Douglas Parker. The program and registration details can be downloaded from the ESO website (www.utoronto.ca/forest/eso) or by contacting Dr. Bruce Gill or Dr. Peter Mason.

Volume 132 of the Proceedings of the Entomological Society of Ontario was published in December of 2001. The issue contained 6 submitted scientific papers.

David Hunt, Regional Director

Société d'entomologie du Québec

Le site internet de la Société a fait peau neuve cette année. Plusieurs thèmes ont été ajoutés au site internet dont des offres d'emploi, les procès verbaux des réunions annuelles, un accès sécurisé pour les membres en règle de la Société et bien d'autres. De plus, le site internet de la SEQ hébergera le site permanent de la Conférence Internationale Francophone d'Entomologie (CIFE) qui donnera accès à de l'information sur les prochaines conférences de la CIFE. Et justement cette année, la CIFE 2002 s'est tenue à Montréal, en partenariat avec la SEQ, à l'Université du Québec à Montréal et a acceuilli plus de 185 participants provenant de 10 pays différents sous le thème "La Recherche de pointe en entomologie".

Le CAPEC (Comité d'Action pour la Promotion de l'Entomologie au Québec) s'est réuni pour une deuxième rencontre et ce fut au tour des étudiants de s'exprimer ce qu'ils pensent et ce qu'ils ressentent sur la profession d'entomologiste au Québec. Plusieurs opinions et idées ont été exprimées durant la réunion qui regroupait en tout 16 étudiants de 2^{ième} et 3^{ième} cycles. Plusieurs thèmes ont été abordés durant la rencontre mais les opinions des étudiants s'articulaient autour de quatre grandes idées majeurs: 1) la profession d'entomologiste est peu connue mais nécessaire et inclus plusieurs disciplines, 2) les étudiants voient plusieurs possibilités d'emploi en entomologie mais peu d'entre eux pensent à trouver un emploi permanent, 3) le rôle de l'entomologiste est de démystifier l'image négative des insectes et 4) face à un employeur potentiel, les étudiants auraient tendance à se dire biologiste ou agronome avec des connaissances en entomologie plutôt que de se présenter comme étant entomologiste.

La SEQ est en voie d'obtenir son kiosque d'exposition financé en partie par la SEC. Ce kiosque permettra à la SEQ de se faire connaître et de promouvoir l'entomologie à travers d'autres expositions, congrès et conférences par le biais de sujets thématiques. Prochainement, le kiosque sera présent au Salon des Insectes de Montréal, en novembre prochain, où les entomologistes amateurs se donneront rendez-vous pour échanger leurs spécimens et leurs expériences.

Nancy Laroque, Directrice générale

Acadian Entomological Society

The executive of the AES rotates between four provinces and one state to ensure representation of the whole region. The lack of a permanent address can, however, make it difficult for AES and ESC members to remain in contact. The AES improved its accessibility by developing a web page (www.upei.ca/~aes) to become the permanent link of the Society. The web page includes information on the upcoming meeting, proceedings of previous meetings, the by-laws, and contact information for the society executive.

The 62nd Annual Meeting of the Acadian Entomological Society was held in Machias, Maine on July 22 - 23, 2002. The meeting began with an address by Sue Hubbell, a Popular Science writer, on "Writing for the General Public". Approximately 60 participants attended the 17 Scientific presentations and the provincial-state pest updates that made up the rest of the meeting. Ms. Ellen Klinger, University of Maine, was the winner of the Student competition. Topics covered during the Business meeting included the best time to hold the meeting and the potential of the AES hosting the ESC meeting of 2004 in New Brunswick/P.E.I.

The Executive of the AES for 2001/2002 was Andrei Alyokhin, University of Maine, President; President: Steve Woods and Connie Stubbs, University of Maine, Secretaries; and Charlene Donahue, Maine State Department of Agriculture, Treasurer. The Regional Director for AES to the Entomological Society of Canada was Gilles Boiteau.

The 2002/2003 executive is made up of Andrei Alyokhin, President; Cassie Gibbs, Vice-President; and Charlene Donahue, Secretary-Treasurer. The Regional Director to the AES for 2002/2003 is Donna Giberson

Donna Giberson, Regional Director

Report of the Scientific Editor - 2002

Number of submissions. The number of submissions received in **2001** (n = 150) was about the same as in 2000 (n = 153) if we exclude those submitted for

Table 1. Number and type of submissions

Туре	1998 n	1999 n	2000 n	2001 n	2002 n
Review	1	3	1	0	1
Standard	94	83	158	100	76
Note	22	17	23	21	9
Forum	0	1	2	0	2
Total n	117	104	*184	150	**88
Original su	ibmissions (%)	89	89	82	86

consideration of publication in the Borden Tribute (31), averaging almost 13 submissions per month (Table 1). The number of manuscripts received thus far in 2002 is much lower than in the past 2 years, averaging slightly under 10 submissions per month.

In last year's report, I indicated that no publication delay (i.e., the date of issue occurred in the second month covered by the issue rather than the first) was expected in 2001. I spoke too soon as there was one delay: volume 133 (6) was issued in Dec rather than in Nov. The Jan/Feb issue is always issued in Feb to provide the ESC head office time to compile its annual list of members and subscribers. In 2002, despite the low number of submissions, only one publication delay has occurred so far (Jul/Aug was published in Aug). No other delay is expected as both the Sep/Oct and Nov/Dec issues are full and on schedule.

Origin of submissions. Submissions continue to be predominantly from Canada (Table 2) although it seems that the proportion f submissions from Canada has been decreasing steadily since 1998. There was a noticeable decline in submissions from the United States after September 2001 (n=6 compare to 27 in the first 8 months).

Handling. The amount of time required to find qualified and willing referees has remained relatively

Table 2. Origin of the submissions received by TCE

	1998	1999	2000	2001	2002
Origin	(%)	(%)	(%)	(%)	(%)
NORTH AMERICA					
Canada	67.5	60.6	53.6	51.3	60.2
United States	14.5	17.3	27.3	22.0	17.0
Mexico	3.4	5.8	2.2	4.0	3.4
CENTRAL AND SOUT	TH AMERICA				
Brazil	0.9				1.1
Uruguay	0.9				-
Peru					1.1
Costa Rica					1.1
Argentina		1.0	1.6	0.7	
Guadeloupe	0.9				
EUROPE					
Spain	4.3	4.8	2.7	1.3	4.5
Yugoslavia	1.7	. 4.0	2.7	1.5	4.5
Sweden	1.7		0.5		1.0
France	0.9	1.0	0.5		*
Italy	0.5	1.9	0.5	1.3	
Ireland		1.0	0.5	1.5	
Czech Republic		1.0			
Poland		1.0	0.5		
Hungary		66	0.5		
Germany			0.5		
Finland			0.5		
Greece			0.5	1.3	
Turkey			0.5	1.3	100
			0.5	1.3	
UK				0.7	1.1
Belgium				0.7	1.1
AFRICA					
Morocco	1.7		Ting 1	9	
Egypt		1.0			3.63
Burkina Faso			100	14	1.1
Syria		8	0.5		
Algeria				1.3	1.1
ASIA	1000000		70.70		
Japan	0.9	3.8	2.7	2.0	2.3
China			2.2	5.3	2.3
India	- 6	1.0	0.5	2.7	1.1
Pakistan	*1		1.1	0.7	283
Thailand			0.5		797
South Korea			- 6	2.0	1.1
Korea	5			0.7	1.1
New Zealand	0.9	0.9		197	
Australia	*	0.9			
TOTAL	117	104	183	121	88

stable over the past 4 years, taking on average about 10 work days (Table 3).

In 2001, the handling time (number of weeks between the date a submission is received by me and the date an evaluation is returned to the author(s)) remained at about 12 weeks or 3 months. It has become clear that, each year, submissions received between September and December take much longer to handle than those received earlier in the year.

Some serious delays (3-4 weeks) were brought to my attention in September and October 2001 with submissions being sent to referees in the United States for evaluation or being returned to the United States for revision.

Since 1999, the average amount of time required to see a submission in print remains below 8 months (Table 3); most manuscripts (>87%) are published within 9 months of receipt. Those taking much longer are typically manuscripts originating from outside North America that require extensive editing on my part.

whereas the costs for the electronic version will remain

New Editorial Structure. In April 2001, I had indicated to the Executive of the Board, my intention to step down as Editor effective December 2002. Given that a replacement

Table 3. Time to find referees, handle manuscripts and publish submissions in TCE

Time to:	1998	1999	2000	2001	2002
Find Referees (days)	10.6	9.1	10.6	12.6	9.6
Handle(weeks)	12.4	10.0	12.6	12.0	10.4
≤12 weeks (%)	56.4	65.4	51.9	62.0	66.2
13-16 weeks (%) ≥17 weeks (%)	23.1 20.5	10.6	25.7 22.4	30.4 7.6	20.6 13.2
Publish (months)	9.6	7.6	7.8	7.3	

Assessment. Typically, the proportion of suitable submissions fluctuates around 55% (Table 4), irrespective of the number of submissions: the only exception was in 2001, when this proportion fell below 50%.

Table 4. Assessment of manuscripts submitted to TCE

Verdict	1998 (%)	1999 (%)	2000 (%)	2001 (%)	2002 (%)
Suitable					
Minor	28.2	23.1	21.3	22.0	18.8
Major	29.1	34.6	33.3	27.3	40.6
Unsuitable, re-review	20.5	18.3	24.6	22.7	18.8
Unsuitable	22.2	24.0	20.8	28.0	21.7
n	117	104	183	150	69

^{*} as of 23 Sep 2002

CP Alexander Reviews. The Publication Committee has approved one invitation to publish this type of review article. It will appear in the Nov/Dec 2002 issue.

New Contract. A new 3 year contract was signed with our provider of publishing services, NRC. The contract included prices for the printed and electronic versions of the journal. The cost of the printed version (except packing and distribution) will increase by 3% each year

for the position had not been found in March, and that I simply could not continue to operate at the same pace for an unforeseeable future, I proposed, at the April 2002 Executive Board meeting, that the Editorial Board of the Journal be modified as follows: 1 Editor-in-Chief, 3 Division Editors [one for each of the following divisions

listed in the journal's Table of Content (i.e., Division 2 - Biodiversity, Systematics, Morphology and Evolution; Division 3 - Physiology, Biochemistry, Development and Genetics; Division 4 - Behaviour and Ecology (Division 5 - Insect management, would also be the responsibility of the Division 4 Editor)] and a variable number of Associate Editors. The Editor-in-Chief would be responsible for the selection of scientific papers for Division 1 (Reviews) and Division 7 (Forum) and publication of the scientific journal of the Society, whereas the Division Editors would be

responsible for the selection of scientific papers for their Division(s). Under this new structure, the role, duties and numbers of Associate Editors should not change drastically, only the reporting structure. Mike Sharkey, Michel Cusson and Robert Lamb agreed to serve as Division Editors for Division 2, 3 and 4(5), respectively. Attached are the respective duties of the Editor in Chief and of the Division Editors (Appendix I). This structure ensured that submissions would be submitted to a centralised location and their status could be monitored continuously. I agreed to continue in my capacity as Editor for 1 more year if this structure was found acceptable to ensure a smoother transition. The structure was approved in principle, but must be approved by the membership.

While revising the by-laws to accommodate the proposed structure, it became obvious that additional changes were required. Thus, I am proposing an additional amendment to this structure: the duties and responsibilities of the Editor of the "Memoirs" should it ever be "revived" would become identical to those of a Division Editor. By-Laws and Standing Rules were modified by Mark Goettel and Rick West to reflect the new structure and will presented to the membership for a vote at the AGM.

Associate Editors. In December 2001, Drs Peter de Groot (Great Lakes Forestry Centre) and Felix Sperling (University of Alberta) stepped down as Associate Editors. Both had been serving our Society and journal since 1994. Their assistance to our Society has been extremely valuable and letters of thank you were sent by our President. In the spring of 2002, Dr Mitch Trimble (Vineland Station) and Mary Reid (University of Calgary) agreed to join our team of Associate Editors and handle submissions dealing with chemical ecology and reproductive behaviour and ecology, respectively.

To improve the operation of the new structure and increase our level of expertise, there was a need to appoint additional Associate Editors. The following individuals were asked and agreed to join our team: Drs Steve Marshall (University of Guelph: Division 2 - Diptera), Andy Brower (Oregon State University: Division 2 - Lepidoptera and Molecular systematics), Chris Dietrich (Illinois Natural History Survey: Division 2 - Hemiptera), Reddy Palli (University of Kentucky:

Division 3 - hormones), and Johanne Delisle (Laurentian Forestry Centre: Division 3 - semiochemicals/physiology).

Handling costs. The cost of handling manuscripts in 2001 was about \$1850.00 and included the cost of office supplies, 1st class postage from my desk to authors and referees, and to the ESC head office and the services of an office assistant to handle routine office operations pertaining to submissions (i.e., data entry, preparation of correspondence, tracking, filing, etc). Currently, she works between 3-10 h per week, resulting thus far in total expenses of about \$950. As in the past, all others costs (i.e., phone lines, E-mail services, technical support for the computer and Priority Post service between my office and NRC Research Press) are amalgamated with my work office because it would be too cumbersome to separate these costs. Our Centre changed the phone system in late summer. This resulted in a change of phone number and the loss of my fax number. Given the limited number of faxes I had received over the past few years, I opted not to pay for the service of an extra phone line in my "Editor" office to receive faxes.

Electronic publishing. As indicated in last year's report, the Society needed to obtain the copyrights of the papers published in its Journal if it was to proceed with parallel publishing. The executive of the Board approved at its April meeting a form entitled "Authorisation to publish/ Copyright assignment" and a policy on the "rights and privileges of authors" prepared in collaboration with G Gibson. A copy of the final form is attached (Appendix II). These forms need to be translated before they can be used, translation will be requested. All authors of submissions scheduled to appear in the Jan/Feb 2003 issue will be contacted and asked to sign the new form. It is understood that failure to sign the non-exclusive "Authorisation to publish/ Copyright assignment" will result in the withdrawal of the submission by the Editor.

Despite the amount of information provided and the work accomplished, parallel publishing of TCE has not been approved yet.

NEW EDITOR: I will step down from the position of Editor of The Canadian Entomologist on 31 Dec 2003. The search must continue.

MINUTES ENTOMOLOGICAL SOCIETY OF CANADA

Governing Board Meeting Delta Winnipeg Hotel Winnipeg, Manitoba October 5, 2002

The meeting was called to order at 0840 h on October 5, 2002 by President B. Roitberg. Those present were President, B. Roitberg; First Vice-President, S. Smith; Second Vice-President, C. Vincent; J. Sweeney and O. Olfert, Directors-at-Large; T. Shore (ESBC), G. Pohl (ESA), R. Elliot (ESS), P. Mackay (ESM), B. Broadbent (ESO), D. Giberson (AES), Regional Directors; T. Mousseau, Student Representative; Scientific Editor, J. Turgeon; Treasurer, G. Gibson; Secretary, R. West. D. Gillespie (incoming Director-at-Large - observer).

Notice of Meeting

The notice for this meeting was e-mailed on July 29, 2002 and printed in the March and June 2002 issues of the Bulletin.

2. Additions to and approval of the Agenda

R. Foottit moved and T. Shore seconded that the Agenda be accepted. Carried.

3. Proxies and absences

P. de Groot was absent due to health reasons and sent his best wishes to the Board. B. Broadbent acted as proxy for D. Hunt (ESO). T. Mousseau acted for Jade Savage (Student Representative).

4. Minutes - Governing Board Meeting, October 20, 2001

The minutes were circulated by Secretary R. West on November 3, 2001. R. Foottit moved and T. Shore seconded that the minutes signed by the President and First Vice-President, be accepted. Carried.

5. Minutes - 51st Annual General Meeting, October 23, 2001

The minutes were circulated by Secretary R. West on November 3, 2001. R. Foottit moved and T. Shore seconded that the minutes signed by the President and First Vice-President, be accepted. Carried.

6. Minutes - Governing Board Meeting, October 24, 2001

The minutes were circulated by Secretary R. West on November 3, 2001. R. Foottit moved and T. Shore seconded that the minutes signed by the President and First Vice-President, be accepted. Carried.

7. Minutes - Executive Council Meeting, April 27, 2002

The minutes were circulated by the Secretary on May 6, 2002. S. Smith moved and P. Mackay seconded that the minutes signed by the President and First Vice-President, be accepted. **Carried**.

8. Business arising from the previous minutes:

The following items were identified from previous minutes. Reports by trustees, officers and committees covered these items and they were discussed under new business:

- 8.1 Endangered species legislation (9.2.16.1 EC, 9.2.16.1 GB1), move to 9.2.16.1
- 8.2 Marketing strategy for The Canadian Entomologist (9.2.18.1 EC), move to 9.2.18.1
- 8.3 Electronic Publishing with NRC Press (9.2.6.1 EC, 9.2.4.1 GB1), move to 9.2.6.1
- 8.4 Web page on Science Policy (9.2.6.2 EC, 9.2.16.4 GB1), move to 9.2.6.2
- 8.5 Copyright/License to Publish (9.2.6.3 EC, 9.2.6.5 GB1), move to 9.2.6.3
- 8.6 Search for a new Editor (9.2.4.1 EC, 9.2.6 GB1), move to 9.2.4.1
- 8.7 Advertising in the Bulletin (9.3.1 EC, 9.2.3.1, 9.2.6.7 GB1), move to 9.2.3.1
- 8.8 Ad hoc Scholarships Funding Committee (9.2.11 EC, 9.2.15 GB1), move to 9.2.11.2
- 8.9 Conference Travel Award Guidelines (9.2.2.3 EC, 9.2.15.1 GB1), move to 9.2.15.1
- 8.10 Student Symposia/Workshops at Annual Meetings (9.2.17 GB1), move to 9.2.17.2
- 8.11 Reprint Costs (9.2.3.2 EC, 7.2 GB2), move to 9.2.3.2
- 8.12 ESC Headquarters improvements (9.2.2.2 EC, 9.2.2.2 GB1), move to 9.2.2.2
- 8.13 Index to Biography (9.2.5.2 EC), move to 9.2.5.2
- 8.14 Membership List (9.2.14.1 EC), move to 9.2.11.3

9. New Business

9.1 Correspondence

Secretary West reported that correspondence received by him was routine in nature and addressed under committee business. Members of the Entomological community who died during the past year included Paul Riegert, Tadeusz Poprawski, Beverly Jaques, Blair McGugan, Malcolm Prebble, Dora Posselwhite, Ron Stark, Bert Nesbitt, Murielle Kelleher, Zoa Stultz, Jim Hudson, Dick Wong, and Fred Cannon. Harold Stultz, a former member of the Society is celebrating his 100th birthday next month.

Correspondence to President Roitberg aside from routine Society business included requests from the media concerning insect pests, general information from the public and requests for employment. The web site was often referred to. Webmaster Barry Lyons is requested to add a counter to the ESC home page to indicate the number of visits to the web site. **Action: B. Lyons.**

9.2 Reports from Officers, Trustees, Committees and Representatives

R. Foottit moved and J. Sweeney seconded that all reports be received. **Carried.** Summaries of all reports will be published in the December 2002 issue of the Bulletin.

9.2.1 Executive Council

President Roitberg provided a summary of Society business and will present a report at the AGM. **Action: B. Roitberg.**

9.2.2 Treasurer

Report received. In recent years the Society has been operating at a profit and revenues are stable. Memberships including American subscriptions have declined since 2000 (JAM with SEQ and ESAmerica). However, student memberships have not declined appreciably, perhaps reflecting lower fees and benefits such as Societal scholarships. A new contract was signed with NRC and ends in 2004. 2001 was an excellent year for the Scholarship funds.

A condensed report will be sent to the Bulletin. Action: G. Gibson.

D. Giberson suggested that selling sets of donated slides might provide additional revenue for scholarships. The new Fund-raising Committee was assigned to review this suggestion. **Action: Chair, Fund-raising Committee.**

9.2.2.1 Auditors Report.

There was a net increase of Societal assets of \$69,782 due to gains in currency exchange, reduced costs of publishing and mailing Canadian Entomologist, and reduced meeting costs. Increased one-time costs of about \$10,000 are expected if the Society adopts electronic publishing of *The Canadian Entomologist*. Bulletin costs were more than expected and can be reduced if members are sent or given access to electronic versions.

9.2.2.2 ESC Headquarters Committee

The oil furnace at Headquarters was replaced with a new natural gas furnace; a tree was removed from the property because of proximity to the house foundation, and repairs were made to the roof and entranceway ceiling to prevent water damage.

A small profit is expected in 2003 despite the additional costs of electronic publishing. New duties related to electronic publishing for the Office manager and Societal committees need to be identified and sent to the Secretary for inclusion in the Standing Rules and Committee Guidelines. Action: G. Gibson, Chairs of the Publications Committee, Finance Committee, Marketing Committee, R. West.

9.2.3 Finance Committee

Report received. The Committee suggests that implementing an online version of *The Canadian Entomologist* should not cause the Society undue financial strain provided that additional revenues are gained from increased memberships and institutional subscriptions.

R. Foottit moved and D. Giberson seconded that single members be given the option to receive issues of the journal in electronic or hardcopy format, or in both formats, at no additional charge for a one-year trial

period beginning January 2003. **Carried.** Paul McClymont (NRC) will be contacted by the Executive prior to the next board meeting (October 9, 2003) regarding a model that allows members to obtain electronic versions directly from NRC through individual passwords which the members can rename if desired. **Action: B. Roitberg, G. Gibson.**

R. Foottit moved and J. Sweeney seconded to charge the Finance Committee, in consultation with the Treasurer and Membership Committee, to recommend a fee structure for memberships and institutional members to access *The Canadian Entomologist* online, by April 1, 2003. **Carried. Action: J. O'Hara, G. Gibson, J. Sweeney.**

The Board agreed that if Members want both a hardcopy version and the electronic version of the journal after one year, then they will have to pay a surcharge to cover mailing costs. Institutional members need to be informed in July before the year in which the change takes effect. Legal issues regarding institutional subscriptions and electronic access to the journal need to be clarified with NRC.

It is important that archival material whether in hardcopy or electronic format is always accessible and this needs to be specified in future contracts with NRC. **Action: G. Gibson.**

The membership form needs to be changed very soon so members can choose how they wish to receive the journal. **Action: J. Sweeney in consultation with G. Gibson.**

P. Mackay moved and C. Vincent seconded to approve the following cost schedule for reprints and pdf files, of journal articles:

First 50 reprints [\$75 for first 4 pages, thereafter \$25 per 4 pages], every subsequent 50 reprints [\$20 for first 4 pages, thereafter \$10 per 4 pages] (profits based on 2004 charges from NRC for reprints).

First 50	\$75 (21)	100 (33)	125 (45)	150 (58)	175 (70)	200 (82)	225 (94)
@subsequent 50	\$20	30	40	50	60	70	80
Total per 100	\$95 (15)	130 (31)	165 (47)	200 (63)	235 (79)	270 (95)	305 (111)

Proposed PDF Reprint Charges

PDF reprints only = \$10 less than cost of first 50 reprints PDF + paper = cost of paper + 5.00 over cost of second 50 reprints.

Carried. The Finance Committee is charged to provide J. Turgeon, with an inclusive table showing the above information (i.e., a table that shows both charges for reprints and pdf versions) for publication in the journal. This needs to be done as soon as possible. **Action: J. O'Hara.**

9.2.4 Scientific Editor

Report received. Editor Jean Turgeon summarized activities of his office including manuscript processing and assessment, number and origin of manuscripts, and C.P. Alexander Reviews. Drs. Mitch Trimble and Mary Reid have agreed to serve as an Associate Editors and will handle submissions on chemical ecology and reproductive behaviour and ecology, respectively. Drs. Peter de Groot and Felix Sperling resigned as Associate Editors and were thanked in a letter from President Roitberg. A three-year contract with NRC was signed and included prices for the printed and electronic versions of the journal. The trial arrangements with the new Assistant (Divisional) Editors have gone well.

9.2.4.1 Search for a new Editor

J. Turgeon gave notice that he intends to resign at the end of December 2003. A search committee comprised of B. Roitberg, S. Smith and the new Chair of the Publication Committee will recommend a new editor by April 2003. **Action**: B. Roitberg, S. Smith, Publications Committee Chair.

9.2.5 Editor - Bulletin

Report received.

9.2.5.1 PDF and Bulletin Links on the Web Site

A PDF version of the March 2002 issue Bulletin has been made available on the web site, however, the June 2003 issue has not yet been posted.

9.2.5.2 Index to Biography

The status of the publication of the Index to Biography prepared by the Heritage Committee will be discussed with the Bulletin Editor. **Action: S. Smith.**

9.2.6 Publications Committee

Report received.

9.2.6.1 Electronic Publishing with NRC Press

See 9.2.3.

9.2.6.2 Web Page on Science Policy

A page on science policy has been set up on the web site (see http://esc-sec.org/policy.htm).

9.2.6.3 Copyright and License to Publish in The Canadian Entomologist and the Bulletin

The Board approved by mailed ballot a policy requiring that a form authorizing copyright and a note on copyright assignment are sent to authors wishing to publish in *The Canadian Entomologist*. The Publications committee is charged with developing a similar form authorizing copyright for the Bulletin, by November 30, 2002. **Action: Publications Committee Chair.**

9.2.6.4 Legal Issues Regarding Copyright, Bell and Howell

The committee requests that a legal opinion be sought regarding material already published, commercial and non-commercial use, royalties paid to Bell and Howell for reproduction of previously published material, and the right to offer our published material to Bell and Howell for archiving. In response to this, G. Gibson noted that legal council won't help the society because it does not own copyright of articles published in the journal. However, the Society will begin to hold copyright of journal articles published in 2003 and thereafter.

Future requests from corporations to publish portions, figures and tables of journal articles should be passed on directly to the author or in the case of government employees, directly to a representative of the Crown. A standard letter explaining this will be held on file at the ESC office and provided to the webmaster for posting on the web site to deal with future requests. **Action: G. Gibson, B. Lyons.**

9.2.6.5 Library Maintenance Grant Program

The Publications Committee is willing to work with the Regional Societies, if interested, to develop a budget, timeframe, set of standards and cost-sharing formula to create a grant program to assist cataloguing and maintenance of regional libraries. Funds are already currently available through Science Policy Committee to support public education activities by the Regional Societies.

9.2.6.6 Web Version of the Bulletin

The March 2002 version of the bulletin is on the web site in PDF format.

Following the recommendations of the Publications Committee, R. Foottit moved and R. Elliot seconded that the following be added to the guidelines for the Publication Committee: a PDF version of the Bulletin, identical to the printed version, be posted on the web site with no restrictions on retrieval for members, 3 months later to non-members. Carried. Action: M. Goettel and R. West (add to Committee Guidelines), D. Johnson, B. Lyons. The Membership Committee will assist the webmaster by providing names and emails of members requiring passwords to access the bulletin as soon as it is posted on the web site. Action: J. Sweeney, B. Lyons.

9.2.6.7 Tenure of Editors

Jean Turgeon, Scientific Editor, intends to resign in December 2003. The incoming President will contact

all Editors and Assistant Editors and ask them how long they are willing to serve. As Trustees, all are appointed annually. Action: S. Smith in consultation with J. Turgeon, D. Johnson.

9.2.7 **Nominations Committee**

Report received. The following were nominated to stand for election in 2002:

Second Vice-President: Robert Lamb, Lorraine Braun

Director-at-Large: David Gillespie, Fiona Hunter, Cynthia Scott-Dupree

9.2.8 **Elections Committee**

Report received. 156 ballots were counted. Robert Lamb was elected as Second Vice-President. Jon David Gillespie was elected as Director-at-Large. O. Olfert moved and C. Vincent seconded that the 2002 ballots be destroyed. Carried. Action: R. Hallett.

9.2.9 Achievement Awards Committee

Report received. The committee recommended that Dr. Robert Lamb receive the Gold Medal, and that Drs. Joe Shorthouse and Rick West be recognized as a Fellows of the Society in 2002. C. Vincent moved and G. Pohl seconded that these recommendations be endorsed by the Board. Carried. No action required. No recommendations for the C. Gordon Hewitt Award or Honorary Membership were made for 2002.

9.2.10 Bilingualism Committee

Report received. Any requests for money to fund translations should be made to the Treasurer. Action: L. Royer.

9.2.11 Bylaws, Rules and Regulations Committee

Report received.

9.2.11.1 New Editorial Structure

The following motions to change the bylaws, standing rules and committee guidelines were made at the recommendation of the Committee in order to reflect changes to the editorial structure of The Canadian Entomologist and the Memoirs:

Bylaws:

ARTICLE X - TRUSTEES

1. The Trustees of the Society shall be the Secretary, the Treasurer, the Assistant Bulletin Editor, the Bulletin Editor, the Scientific Editor, (delete "the Scientific Editor (Memoirs)", the Assistant Scientific Editors, and webmaster.

P. Mackay moved and J. Sweeney seconded that the above changes be presented to members of the Society for approval. Carried. Action: R. West

Standing Rules:

VI5 Scientific Editor and Assistant Scientific Editors

- The Scientific Editor of the ENTOMOLOGICAL SOCIETY OF CANADA has the overall responsibility for the scientific and editorial integrity of The Canadian Entomologist and of the Memoirs of the Entomological Society of Canada and for the publication of these two scientific journals.
- Although responsible to the Governing Board (By-Laws X, 2), the Scientific Editor will normally consult with the Publications Committee, on publication policies, and with the Finance Committee on matters relating to expenditures and financing.
- The Scientific Editor shall have a maximum of 4 Assistant Editors and at least 4 Associate Editors. (c)
- The Assistant Editors shall maintain a close liaison with the Scientific Editor and, under authorization of the Editor, may serve in place of the Editor when the Editor is absent from duty.

- (e) The Associate Editors shall maintain a close liaison with Assistant Editors and, under authorization of the Editor, may serve in place of the Assistant Editor when the Assistant Editor is absent from duty.
- (f) One Assistant Scientific Editor will be assigned to the *Memoirs of the Entomological Society of Canada* and each of the remaining three Assistant Scientific Editors will be assigned at least one of the following seven divisions of *The Canadian Entomologist*:
 - 1- Reviews
 - 2- Biodiversity, Systematics, Morphology and Evolution
 - 3- Physiology, Biochemistry, Development and Genetics
 - 4- Behaviour and Ecology
 - 5- Insect management
 - 6- Techniques
 - 7- Forum
- (g) Assistant Scientific Editors are responsible for the selection of the manuscripts that will be published in their assigned journal or division(s).
- (h) Associate Editors are responsible for the evaluation of manuscripts assigned by Assistant Editors.
- S. Smith moved by and seconded by P. Mackay that the above revision to Standing Rule VI 5 be presented to members of the Society for approval. **Carried. Action: R. West**

Publication Committee Guidelines RULES:

- 1. Concerning The Canadian Entomologist [and the Memoirs]
- (I) A form authorizing publication and a note on copyright assignment must be sent to potential authors.
- O. Olfert moved and T. Shore seconded that the above addition to the Publication Committee Guidelines be approved. **Carried. Action: R. West (change to guidelines).**

The Publications Committee needs to provide the Scientific Editor with a new form authorizing publication in the Memoirs, should the Memoirs be published in the future. **Action: Chair, Publications Committee.**

9.2.11.2 Fund-Raising Committee

The following changes to the standing rules and committee guidelines were recommended in order to permit the formation of the Fund-Raising Committee, a new Continuing Committee:

Standing Rule

VIII 4 (o) Fund-Raising Committee

The Committee shall consist of three Members, one of whom shall be designated Chair. The Chair shall normally be a member of the Governing Board. The object of the committee is to solicit outside funds for funding of Society projects, scholarships or for the Society in general.

S. Smith moved and C. Vincent seconded that the above rule be accepted and presented to members of the Society for approval. Carried. Action: R. West

ESC Committee Guidelines under "Continuing Committees"

Fund-raising Committee

Status: Continuing Committee (Standing Rule VIII 40)

Composition: Three Members including the Chair, plus the President and Treasurer ex officio Appointment: By the President who designates the Chair, subject to approval of the Governing Board Term of Office: One year with no limitations on reappointment Object: Solicits outside funds for funding of Society projects, scholarships or for the Society in general.

Object: Solicits outside funds for funding of Society projects, scholarships or for the Society in general. Duties:

1) Solicits funds from outside companies, agencies and individuals.

Organizes funding events

- Liaises with the chairs of upcoming Society joint meetings to ensure that there are no conflicts in fundraising solicitations and events.
- 4) Provides the Treasurer with full accounting of events, profits and donations.

5) Acknowledge donor's names in the Bulletin as appropriate

 Submits an annual written report, suitable for publication in the Bulletin, to the Governing Board.

R. Foottit moved by and C. Vincent seconded that the above addition to the Committee guidelines be approved. Carried. Action: R. West (change to committee guidelines)

9.2.11.3 Membership Committee Guidelines

The following changes to the committee guidelines were recommended by the committee in order to maintain, and make available to members, an up-to-date membership list.

Add the following to the Membership Committee of the ESC Committee Guidelines: Under "General":

- 10. Maintains a list of ESC members and their contact information and updates this list at least annually with information provided by Society Headquarters. Maintains a web version of this list with password protected access by ESC members only and distributes the list to individual ESC members upon request. Each member will have the option of having his or her name and address removed from this list by ticking an appropriate box on the annual membership renewal form.
- J. Sweeney moved and D. Giberson seconded that the above changes be approved. Carried. Action: R. West (change to committee guidelines).

The membership committee will design a new membership form in consultation with Sandy Devine and G. Gibson. **Action: J. Sweeney.**

9.2.12 Heritage Committee

Report received. See 9.2.5.2.

9.2.13 Insect Common Names and Cultures Committee

Report received. Clarification of the status of the Hemiptera list is requested Action: H. Chiasson.

9.2.14 Membership Committee

Report received.

9.2.14.1 Membership List

The Committee will be responsible for maintaining and updating the membership list (see 9.2.11.3).

9.2.14.2 Suggestions to Increase Memberships

The Committee suggested, for discussion by the Board, several ways of attracting new members: reduced membership dues, the option of being a member without receiving the journal and paying less for a membership, increased presence of the Society in the Regions, and moving the Annual meeting to a time more convenient to university faculty. The Membership Committee was charged to develop a survey that can be sent to all Canadian Entomologists to find out what types of benefits would encourage them to join the society, and when meetings should be held (time of year, weekend vs. weekday). A draft of the survey is requested by April 1, 2003 for discussion at the next meeting of the Executive. **Action: J. Sweeney in consultation with L. Braun.**

The Board agreed that, whenever possible, a member of the Executive member should attend annual meetings of the Regional Society to promote the Society. Regional Representatives are requested to

provide the President with a notice of the time and date of their Society's annual meeting as soon as this is determined. **Action: Regional Representatives**.

The Marketing Committee is charged with developing a Powerpoint presentation on Societal activities and benefits of membership that can be used by members of the Executive (or their designates) when they represent the Society at meetings of the Regional Societies. **Action: L. Braun.**

The Committee suggested that moving the location of the Executive's interim meeting from the Society's office in Ottawa to a different region each year might improve contact with the regional societies. However, this would likely cost more to hold, the President normally attends the annual meeting of the Biological Survey of Canada held in Ottawa during the same week that the interim meeting is held, the Society's files and the treasure are located in Ottawa, and it is desirable for members of the Executive to meet with the office manager annually to discuss any concerns.

The Society can do more to attract amateur entomologists, perhaps by reducing membership fees, offering discounts for admission to insectaria and museums (through negotiations with these institutions and the marketing committee), and allowing access to digital insect slide collections. The Membership and Marketing Committees are charged with developing policies and actions to encourage amateur entomologist to join the Society. **Action: J. Sweeney, L. Braun.**

9.2.15 Student Awards Committee

Travel grants were awarded to Kennantudawage Siril Hemachandra (University of Manitoba) and to Madlen Denoth (University of British Columbia). PostGraduate Scholarships were awarded to Patrik Nosil (Simon Fraser University) and to Jeanne Horning (University of Northern British Columbia). The Committee requested clarification on the length of terms for members of the Kevan Award Committee. The Guidelines indicate a maximum of three consecutive one-year terms, however, the Standing Rules allow for committees to be appointed annually without mention of a need to restrict the number of years someone may serve on a committee.

9.2.15.1 Conference Travel Award Guidelines

The committee drafted guidelines for the Conference Travel Award and these were circulated to the Board.

At its meeting in April 2002, the Executive Council felt that the guidelines should state whether or not the award is a fixed amount or a variable amount; that students must be members of the Society to be eligible (supervisors should not have to be members); students must present a poster or a talk; a demonstration (statement) of need is a better criterion than an essay of why the meeting is important; and transcripts are unnecessary. Full disclosure of financial contributions needs to be made (i.e., Corporate contributions should be acknowledged). Additional comments on the Travel Award guidelines were sent to D. Gillespie by D. Johnson. The Board felt that the Travel Award should be administered by the Student Awards Committee. The Student Award Committee was charged with revising the guidelines and providing the Executive Council with a new draft prior to its meeting in April 2003. Action: D. Gillespie.

9.2.16 Science Policy Committee

Report received.

9.2.16.1 Endangered Species Legislation

President Roitberg wrote to Environment Minister David Anderson in March 2002 (see http://esc-sec.org/roitberg.htm). The Honourable Charles Caccia responded (see http://esc-sec.org/roitberg.htm). The legislation died, for a second time, at the close of the last session of Parliament. Further correspondence regarding this issue will be sent by S. Smith to B. Lyons for publication on the web site. **Action: S. Smith**.

9.2.16.2 Photocopyright and Use on Web Site

C. Vincent sent a letter to Gordon Dorrell, the Acting Assistant Deputy Minister of Agriculture, requesting clarification of copyright issues and permission for federal employees to post insect photos on the ESC website.

No response has been received to date but C. Vincent will continue to follow this issue. **Action: C. Vincent.** University professors own copyright of their work. Links with regional and other entomological societies are encouraged.

The Science Policy Committee is charged with contacting the administrators of the National Science Fair to identify areas where the Society could contribute (e.g., by offering a prize, providing judges) and increase its visibility with the general public. **Action: Chair, Science Policy Committee.**

9.2.17 Student Affairs

Report received. The Committee would like to include a student lunch on the day of the banquet at future meetings. The Board encouraged the Student Affairs Committee to contact the Chair of the Annual Meeting Committee (Peter de Groot) to discuss this further and facilitate contact with the organizers of future meetings. T. Shore, the Chair of the 2003 meeting and the author of the Annual Meeting Guidelines, will assist the student representative in arranging a lunch for 2003. The Society is willing contribute funds to the Student Affairs Committee who is expected to handle the logistics for this lunch in consultation with the local arrangements committee for the Annual meeting. **Action: J. Savage, P. de Groot, T. Shore.**

9.2.18 Marketing Committee

Report received. 100 English copies and 80 French copies of the DPVCC book were sold as of September 5th in 2002.

9.2.18.1 Marketing Strategy

The Committee, following consultation with the Marketing Department at the University of Saskatchewan suggested several ways in which the journal, Society and saleable items could be marketed. Further recommendations from the Marketing Department are expected by the end of December. The Committee is requesting that additional members be appointed to assist in the further development and execution of a marketing strategy. Action: S. Smith.

9.2.19 Annual Meeting Committee

Report received. A four-year meeting plan (2003-2006) is posted on the web site (http://esc-sec.org/agm.htm) and a fee structure for members and non-members has been agreed upon with the ESBC for the 2003 meeting.

The board charged the Annual Meeting Committee to investigate the possibility of joint meetings with other professional societies when appropriate. **Action: P. de Groot.**

The Chair of the Annual Meeting Committee is reminded to ensure that the Society hosting the annual meeting receives (or accesses from the web site) the guidelines for holding an annual meeting. **Action: P. de Groot.**

9.2.20 Affiliated Entomological Societies

Reports were received from all Affiliated Societies and will be published in the December 2002 issue of the Bulletin. President Roitberg congratulated the ESBC on its 100th Anniversary and the ESA on its 50th Anniversary. All Societies are active and are linked from the Society's web site (http://esc-sec.org/affiliat.htm). The Booklet on Entomologists of Alberta will be updated by the ESA. C. Vincent will represent the society at the annual meeting of the ESO on October 18-20.

9.3 Other Business

The Finance committee is charged with developing a policy for commercial use of copyrighted materials. **Action: J. O'Hara.**

Adjournment of meeting

The meeting was adjourned at 1520 h following a motion by R. Foottit seconded by C. Vincent. The next meeting of the Governing Board will be held at 12:00 h at the Delta Winnipeg Hotel on October 9, 2002.

MINUTES

Governing Board Meeting Delta Winnipeg Hotel, Winnipeg, Manitoba October 9, 2002

The meeting was called to order at 1220 h by President S. Smith. Those present were S. Smith, President; C. Vincent, First Vice-President; R. Lamb, Second Vice-President; B. Roitberg, Past-President; D. Gillespie, O. Olfert, and J. Sweeney, Directors-at-Large; T. Shore (ESBC), G. Pohl (ESA), R. Elliot (ESS), P. Mackay (ESM), B. Broadbent (ESO) N. Laroque (SEQ) and D. Giberson (AES), Directors from Affiliated Societies; G. Gibson, Treasurer; D. Johnson and P. Fields (Bulletin Editors) and R. West, Secretary.

1. Notice of Meeting

Notice of this meeting was emailed on July 29, 2002 and printed in the March and June (2002) issues of the Bulletin.

2. Absences and Proxies

- J. Turgeon (Editor of *The Canadian Entomologist*) and D. Hunt (ESO). T. Mousseau represented the Student Affairs Committee on behalf of J. Savage.
- 3. Additions to and approval of the Agenda

C. Vincent moved and R. Lamb seconded that the agenda be approved. Carried. No action required.

4. Minutes of Previous Governing Board Meeting

Minutes of the Governing Board meeting held on October 5, 2005 have been reviewed by the Executive Council and Treasurer. The minutes will be emailed to the Board by the Secretary following approval by the Executive Council and will be published in the December Bulletin. **Action: R. West, D. Johnson.**

- 5. Business Arising from Previous Governing Board Meeting
 - 5.1 NRC models for password access (item 9.2.3)

B. Roitberg decided to contact Paul McCloymot of NRC Press by email, then later with a phone call. **Action:** B. Roitberg.

5.2 Index to Biography (item 9.2.5.2)

- S. Smith discussed the status of the Index to Biography with Dan Johnson and Paul Fields. The intended date of publication of the Index is March 2003. S. Smith will contact D. Eidt (Heritage Committee) regarding this deadline. **Action: S. Smith, P. Fields**
- 5.3 Bylaws, Standing Rules and Committee Guidelines

C. Vincent moved and J. Sweeney seconded that the following Bylaw change be sent to the general Membership in a mailed ballot for approval:

ARTICLE X.1 (TRUSTEES)

The Trustees of the Society shall be the Secretary, the Treasurer, the Bulletin Editor, the Assistant Bulletin Editor, the **Division Editors** (replaces Assistant Scientific Editor, the Scientific Editor [Memoirs] is deleted), **and the Webmaster** (new Trustee).

Carried. Action: R. West

C. Vincent moved and J. Sweeney seconded that Standing Rule VI.5 be rewritten as follows and sent to the general Membership by mailed ballot for approval:

Standing Rule VI. 5 (Rewritten Rule)

- (a) The Scientific Editor of the ENTOMOLOGICAL SOCIETY OF CANADA has the overall responsibility for the scientific and editorial integrity of *The Canadian Entomologist* and of the *Memoirs* of the *Entomological Society of Canada* and for the publication of these two scientific journals.
- (b) Although responsible to the Governing Board (By-Laws X, 2), the Scientific Editor will normally consult with the Publications Committee, on publication policies, and with the Finance Committee on matters relating to expenditures and financing.
- (c) The Scientific Editor shall have a maximum of 4 Division Editors and at least 4 Associate Editors.
- (d) The Division Editors shall maintain a close liaison with the Scientific Editor and, under authorization of the Editor, may serve in place of the Editor when the Editor is absent from duty.
- (e) The Associate Editors shall maintain a close liaison with Division Editors and, under authorization of the Editor, may serve in place of a Division Editor when a Division Editor is absent from duty.
- (f) The Scientific Editor and Division Editors shall be responsible for the *Memoirs of the Entomological Society of Canada* and *The Canadian Entomologist*:
- (g) Division Editors are responsible for the approval of the manuscripts that will be published in their assigned division(s).
- (h) Associate Editors are responsible for the evaluation of manuscripts assigned by Division Editors.

Carried. Action: R. West

R. Lamb moved and C. Vincent seconded that Duty 4, "Raises funds for the Scholarship Fund of the Society" be removed from the guidelines of the Marketing Committee because this duty will be handled by the newly-formed Fund-Raising Committee. **Carried. Action: R. West.**

5.4 Actions Related to Electronic Publishing

5.4.1 Bulletin

The issue of individual passwords to access the Bulletin on the web was referred to the Publications and Membership Committees and Webmaster for further review and recommendations for implementation to the Executive Council by April 2003. Action: Publications Committee Chair, J. Sweeney, B. Lyons, P. Fields.

5.4.2 Time lines for Actions

- G. Gibson identified time lines and actions required for implementing access to online documents by members, institutional members and non-members. **Action: Publications, Membership, Finance Committees, G. Gibson.**
- Drafting of a 'conditions of use' document for online access of Bulletin and Journal Publications for (a) members by October 31, 2002 and (b) institutional members by April 1, 2003. Action: Publications Committee Chair, J. Sweeney and G. Gibson.
- Policy for distribution of electronic reprints (e.g., Ent. Soc. America model) by October 31, 2002. Action: Publications Committee Chair, G. Gibson.
- Policy for non-member access to journal contents (title and abstract only? Cost?) by October 31, 2002. Action: Publications Committee Chair, G. Gibson.

- 4. Policy for a cost structure and product available to members by October 2003. Action: Publications Committee Chair, J. Sweeney, J. O'Hara and G. Gibson.
- Policy for a cost structure and product available to institutions by April 1, 2003. Action: Publications Committee Chair, J. O'Hara and G. Gibson.
- Renewal form for institutions for new products and cost structure by April 1, 2003.
 Action: Publications Committee Chair and G. Gibson.
- New institutional policies, documents, access methods tested using a small number of institutional libraries between April and October 2003. Action: Publications Committee Chair and G. Gibson.
- 8. Approval of NRC-proposed design of entry pages to the journal, provide link to ESC webmaster. Action: Publications Committee Chair and G. Gibson.
- Renewal form for members by October 31, 2002. Action: Action: Publications Committee Chair, J. Sweeney and G. Gibson.

6. Other Business

6.1 Appointments

6.1.1. Executive Council

T. Shore moved and G. Pohl seconded that the Executive Council for 2002-2003 be: S. Smith, President; C. Vincent, First Vice-President; R. Lamb, Second Vice-President; and B. Roitberg, Past-President. Carried. No action required.

6.1.2. Trustees

P. Mackay moved and G. Pohl seconded that the Trustees for 2002-2003 be:

Treasurer Scientific Editor (The Canadian Entomologist) Assistant (Division) Editors

Bulletin Editor

Secretary Webmaster G. Gibson J. Turgeon

M. Sharkey, M. Cusson, R. Lamb

D. Johnson/P. Fields

R. West

B. Lyons

Carried. No action required.

P. Mackay moved and B Roitberg seconded that "the 2003 unaccounted expenses" for Trustees of the ESC shall be as follows: Bulletin Editor - \$500, Journal Editors - \$500, Secretary - \$1,000, Treasurer - \$1,000, and Webmaster - \$250. **Carried. Action: G. Gibson.**

6.1.3 Committees and Representatives

R. Lamb moved and T. Shore seconded that the Governing Board approve the list of Committees and Representatives for 2002-2003 as prepared by the President and further that the Governing Board accept the President's appointees to remaining positions to be filled. **Carried. Action: S. Smith.**

S. Smith will provide R. West with the completed list of Committee Chairs and appointees and write to all Committee Chairs and Representatives confirming their appointments for 2002-2003. **Action: S. Smith.**

The Secretary will send terms of reference and Committee Guidelines to all new Chairs. Action: R. West.

6.2 Budget

T. Shore moved and R. Lamb seconded that the budget for 2003, as presented by the Treasurer, be approved. A cost of \$8,000.00 is anticipated to accommodate the one-time costs of online publishing, however, an operating deficit of \$11,060 is anticipated. **Carried. Action: G. Gibson.**

7. New Business

7.1 Bylaw Change - Board Members

B. Roitberg moved and J. Sweeney seconded that the following Bylaw change be sent to the general Membership in a mailed ballot for approval in order to include the student representative as a board member.

ARTICLE VII – 1. The Society shall be managed by a Governing Board, hereinafter referred to as the Board. The Board shall be composed of the Officers and the Directors, **AND THE STUDENT REPRESENTATIVE**. **Carried. Action. R. West**

7.2 Students meet the Board Reception

The nature and title of the Student-Board Reception was discussed. The focus of the meeting should offer a chance for students to discuss their concerns with Board members and trustees and become more aware of the activities of the Society. T. Shore (Chair, 2003 Joint Meeting with ESBC and Author of the Annual Meeting Guidelines) in discussion with T. Mousseau and Jade Savage (Student Affairs Committee) will arrange next year's reception. **Action: T. Shore, T. Mousseau, J. Savage.**

8. Next Meeting

The next meeting of the Governing Board will be held November 1, 2003 in Kelowna at the Grand Okanogan Resort.

9. Adjournment

The meeting was adjourned at by President Smith at following a R. Lamb motion seconded by P. Mackay.

MINUTES 52nd Annual General Meeting October 8, 2002 Delta Winnipeg Hotel, Winnipeg, Manitoba

President B. Roitberg called the meeting to order at 1645 h. Fifty members were present.

- 1. Notice of Meeting. Notices of the meeting were published in the March and June 2002 issues of the Bulletin (Vol. 34).
- 2. Proxies. There were no proxies.
- 3. Additions to the Agenda and Approval of the Agenda. G. Gerber moved and T. Wheeler seconded that the agenda be Carried. accepted.
- 4. Deceased Members of the Entomological Community. R. West thanked Ed Becker who kindly writes letters of condolence to the families of the deceased on behalf of the Society. A moment of silence was observed in memory of the following members of the Entomological Community who passed away during the past year: Leon Wolfe, Paul Riegert, Tad Poprawski, Beverly Jaques, Blair McGugan, Malcolm Prebble, Dora Posselwhite. Ron Stark, Bert Nesbitt, Murielle Kelleher, Zoa Stultz, Thomas Kilduff, Richard Beamish, Omar Broughton, Frank Owen, Jim Hudson, Dick Wong, and Fred Cannon.
- 5. Minutes of the 51th Annual General Meeting, Minutes of the 51th Annual General Meeting were printed in the December 2001 issue of the Bulletin (Vol. 33). D. Giberson moved and R. Lamb seconded that the minutes be accepted. Carried.
- 6. Business Arising from the Minutes. There was no business arising from the previous minutes.
- 7. Report from the Governing Board. President B. Roitberg presented a report on behalf of the Governing Board and congratulated the ESBC and ESA on their 100th and 50th Anniversaries, respectively. The report from the Governing Board and regular updates are published in the Bulletin. This particular report will be published in the December, 2002 Bulletin (Vol. 34). President Roitberg also expressed congratulations and best wishes on behalf of the Society to Harold Stultz, the oldest entomologist in Canada, who celebrates his 100th birthday on November 3rd.

7.1 Changes to Bylaws, Standing Rules and Committee Guidelines

7.1.1 Article X - Trustees (Amendment)

Amendments to Article X (Trustees), needed to accommodate the new editorial structure of the journal, were discussed. A final amendment, approved by the Governing Board, will be sent to the Membership in a mailed ballot for approval. Action: R. West

7.1.2 Standing Rule VI 5. Scientific Editor And Assistant Scientific Editors (Rewritten Rule)

Revision of Standing Rule VI 5, needed to accommodate the new editorial structure of the journal, was discussed. A final revision, approved by the Governing Board, will be sent to the Membership in a mailed ballot for approval Action: R. West

Standing Rule VIII 4 (O)

The following new Standing Rule allows the formation of a new committee.

STANDING RULE VIII 4 (O) FUND-RAISING COMMITTEE (NEW RULE)

The Committee shall consist of four Members, one of whom shall be designated Chair. The Chair shall normally be a member of the Governing Board. The object of the committee is to solicit outside funds for funding of Society projects, scholarships or for the Society in general.

The above addition to the Standing Rules was moved by R. Bennett, seconded by T. Wheeler Carried, Action: R. West

- 8. <u>Auditor's Report</u> G. Gibson presented the Auditor's Report for 2001. R. Bennett moved and R. Lamb seconded that the Auditor's report be accepted. **Carried. No action required.**
- Elections Committee Report R. West read the Elections Committee report. Those elected were: Dr. Robert Lamb, Second Vice-President; and Dr. David Gillespie, Director-at-Large.
- 10. <u>Installation of Officers</u> President Roitberg called on R. Foottit to escort R. Lamb, Second Vice-President, to the dais then congratulated S. Smith as incoming President of the Entomological Society of Canada. The new President assumed office and thanked the Members for the honour of being elected President.
- 11. <u>Presentation of Service Awards</u> President Smith thanked B. Roitberg, outgoing President for his service to the Society and presented him with a service award.
- 12. Appointment of Auditor G. Gibson moved and E. Becker seconded that McCay, Duff, and Company be retained as Auditors for 2003. Carried. Action: G. Gibson.
- 13. Resolution At the request of President Smith, H. Danks presented the following resolution on behalf of the Entomological Society of Canada:
 - 13.1 Thanks to Organizing Committee:

Whereas the Entomological Society of Canada has met jointly with the Entomological Society of Manitoba at the Delta Winnipeg Hotel, Winnipeg, Manitoba, October 5-9, 2002; and

Whereas there has been a full and interesting meeting of lectures, symposia, and papers; and

Whereas the meeting has been planned with care and concern for those attending; and

Whereas there has been ample opportunity for social interaction and visits to Winnipeg and surrounding areas;

Be it resolved that the Entomological Society of Canada express its sincere thanks to the Organizing Committee for their hard work and skill in arranging a worthwhile and entertaining program; and

Be it further resolved that the Society thank the Organizing Committee and meeting contributors for their generous assistance; and

Be it further resolved that the Society express its thanks to the Management and Staff of the Delta Winnipeg Hotel for their courteous assistance during the Meeting."

The resolution was accepted with a round of applause. Action: R. West

New Business

C. Vincent encouraged members to donate photographs for posting on the web site.

15. Notice of 53rd Annual General Meeting

The 53rd Annual General Meeting will be held November 2-5, 2003 with the Entomological Society of British Columbia in Kelowna, B.C. at the Grand Okanagan Resort. Further notices for the meeting will be published in the March and June 2003 issues of the Bulletin (Vol. 35).

Adjournment

President Smith adjourned the 52^{nd} Annual General Meeting at 1740 h following a motion by Terry Wheeler seconded by T. Shore.

Entomological Society of Canada Gold Medal for Outstanding Achievement in Canadian Entomology

presented to

Bob Lamb at Winnipeg, Manitoba, October 5, 2002



Bob Lamb developed his interest in natural history and insects at an early age. Growing up in Toronto, he was a keen insect collector and an active participant of the Junior Field Naturalists group at the Royal Ontario Museum. He remained in Toronto for his undergraduate education and M.Sc.; then completed his Ph.D. at the Institute of Animal Resource Ecology at the University of British Columbia. He came to the Agriculture Canada Research Station in Winnipeg in 1978 to study crop pests in Canola, specifically aphids. In 1981, he was appointed as an Adjunct Professor in the Department of Entomology at the University of Manitoba, a position he has held uninterrupted since that time. Bob has directly supervised one M.Sc. and four Ph.D. students, from which at least 11 refereed publications have arisen, all with his students as first authors. He has been an annual lecturer in the Introductory Entomology course, and a permanent fixture in the weekly departmental seminar series. Bob is actively involved with students at the department, and has a truly genuine interest in the overall educational process.

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Bob's research programmes have always been wonderfully successful. This probably stems from his deep curiosity and interest in all things biological. He examines each new research challenge from a fundamental, evolutionary perspective, at the same time, keeping the practical applications of the problem sharply in focus. To look at his research publications is to see the marriage of a basic understanding of the organisms involved with the vital link to practical purpose. This is evident even in the research he conducted for his Ph.D on the European earwig. His work still represents the standard reference for biology of this introduced insect recognized worldwide. Bob's research in plant resistance to insects and plant breeding has blossomed into an enormously beneficial program, with his pioneering work on resistance in Canola to flea beetle attack recognized as setting the standard for this crop. His recent research programme focuses on resistance in wheat to the wheat midge, where Bob and his colleagues have carried the work to the point of achieving a commercial resistant variety that should be registered by 2004, to the tremendous benefit of prairie farmers. Bob is also a recognized authority on aphids. Much of his early work in Manitoba was focussed on this group, and he and Pat McKay still enjoy a remarkably ambitious involvement in aphid research. These projects are carried out in their spare time, from their back yard in Winnipeg, to Riding Mountain National Park. In his career, Bob has published approximately 90 refereed papers, at least 24 unrefereed papers, and participated in approximately 80 presented papers. He is now Head of the Cereal Breeding and Genetics Section at the Winnipeg Research Station.

Bob has always been an active participant in the Entomological Society of Manitoba. He has served on the Scientific Programme Committee six times, once as chair, and was also the chair of the Joint Annual Meeting Scientific Programme Committee in 1995, as well as serving in the same capacity for this year's meeting. Bob served on the Executive of ESM for eight years, two of those as secretary and one as President of the Society, and served six years on the ESC Publications Committee, from 1982 to 1984 as chair. Bob was also elected as Regional Director to ESC for 1998 to 2000.

In addition to all this, his and Pat's hospitality is legendary among entomologists. They frequently host visitors to the city and establish long-lasting friendships with members of the entomological community. Legendary also is their annual Meet-the-Speaker Night. Each year, the entire ESMB membership and attendees to the meeting are welcomed into their home to spend an evening of relaxation and stimulating conversation. It is only because of the remarkable openness and genuine enthusiasm of Bob and Pat that this event continues, and has become one of the high points of the year for entomologists.

Bob Lamb has contributed enormously to research, teaching and extension in entomology. He is a most worthy recipient of the Entomological Society of Canada's Gold Medal.

MÉDAILLE D'OR DE LA SOCIÉTÉ D'ENTOMOLOGIE DU CANADA pour souligner la contribution exceptionelle en entomologie canadienne

présenté à

Bob Lamb à Winnipeg, Manitoba, 5 octobre 2002

Pour l'année 2002, le récipiendaire de la Médaille d'or de la Société d'entomologie du Canada pour son accomplissement exceptionnel en entomologie est le docteur Robert J. Lamb.

Très jeune, Bob Lamb a développé un intérêt pour les sciences naturelles. Ayant grandi à Toronto, il était un collectionneur d'insectes passionné et participait très activement au groupe 'Junior Field Naturalists' du Royal Ontario Museum. Il demeura à Toronto pendant ses études de baccalauréat et de maîtrise. Ensuite, il compléta son doctorat au 'Institute of Animal Resource Ecology' de l'Université de British Columbia. En 1978, il fut engagé à la Station de recherche d'Agriculture Canada de Winnipeg pour étudier les ravageurs du canola, particulièrement les pucerons. En 1981, il fut nommé professeur adjoint au département d'entomologie de l'Université du Manitoba, un poste qu'il occupe toujours. Bob a directement supervisé un étudiant à la maîtrise et quatre étudiants au doctorat, lesquels ont produit onze publications scientifiques arbitrées comme premier auteur. Annuellement, il a donné des cours dans le cours 'Introduction à l'entomologie' et de plus il a été un des piliers de la série hebdomadaire de séminaires au département d'entomologie. Bob est activement impliqué avec les étudiants du département et démontre un intérêt réel pour tout le processus de formation.

Les programmes de recherche de Bob ont toujours connu beaucoup de succès. Cela origine probablement de sa grande curiosité et de son vif intérêt pour tout ce qui concerne la biologie. Il scrute tout nouveau défi de recherche d'un point de vue fondamental et évolutif tout en ayant les applications pratiques d'un problème bien dans la mire. Quand on regarde ses publications scientifiques, on constate un mariage entre la connaissance de base des organismes étudiés et les liens essentiels vers des applications pratiques. Ceci est bien démontré dans les travaux de recherche qu'il a conduits sur le forficule européen pendant ses études de doctorat et qui constituent toujours des références reconnues à travers le monde sur la biologie de cet insecte introduit. Les travaux de Bob sur la résistance des plantes aux insectes et l'amélioration génétique ont donné naissance à un programme d'une grande importance. En effet, ses travaux originaux portant sur la résistance du canola aux attaques des altises ont été reconnus comme établissant les standards pour cette culture. Ses récents programmes de recherche portent sur la

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résistance à la cécidomyie du blé et ont conduit au développement d'un cultivar commercial résistant qui devrait être homologué en 2004 et ce, au grand bénéfice des producteurs agricoles des prairies. Bob est également un expert reconnu des pucerons. La plupart des ses premiers travaux au Manitoba ont porté sur ce groupe. D'ailleurs Bob et Pat McKay sont toujours remarquablement impliqués dans le secteur de la recherche sur les pucerons. Ils conduisent leurs projets pendant leurs temps libres, de leur jardin à Winnipeg, au Riding Mountain National Park. Pendant sa carrière, Bob a publié environ 90 publications scientifiques arbitrées, au moins 24 autres publications. Il a participé à 80 conférences. Il est actuellement chef de la section Cereal Breeding and Genetics à la station de recherche de Winnipeg.

Bob a toujours été un participant très actif de la Société d'entomologie du Manitoba. Il a été membre du Comité du programme scientifique à six reprises, une fois à titre de président. Il a également été président du Comité du programme scientifique au congrès conjoint de 1995, poste qu'il occupe également pour le congrès de cette année. Bob a également siégé sur le conseil d'administration de la SEM pendant six ans dont deux à titre de secrétaire et une à titre de président de la Société. Il a également été membre du Comité de publication de la Société d'entomologie du Canada pendant six ans, agissant de 1982 à 1984 à titre de président. Bob a également été élu Directeur régional de la Société d'entomologie du Canada de 1998 à 2000.

Pour ajouter à tout cela, il ne faut pas oublier de souligner l'hospitalité légendaire de Pat et de Bob laquelle est reconnue au sein des entomologistes. Ils sont très souvent les hôtes de visiteurs à Winnipeg et ont établi des liens de longues durées avec plusieurs membres de la communauté entomologique. Tout aussi légendaire est leur annuelle 'Meet-the-Speaker Night'. Chaque année, tous les membres de la société d'entomologie de Manitoba et les participants à la réunion annuelle sont invités à leur maison pour passer une soirée de conversation stimulante et relaxante. La poursuite de cette activité est rendue possible grâce à la remarquable ouverture d'esprit et à l'enthousiasme authentique de Bob et de Pat. Elle est devenue un des moments forts de l'année pour les entomologistes.

Bob Lamb a énormément contribué à la recherche, l'enseignement et la vulgarisation en entomologie. C'est pourquoi il mérite d'être le récipiendaire de la médaille d'or de la Société d'entomologie du Canada.

Criddle Award Winner, 2002

Robyn Underwood



Robyn came to Winnipeg from the University of Delaware in 1997, and enrolled as an M.Sc. student in the Department of Entomology at the University of Manitoba in 1998. She switched to a PhD. programme in 2000, as her project on control of Varroa mite in overwintering honey bee colonies using formic acid fumigation became more complex. When she arrived in the Department, the Youth Encouragement and Public Education of the Entomological Society of Manitoba had languished for some years in a state of diapause. She became the chair of the committee in 1998, and spear-headed a dramatic rise in the level of committee involvement. She recruited a core of dedicated graduate students to take entomology into the classrooms of Winnipeg and the surrounding area. She personally has made presentations to more than 100 groups of children, and including her involvement in Amazing Grains, a local agricultural fair, she has spoken about insects to approximately 4000 people. She was instrumental in organizing and initiating the cultures of live insects and insect slides that now form the core for public events. She was involved in the development of key children's activities, such as Bug Bingo and the Metamorphosis Relay. She has coordinated the annual insect t-shirt design contest, and organized the revitalization of the hall displays in the Entomology/Animal Science Building. Robyn brought an abundance of enthusiasm and energy that has been rewarded by the wholesale support and participation of her graduate student colleagues and the Manitoba entomological community in general. She is a most worthy recipient of the Norman Criddle Award of the Entomological Society of Canada for 2002.

http://home.cc.umanitoba.ca/~fieldspg/criddle.html

The President's Prize was presented to:



Christie Borkowsky



Erin Bullas



Pierre Paquin

The ESC Postgraduate Student Award was presented to Jeanne Horning.



(photo: Jeanne Horning receives the award cheque and diploma from Staffan Lindgren)

Two ESC Research Travel Grants were awarded in 2002, to Kennantudawage Siril Hemachandra, Department of Entomology, University of Manitoba, to assist in visiting collections of *Aleochara* sp. in Canada, and to Madlen Denoth, Department of Zoology, University of British Columbia, to assist in visiting CABI Delemont, and the Department of Zoology, University of Fribourg, Switzerland.



Hema (Kennantudawage Siril Hemachandra), with supervisor Neil Holliday



...receiving congratulations from President Bernie Roitberg





Madlen Denoth, with supervisor Judy Myers, and receiving congratulations from President Bernie Roitberg. The travel grant was award to assist Madlen in visiting CABI Delemont, and the Department of Zoology, University of Fribourg, Switzerland, to gather information on herbivores attacking purple loosestrife.

Fellows of the ESC:
Congratulations to Rick West and Joe Shorthouse, newly installed Fellows of the ESC.





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A Workshop on North American Dragonflies was held at the 2002 ESC meeting in Winnipeg (Oct 9). Speakers included Terry Galloway, Jim Duncan, Philip Corbet, Rob Cannings, John Acorn, Brent Elliott, Paul M Brunelle, Donna J Giberson, M Dobrin, Gordon Pritchard, and roundtable participants. Phil Corbet, a world authority on dragonflies (and a past President of ESC), spoke on "Dragonflies: flagships of Canada's wetlands".



News of Members

Harold Stultz's daughter Erma has reported that Harold turned 100 years old on Nov 2, 2003. Ed Becker says that to his knowledge Harold is the oldest entomologist in Canada. Harold's five children joined him on his birthday, and he also received congratulations from the various levels of government as well as the Queen. Best wishes can be sent c/o Erma Stultz, 15 Locust (!) Ave., Apt. 1, Wolfville NS B4P 2G1, erma.stultz@ns.sympatico.ca

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A collection of **Past Presidents of ESC**, with the current and in-coming Presidents: (left to right) Bob Lamb, Guy Boivin, Dan Johnson, Bernie Roitberg, Bob Foottit, Sandy Smith, Hugh Danks, George Gerber, Bill Turnock, Charles Vincent, Philip Corbet

For other meeting photos, visit the ESC website, http://esc-sec.org/

Maurice J. Tauber, graduate school professor, and Catherine A. Tauber, senior research associate, both of the Department of Entomology, are co-recipients of the IOBC-NRS Distinguished Scientist Award for 2002. The International Organization for Biological Control presents this award to individuals within the Nearctic Region who have an outstanding record of significant contributions to the science and practice of biological control. This year it was the unanimous decision of the governing board that they both be honored simultaneously for their collective achievements. They will receive the award at ceremonies during the Annual Meeting of the Entomological Society of America, at Ft. Lauderdale, FL.

The Taubers' research focuses on the evolution of seasonal cycles in insects, speciation, and the comparative biology and systematics of biological control agents. Their book, Seasonal Adaptations of Insects (Tauber, Tauber & Masaki) which had been out of print, has been reissued recently by Oxford University Press. Maurice is a fellow of the American Association for the Advancement of Science, and of the Entomological Society of Canada.

Also at the meeting: remember the **Scholarship Fund...**Barry Cooke gave \$100. In-coming President Sandy Smith's table gave \$300 to the fund.

News and Announcements

The 2003 Joint Annual Meeting of the Entomological Societies of Canada and British Columbia

Place: Kelowna, BC, November 2 - 5, 2003 Theme: Insects in Shifting Environments

Hotel: The 2003 JAM will be held at:

The Grand Okanagan Lakefront Resort

1310 Water Street

Kelowna, B.C. Canada V1Y 9P3

For more information, contact Terry Shore tshore@pfc.forestry.ca

The **Acadian Entomological Society** will hold its 63d Annual Meeting in conjunction with the Maine Entomological Society on June 22-24 in Bar Harbor, Maine. The program will include a collecting trip, submitted presentations on a variety of insect-related topics, a mini-symposium on the invasive insect species affecting Northeastern ecosystems, and a workshop "Ants (Hymenoptera: Formicidae) of Atlantic Northeast". For more information, please contact Andrei Alyokhin (Department of Biological Sciences, 5722 Deering Hall, University of Maine, Orono, ME 04469, phone: (207) 581-2977, fax: (207) 581-2969, andrei.alyokhin@umit.maine.edu).

The 54th Annual Meeting of the **American Institute of Biological Sciences** (of which ESC is a member society) will be held March 21-23, 2003, at the Key Bridge Marriott, Washington, DC. The theme will be "Bioethics in a Chaning World". This meeting presents an excellent opportunity for biologists to discuss new and continuing challenges in the ethical practice of their profession. The primary subtopics are:

- Responsible Conduct of Science: Collection, Analysis and Reporting of Data
- Public Dissemination of Sensitive Scientific Information
- Training the Next Generation

For more information, refer to "meetings" at www.aibs.org

The **Toronto Entomologists' Association** (T.E.A.) is pleased to invite you to the Annual Student Symposium. Graduate students, senior undergraduate students and post-doctoral fellows are eligible to present either a talk or a poster.

Date: Saturday, March 22, 2003 at 1 pm

Where: Ramsey Wright Zoological Building, Room 432, University of Toronto

Provisional titles will be published in Ontario Insects, the news journal of the T.E.A.. Final submitted and edited abstracts (250 words) will also be published in Ontario Insects. Longer reports are optional. Posters must be self-standing, without damage to walls, and of a reasonable size (3-4 feet). Talks will be timed for 10 minutes, with 5 minutes being allowed for questions. Abstracts for the talks and posters must be handed in at the symposium (3 copies and diskette).

For more information, contact
Nancy van der Poorten, President T.E.A.: nmg.vanderpoorten@sympatico.ca
Peter Hallett, Symposium Organizer: peter.hallett@utoronto.ca

The Biological Survey of Canada 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

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

E.S.C. Bulletin S.E.C. Volume 34(4), Dec - dec, 2002

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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

IPMnet is a free, non-commercial, internet-based IPM and crop pest management global information resource in its 10th year of ongoing international service. IPMnet is sponsored by the not-for-profit Consortium for International Crop Protection (CICP). You can subscribe free or request other information from IPMnet@bcc.orst.edu

Some useful links and sites on the web:

The Directory of Entomology Departments and Institutes (DEDI) provides a source of contact information for the entomological research centers of the world. http://www.sciref.org/links/EntDept/index.htm

Entomology Index of Internet Resources: a directory and search engine of insect-related resources on the Internet. http://www.ent.iastate.edu/List/

The Entomological Society of America has many resources of interest to Canadian entomologists: http://www.entsoc.org/

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 though 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 protographer, 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 couriel (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 son exemptes de Copyright et qu'elles seront disponibles au grand public sans obligations de la SEC.

A new CD and database: "The genus Cryptocephalus (Chrysomelidae) of Palearctic region", prepared by I.K. Lopatin, K.E. Dovgailo using the program Lysandra 2.1. The software works from CD-ROM without installation and special security appliances. You can download a demonstration version and database of 15 species at

http://www.lysandrasoft.com/english/html/demo/



GRADUATE STUDENT POSITION:

"Indirect effects of endectocide use on birds and rodents in pasture ecosystems"

A graduate research position (M.Sc. or Ph.D.) is anticipated starting spring 2003 to investigate the indirect effects of endectocide use on birds and rodents in prairie ecosystems. Endectocides are veterinary pharmaceuticals applied to cattle to control internal and external parasites. Endectocide residues are excreted in the faeces of treated animals where they can reduce populations of dung-breeding insects. These insects provide food for birds and rodents. The successful applicant will assess the implications of endectocide use on these vertebrate species.

The potential for endectocide residues to affect vertebrates is summarized in McCracken (1993) "The potential for avermectins to affect wildlife." Veterinary Parasitology 48:273-280.

The successful applicant will be based at the Lethbridge Research Centre in Lethbridge, Alberta.

Designation of a university for degree award will be negotiated to reflect the student's interests and needs. The candidate must have a background in insect or animal ecology. Previous experience working on the foraging behaviour of birds or small rodents is desirable, but not essential. The candidate must be able to communicate efficiently in English (oral and written), have a valid driver's licence, and be able to work independently for extended periods of up to 8 weeks at field sites.

INTERNET RESOURCES:

http://res2.agr.ca/lethbridge/index_english.htm - homepage for the Lethbridge Research Centre http://res2.agr.ca/lethbridge/scitech/kdf/endorefs.htm - list of endectocide references http://tourismtogether.com/absouth/chinook/index.htm - general information on southern Alberta

Applicants are asked to send: 1) a cover letter that describes their qualifications and research interests, 2) unofficial copies of transcripts and, 3) the names, addresses, phone numbers and email addresses of at least 3 references to the address below.

Contact: Dr. Kevin Floate Agriculture & Agri-Food Canada Lethbridge Research Centre 5403 1st Avenue P.O. Box 3000

Lethbridge, Alberta, CANADA T1J 4B1

Ph: (403) 317-2242 FAX: (403) 382-3156

E-mail: floatek@agr.gc.ca

http://res2.agr.ca/lethbridge/scitech/kdf/intro.htm

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Position: **Tenure track Assistant Professor of Entomology** in the Department of Renewable Resources at the University of Wyoming. Twelve month appointment, with technical support (insect diagnostician). Management of insect pests in the predominant ecosystems of Wyoming.

Requirements: Minimum requirements include: Ph.D. in Entomology at time of appointment; a demonstrated potential for developing and maintaining a strong extension program; a commitment to high quality research in natural resource entomology; a potential for support of extension and research programs through extramural funding; a demonstrated ability to publish in popular outlets and peer-reviewed journals. Extension or post-doctoral experience is preferred.

Extension (66%), Research (34%), Instruction (negotiable)

Applications: Please send letter of application with statement of interest, vita, transcripts of all university training (facsimiles acceptable), and have three confidential letters of reference sent to Ms. Janet Marsh, Search Coordinator, Dept. of Renewable Resources. Hardcopy and electronic application materials may be sent to:

Mailing address:

Department of Renewable Resources, University of Wyoming, Laramie,

WY 82071-3354 USA

Shipping address:

16th and Gibbon Streets, University of Wyoming, Laramie, WY 82071-

3354 USA (attn: Janet Marsh, Renewable Resources Dept.)

Email address:

windsong@uwyo.edu

Fax:

307-766-6403

For further information contact Dr. Jeffrey Lockwood at lockwood@uwyo.edu or see Department of Renewable Resources website at www.uwyo.edu/renewableresources.

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.

Recent deaths

Ethel Fox, widow of Bill, died in a nursing home in Brantford on 18 January 2001.

Paul Bouchard, 2745, chemin Ste-Foy, #205, Sainte-Foy QC, G1V 4R9, 418-653-7654, died in September 2002 at age 87. Paul worked on forest insects at the Ste-Foy forestry laboratory.

Doug Ferguson, 807 Copley Lane, Silver Springs, MD 20904, U.S.A., died at age 76. Both Doug and his wife Charlotte were from Nova Scotia. Doug was a lepidopterist at the USDA, Washington DC.

Bill Nelson, 1020 Fern Crescent S., Lethbridge AB, T1K 2W3, 403-327-4736, died on 12 October 2002 at age 84. He is survived by Margaret. Bill spent his career at the Lethbridge Research Station, Agriculture Canada. He was a charter member of the Ent. Soc. Alta. and at one time was a member of the ESC.

Albert Winmill, 1262 Erindale Dr., Ottawa ON, K2C 2G4, 613-225-3579, died on 29 September 2002 at age 81. He was the husband of the late Grace. Al worked for the DND in the Search & General Office in Ottawa and was a member of the DND Advisory Committee.

Dick Wong, 11403 - 37B Avenue, Edmonton AB, T6J 0K2, 780-435-7630, died on 22 September 2002, at age 79. He was the husband of Marg. Dick was with the Forest Insest & Disease Survey and was head of the survey in Winnipeg until it moved (1n 1970) to Edmonton. Dick worked on the taxonomy of hymenopterous parasites and sawflies.

Fred Cannon, 141 Brackley Pt. Rd., Charlottetown PE, C1A 6Y7, 902-892-3949, age 97, died in early September 2002. He was the husband of Mickey. He spent his career with Agriculture Canada mostly in PEI.

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! For more information, contact Edward Becker (ec.becker@sympatico.ca).

Publications

Book Reviews

Cannings, Robert A. 2002. **Introducing the Dragonflies of British Columbia and the Yukon.** Royal British Columbia Museum, Victoria, BC. 96 pp. ISBN: 0-7726-4637-6. Distributed in North America by UBC Press via Raincoast Fulfillment Services (1-800-663-5714) (paper) CAN 9.95\$.

This slim volume has got to be one of the great entomological values of the year! Published by the Royal British Columbia Museum, this handbook combines high-quality color photographs, many of them by the late George Doerksen, with Rob Cannings' extensive field experience and diagnostic sketches to produce a book which is handsome enough to leave on the coffee table but compact enough to take into the field.

As Cannings implies in the introduction to this book, the dragonflies themselves are the biggest sellers. They are large, obvious, and fascinating organisms and are distinctive enough that any interested watcher-at-the-pond can easily identify and learn something about most of the 88 species known to live in British Columbia and the Yukon, especially with the aid of this book. I tried it out while sitting in a lawnchair beside a sunny and pleasant lake in BC and found this guide worked very well. To further endear these insects to the amateur, every species is provided with a common name. Most will find the "Mountain Emerald" easier to remember than *Somatochlora semicircularis*.

Introducing the Dragonflies begins with a clear introduction to the biology, life history, and habitats of dragonflies. Cannings is an experienced educator in natural history and has a balanced and

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succinct writing style that makes you actually want to read this guide despite the enticement to flip forward to the attractive photographs. The introduction is followed by a compact and useful section on "How to Find and Identify Dragonflies" that includes a pictorial map of dragonfly morphology that supports a technical key to the families. What is most refreshing about this key is that you do not have to kill or even necessarily capture the insect to work through the couplets, especially if you sit very still. After a few passes through the key most will be able to identify the common families without the key and can move on to identify the species directly.

Species are grouped by higher taxonomic categories (family or genus) and a brief diagnostic introduction is provided at this more general level. Each of the 88 species in the region is then described and at least one photograph provided, usually of the male. Some of the photographs are very small (3.5 X 3.5 cm) but this does not hamper either their utility nor their esthetic value. There are many photographs of pairs in tandem as this is a common way many of us observe dragonflies. Wherever the photographs may be deficient in distinquishing closely-related species within a group, Cannings provides his own clearly-executed line drawings of the anal appendages or the shapes of thoracic stripes. The physical descriptions for each species are accompanied by general and regional range descriptions as well as a section called **Field notes** where specific habitats and seasonal flight periods are given. The book is completed by a glossary, a list of recommended books and internet sites, and an index to species.

It is hard to find shortcomings in this book. It is determinedly regional but it is, after all, published by the provincial museum. It is definitely not a replacement for the long out-of-print Cannings and Stuart (1977) *The Dragonflies of British Columbia* as unlike that excellent publication it does not provide technical taxonomic information, specific range maps or keys to the species. Also, *Introducing the Dragonflies of British Columbia* has little on the immature stages as the book is intended primarily for the identification and appreciation of the spectacular adults. But these limitations will be easily forgiven when you see your own copy. I gave my first personal copy to a friend and then found myself on a waiting list to get another copy so I could write this review. This indication of the success and appeal of *Introducing the Dragonflies of British Columbia and the Yukon* is well-deserved.

Vince Nealis Victoria, British Columbia Seven Useful Books on Hymenoptera, Pollination, Pollinators and their Protection and Use.

Reviewed by

Peter G. Kevan, Department of Environmental Biology, University of Guelph, Guelph, ON N1G 2W1.

The international Convention on Biological Diversity has stressed the importance of pollinators in agroecosystems and in nature as providing an essential ecosytem service. There is now international concern over the potential demise of pollinators and pollination services and what that may mean to human food and fibre security and prices, and to long term effects in ecological communities through effects on plant reproduction. The concerns embrace managed and wild pollinators in ecosystems from tropical rainforests to urban gardens. The five books noted below are noteworthy for their contents and the intended readership.

In 2000, the regional government of Tuscany published "Apie impollinazione". Compiled by Mauro Pinzauti, this book at 307 pages is in Italian. It comprises 18 independently authored chapters. All are practical in approach. Chapters are devoted to concerns of pollination and fertilization of plants, with special reference to Tuscany. The roles of nectar and pollen in the entomological and botanical phases of pollination processes are discussed. As may be expected much of the book is entomological and addresses beekeeping with honeybees, bumblebees, leafcutting bees including the genus *Heriades*, orchard mason bees, and mentions the importance of other pollinators. The book is well illustrated, with numerous colour photographs, graphs, and tables to highlight important points. The hand-painted cover design, a germinating pollen grain with flying pollinators within and more pollen grains is especially attractive and evocative. The language is clear, the print is sharp and the paper of high quality. The Pinzauti and the regional government of Tuscany are to be congratulated on an excellent and highly useful book for growers, beekeepers, the scientific community, and the public.

Pinzauti, M. (ed.) 2000. *Apie impollinazione*. Edizioni delle Giunta Regionale: Region Toscana. Via di Novolini 73?a, 50127 Firenze, Italy.

Also in 2000, the German book "Bienen, Hummeln, Wespen im Garten und in der Landschaft" was published. Written in German by Helmut and Margrit Hintermeier, this 132 pp book is about honeybees, bumblebees, solitary bees, wasps and hornets. It provides interestingly written accounts of the natural histories, nesting and foraging habits of these bees, and stresses their ecological importance. Pollination and predation are well and thoroughly discussed. Techniques for encouraging these insects are well described, including some practical beekeeping, trap nesting for solitary bees, and on how to house hornets. Printed on high quality paper, the text is clean and the illustrations exquisite. The book includes over 150 colour photographs, and wonderful reproductions of paintings of the insects and their nests. This book is written for the informed and curious naturalist, but professional entomologists and beekeepers can find much of interest.

Hintermeier, H and M. 2000. *Bienen, Hummeln, Wespen im Garten und in der Landschaft*. Obstund Gartenverlag, Postfach 15 03 09, 80043 München, Germany. ISBN 3-8759-098-X

Institut National de la Recherche Agronomique published **Hazards of Pesticides to Bees** in 2001. It is the outcome of the 7th International Symposium of the International Commission on Plant-Bee Relations, Bee Protection Group held in Avignon, France in 1999. For anyone concerned with the subject, this book of 308 pp. contains 27 papers on the full range of relevant issues. Toxicity Tests and Sublethal Effects are well covered, as are Non Pesticide approaches to pest control as they may affect bees. There is a section of five papers on bumblebees and pesticides. Papers on Metabolites, Residues, and Bee Poisoning Incidents (from Europe). An interesting set of five papers concerns Methodology and introduces behavioural approaches to assessing pesticide hazards. The EPPO (European and Mediterranean Plant Protection Organization) Guidelines are presented as they concern "Side-effects on honey bees". These are useful internationally as reference. The editors, L. Belzunces, C Pélissier, G. Lewis and the publishers deserve our thanks for producing this helpful volume so quickly after the symposium ended

L. P. Belzunces, C. Pélissier, G. B. Lewis. 2001. *Hazards of Pesticides to Bees*. INRA Editions, Les Colloques No. 98. Institut National de la Recherche Agronomique, 147, rue de l'Université, 75338 Paris Cedex 07. ISBN 2-7380-0966-2

Also directly related to agriculture and practical issues in pollination is the book "How to Manage the Blue Orchard Bee as an Orchard Pollinator" by Jordi Bosch and William Kemp of the USDA in Logan, Utah, published in 2001. This slender book, at 88 pages is well-written and thoroughly covers the subject area. The life cycle and foraging ecology of these bees, called BOBs, are described. Chapters are devoted to artificial nesting materials, rearing BOBs, how to deploy them as efficient and low-temperature pollinators in commercial orchards, and on how to encourage and protect them from pesticides and pests. The book is well illustrated with black and white, and colour photographs, line drawings, and explanatory graphs. The authors and the publishers can be proud of their accomplishment.

Bosch, J. and W. Kemp. 2001. *How to Mange the Blue Orchard Bee as an Orchard Pollinator*. Sustainable Agriculture Network, National Agriculture Library, Beltsville, MD 20705-2351. ISBN 1-888626-06-2. Order: sabpubs@uvm.edu.

The Natural History of Bumblebees: A Sourcebook for Investigators by Carol Kearns and James Thomson is a useful addition to the literature. Published in 2001 at 130 pp. It provides insights into how to study these fascinating insects. The accounts of the life cycles, foraging behaviour, parasites and predators, importance for conservation, and how to raise bumblebees in the laboratory culminate with interesting suggestions for research projects that can

be undertaken by students and curious naturalists. The references provided are quite extensive and allow users ready access to the scientific literature. The photographic field guide is not as useful as it might have been, but covers each species, as queens, in North America with face-on, oblique over the back, and lateral illustrations to assist in identification. The range maps provided with the photographs should be used with caution as they are, admittedly "very broad". I think this book is highly useful. It should be on the shelf of every laboratory that is, or considers, working with bumblebees.

C A Kearns and J D Thomson. 2001 *The Natural History of Bumblebees: A Sourcebook for Investigators*. The University Press of Colorado, 5589 Arapahoe Avenue, Suite 206C, Boulder, CO 80303. ISBN 0-87081-621-7 (paper) 0-87081-565-2 (cloth)

Also in 2001, another book that deals with trees and pollinators was published. "Árboles Melíferos Nativos de Mesoamérica" by Henry Arce, Luis Sánchez, Judith Slaa, Pablo Sánchez-Vindas, Alberto Ortiz, Johan van Veen, and Marinus Sommeijer. The book, in Spanish at 207 pp., is a nicely compiled guide to the melliferous trees of Costa Rica. Each tree is depicted by a high quality colour photograph or two that illustrate flowers, fruits, and growth form. The descriptions provide succinct and interesting information on habitat, seasonal flowering patterns, propagation, use, and general ecology. Before the compendium are three important chapters. They stress the diversity of tropical bees that depend on the floral resources provided by the trees they describe, the floral relations of the bees as pollinators, and the importance of protecting and conserving bees and pollination system for the mesoamerican forests. Although this book focuses on trees as honey plants, it can serve as an excellent guide to the common trees of Costa Rica and the ecological lessons have general applicability. The international Costa Rican and Dutch team of authors has produced an excellent handbook with greater value than the title might suggest.

H G. Arce, L A Sánchez, J Slaa, P E Sánchez-Vindas, A Ortiz M, J W van Veen, and M J Sommeijer, 2001. *Árboles Melíferos Nativos de Mesoamérica*. Centro de Investigaciones Apíolas Tropicales, Universidad Nacional de Costa Rica (PRAM-CINAT-UNA-UU), Heredia, Costa Rica. ISBN 9968-870-00-5.

Most recently, 2002, the much anticipated book "Pollinating Bees: The Conservation Link Between Agriculture and Nature" has been published. This book, at 313 pp., is a compilation of papers that were delivered as part of an international workshop on the Conservation and Sustainable Use of Pollinators in Agriculture, with Emphasis on Bees, held in São Paulo, Brazil in October 1998. This workshop was part of the international initiative, spearheaded from Brazil, with respect to pollination and the Convention on Biodiversity. After dedication to the late Professor Soichi Sakagami, and celebrations for Professor Charles Michener and Padre Jesus Moure, the book is presented as four Sessions, paralleling the workshop activities. The authors of the 26 main chapters comprising those sessions are internationally recognized for their respective expertises. Thus the book presents a thorough account of The Main Issues in Pollination and Bee Conservation, The State of the Art in Bee

Conservation for Agriculture and Nature, Methodology for Pollinator Diversity and Abundance, and Neotropical Crop Pollination. The final part of the book presents an abbreviated version of the São Paulo Declaration on Pollination that has subsequently lead to various activities in line with the Convention on Biodiversity around the world. This book is a valuable reference for conservation and protection of pollinator diversity and abundance. It stresses pollination as an ecosystem service upon which human well being, and natural productivity, depend, and delves into the issues of conservation of species, spaces, and of ecosystemic processes. The lessons go beyond pollination, pollinators, and bees by illustrating the integrated nature of life on earth.

Kevan, P. G., V. Imperatriz-Fonseca, G. W. Frankie, C. O'Toole, R. Jones, and C. H. Vergara (eds) 2002. *Pollinating Bees: The Conservation Link Between Agriculture and Nature. Proceedings of the Workshop on the Conservation and Sustainable Use of Pollinators in Agriculture, with Emphasis on Bees, held in São Paulo, Brazil in October 1998.* Ministry of Environment, Secretariat for Biodiversity and Forests, Brasília, DF, Brazil. cid@mma.gov.br

Instructions for Reviewers

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.

A **Graduate Student Symposium** was held at the 2002 ESC meeting in Winnipeg. The principal goal of the symposium was to give profile to the graduating students as they move to the next stage in their careers and allow them a longer time slot to talk about their research. The second annual ESC Graduate Student Symposium will be held as part of the national meeting in Kelowna in November 2003. Look for additional details in the upcoming registration package and we strongly encourage graduate students to apply to participate. (Submitted by Rob Bourchier)

Symposium: Practical problems when implementing biological control.

Abstracts:

The spatial dynamics of a host-parasitoid community

Brian H. Van Hezewijk, and Jens Roland Department of Biological Sciences, University of Alberta, Edmonton, Alberta, T6G 2E9 Current Address for BVH: Department of Biological Sciences, University of Lethbridge Lethbridge, Alberta, T1K 3M4, brian.vanhezewijk@uleth.ca

Inclusion of spatial processes in models of host-parasitoid dynamics offers the potential for explaining patterns of community stability, coexistence of competing species, and self-generating patterns of abundance. There is, however, little empirical evidence to gauge the importance of spatial processes in the dynamics of natural host-parasitoid communities. I studied both local and spatial interactions between the willow pinecone gall midge Rabdophaga strobiloides, the plant on which it feeds Salix bebbiana, and its two specialist wasp parasitoids, Gastrancistrus sp. and Torymus cecidomyiae. Spatially referenced census data were collected for each species over four generations and these data were used to parameterise a host-parasitoid model incorporating the local processes of reproduction and mortality and the spatial process of dispersal. Gall diameter was important in determining both the intensity and cause of mortality experienced by the midge while in the gall. Overall, midges survived best in the large galls that provided a refuge from parasitism and predation. By fitting a variety of spatially explicit host-parasitoid models to the census data, I found that midge dispersal was best described by a power function and that the midge tended to disperse less than both parasitoid species. The parasitoid Torymus cecidomyiae, described as the superior larval competitor, dispersed less widely than Gastrancistrus sp., the inferior parasitoid. Experimental manipulations and an analysis of colonisation of naturally vacant patches confirmed that the two parasitoid species differ in their dispersal abilities but the observed difference was too small to explain the coexistence of these competitors. In numerical simulations variation in dispersal patterns between the two parasitoid species had little effect on the amount of host use overlap. Coexistence did depend, however, on both spatial and temporal variability in the average gall diameter among willows. Lower temporal variability or higher spatial variability resulted in a higher probability of the two parasitoid species coexisting. My

results suggest that in communities where hosts reside in refuges from parasitism, host-parasitoid dynamics are better described by local processes or spatial variation in refuge quality, than by differences in dispersal rates.

Inclusion of spatial processes in models of host-parasitoid dynamics offers the potential for explaining patterns of community stability, coexistence of competing species, and self-generating patterns of abundance. There is, however, little empirical evidence to gauge the importance of spatial processes in the dynamics of natural host-parasitoid communities. I studied both local and spatial interactions between the willow pinecone gall midge Rabdophaga strobiloides, the plant on which it feeds Salix bebbiana, and its two specialist wasp parasitoids, Gastrancistrus sp. and Torymus cecidomyiae. Spatially referenced census data were collected for each species over four generations and these data were used to parameterise a host-parasitoid model incorporating the local processes of reproduction and mortality and the spatial process of dispersal. Gall diameter was important in determining both the intensity and cause of mortality experienced by the midge while in the gall. Overall, midges survived best in the large galls that provided a refuge from parasitism and predation. By fitting a variety of spatially explicit host-parasitoid models to the census data, I found that midge dispersal was best described by a power function and that the midge tended to disperse less than both parasitoid species. The parasitoid Torymus cecidomyiae, described as the superior larval competitor, dispersed less widely than Gastrancistrus sp., the inferior parasitoid. Experimental manipulations and an analysis of colonisation of naturally vacant patches confirmed that the two parasitoid species differ in their dispersal abilities but the observed difference was too small to explain the coexistence of these competitors. In numerical simulations variation in dispersal patterns between the two parasitoid species had little effect on the amount of host use overlap. Coexistence did depend, however, on both spatial and temporal variability in the average gall diameter among willows. Lower temporal variability or higher spatial variability resulted in a higher probability of the two parasitoid species coexisting. My results suggest that in communities where hosts reside in refuges from parasitism, host-parasitoid dynamics are better described by local processes or spatial variation in refuge quality, than by differences in dispersal rates.

Biological Control of a Cherry Bark Pest: Early Phase of Implementation

Wade Jenner¹, Ulrich Kuhlmann², Joan Cossentine ³ and Bernie Roitberg¹

- ^{1.} Dept. of Biol. Sciences, Simon Fraser University, Burnaby, BC
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The cherry bark tortrix, Enarmonia formosana Scopoli (Lepidoptera: Tortricidae), is a pest of several rosaceous plants, including species of Prunus, Malus, and Pyrus. This tortricid is an invasive alien species in North America, often occurring at high densities on ornamental cherry trees in the Pacific Northwest region. As part of a classical biological control endeavour, current research explores the structure and impact of the European parasitoid community attacking the immature stages of the moth. The beginning phase of this program was designed for a careful, step-by-step analysis of potential parasitoid agents for release into Canada and the US. As the cherry bark tortrix host itself was not well understood in Europe, efforts were made to clarify aspects of its phenology. Intensive field sampling was conducted in the summers of 1999 through 2002. In the preliminary field seasons, focus was given to studying the large-scale spatial distribution of cherry bark tortrix and the parasitoids attacking its larval and pupal stages. In the final two seasons, more emphasis was placed on understanding the smaller-scale, within-tree distribution of hosts and parasitism. Concurrently, reliable field sites were selected for repeated sampling to establish a temporal study of pest and parasitoid interaction and development. Numerous hymenopteran parasitoid species were found in association with the cherry bark tortrix in Europe. The majority of these species attack the pupal stage of E. formosana and virtually all have an endoparasitic lifestyle, despite the stereotypical link between ectoparasitoids and hidden hosts. From this list of natural enemies, a dominant inchneumonid larval-prepupal parasitoid (Campoplex cf. dubitator Horstmann) was selected for a more detailed study of its biology. We investigated parasitoid behaviour during mating, long- and short-range foraging, and host handling. The resulting information will provide a key foundation for successful mass-rearing and for identifying non-target hosts for host range testing of this parasitoid.

Control of stored-product insects with protein-enriched pea flour and parasitoids

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Since the dawn of agriculture, stored-product insects have been a problem. Today the main means to control stored-product insects is synthetic insecticides. There is an interest to reduce the use of synthetic insecticides because of the resistant insect populations, worker safety and concerned consumers.

Protein-enriched pea flour is a food additive and feed supplement. However, it was toxic and repellent in the laboratory test to common stored-product insects: the rice weevil, *Sitophilus oryzae* (L.), and the rusty grain beetle, *Cryptolestes ferrugineus* (Stephens). It was not toxic to their parasitoids *Anisopteromalus calandrae* (Hymenoptera: Pteromalidae), a parasitoid of *S. oryzae*, or *Cephalonomia waterstoni* (Hymenoptera: Bethylidae), a parasitoid of *C. ferrugineus*.

A two-month, 30-tonne-granary trial with barley was conducted in six bins, each filled with 11 tonnes of barley. Granaries had full-floor aeration, hence insects could leave the grain mass. Results showed that treating all the barley with 0.1% of pea protein had a similar effect as treating only the top half of the barley at 0.5% of pea protein. Compared with control bins, the pea flour treatment reduced the population of *S. oryzae* by 90% and *C. ferrugineus* by 58%.

A five-month, 330-kg-barrel test with wheat was set up to test the effectiveness of the combination of pea protein flour with parasitoids. Insects were not allowed to leave the barrels in this test. Results showed that pea protein at 0.04% alone did not control *S. oryzae*, and that parasitoids alone slowly reduced the number of *S. oryzae* adults. A combination of parasitoids and pea protein at either 0.04% or 0.1% reduced *S. oryzae* more than either one of them alone. The combination of pea protein at 0.1% and parasitoids reduce the number of *C. ferrugineus* by 77%.

At home on the range: Evaluating the quality of a biocontrol weevil following its establishment on Dalmatian toadflax

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Historically, field studies in classical weed biocontrol have been limited to addressing the initial establishment of control insects and/or their impact. Once insect establishment is achieved and the insect population increases in size, biological control practitioners then become concerned with the collection and redistribution of insect agents from these successful sites to other target weed patches. Surprisingly, little consideration is given to the quality of insects produced at these nursery field sites. A topic that could have direct consequence to the success of redistribution efforts is whether the quality of insects at these sites is significantly reduced as they deplete their host resources.

The relationship between an introduced insect's population dynamics and the change in availability of its host is key to understanding how to optimize these biological control agents. In the current study, several population fitness indicators, including relative insect size, realized fecundity, sex ratio and progeny survival, were used to evaluate the quality of stem-boring weevil, *Mecinus janthinus* Germar, over changes in availability of its host, Dalmatian toadflax (*Linaria dalmatica* (L.) Mill.). Assessment of relative insect size is particularly relevant within this model, as body measurements directly reflect microhabitat conditions and food availability during the early stages of development. A significant trend toward smaller weevils of both sexes is observed at study sites as time post-release increases, toadflax stem abundance is reduced and remaining

stems become highly crowded with weevil progeny. Sex ratios also change significantly across release sites of various ages. Ideal realized fecundity, however, does not correspond to body size. Implications of these trends will be discussed in relation to the success or failure of *M. janthinus* populations produced from nursery sites and the formulation of redistribution recommendations.

Between the Devil and the Deep Blue Sea: Biological Control of Purple Loosestrife (*Lythrum salicaria*) in British Columbia.

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One approach humans take to reduce the confrontation with exotic weeds is classical biological control, in which specific agents are introduced to control the weed. The central dogma of biological control is that herbivores can exert a top-down control on the target weed. The fact that only about one third of all biological control projects against weeds are successful indicates, however, that other factors need to be taken into account. We examined the performance of the introduced biocontrol agent of purple loosestrife, Galerucella calmariensis, a leaf-feeding chrysomelid, at nine sites in the lower mainland of BC. Where present at high density, the beetle has had a significant effect on purple loosestrife reproductive performance and population growth but has not yet caused a decrease in weed density. Consistent insect outbreaks have occurred at three sites only. A significantly lower predation rate of eggs laid on stems surrounded by standing water suggests that such plants act as refuges for the agent and may be important for the maintenance of high-density agent populations. Agent outbreaks were infrequent or did not occur at all at other sites during the monitoring period. The predation rate of the eggs of the control agent was the only factor to predict insect feeding damage in the same year, indicating that interference by higher-order predators may be controlling the agent population at these sites. The control agent could not be established at any tidal site, and evidence suggests that the disturbances associated with the tidal activity dislodge the beetle larvae and prevent beetle establishment.

While the damage inflicted on the target weed can be significant, the success by the control agent is variable. Our results indicate that the abiotic environment is critical and may directly or indirectly determine if top-down control and with it the success of the control project, is favored or disrupted.



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