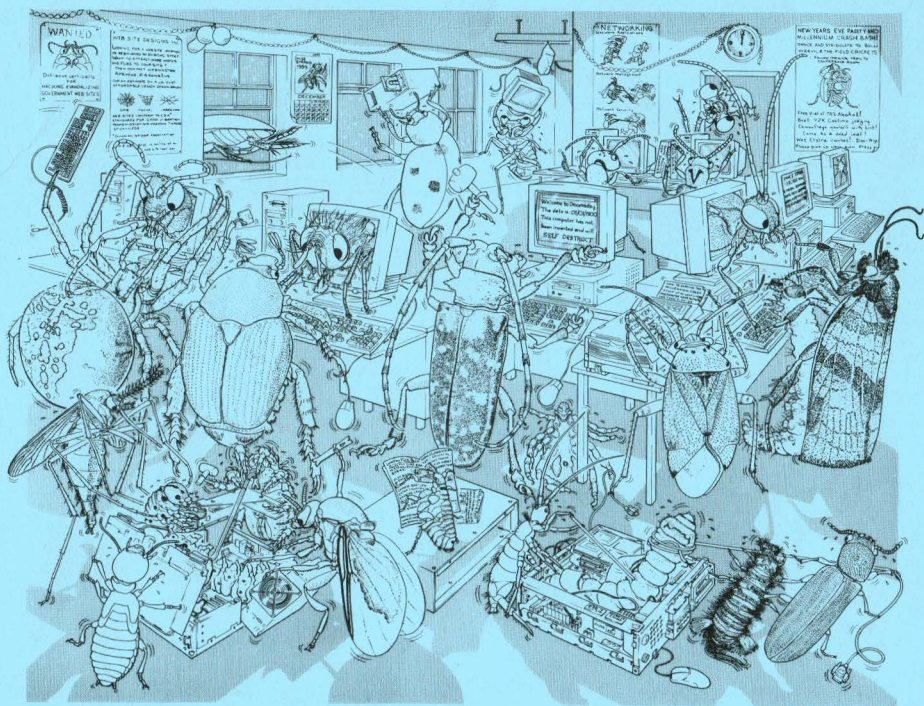


**Société d'Entomologie
du Canada**

Sept/sept 2000



E-mail: entsoc.can@sympatico.ca

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

Le Bulletin de la Société d'Entomologie du Canada, publié depuis 1969, présente 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 a whimsical drawing entitled "The Millenium Bugs." It depicts the chaos and disruption that might have ensued from the inability of computers infected with "Y2K bugs" to roll-over to the year 2000. All insects shown are well established in Canada, except for one which recently invaded North America from Asia. [Drawing courtesy of Barry Flahey, Manotick, Ontario.]

L'illustration de la couverture est un dessin fantaisiste intitulé : "Les bogues du millénaire". Il représente le chaos et le bouleversement qui auraient pu découler de l'incapacité des ordinateurs contaminés par les "bogues de l'an deux mille" à franchir ce passage fatidique. Tous les insectes représentés sont bien établis au Canada, à l'exception d'un qui est originaire d'Asie et a récemment envahi l'Amérique du Nord. [Dessin de Barry Flahey, Manotick, Ontario.]

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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

50th Annual General Meeting

The Annual General Meeting of the Entomological Society of Canada, will be held at the *Palais des Congrès de Montréal* in Montreal, Quebec on December 6, 2000.

La réunion annuelle générale de la Société d'entomologie du Canada, aura lieu au *Palais des Congrès de Montréal* à Montréal, le 6 decembre, 2000.

Governing Board Meeting

The Annual Meeting of the Governing Board will be held at the *Palais des Congrès de Montréal*, in Montreal, on December 2, 2000.

La réunion annuelle du conseil d'administration se tiendra au *Palais des Congrès de Montréal* à Montréal, le 2 decembre 2000.

Matters for consideration at any of the above meetings should be sent to the secretary at the address below:

Veuillez faire part au secrétaire de tout sujet pouvant faire l'objet de discussion à l'une ou l'autre de ses réunions en communiquant à l'address suivante:

Dr. Rick West
Box 515, Portugal Cove
Newfoundland A0A 3K0
phone and fax: 709-895-2734
email: reely.west@roadrunner.nf.net

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

*Please send all correspondence concerning
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The deadline for submissions to be included in the next issue (Vol. 32(4)) is **Nov 1, 2000**
La date limite pour recevoir vos contributions pour le prochain numéro (Vol. 32(4)) est le **1 nov 2000**

Update on the Montréal 2000 Joint Meeting

By now, ESC members have received registration packages for the "2000 JAM", the Joint Annual Meeting of the Entomological Society of Canada, la Société d'entomologie du Québec, and the Entomological Society of America, at the Palais des Congrès in Montréal in December. A joint meeting of these three societies was held in Montréal in 1972, and by all accounts it was a landmark meeting. As a graduate student, I enjoyed the stimulating atmosphere and rich program of the 1982 JAM in Toronto. The 2000 JAM promises to be another conference that should not be missed. Many thanks to the SEQ organizers, SEQ President François Lorenzetti, ESA President Sharron Quisenberry, ESA Director of meetings Judy Miller, the staff members of ESA, SEQ and ESC (including our own Sandy Devine), the local arrangements committee (LAC, co-chaired by Charles Vincent and Steve Clement), the Program Committee, chaired by Marlin Rice and including our representatives Hélène Chiasson and Noubar Bostanian, and the SEQ, ESA and ESC members who have worked with them to develop and organize a great meeting.

Register now to take some of the sting out of the higher rates associated with the Joint Meeting. Please note that in order to qualify for member rates you must be a member (with dues for 2000 paid) of any of the three societies: ESA, ESC or SEQ. You do not need to be a member of ESA.

Thanks to the efforts of SEQ, we will be holding some Canadian events at the beautiful Château Ramezay Museum, a former governor's residence built in 1705. A calendar of social events and society activities planned by the Entomological Society of Canada and la Société d'entomologie du Québec will be posted on the society websites. Students are invited to "Students Meet the Board", and I hope they and other ESC members will stay for the President's Reception and joint ESC-SEQ social to continue making contacts. All members and their accompanying guests are invited. ESC and SEQ social activities will be held Monday evening. I need to indicate an important change in the schedule: the ESC Annual General Meeting will not be held Monday night as stated in the calendar of activities in your registration packet, but has been rescheduled to Tuesday, Dec 5, at 5-6 p.m. at the Palais des Congrès, room 406 B. All ESC members are welcome and encouraged to attend.

In the registration package you received, you will find a copy of the ESC membership application form that is also found on our website. Please pass this along to a potential new member (or lapsed member). Declining membership is a problem for most scientific societies, and you can do a great service for the Entomological Society of Canada by recruiting new members.

Dan Johnson
JohnsonDL@em.agr.ca

Joining the American Institute of Biological Sciences

The American Institute of Biological Sciences is an umbrella organization for non-medical biological science societies (www.aibs.org). AIBS offers many benefits to member societies, including discussion forums, the journal Bioscience, advertising, collaborative efforts, assistance putting society journals on-line, funding alerts, development of standards, and a united voice for the non-medical biological sciences. In addition, AIBS has developed their "BioOne" partnership with publishers and libraries, intended to facilitate inclusion of member societies to be included in a new, integrate electronic database of biological journals. (I've asked the Publications Committee to investigate.)

After a closer look and participation in AIBS meetings, I recommended that the ESC join AIBS and be represented. For the nominal fee of only \$100 US per year (that's right, so far it cost us about 30 cents Canadian per member), we have become the 69th member society of AIBS, and the first member society to be based outside of the US. I pointed out at a recent AIBS meeting that the name is "AIBS" and not "USIBS", and that I hoped to see more Canadian organismal biological societies join this powerful and dedicated organization. The AIBS executive and other presidents voiced their enthusiastic agreement and welcomed ESC.

Although I am a long-time reader of Bioscience, my first view of AIBS was in November, 1999, when I attended the first-ever "Presidents' Summit", held in Virginia, and then followed up by attending their March meeting in Washington, DC (both at no cost to ESC). The plural possessive in the title of the November meeting indicates that the presidents from the nearly 70 member organizations (representing 150,000 biologists) met in one place for the first time to discuss common concerns, directions, problems and solutions. For four days we debated topics that the representatives and executives of the member societies considered to be fundamental to our sciences and crucial for the future of our societies.

The integrative tone of the meeting was emphasized in the opening talk by National Science Foundation Director Rita Colwell on NSF's biocomplexity initiative, which includes strong support for the commonality of scientific elements across disciplines and sciences, "from the subatomic to the astronomical." Later during the meeting, Ed Wilson, well-known to our members, gave a stirring description of the history of biological science and thought, from the "golden age of reductionism" to the present opportunities for integration of the results of work with the reductionist tools. The future, he said, lies in integration of the two primary modes of biological explanation: the functional and the evolutionary. In subsequent discussions, the working groups identified issues and common goals that need the combined attention of our societies if we are to persist and serve larger society appropriately. Discussions led to resolutions for action, not only for organismal and integrative biology, but also concerning the role of scientific societies in public policy, law, government, education, research funding, and information technology. Many of the issues we agreed upon are close to the hearts of ESC members, for example, safeguarding biological collections and import permits; communicating (to government as well as to students and the public) the importance of understanding and preserving biodiversity; supporting the teaching of evolution; maintaining high quality, integrative science education for K-12, undergraduate and graduate students; identifying and influencing trends in research funding; recognizing and dealing with the results of climate change; and the role of science societies in political lobbying.

With the guidance of AIBS Executive Director Richard O'Grady, 1999 President Gregory Anderson, 2000 AIBS President Alan Covich, and the various working groups, we ended up identifying and agreeing on a list of specific initiatives of interest to the member societies and organizations. The AIBS "Arlie accords" (named after the meeting place) include the following goals and actions: (1) Making the case for biological sciences, to increase the level of biological awareness and literacy of the voting public and government decision makers. (ESC has not had great or steady influence in Canadian government, law and politics. As a start toward improving our position I have prepared a letter for all MP's, describing who we are.) (2) Facilitating member society awareness of funding opportunities for multidisciplinary bioscience research. (AIBS is preparing databases and websites that will increase awareness of foundation and government funding, not all US.) (3) Initiating new collaborative efforts and funding opportunities for large, integrative projects exploring life on earth. (4) Establishing a public issues council, and expanding public policy functionality. At present this naturally includes mainly US Congressional and other Washington connections, but it can be expanded to include influence with our own government, now that AIBS includes a non-US-based scientific society (us). (5) Launching an evolution initiative. The member societies all accepted that evolution is the fundamental principle of biology. Both nations need to educate the public to counteract efforts to remove evolution from K-12 curriculum standards by sending a strong message to textbook publishers, parents, teacher, school boards and politicians. (This not simply a Kansas problem; special interest groups have moved against evolutionary education in ten US states and to a lesser extent in Canada as well.) (6) Creating collaborative biological resources for K-12 teachers. (I feel that we owe teachers some access to our much sought-after entomological expertise, and that we owe our scientific society the chance to persist, which will require the existence of an informed public.) (7) Evaluating and developing models of undergraduate curricula in biology.

In a later issue, I will post some of the results of these calls for action on the ESC website, including actions that followed the March meeting at the Smithsonian, and summarize selected issues in the Bulletin. The theme for the 2001 AIBS meeting is "From Biodiversity to Biocomplexity, a multidisciplinary step toward understanding our environment".

With best regards to all ESC member,
Dan Johnson, President, ESC JohnsonDL@em.agr.ca

Call for Nominations

Achievement Awards Committee

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 **2001**). 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 **December 31 2000**.

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 **2001**) 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 **31 décembre 2000**.

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

1. Les contributions exceptionnelles 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 réalisé 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. Cependant, 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 âgé de moins de 40 ans pour toute la durée de l'année au cours de laquelle le prix est annoncé et décerné.

NEWS OF ORGANIZATIONS

Biological Survey of Canada (Terrestrial Arthropods) Survey Report

The Scientific Committee met in Ottawa on 13-14 April 2000. A more detailed account of the meeting is included in the *Newsletter of the Biological Survey (Terrestrial Arthropods)* 19(2), 2000.

Scientific Projects

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

Arthropods of Canadian Grasslands

Arthropods of Canadian Grasslands is the Survey's next major project. A subcommittee chaired by Drs. Kevin Floate and Terry Wheeler is steering the project. A draft prospectus prepared by Dr. Joe Shorthouse and Dr. Wheeler was distributed before the meeting. The nature of the prospectus and possibilities of specific funding for the project were discussed at length. An informal conference on "Arthropods of grasslands - current status and future directions" will be held at the joint ESA/ESC/SEQ meeting this year, to expose the project and solicit ideas.

Seasonal adaptations

Several papers on seasonal adaptations are published or in press. A symposium on Water relations and winter survival in insects will be held at the joint 2000 ESC / ESA / SEQ meeting. The international insect and plant cold hardiness symposium in Victoria during May-June included a treatment of Insect cold hardiness in northern Canada.

Insects of Keewatin and Mackenzie

Dr. Doug Currie confirmed that a July expedition 620 km down the Horton River will collect both aquatic and terrestrial insects from this relatively unsampled area.

Other scientific priorities

Arthropod fauna of soils

Dr. Valerie Behan-Pelletier provided news about the 50th annual acarology summer program, various books, publications and other documents relevant to soil arthropod biodiversity, and activities such as the those of the Soil Ecology Society, the XII International Colloquium on Soil Zoology, and the Acarological Society. A symposium on Soil mites: systematics, diversity and ecology in four dimensions will be held at the joint 2000 ESC meeting.

Old-growth forests

Discussions about a possible symposium on old-growth forests are continuing. Dr. David Larson described a unique forest in Newfoundland which seems to be replacing itself through individual tree senescence. A pulp company's plan to log this area has been challenged, apparently the first time that this has happened in Newfoundland.

Invasions and reductions

Dr. Scudder and Dr. Bob Footitt are considering a book of edited contributions on arthropod bioinvasions. Dr. Steve Marshall emphasized his view that the invasive species issue is a good way to attract

support for collections. Although a monitoring program can be effective for a relatively narrow target group, developing insect collections is the best way to detect unexpected new invaders.

Endangered species

The Committee discussed the desirability of adding invertebrates to endangered species lists. For example, if rare or endangered invertebrates are considered for listing, funds should be available for study and protection might be obtained for their habitats, but once insect species are officially listed as endangered, collecting and studying them may not be allowed.

Survey web site

The Survey's revised draft website is substantially changed and expanded from the older one, including an internal search capability, Survey publications in electronic form, a database of personnel, and so on. The revised site should soon be available at <http://www.biology.ualberta.ca/esc.hp/bschome>.

Funding for biodiversity projects

This brief is virtually complete; the core data will be on the McGill University site, with introductory material and a link on the revised Survey website.

Error rates in identifications

Dr. Marshall will submit an article to the Survey newsletter that considers the factors affecting error rates and makes recommendations useful to people planning projects.

Brief on geographic data standards for specimen labels

A final draft of this brief, which contains general guidelines and standards as well as specific information, will be prepared before the October meeting of the Committee.

Brief on the value of proper biodiversity studies

A brief entitled "Terrestrial arthropod biodiversity projects – building a factual foundation" was approved for publication by the Survey.

Monitoring of continuing priorities for work on Canadian faunas

Updated information on earlier or currently less active Survey projects was reviewed. Specific work on the insects of Newfoundland is also in progress.

Other priorities

The Committee discussed other scientific priorities such as damaged ecosystems, faunal analysis, and Survey publicity.

Liaison and exchange of information

Canadian Museum of Nature

Dr. Joanne DiCosimo, President, Canadian Museum of Nature, reported that the Museum's public display building in Ottawa is being refitted and renewed. Provided Treasury Board funding is committed, the Museum will launch a private-sector campaign focussed on gallery development and visitor amenities. The next major exhibition is an exhibit of Dr. Roberta Bondar's photographs of Canada's 41 national parks. A later exhibit is called Animal Athletes. A revised web site (www.nature.ca) will be launched in May. The Museum is reviewing its strategic plan, and formulating a collections development plan which will

include wide consultations.

Dr. Mark Graham, Director, Research Services, reported that NSERC has agreed to lead a workshop (June 2-3 in Ottawa) to identify issues and consider best practices for granting agencies with respect to issues surrounding collections that go into museums. With the Canadian Heritage Information Network (CHIN) the Museum will solicit information from all natural history museums about research in Canada. Dr. Graham also noted the Macmillan Coastal Biodiversity Workshop (Bamfield Marine Station), a report on Building Excellence in Science and Technology: The Federal Roles in Performing Science and Technology, and Environment Canada's effort to prioritize northern biodiversity issues.

Biological Resources Program, ECORC

Dr. Ian Smith reported on behalf of Dr. Jean-Marc Deschênes, Director, ECORC. A proposal to renovate and retrofit the Neatby Building as a first-class collection facility will soon be submitted to Treasury Board. Dr. Smith reported that he and Dr. Deschênes have attended the meetings of the interim steering committee for the Global Biodiversity Information Facility on behalf of the Federal Biosystematics Partnership. Dr. Smith and Mr. Larry Speers are involved in the steering committee for the North American Biodiversity Information Network. Canada might become more involved in this initiative. Within that context the Integrated Taxonomic Information System (ITIS) is being broadened with Mexico as a full partner. A workshop was held in March for a Biota of Canada information network, involving a variety of partnerships to improve the Canadian content of ITIS and to demonstrate the applications of digitized collections data. The idea of a national conference on biodiversity science and bioinformatics is being promoted in order to develop an action plan for Canada through a national conference early in 2001. Dr. Geoff Scudder circulated a document from the Biodiversity Science Board, released at the EMAN national science meeting in January, entitled "The Biodiversity Science Problem in Canada: An Unrecognized Crisis". The information there underpins the idea of the national conference.

Dr. Bob Footitt reported that discussions will soon begin about renewal of the scientific workforce at ECORC.

Entomological Society of Canada

Dr. Dan Johnson, President, Entomological Society of Canada, reminded the Committee about the joint meeting of the ESC/SEQ/ESA in Montreal in December. Dr. Johnson reported on meetings that he had attended, such as the American Institute of Biological Sciences (AIBS). He also noted the Diversitas International Biodiversity Observation Year (IBOY) and the forthcoming Executive Council meeting of the ESC.

Canadian Forest Service

Dr. John Huber, on behalf of Dr. Ben Moody, reported from the Canadian Forest Service. As part of the Federal Biosystematics Partnership, Forestry has produced a document on biosystematics and bioinformatics needs in Forestry. Dr. Ole Hendrickson has been seconded from the Canadian Forest Service to Environment Canada for two years.

Canadian Wildlife Service / COSEWIC

Dr. Theresa Fowler, CWS, pointed out that Bill C33, the Species at Risk Act recently tabled, is one component of the national program to deal with endangered species; the others are the national accord signed by all the provinces and territories except Quebec, and the stewardship program.

Dr. Fowler reported that none of the species listed by COSEWIC to date will be officially consid-

ered for listing under the bill until they have been reassessed by COSEWIC using new criteria, based largely on the IUCN criteria. Under the new legislation COSEWIC produces a list of assessments, which are made public, and the species at risk and recovery plans are then determined by politicians. New or updated status reports will be considered when reassessments are completed.

Ecological Monitoring and Assessment Network (EMAN)

Dr. Peter Hall, Partnerships Coordinator, Environment Canada, reported that EMAN has re-established the interdepartmental committee on monitoring and assessment. EMAN is continuing to develop its core variables for ecosystem monitoring. EMAN vegetation monitoring protocols are being distributed to a variety of groups and a strategy document about the EMAN early warning system is being written.

Parks Canada

Mr. Stéphane Greffard, Ecological Assessment Officer, highlighted the recent release of the report from the panel on ecological integrity, which analyzed the capacity of Parks Canada to conserve ecological integrity in Canada's national parks. A national advisory committee will be established to monitor the implementation of the report. Members of the Committee discussed the Survey's initiatives a few years ago concerning studies of insect diversity and permit procedures for insect collecting in national parks. These initiatives would be revisited and information sent to Mr. Greffard. A number of parks with grasslands are especially relevant for the Survey's grasslands project.

Parasitology module, Canadian Society of Zoologists

Dr. David Marcogliese, Parasitology module, reported that work on the EMAN protocols for the inventory and survey of parasites continues. The national stickleback parasite survey is an official IBOY project. The Canadian Society of Zoologists 2000 annual meeting in May includes a symposium on Life in the middle of the food web - larval parasites in small fish. Dr. Marcogliese circulated a number of publications on parasites, and on the diversity of invertebrates.

Secretariat activities

Ongoing operations of the Biological Survey Secretariat were reviewed, including coordination, research and other roles, and Dr. Danks' travels to entomological centres in Canada on behalf of the Survey to exchange information about relevant work and to present seminars and lectures. Lectures were also presented in Japan about the fauna and flora of Canada, especially insects, and on seasonal adaptations in insects.

Other items

Regional developments

Members of the Committee summarized information from different regions of the country. For example, in British Columbia, Dr. Scudder reported that a catalogue of Hemiptera is now in press (NRC). A variety of work on sensitive or endangered species and conservation efforts is in progress. The University of British Columbia collections still have no support but a fundraising initiative is being developed for the biodiversity centre which will include support for the collection including post-doctoral fellows, curators, and relocation of the collection into a new building.

For the prairies, Dr. Floate reported that work on the planned expansion of the research centre at Lethbridge should begin soon. Dr. Rob Roughley is considering the feasibility of building an insect record catalogue from Aweme, MB. Other studies dealing with the effects of fire, and on vegetation structure and insect communities, on birds and insects, and grasshopper and spider species sampling, were noted.

In Ontario, Dr. Currie reported that the Royal Ontario Museum is currently planning, as well as searching for a new director. Student work on various systematics projects continues there. Dr. Marshall reported survey work on the Bruce Peninsula, at Point Pelee and in the Ojibway prairie. The Guelph collection now has a full-time professional curator. The CMN's Nature Discovery Fund has made its first award.

In Quebec, Dr. Wheeler reported that planning for the joint ESA/ESC/SEQ meeting continues. The SEQ had its annual meeting in Hull last October with the theme of biodiversity. Several large-scale diversity projects are under way in Quebec. A Canada Foundation for Innovation grant has resulted in renovations and additions to McGill field stations, and new computer and collections facilities. Databasing of Orthoptera continues for the Biota of Canada project. Several students are working on the systematics of Diptera. Dr. George Hsiung, the Lyman Museum curator, is retiring, and will be replaced.

For Newfoundland and the Maritimes, Dr. Larson reported that at Memorial University, entomological studies include a mosquito survey and a study on spiders of Newfoundland but only a few graduate students are doing insect-related work. The Newfoundland insectarium has been well received. Dr. Donna Giberson reported on other entomological studies. The University of Prince Edward Island now has a graduate program including current graduate students in biology.

Other matters

The Committee considered recent Survey publications, especially the revived Grasslands newsletter, the annual report to the Canadian Museum of Nature, a letter sent after the last meeting to the Editor of The Canadian Entomologist concerning systematics papers, liaisons with organizations outside Canada, and other information. The Annual General Meeting of the Biological Survey Foundation took place.

International Trust for Zoological Nomenclature

Applications published in the Bulletin of Zoological Nomenclature

The following Applications were published on 31 March 2000 in Vol. 57, Part 1 of the *Bulletin of Zoological Nomenclature*. Comment or advice on any of these applications is invited for Publication in the *Bulletin* and should be sent to the Executive Secretary (I.C.Z.N.), c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3120 ISCHNURINAE Fraser, 1957 (Insecta, Odonata): proposed conservation as the correct spelling of ISCHNURINAE to remove homonymy with ISCHNURIDAE Simon, 1879 (Arachnida, Scorpiones)

Victor Fet, Department of Biological Sciences, Marshall University, West Virginia 25755, U.S.A. (e-mail: fet@marshall.edu)

Gunter Bechly, Staatliches Museum für Naturkunde, Abt. Palaontologie, Rosenstein 1, D-70191 Stuttgart, Germany (e-mail: bechly@gmx.de)

Abstract. The purpose of this application is to remove the homonymy between the damselfly subfamily name ISCHNURINAE Fraser, 1957 (type genus *Ischnura* Charpentier, 1840; family COENAGRION-

IDAE) and the scorpion family name ISCHNURIDAE Simon, 1879 (type genus *Ischnurus* C.L. Koch, 1837, a junior subjective synonym of *Liocheles* Sundevall, 1833). It is proposed that the entire generic name of *Ischnura* should be adopted as the stem, so that the correct spelling of the damselfly subfamily will be ISCHNURAINAE Fraser, 1957.

Keywords. Nomenclature; taxonomy; Odonata; Scorpiones; COENAGRIONIDAE; ISCHNURAINAE; ISCHNURINAE; ISCHNURIDAE; *Ischnura*; *Ischnurus*; *Liocheles*; damselflies; scorpions.

Case 3119 VACHONIIDAE Maury, 1973 (Arachnida, Scorpiones): proposed conservation as the correct spelling to remove homonymy with VACHONIIDAE Chamberlin, 1947 (Arachnida, Pseudoscorpiones)

Victor Fet, Department of Biological Sciences, Marshall University, West Virginia 25755, U.S.A. (e-mail: fet@marshall.edu)

Matt E. Braunwalder, Frauentalweg 97, CH-8045 Zurich, Switzerland (e-mail: admin@arachnodata.ch)

Abstract. The purpose of this application is to remove the homonymy between two arachnid family-group names, VACHONIIDAE Chamberlin, 1947 (Pseudoscorpiones; type genus *Vachonium* Chamberlin, 1947) and VACHONIUM Maury, 1973 (Scorpiones; type genus *Vachonia* Abalos, 1954). It is proposed that the entire generic name of *Vachonia* should be adopted as the stem, so that the correct spelling of the scorpion subfamily name will be VACHONIAINAE Maury, 1973.

Keywords. Nomenclature; taxonomy; Arachnida; Pseudoscorpiones; Scorpiones; BOTHRIURIDAE; VACHONIAINAE; *Vachonia*; *Vachonium*.

Case 3103 *Orsodacne* Latreille, 1802 (Insecta, Coleoptera): proposed conservation by the designation of *Chrysomela cerasi* Linnaeus, 1758 as the type species.

Hans Silverberg, Finnish Museum of Natural History, Zoological Museum, P.O. Box 17, FIN-00014 Helsingfors, Finland (e-mail: hans.silverberg@helsinki.fi)

Abstract. The purpose of this application is to conserve the long understanding and usage of the generic name *Orsodacne* Latreille, 1802 for a holarctic group of leaf beetles (family CHRYSOMELIDAE). The genus was originally based on a single species of uncertain identity but in 1810 Latreille himself designated *Chrysomela cerasi* Linnaeus, 1758 as the type. This species has been treated as the type since that date. Species of *Orsodacne* are pests on cultivated plants.

Keywords. Nomenclature; taxonomy; Coleoptera; CHRYSOMELIDAE; *Orsodacne*; *Lema*; *Orsodacne cerasi*; leaf beetles; plant pests.

Case 3118 *Anthaxia* Eschscholtz, 1829 (Insecta, Coleoptera): proposed designation of *Buprestis nitida* Rossi, 1792 (currently *A. fulgurans* (Schränk, 1789)) as the type species.

Svatopluk Bily, Department of Entomology, National Museum, Kumratice 1, CZ-148 00 Praha 4, Czech Republic (e-mail: sv.bily@jelly.cz)

Abstract. The purpose of this application is to maintain the long accepted usage of the name *Anthaxia*

Eschscholtz, 1829 for one of the largest genera in the BUPRESTIDAE by designating the originally included species *Buprestis nitida* Rossi, 1972 (a junior subjective synonym of *B. fulgurans* Schrank, 1789) as the type species. The earliest designations were of other species, but acceptance of these would cause confusion in buprestid nomenclature.

Keywords. Nomenclature; taxonomy; Coleoptera; BUPRESTIDAE *Anthaxia*; *Anthaxia fulgurans*; *Buprestis nitida*.

Case 3090 *Musca arcuata* and *M. festiva* Linnaeus, 1758 (currently *Chrysotoxum arcuatum* and *C. festivum*) and *M. citrofasciata* De Geer, 1776 (currently *Xanthogramma citrofasciatum*) (Insecta, Diptera); proposed conservation of usage of the specific names by the designation of neotypes for *M. arcuata* and *M. festiva*.

David A. Iliff, Green Willows, Station Raod, Woodmancote, Cheltenham, Gloucestershire, GL52 4HN, U.K (e-mail:davidiliff@talk21.com)

Peter J. Chandler, 43 Eastfield Road, Burnham, Slough, Berkshire, SL1 7EL, U.K. (e-mail: chandgnats@aol.com)

Abstract. The purpose of this application is to conserve the long prevailing usage of the names of three hoverflies, *Chrysotoxum arcuatum* (Linnaeus, 1758), *Chrysotoxum festivum* (Linnaeus, 1758) and *Xanthogramma citrofasciatum* (De Geer, 1776). There has been confusion in the literature since 1982, when lectotypes (which may not have been syntypes) were designated for *C. arcuatum* and *C. festivum*. These designations had the effect of transferring the name *arcuatum* to *C. festivum* auct. and *festivum* to *X. citrofasciatum* auct.; the name *C. fasciatum* (Muller, 1764) was introduced for *C. arcuatum* auct. These changes have been followed by some but not all authors, and in accordance with Article 75.6 of the Code it is proposed that the long established usage of the names should be conserved by the designation of neotypes for *C. arcuatum* and *C. festivum*.

Keywords. Nomenclature; taxonomy; Diptera; SYRPHIDAE; hoverflies; *Chrysotoxum*; *Xanthogramma*; *Chrysotoxum arcuatum*; *Chrysotoxum fasciatum*, *Chrysotoxum festivum*; *Xanthogramma festivum*; *Xanthogramma citrofasciatum*.

Opinions published in the Bulletin of Zoological Nomenclature

The following Opinions were published in Vol. 57, Part 1 of the *Bulletin of Zoological Nomenclature*. Copies of these Opinions can be obtained free of charge from the Executive Secretary, I.C.Z.N. c/o The Natural History Museum, Cromwell Road, London SW7 5BD (e-mail: iczn@nhm.ac.uk).

OPINION 1943. *Pachylops* Fieber, 1858 (Insecta, Heteroptera): *Capsus chloropterus* Kirschbaum, 1856 (currently *Orthotylus virescens* (Douglas & Scott, 1865)) fixed as the type species.

OPINION 1944. *Papilio sylvanus* Esper, 1777 (currently known as *Ochlodes sylvanus* or *O. venatus* faunus; Insecta; Lepidoptera): specific name conserved.

OPINION 1952. AUGOCHLORINI Beebe, 1952 (Insecta, Hymenoptera): given precedence over OXYSTOGLOSSINI Schrottky, 1909.

OPINION 1953. *Strongylogaster* Dahlbom, 1835 (Insecta, Hymenoptera): conserved by the designation of *Tenthredo multifasciata* Geoffroy in Fourcroy, 1785 as the type species.

PERSONALIA

Obituary

Ron Allan (1917-2000)

Ronald Keith Allan was born on 15 November 1917 and died on 20 July 2000. By 1934, Ron's family had lived in Morden, MB; Star City, SK; Fleet and Clyde, AB, Tisdale, SK. For the next five years, Ron helped his father on the farm. Ron joined the Saskatoon Light Infantry in 1939 when WW II commenced. He proceeded overseas in December 1939 and spent three and a half years in England and seven months in Sicily and Italy before returning to Canada via England in 1944. He continued his service as a Battle Instructor until the war's end. Although he considered the army as a career, Ron took his discharge in July 1945 and worked for Canada Packers Ltd. for three years and then went on army call-out until 1950. In December 1950, Ron was appointed as a technician at the Dominion Entomology Laboratory, Saskatoon, then headed by A. P. Arnason. Ron was assigned to the wireworm investigations project where he remained until retirement in November 1982. He assisted in annual surveys of wireworm damage in the province; assessment of population levels and density fluctuations; control of wireworms including chemical seed and soil treatments; life history, behaviour, dispersal, and migration studies; and larval development. Ron was a careful and dedicated worker. Much of the success of the wireworm research may be attributed to his efforts in maintaining good records, making precise determinations, and compiling accurate, repetitive observations. Ron was predeceased by his wife Peggy on 18 February 2000 and is survived by a son.

Most of the above information was taken from Paul Riegert's *Entomologists of Saskatchewan* (1990).

Edward C. Becker

Leadership scientifique au XXI Congrès International d'entomologie/Scientific leadership at the XXI International Congress of Entomology

The names of the following entomologists from Canada appeared as organizers of a Symposium in the program (2nd announcement) of the XXI International Congress of Entomology, Iguazu Falls, Brazil (20- 26 August 2000).

R. I. Alfaro, N. J. Bostanian, P. Fields, K. Iatrou, D. Langor, I. S. Otvos, S. B. Peck, A. Retnakaran, J. R. Spence, R. S. Vernon, C. Vincent, J. Volney

Les noms des entomologistes canadiens pré-cités apparaissent comme organisateurs de Symposium dans la seconde annonce du programme du 21e Congrès international d'entomologie, Iguazu Falls, Brésil (20- 26 Août 2000).

PUBLICATIONS

New Publication

Checklist of the Hemiptera of Canada and Alaska, by Eric Maw, Robert Footitt, Andrew Hamilton and Geoffrey Scudder has just been published by the NRC Research Press. This publication summarizes the current state of knowledge of this group of over 3900 species, giving the systematic and distributional information by major political division. Separate alphabetic generic and species indices provide cross-referencing into the main hierarchical list. A brief descriptive synopsis is included for the main taxonomic groups and references to available identification guides, catalogues and bibliographies are provided. Annotations identify introduced species, indicate pest status, and give common names when available.

This publication will be of interest to researchers in pest management, biological control, biogeography and biodiversity, as well as quarantine inspectors, environmental and conservation workers and curators of natural history and systematic collections. **Price: \$39.95**

To order: Mail - NRC Research Press, M-55, National Research Council Canada, Ottawa, Ontario, K1A 0R6, Canada. E-mail - research.journals@nrc.ca Web - www.monographs.nrc.ca

Book Reviews

Mound, L. A. and G. Kibby. 1998. Thysanoptera. An Identification Guide. Second Edition. CAB International. (Oxford University Press). New York. vi + 70 pp. 337 figures. Glossary. Host plant and taxonomic indices. Ring bound. \$35.00 (U. S.).

For unknown reasons, the last two decades have witnessed a world-wide explosion in the impact of pest thrips in agriculture, particularly in the glasshouse industry. This book enables applied entomologists and growers with little knowledge of thrips, but with access to a good compound microscope, to collect, prepare and easily identify to suborder, family, subfamily and genus (and, for the thripid genera *Caliothrips* (5 species), *Frankliniella* (9), *Scirtothrips* (9) and *Thrips* (15), to species) adults of the common and pest thrips of the world. The authors' reasons for publishing a second edition only nine years after the first (Palmer, J. M., L. A. Mound, and G. J. du Heaume. 1989. CIE Guides to Insects of Importance to man. 2. Thysanoptera. CAB International Inst. of Entomology) were to update its information and to facilitate its use by persons uncomfortable with English or with the use of dichotomous keys.

The book has been totally reorganized and differs from the first edition in the following ways. It contains a pictorial rather than a dichotomous key to family, subfamily and genus; much new information on life history, distribution, economic importance, and characters; an annotated classification of the order including the latest information on known diversity within the eight families and 60 genera treated (about 2 percent of described species); a glossary defining the structures used in identification; and a host plant index. The book lacks an appendix to the distribution, prey and economic importance of members of key genera in each geographical area of the world (this information now provided in the classification) and Figures 251 and 252 of the first edition illustrating the life history stages of *Teuchothrips disjunctus* (Phlaeothripidae) and *Thrips obscuratus* (Thripidae), although these figures are still referred to on p. 2.

Most line drawings (337 generally by Jennifer Palmer or Graham du Heaume and acknowledged on

the back of the title page), are from the first edition (252) but have been carefully reorganized within the 62 paired boxes of the pictorial key with important characters indicated with arrows on the drawings, as in the Peterson Field Guides, and with bulleted statements describing them within each box (the 51 figures illustrating dichotomous keys to pest species within the genera *Caliothrips*, *Frankliniella*, *Scirtothrips* and *Thrips* are presented separately). These are printed with varying success in the visual key where some have been overly reduced, with unsatisfactory results, to accommodate the addition of new figures.

Success in identification requires each thrips to be properly mounted on glass slides in Hoyer's medium (temporary) or Canada Balsam (permanent) as fully explained in the section on specimen preparation. I identified specimens of several species selected from my collection from throughout the order and the world using the keys and they work extremely well--for the genera treated--except in step 50 where the left box leaves one dangling somewhere in the abyss of the Phlaeothripidae. Also, in the left box for step 55, the top figure of a fore wing of *Aleurodothrips fasciapennis*, has the posterior wing cilia emerging from in front of its leading edge and an additional row of short, posterior setae that are not present on the wings of this species. Finally, in the right box for step 61, the bottom figure does not show the foretarsal tooth indicated.

The bibliography contains 101 references (46 new; 20 omitted from the 76 in edition 1) and will enable users to trace down all important references on all aspects of Thysanoptera. The book is ring bound within shiny black covers, has a stereoscan micrograph of a *Sericothrips* sp. female (Thripidae) on the front and lies flat when open. It provides an accurate, concise and detailed introduction to the study of Thysanoptera and will be of great use to growers, applied entomologists and other biologists wishing to jumpstart their understanding of these fine little creatures and to identify pest species they encounter (it will also frustrate them when a thrips is collected belonging to a genus not treated by the book). I wish it had been available when I first started working with thrips in 1963.

Bruce Heming
Edmonton.

James L. Castner, *Amazon insects, a photo guide*. Feline Press, P.O. Box 357219, Gainesville, FL, 32635, USA, \$15.00 US

The illustrations in this book are a visual delight for anyone who is fascinated by insects, and particularly those already interested in the strange appearances and diverse adaptations of tropical insects. Jim Castner has combined his skill as a photographer and publisher with his extensive experience in the field in Central and South America to produce a guide that teaches about typical tropical insects, while also igniting dreams of Amazon collecting trips. The guide is not meant to be complete, of course, but rather to represent typical insect species and families that are likely to be seen. The photographs include representatives of Amazon beetles, butterflies, moths, odonates, katydids, grasshoppers, bugs, as well as ants, mantids, treehoppers, cockroaches, termites, bees, arachnids and other invertebrates. Castner says that special effort has been made to include species that are most likely to be seen while hiking on a tropical forest trail. The descriptions of the insects' movement and most likely habitat offer more chances to see them in the wild.

I recommend this book to those who are interested in the biodiversity of the Amazon Basin (or, lucky people, those who are actually planning to visit), but its main value may be for those who are interested in insects in general. The clear photographs and reasonable price (\$15.00 US; 10 or more copies get 40% off) would make it a great gift for budding entomologists, too.

Dan Johnson
Lethbridge

Denholm, I., J.A. Pickett, and A.L. Devonshire, (eds.). 1999. *Insecticide Resistance: From Mechanisms to Management*. CABI Publishing, CAB International, Wallingford, Oxon, UK, distributed by Oxford University Press, 198 Madison Avenue, New York, NY, 10016. Hardcover ISBN 0 85199 367 2. \$65.00U.S. 124 pages.

This slim volume is the proceedings of a discussion meeting held at the Royal Society of London in April of 1998 and has been (largely) previously published in Philosophical Discussions of the Royal Society of London Series B: Biological Sciences Vol 353:1675. As a separate volume, the presentations are likely to much more widely read and appreciated. Variations on the themes presented by some of the authors also have appeared elsewhere.

Resistance to chemical based controls, whether applied as traditional insecticides or as gene products in transgenic plants, is a major issue in the development of sustainable pest control strategies. The articles in this volume, all from leading research groups, cover topics ranging from the biochemistry of resistance mechanisms and molecular genetics to reviews of management strategies for some of the major resistance problems around the world. These are instructive to everyone interested in resistance, whether at the molecular level or in the development of field level programs.

Research on the primary pathways of detoxification are reviewed in several of the initial chapters. Of particular interest are those of Devonshire et al. and Raymond et al. which discuss elevated esterases as products of gene amplification and Berge et al. on the various cytochrome P450 families. This chapter also contains a succinct explanation of the nomenclature which has developed for this enzyme system. Resistance associated with alterations in acetyl cholinesterases and reduced binding of pyrethroids to nerve membranes is (unfortunately) not covered in single chapters and is scattered through a number of reports.

Richard Roush has provided a most interesting chapter on the pros and cons of pyramiding genes in transgenic crops as a resistance management strategy. That this is not necessarily a good long term approach without several restrictions or conditions was made quite clear. This chapter also contains much additional information on many of the current issues of resistance management, i.e. mixtures vs rotations, sizes of refugia etc. which make this required reading for anyone involved in pesticide development, registration or preparation of recommendations for use. The final chapter, by Marjorie Hoy, further emphasizes the limitations of the various regimes or simulations described in the Roush chapter, and points out that the basic tenet of resistance management is the delay of product failure, not the (inevitable) development of resistance. She argues strongly for a truly integrative approach to pest regulation, in short, the rediscovery of IPM in which several approaches are applied together to provide a truly sustainable system.

Of wider interest is the study of resistance as an evolutionary phenomenon. Similarities between species in the mutations involved are discussed at length by French-Constant et al. and the dispersal of resistant individuals from single mutation events vs the occurrence of multiple events are covered by Raymond et al., Denholm et al. and others. Tabashnik et al. provide evidence that there are diverse mechanisms possible in resistances to *Bacillus thuringiensis* toxins. Heckel et al. provide an insight into the objectives and procedures of a modern program in genomics which will be instructive to geneticists and to those interested in the application of such programs. These are issues that are important to many students of evolution and the processes of resistance development discussed by the various groups are most instructive.

While this volume will be a valuable reference to those involved in the study of insecticide or acaricide resistance, there are chapters that will attract those interested in population genetics or in resistance as an example of accelerated evolution. The diversity of chapters provides items of interest for such a wide readership.

D.J. Pree
Vineland, Ont.

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 a research project or to do course work pertinent to their thesis subject that could not be carried out at their own institution.

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 Form

The application form 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; 6) anticipated dates of travel and date on which grant money is needed.

The application form should also be accompanied by: 1) an up-to-date C.V.; 2) a supporting letter from the senior advisor; 3) When appropriate, a support 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. A constructive written report, underlining the positive and negative aspects of the proposal, will be returned to the applicant.

Timetable and Application Procedure

Application forms, which may be obtained from the Secretary of the Society, must be completed and returned to the Secretary of the Society by **15 January 2001**. The committee will evaluate all applications by 30 April 2000 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, as well as a detailed list of expenses, in the three months that follow the trip. Any money not spent must be returned to the Society.

La Société d'entomologie du Canada Allocations de Voyage pour Étudiants Gradués Appels pour Allocations

Préambule

Afin de promouvoir les études graduées en entomologie, la Société d'Entomologie du Canada offrira deux bourses de voyage associées à la recherche. Celles-ci seront décernées annuellement sur une base compétitive. Le but de ces bourses est de permettre aux étudiants gradués d'élargir les horizons de leur formation. Les bourses, d'une valeur maximale de \$2,000 permettront à des étudiants de réaliser un projet de recherche, ou de suivre des cours pertinents à leur sujet de thèse qui ne peuvent être entrepris dans leur propre institution.

Éligibilité

Afin d'être éligible, l'étudiant doit:

- 1) être inscrit à temps plein comme étudiant gradué
- 2) être un membre actif de la Société d'Entomologie du Canada

Format du Formulaire de Demande

Le formulaire de demande sera dans le style d'une demande d'octroi et l'étudiant devra fournir les renseignements suivants: 1) le sujet de la thèse; 2) une présentation de la littérature pertinente au domaine d'étude; 3) une présentation concise du statut du projet de recherche en cours; 4) une description de la recherche ou des cours qui seront entrepris, indiquant clairement a) la pertinence des objectifs généraux de la thèse, b) les raisons pour lesquelles ce travail ne peut être entrepris à l'université où l'étudiant est inscrit, et c) une justification concernant le choix de l'endroit où la recherche/les cours seront entrepris; 5) un budget pour le projet proposé; 6) dates prévues pour le voyage et date pour laquelle la bourse sera requise.

Le demande devra aussi être accompagnée: 1) d'un C.V. complet mis-à-jour; 2) d'une lettre de recommandation du directeur de thèse; et 3) lorsque convenable, une lettre d'appui d'un administrateur de l'institution que le candidat désire fréquenter.

Évaluation

La valeur scientifique de chaque demande sera évaluée par un comité qui aura l'option d'envoyer des demandes spécifiques pour évaluation par un lecteur externe, expert dans le domaine. Un rapport écrit, contenant une critique constructive, faisant ressortir les aspects positifs et négatifs de la demande, sera retourné à chaque candidat.

Échéances et Procédures

Les formulaires de demande, qui peuvent être obtenus du Secrétaire de la Société, doivent être remplis et retournés pour le **15 janvier 2001** au Secrétaire de la Société. Le comité évaluera toutes les demandes pour le 30 avril 2000 et déterminera si, et à qui, les bourses seront décernées. Les candidats choisis seront contactés immédiatement, cela afin d'allouer suffisamment de temps pour les préparatifs nécessaires à un départ possible à l'automne. La bourse doit être utilisée dans les 12 mois suivant l'octroi.

Les récipiendaires devront préparer un court rapport final, en plus d'une liste détaillée de leurs dépenses, dans les trois mois suivant le voyage. Tout argent non dépensé devra être remis à la Société.

Field Research Travel Award (Ontario students only)

The Toronto Entomologists' Association announces that it is now accepting applications for the W. John D. Eberlie Field Research Travel Award. In memory of long-time member, W. John D. Eberlie, the Toronto Entomologists' Association is offering a research travel award of \$300 to assist graduate or undergraduate students conducting original field research into Ontario insects. The award is intended as a travel grant to defray costs of travel to field sites used for research. The award will be made on the basis of merit and quality.

Invitation for applications:

Eligibility: Applicants must be members of the Toronto Entomologists' Association and a graduate or undergraduate student at an Ontario university.

How to apply: Submit a properly completed application form, available from the TEA. The original application plus 3 copies must be submitted to the TEA, postmarked no later than March 25, 2000.

Terms of the award:

The recipient is expected to present their results at the TEA symposium in March of the following year. The recipient is also expected to give a short report on how the funds were used to facilitate their aims as a naturalist or researcher. The report should include an abstract of the entire study and how the research funded by the award fits into their complete research program. The report and an abstract of their research, if possible, will be printed in Ontario Insects, the newsjournal of the TEA.

Process of selection and award presentation:

Applications will be reviewed by a committee of the TEA. The announcement of the recipient of the award will be made at the April meeting of the TEA. Payment will be made in April. The name of the successful applicant will be announced in Ontario Insects at the earliest possible date.

An application form for the award, or for membership in the TEA (\$10 per year for students) may be requested by writing to: Nancy van der Poorten, President TEA, 164 Morse Street, Toronto, Ontario M4M 2P8; Phone (416) 466-9013; e-mail: nmg.vanderpoorten@sympatico.ca

William Haliburton Scholarship

This scholarship was created in memory of William Haliburton, a forest entomologist. It consists of two scholarships valued at \$2500 each to be awarded annually to students of forestry and the environment at the University of New Brunswick.

MISCELLANEOUS

Insect Common Names

The ESC Insect Common Names Committee is considering a submission for addition to the ICN List of *Acrolepiopsis assectella* (Zell.), order Lepidoptera, family Yponomeutidae, the 'leek moth' or 'teigne du poireau' of Europe, North Africa, Asia (part), and Hawaii. For some years now, this insect has been present in eastern Ontario and west Quebec, and it has potential to spread and become a pest of *Allium* plants, particularly in the warmest parts of southern Canada where it might have 3 generations per year.

To comment on this submission, or for other matters of concern to the ESC Insect Common Names Committee, please contact the Chair, Dr J.A. Garland, 1011 Carling Avenue, Ottawa K1Y 4E7, Phone (613) 228-6698, Fax (613) 228-6662, E-Mail : garlandj@em.agr.ca.

**ENTOMOLOGICAL SOCIETY OF CANADA
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393 Winston Ave., Ottawa, Ontario K2A 1Y8

**Application for membership - (new members only)
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Name and Address (please print):

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Décrivez vos intérêts en utilisant jusqu'à
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Please copy and distribute to interested non-members. Thankyou.

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