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The *Bulletin* is your medium for publishing and receiving news and opinions. It is the principal medium by which the ESC keeps you informed. Contributions should further the Society's objects "to study, advance, and promote entomology". They need not relate to ESC members or affairs but should be of interest to Canadian entomologists.



*Dr. Norman S. Church*

We regret to announce the sudden death of Norman Church on 28 July 1975. Norman became Secretary of the Entomological Society of Canada 1 January 1975, and held the post until his death. With his strong interest in Society affairs, and knowledge of the functioning of such organizations, Norman was rapidly becoming an outstanding Secretary. We extend our sincere sympathy to the family of Dr. Church.

## *Editorial*

### **PRESIDENT COOPER**

In deploring the trend of governments to downgrade science and allow the proliferation of bureaucracy at the expense of scientific pursuits (see page 53), George Cooper has made one of the strongest statements of any incoming President. Furthermore he means to use all his energies to fight this trend **on our behalf**. George can't do it alone, he needs all the backing he can get. Write him and offer your support by suggesting places where action is needed and by suggesting tactics. Get the story, consult other local members, then speak to your M.P. and M.L.A. Recruit a member and increase his mandate or if you don't belong to the ESC, join now. Let George do it with wholehearted support.

## Entomological Society of Canada



*Gold Medal*  
*for*  
*Achievement in Entomology*  
*presented to*  
*Geoffrey G. E. Scudder*

Saskatoon, Saskatchewan

August 1975

The Gold Medal of the Entomological Society of Canada is awarded to Professor G. G. E. Scudder, University of British Columbia, in recognition of his contributions to teaching and research.

Geoffrey George Edgar Scudder was born in England at Fawkham, Kent, 18 March 1934. He attended the Fawkham Primary and Gravesend Grammar Schools, then took a B.Sc. degree with 1st Class Honours in Zoology at the University College of Wales, Aberystwyth. During the summers of 1954 and 1955 he was a research assistant in the Department of Entomology at Rothamsted Experimental Station, Harpenden. At the age of 21 he was a graduate student, of Jesus College, Oxford University, in the Hope Department of Zoology (Entomology). There he was awarded the D. Phil. in Entomology in 1958. He received scholarships during all of his student years. As a graduate student he gave early promise of his future productivity by publishing 29 scientific papers, an astonishing record. His papers now number upwards of 140.

Soon after completing his doctorate, Geoffrey Scudder married Jacqueline Howard and accepted an appointment as an Instructor in the Department of Zoology of the University of British Columbia, Vancouver. Within ten years his combination of driving, directed energy and impeccable scholarship had carried him to a full professorship. The Scudders have a daughter, Nicola Claire, born in 1965.

Geoffrey combines to an unusual degree, two qualities which mark many successful researchers and teachers, especially of graduate students: he maintains a central, scholarly interest in which he is the preeminent specialist with an international reputation, but does not allow it to reduce the great breadth of his entomological interests. From these he generates ideas, throwing off sparks of stimulation and inspiration in different research areas. His best known publications are on the biosystematics and speciation, morphology and distribution of the Hemiptera, especially of the Lygaeidae. A major monograph on the

group is now in an advanced stage for publication. It will be well and profusely illustrated by Arthur Smith, of London.

Being continuously associated with the University of British Columbia for seventeen years has not kept Scudder from personal contact with people, problems, institutions, museums and environments all over the world. He has been, on occasion, a Visiting Professor in the Department of Zoology at Imperial College, University of London (1964-1965); an exchange scientist of the National Research Council of Canada in the Soviet Academy of Sciences at Moscow and Leningrad (1965); a Research Associate at the B.P. Bishop Museum at Honolulu (1970); a Visiting Scientist at the Wau Ecology Institute, Papua, New Guinea (1972); and an invited member of the University of Florida Galapagos Islands Expedition (1973).

Universities at which he has lectured include those of: Saskatchewan, Hawaii, Victoria, Washington, Oregon, Simon Fraser, Charles' (Prague), Moscow, Reading, London, Oxford, Glasgow and Helsinki. His courses at Vancouver are usually on basic biology, elementary and advanced entomology, comparative vertebrate zoology, and notably for advanced students an outstanding course on modern concepts of evolution and its mechanisms and zoogeography. These are illustrated and given relevance by the fact that Scudder has carried out field studies in very many places, such as: Australia and New Zealand; Alaska and much of North America; Ecuador; Sweden, Finland and the U.S.S.R.; Fiji, New Guinea and the Hawaiian Islands; Israel, Cyprus and Greece; Austria and Germany; and the United Kingdom. He has examined collections in some 26 major museums around the world.

Scudder's work on Hemiptera includes revisions of the Rhyparochromine Lygaeidae of the world, and of the Lygaeidae and Fulgoroidea of Canada and Alaska; systematic studies of the Lygaeinae, Heterogastrinae and Ischnorhynchinae of the world, and a synopsis of the Heteroptera of British Columbia. But his research interests reach well beyond the biosystematics and ecology of the Hemiptera. Scudder and his students have probed into and published on: flight muscle; histophysiology; fine structure and electron microscopy; comparative and functional morphology; polymorphism; giant chromosomes; stridulation; the cuticle and its function; salinity and especially osmoregulation in aquatic Hemiptera; cardiac glycosides of plant origin and their uptake, distribution, physiological effect and role in defence; melanism and warning coloration; temperature effects; neurosecretion; studies on insects of inland saline lakes, especially Corixidae, Gerridae and Chironomidae; and studies of form and function in the malpighian tubules of aquatic insects.

As if all of this was not enough, Scudder carries a full share of work-horse tasks within the Department of Zoology and of outside professional obligations. He is the Assistant Editor of the Canadian Journal of Zoology, an Associate Editor of *Syesis* (a Journal of the British Columbia Provincial Museum), a reviewer for the National Science Foundation of Washington, D.C., and a member of the Science Council's panel on taxonomy.

Geoffrey is much more than just a highly successful teacher, taxonomist, researcher and administrator, however. Friends, neighbours and students at all levels know him also as a warmhearted and helpful fellow human who inspires affection and deep respect.

The Society salutes this fourteenth recipient of its Gold Medal for Outstanding Achievement in Canadian Entomology, for his scientific accomplishments in published entomological research, for his contributions to better understanding of the mechanisms of organic evolution, and for his demonstrated concern for and skill in teaching.

## Entomological Society of Canada

*C. Gordon Hewitt Award*

*for  
Achievement in Entomology  
presented to  
Robert P. Bodnaryk*

Saskatoon, Saskatchewan

August 1975



The C. Gordon Hewitt Award of the Entomological Society of Canada for 1975 is presented to Dr. Robert P. Bodnaryk, Agriculture Canada Research Station, Winnipeg, Manitoba, in recognition of his outstanding achievements in entomological research.

Robert Bodnaryk was born in 1940 at Kamsack, Saskatchewan but moved at an early age to Ontario. He completed his early education at Pickering and then obtained a B.A. in Biology and Chemistry from McMaster University, Hamilton, graduating in 1963. Subsequently he obtained an M. Sc. (1965) and Ph. D. (1967) in Physiology and Biochemistry at the University of Waterloo under the supervision of Prof. Paul E. Morrison. Following graduation, Bob spent two years as a Post-doctoral Fellow with Dr. Leo Levenbook at the Laboratory of Physical Biology, National Institute of Arthritis and Metabolic Diseases, Bethesda, Maryland, U.S.A. In 1968 he joined the staff of the Agriculture Canada Research Institute, Belleville, Ontario, as a Research Scientist. On the closing of this Institute in 1972, he spent a year as a Visiting Scientist with Dr. P.C.J. Brunet at the Department of Zoology, Oxford University, England, before moving to the Agriculture Canada Research Station, Winnipeg, Manitoba. He was married in 1967 to Barbara Hausman of Kitchener, Ontario, a Latin teacher.

Bob's research has been concerned with several facets of the subject of insect physiology and biochemistry. During his graduate studies at the University of Waterloo, the emphasis was on reproductive physiology and biochemistry, where he demonstrated the occurrence of a sex-specific blood protein in female houseflies and related this protein to nutrition and ovarian development. Subsequently he showed that melanotic tumors in the adult house fly were induced by an imbalance in nucleic and amino acids.

During his post-doctoral fellowship at Bethesda, he became interested in biochemistry of insect peptides and continued some of this work at Belleville. He discovered that high levels of beta alanyl tyrosine were characteristic of



the genus *Sarcophaga*; this compound was the principal form of tyrosine storage and played a central role in pupal sclerotization. Gamma glutamyl phenylalanine was found to be the chief form of phenylalanine storage in houseflies where it is synthesized by transfer of the gamma glutamyl residue of glutathione. As phenylalanine is a precursor of tyrosine and quinones the gamma glutamyl cycle is essential for proper sclerotization of insect cuticle. Beta alanine was also incorporated into insect cuticle to an extent that varied directly with its degree of sclerotization. While at Oxford, Bob found that the transport of the sclerotizing agent N-acetyldopamine was mediated by its sulphate and phosphate esters. He also provided evidence that a gamma glutamyl cycle was a probable mechanism for the transport of amino acids across the membranes of the insect gut and malpighian tubules, and developed new radioisotope tracer kinetics for investigating aspects of the cycle.

Bob studied many of the enzyme systems responsible for the synthesis of the above peptides and their metabolism into insect cuticle. As the production of cuticle is not a characteristic of vertebrates, he postulated that chemicals that interfered with its metabolism might be useful to control insects and be relatively harmless to man and his environment. Ecdysone, the moulting hormone of insects, induces the formation of the necessary enzymes and controls the process of moulting and sclerotization of new cuticle. Thus Bob has studied the effect of inhibiting specific enzymes to prevent cuticle formation with resulting death of insect larvae. He has also investigated the treatment of insects with ecdysone or its chemical analogues to produce precocious sclerotization, that also results in death.

Bob is currently investigating the experimental insecticide PH 60.40 which disrupts insect ecdysis and is developing a project to study cyclic nucleotides which may serve as intracellular second messengers of insect hormones.

The Entomological Society of Canada honours Dr. Bodnaryk, the first recipient of its C. Gordon Hewitt Award, for his outstanding contributions to Canadian Entomology.

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## PRESIDENT COOPER

Dr. George S. Cooper was installed as President for 1975-76 at the Annual Meeting, 18 August 1975, at Saskatoon. At his installation George said "I deplore the trend of governments to downgrade science and to allow the proliferation of an immense bureaucracy in this country at the expense of scientific pursuits. A serious consequence is that sociological and environmental decisions are being made by bureaucrats without or with token consultation of ecologists. I pledge to use all my energies on your behalf to fight this trend and to strongly advocate the restoration of respect and support for biology in proportion to its importance to society. I further pledge to press the stand of this society on the appropriate government agencies and at the political level".



## LETTERS TO THE EDITOR

### LEPIDOPTERA OF ONTARIO

Sir:

As reply to your suggestion (or better that of W. Y. Watson) in **Bulletin 7(2)** concerning Ontario insect lists I would like to remark that we have ready for the editor as Museum publication a comprehensive check list, mostly annotated, of the Lepidoptera of Ontario.

J. C. E. Riotte  
Royal Ontario Museum  
Toronto

### AGAIN SO SOON?

Sir:

Please make a correction in your forthcoming meetings section of the Entomological Society of Canada Bulletin. You have the North Central Branch ESA meeting in March of 1976 in East Lansing, Michigan; this should not be listed for the meeting was held in March of 1975. It was much too much work for us to even think of hosting it again after such a short period of time has elapsed.

James E. Bath  
Michigan State University  
East Lansing

### MEMOIRS OF THE ENTOMOLOGICAL SOCIETY OF CANADA

No. 94

The cephalic structures and spiracles of final-instar larvae of the subfamily Camopleginae, tribe Campoplegini (Hymenoptera: Ichneumonidae)

by Thelma Finlayson

issued 13 June 1975

No. 95

The *Lygus* bugs (genus *Lygus* Hahn) of North America (Heteroptera: Miridae)

by Leonard A. Kelton

issued 18 July 1975



## PRESIDENT'S REPORT



*C. R. Harris*

On behalf of the Governing Board  
to the Annual General Meeting  
Saskatoon, 18 August 1975

It is my pleasure to report to you on behalf of your Governing Board on the 12th year of the Entomological Society of Canada. It has been an interesting and active year for the Society: one in which we have faced a number of problems, and also a year in which we have made substantial progress. I do not propose to go into detail since important actions of the Board have been reported in the *Bulletin*, 6(3):82-83; 7(1):18-19, and accomplishments of the various committees also have been or will be reported there.

### Our Changing Role

The Letters Patent of Incorporation of the Entomological Society of Canada state that the object of the Society "shall be to study, advance, and promote entomology". It used to be relatively simple for the Society to meet this objective. The importance of scientific advances to the well-being of society in general were obvious to and received the support of both policy-makers and the public. Scientists as individuals were able to influence science policy. In these circumstances our Society was able to meet its objective primarily by serving as a fraternity for entomologists and by providing media for communicating results of their research. More recently important changes in Canadian science policy, many of dubious value, have been adopted by our policy-makers. As happens so often, these changes are being supervised by an ever-expanding bureaucracy and the era in which individuals could influence science policy is over. Scientists will be able to make themselves heard only through organization, logically through our scientific societies. Successive Governing Boards have recognized that the traditional role of our Society is changing and have taken steps to develop policies and programs designed to meet these new responsibilities.

### Society Operation

The Entomological Society of Canada is both a National and International Society with members in all parts of Canada and in many foreign countries. With a limited budget, the Governing Board, drawn from all parts of the country, is able to meet only three times a year and the membership only once. In the interim, much of the responsibility for operation of the Society is delegated to the President, President-Elect and Past-President who comprise an informal Executive Committee, and to the Secretary, Treasurer and Editor. In these circumstances the Society requires By-laws and Rules and Regulations

which not only protect the rights of the members but also allow the Executive Committee and Managing Council the flexibility required to meet their responsibilities. The Governing Board has, for some time, recognized that both the By-laws and Rules and Regulations need revision and a committee chaired by Dr. MacGillivray accepted this challenging task. A proposed revision of the By-laws has been published in the *Bulletin* 7(2) for consideration by the members prior to holding a mail ballot. Major revisions include: 1) formalization of the Executive Committee as an Executive Council which will share responsibility with the President in overseeing the affairs of the Society between Board meetings; 2) elimination of the Managing Council and classification of the Secretary, Treasurer and Editors as Trustees responsible for conducting the affairs of the Society according to policies laid down by the Board and members; 3) according Student Members all privileges of Active Members; and 4) inclusion of Fellows as a class of members. The Rules and Regulations are also being streamlined to eliminate many of the details which have hampered the operation of the Executive Committee and Managing Council.

### Finance

In the past year operating costs, particularly of *The Canadian Entomologist*, increased markedly. To cover these increases the Governing Board was forced to recommend increases in both fees and publication costs which were accepted by the membership, *Bulletin* 6(3):78. These increases combined with stringent budgeting by the present Board and the unexpected elimination of two substantial budget items resulted in a profitable year of operation for the Society. Our reserve fund has increased slightly. I should stress, however, the importance of maintaining or if possible increasing our reserve fund. It is very likely that costs of publication will increase again in the near future. Since the Board cannot increase fees without permission of the membership, there can be a considerable interval over which the reserve fund must be used to cover our operating costs.

With regard to other financial matters this year, the question of purchasing a building for the Society, *Bulletin* 6(4):123-126 was held in abeyance. Both the Finance Committee and the Governing Board feel that this matter must be approached cautiously since it represents a major long-term commitment on our part. No suitable building within our price range was located in the Ottawa area in the past year.

### Membership

A disappointing aspect of Society operation this year has been a drop in membership of approximately 10%. This appears to be a common occurrence when fees or publication costs are increased. Nevertheless the Society cannot afford to lose members. It is interesting to compare our membership list with those of regional societies. In several cases less than 50% of the members of regional societies belong to the national society. During my travels on behalf of the national society this year I often heard the argument that the national society does little for entomologists. Considering the accomplishments of the ESC in recent years this surely is not the case. I can only conclude that we have done a poor job of selling ourselves to non-members and would strongly recommend that the ESC undertake an active membership campaign in the near future.

## Publications

Publication of **The Canadian Entomologist** has gone smoothly during the past year through the combined efforts of our Treasurer, Managing Editor, Editors and Associate Editors. Printing problems encountered in 1974, which resulted in late publication, were overcome. As you know all manuscripts are sent to reviewers. While most reviewers are very prompt we have occasionally encountered difficulty with slow responses on the part of reviewers resulting in delays in publication. Prompt action on the part of all reviewers would be greatly appreciated by the Editors. An additional factor which has slowed processing of manuscripts is the intolerable situation regarding delivery of the mail. Very often delivery which should take only a few days requires from 1 to several weeks. The drastic increases in publication costs during the past year had no obvious effect on the number of papers being submitted for publication. It is a policy of the Society that **The Canadian Entomologist** accepts manuscripts in all entomological fields and it is encouraging to note the diversity of subject matter in the issues published over the past year.

In the past some of the members affiliated with Canadian universities have tended to publish in government subsidized journals such as **The Canadian Journal of Zoology** since they could do so without having to pay page charges. To overcome this problem we applied for, and received a publication grant of \$10,000, from the National Research Council for the current fiscal year. This grant is being used solely to eliminate page charges on papers submitted by Active and Student Members affiliated with Canadian universities. It is not included in the general revenues of the Society and thus does not compromise our independent operation of which we have been justly proud.

Publication of the **Bulletin** has also gone smoothly this year. I'm sure that through it our members are all better informed about Society affairs and also have a medium through which they can participate and express opinions. A great deal of credit is due to Dr. Eidt who has edited **The Bulletin** almost since its inception. Dr. Eidt has indicated that he wishes to step aside at the end of 1975. Dr. Bernard Philogène has been appointed as his successor.

General operation of **The Canadian Entomologist** has, in the past, been the responsibility of the Editorial Board. The Governing Board has felt that the terms of reference for the Editorial Board were badly outdated. As a result the Editorial Board will be replaced by a restructured "Publications Committee" responsible for overseeing operation of **The Canadian Entomologist**, the **Memoirs** and the **Bulletin**. Both the Editor and Assistant Editor (**Bulletin**) will be ex-officio members of the new committee.

## Honours

The Society also continued its program of recognizing outstanding contributions in entomology. The 1975 Gold Medal was awarded to Dr. G. G. E. Scudder of the University of British Columbia and the first Hewitt Award for outstanding contributions by an entomologist under 40 to Dr. R. P. Bodnaryk, of the Agriculture Canada Research Station, Winnipeg. The membership elected two new Honorary Members, Mr. W. J. Brown and Dr. R. Glen. In accordance with the wishes of a large majority of the membership the Governing Board appointed an Interim Fellowship Committee chaired by Dr. Holland to select the first group of Fellows of the Society. The Scholarship Committee, chaired by Dr. McLintock drafted rules and regulations governing the Entomological Society of Canada Post Graduate Award and advertised for applications in the **Bulletin** 7(2):37-39. The first award will be made in 1976.

## Meetings

Traditionally the annual meeting of the national society has been held in conjunction with a meeting of a regional society. In recent years there have been suggestions both by individual members and some regional societies that the national society should, on occasion, host its own annual meeting. This year a committee chaired by Dr. Varty developed guidelines for future meetings which will enable the national society to organize a separate annual meeting as the occasion arises. The Governing Board has designated 1978 as the year in which the Society will host its first national meeting.

During the year the Governing Board placed emphasis on developing better communication with the Affiliated Societies. The national society was represented, in most cases by a member of the Executive Committee, at all regional meetings.

## Other Activities

Other Society activities in the past year included participation by Mr. Roadhouse, as our representative to the Canadian Standards Association Committee, in the preparation and publication of a revised list of "Common Names for Pest Control Chemicals." Dr. Kelleher is completing a revision of the "List of Insect Colonies". A notice will appear in the *Bulletin* later this year indicating that this list will be available on request.

## Science Policy

My report thus far relates to what would be considered the "traditional" roles of the Society. However, as I noted earlier recent Governing Boards have also recognized the necessity for promoting entomology to our science policy makers. A Science Policy Committee was set up; the Society joined two umbrella organizations, committees were established to plan a Manpower Study and a Biological Survey of the Insects of Canada, etc. During the past year the Governing Board reorganized this rather fragmented approach with the aim of developing a more comprehensive approach to science policy. All activities relating to science policy were incorporated under one committee chaired by Dr. Munroe. This approach has been very productive.

## Umbrella Organizations

One of the most difficult decisions faced by the Governing Board this past year has been to assess the value to our own members of belonging to umbrella organizations. The Society joined both the Biological Council of Canada (BCC) and The Association of the Scientific, Engineering and Technological Community of Canada (SCITEC). Fees to these societies, particularly the BCC were substantial, taking approximately 1/6 of the revenue we receive in membership fees. The principle behind organization of these umbrella societies was that they would speak for science and scientists with both authority and strength. In practice, these societies have not functioned well and successive Governing Boards for the past 3 years have been particularly concerned with the operation of the BCC. After very careful consideration, the Board unanimously agreed that it could not justify to our membership further support of the BCC. You will be asked to ratify that decision at this meeting. In taking this decision the Board realized that the Society must now assume greater responsibility in representing our members on matters of science policy.

In order to accomplish this goal our Society needs to aim for several objectives: 1) we need background information on the manpower situation in

entomology in Canada; 2) we need an inventory of entomological research and funding; 3) we need to establish neglected priorities and propose alternative programs; and 4) we need to be in a position to influence policy makers. Some progress was made on all these objectives this year.

### **Manpower**

As you will be aware the Society had been investigating the feasibility of conducting a Manpower Study, **Bulletin** 6(3):81, and the Governing Board allocated \$3,000. to carry out this study if funding could not be obtained elsewhere. Fortunately, the Society was awarded a substantial contract by the Federal Department of Supply and Services to carry out this study. The sponsor was the Public Service Commission. A consultant has been hired and preparations are well underway. I believe that this is the first grant of this type awarded to a Scientific Society in Canada.

Plans are being laid for the second step in our program, i.e. an inventory of entomological research and funding which will be initiated on completion of the Manpower Study.

### **Biological Survey**

With regard to neglected priorities, the Society has for several years been working on a proposal for a "Biological Survey of Insects of Canada." A preliminary proposal was published in 1974 in the **Bulletin** 6(2). This proposal will require substantial funding. A subcommittee chaired by Mr. Downes has therefore spent a great deal of time laying the necessary ground work and soliciting support of the various agencies involved. We are encouraged with the response we have received to date and hope to be in a position to submit a proposal to the Department of Supply and Services in the near future.

### **Research Support**

As those of us at universities know only too well, support of research programs by the National Research Council is critical. Although some entomologists have served or are serving on NRC Grant Selection Committees, the Board has felt for some time that entomology is badly underrepresented. In the past our Society has submitted nominations for membership on NRC Grant Selection Committees through the BCC, but none was accepted. This year we requested and were granted permission to make nominations directly to the NRC. I am sorry to report that again, for a variety of reasons, none of our nominations were acceptable to the NRC. Through further correspondence we have, however, obtained guidelines from the NRC which should assist us greatly in making suitable nominations in the future.

### **Future Outlook**

Thus in the field of science policy this year we have had some successes and some failures. In part, our failures were due to lack of experience. However, one very important point has become obvious to the members of our Science Policy Committee and to the Governing Board, i.e. that as a scientific society we can exert influence on science policy, even if on a small scale. Science policy administrators have responded quickly to our requests for information, welcomed our suggestions and encouraged us to apply for grants in support of our various programs. In contrast to the umbrella societies which must attempt to represent many interests, our Society is a closely knit organization representing a single discipline and as such we are in a very favourable

position. In future much more could be accomplished, assuming our members are willing to devote the large amount of voluntary effort required.

### Interest is High

This brings me to the conclusion of my report on the activities of the Society in the past year. It has been an interesting experience for me personally. The Executive Committee has functioned very much as a unit this year and I would particularly like to thank Past-President McIntock and President-Elect Cooper for their advice and support and for sharing the work load. Members of the Governing Board patiently put in long hours in order to cover all aspects of business at our three Board meetings and willingly accepted tasks which came up in the interim. Although the Governing Board establishes policy, the members of the Managing Council conduct the day-to-day affairs of the Society. The Secretary, the late Dr. Church, the Treasurer, Dr. Becker, and the Editors, Drs. Morrison and Eidt are really the unsung heroes and deserve much credit. One of the strengths of our Society is that its operation is dependent almost entirely on voluntary effort on the part of the membership. This year there was no shortage of volunteers willing to accept committee appointments. Interest in the operation of the Society by our members is high, as evidenced by the letters, some complimentary, some critical, which I received from members this year. It has been a pleasure for me to serve as your President.

---

## ENTOMOLOGISTS AMONG 19 WOMEN HONORED



*Mrs. J. B. Adams*



*Miss Margaret MacKay*

Jean Adams, Fredericton, and Margaret MacKay, Ottawa, were among a group of 19 women honored at the National Museum of Science in Ottawa last summer. The occasion was the opening of a special display on the role of women in the natural sciences in connection with International Women's Year. Their contributions, Jean's in aphidology, Margaret's in larval taxonomy of Lepidoptera, were cited, and each was required to lecture for 1 hour to a general museum audience.



**MINUTES**  
**TWENTY-FIFTH ANNUAL GENERAL MEETING**



**ENTOMOLOGICAL SOCIETY OF CANADA**  
University of Saskatchewan, Saskatoon, Sask.  
18 August 1975

The President, Ron Harris, called the meeting to order at 1935 hours. There were approximately 50 persons in attendance.

*Notice of meeting*

A preliminary notice was published in the **Bulletin** 6:140 (December 1974) and a fuller notice in the **Bulletin** 7:5 (March 1975).

*Proxies*

None was declared.

*Deceased members and other Canadian entomologists*

One minute of silence was observed in memory of A. D. Baker, A. W. Baker, J. W. McB. Cameron, J. A. Chapman, N. S. Church, R. D. Dixon, T. N. Freeman, H. G. James, R. Kasting, G. B. Orlob, H. L. Seamans, S. G. Smith, and E. B. Watson.

*Minutes of Twenty-Fourth Annual General Meeting (1974)*

The minutes were published in the **Bulletin** 6:77-80. J. McNeil moved, W. A. Charnetski seconded, that the minutes be adopted as published. Carried.

*Business arising from minutes*

There was none.

*Report of the Governing Board*

President Harris read his report (see page 55) covering the activities of the Governing Board during the past year. C. R. Harris moved, J. S. Kelleher seconded, that the report be received. Carried.

*Biological Council of Canada*

President Harris referred to the notice printed in the **Bulletin** 7:43. W. J. Turnock moved, R. H. Burrage seconded, that the Entomological Society of Canada withdraw from the Biological Council of Canada. Carried (34 to 4).

R. W. Fisher moved, F. L. McEwen seconded, that the effective date of withdrawal be 31 December 1974. Carried (38 to 0).

*Report of the Auditor*

Treasurer Ed Becker noted that the auditor's report will be published in the September issue of the **Bulletin** (see page 72). A few copies of



the report were available. E. C. Becker moved, G. H. Gerber seconded, that the report be received. Carried.

### *Report of the Election Committee*

Acting Secretary Becker reported that K. G. Davey, Convenor, Elections Committee, wrote on 18 July 1975 that the successful candidates were: M. Ellen MacGillivray, President-Elect; J. Lucien Auclair and Susan B. McIver, Directors-at-Large; and Williamson J. Brown and Robert Glen, Honorary Members.

### *Installation of new officers*

C. R. Harris passed the gavel to President Cooper.

President Cooper asked President-Elect MacGillivray to join him at the front of the room and noted that she was the first woman President-Elect of our Society. He introduced Director-at-Large Susan B. McIver (J. Lucien Auclair was unable to be present) and Director Manfred Mackauer, representing the Entomological Society of British Columbia.

### *Presentation of Service Award Shields*

President Cooper noted that during the past year, under the leadership of Ron Harris, the Society had initiated a manpower study, had received a NRC publications grant, and had the biological survey of insects study well under way. He then presented a Service Shield to Past-President Ron Harris.

The President also paid tribute to the work of Doug Eidt in editing the *Bulletin* and presented him with a Service Shield.

### *Appointments, committee chairmen, representatives*

President Cooper announced the members of the Managing Council and the Committee Chairmen. (See page 66)

### *Election of Auditors*

D. C. Eidt moved, W. A. Charnetski seconded, that we appoint Geo. A. Welch & Co., Ottawa, as auditors for 1975. Carried.

### *Resolutions*

J. S. Kelleher moved, B. J. R. Philogène seconded, that the following resolutions, prepared by the Resolutions Committee (J. S. Kelleher, Chairman; and F. L. McEwen), be adopted. Carried unanimously.

1. Whereas the University of Saskatchewan has generously provided excellent facilities for scientific sessions, accommodations for members and their families, and help in planning for the 25th meeting of the Entomological Society of Canada, be it resolved that this Society extend thanks to them, through a letter to the University President.

2. Whereas the City of Saskatoon and the Province of Saskatchewan have supported special features as social highlights of this meeting, be it resolved that this Society extend our thanks to them.

3. Whereas the Saskatoon Research Station, Agriculture Canada, has provided many services and opened its doors to our members and whereas the untimely passing of our Secretary, Dr. Norman Church, has imposed additional burdens on the staff, the Entomology Section head, and the Director, be it resolved that special thanks be extended by our Society to them.

4. Whereas the Entomological Society of Saskatchewan, in cooperation with the Canadian Botanical Association and the Canadian Phytopathological Society, has arranged for an excellent program in both scientific and social content for this 25th annual meeting, be it resolved that our Society express its thanks and appreciation to all those involved.

5. Whereas a high quality program has been assured through participation by outstanding plenary speakers, therefore be it resolved that our Society extend our appreciation to them for their efforts.

### *Twenty-Sixth Annual General Meeting*

Acting Secretary Becker announced that the next annual meeting will be held in Toronto, 25-27 October 1976.

### *Other business*

President Cooper read the names of the winners of awards for prints and for slides in the Fifth Insect Photographic Salon. (See BEP Photo Salon Awards, page 69)

(Note—The following awards were presented at the BEP third plenary session on 19 August 1975:

Honorary Membership	Williamson J. Brown (in absentia)
	Robert Glen
C. Gordon Hewitt Award	Robert P. Bodnaryk
Gold Medal Award	Geoffrey G. E. Scudder

Dr. Scudder's Gold Medal Address was entitled "Are Insects Perfect?")

On motion by J. Guthrie the meeting adjourned at 2040 hours.

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## **BOOK REVIEW**

**Geographic Variability in *Speyeria*.** Arthur H. Moeck. 1957. Reprinted in 1975 by Entomological Reprint Specialists, P.O. Box 77224, Dockweiler Station, Los Angeles, California 90007. 48 pp., 2 pls., paper cover, \$3.50.

This essay, based on 30 years of field collecting by the author, is a fairly detailed analysis of the distribution of the species and subspecies of the genus *Speyeria* (Lepidoptera: Nymphalidae). The "distribution maps" for the species are sketches illustrating the general geographic placement of the various subspecies but do not attempt to accurately delineate the boundaries of either the species or the constituent subspecies. Patterns of geographic variation such as the occurrence of dark forms in the east and the Rocky Mountains and pale forms in the Great Plains and the Great Basin is a phenomenon not restricted to *Speyeria* and in this respect the book will be of interest to anyone encountering similar variation in other groups. While not a revision, the book is a valuable contribution to our understanding of the genus and lays the groundwork for future research.

J. D. Lafontaine

## ACTIONS OF GOVERNING BOARD

**16-17 August 1975**

- |                    |  |
|--------------------|--|
| Finance            | 1. Discussed the concept of a single fee structure for members joining directly and members joining through an affiliate society and referred the matter to the Finance Committee for study.                               |
| Publications       | 2. Dissolved the Editorial Board and created a new Publications Committee to reflect the changing conditions and responsibilities.   |
|                    | 3. Accepted the concept of a scientific notes section in the <b>Canadian Entomologist</b> and referred the matter to the Publications Committee.   |
|                    | 4. Made the Editor and the Assistant Editor ( <b>Bulletin</b> ) ex officio members of the Publications Committee.  |
| Publications Grant | 5. Announced receipt of a \$10,000 NRC Publication Grant for 1975-76 to assist authors who are normally eligible for a NRC grant. Noted that page charge relief in future will be contingent on receipt of further grants. |
|                    | 6. Instructed the Finance and Publications Committees to formulate guidelines for the administration of the NRC Publication Grant.   |
| Bulletin           | 7. Decided to propose to other biological societies in Canada an exchange of newsletters and bulletins.  |
| Memoirs            | 8. Took steps to ensure that <b>Memoirs</b> are reviewed for scientific content.   |
| Science Policy     | 9. Deplored the lack of scientific input into Canadian policy-making and decided to contact politicians who are sympathetic to the problem.  |
|                    | 10. Decided to ask to be an observer in any new effort to establish an entirely new organization of biologists in Canada.  |
|                    | 11. Instructed the Science Policy Committee to examine topics that could be referred to SCITEC for action.   |
| Extension Study    | 12. Instructed the Extension Study Subcommittee to prepare information for the <b>Bulletin</b> on its pilot study conducted in Manitoba.   |
| Manpower Study     | 13. Noted that questionnaires had been mailed to Canadian entomologists and students of entomology.  |
| Biological Survey  | 14. Was pleased to note that substantial progress has been made; the concept and scope of the survey has been endorsed by government agencies and the subcommittee is now dealing with the costs and financing.            |
| Annual Meeting     | 15. Accepted an invitation from the Entomological Society of Manitoba to hold the 1977 Annual Meeting jointly with them at Winnipeg.   |
|                    | 16. Accepted an invitation to develop a half-day session for the meeting.  |

- |                 |   |
|-----------------|---|
| Program<br>1976 | 17. Expressed concern about the progress for the October 1976 annual meeting program in Toronto.  |
|                 | 18. Decided to take direct responsibility for the scientific program for one half day of the joint ESC-ESO meeting.   |
|                 | 19. Discussed, without taking action, a proposal of the Program Committee that the Society sponsor a symposium for publication on the international market.                               |
| Scholarship     | 20. Changed the qualifications of landed immigrant applicants to "must have a degree from a Canadian university" from "must have a degree in science from a Canadian university".         |
|                 | 21. Established a Fund-Raising (Scholarship) Committee.   |
| Fellows         | 22. Accepted the first list of 25 Fellows proposed by the Interim Fellowship Selection Committee. The new Fellows will be announced in the <i>Bulletin</i> after they have been notified. |
| Habitat 76      | 23. Noted with regret that there would be little Canadian scientific input to Habitat 76 and decided to make no further effort to become involved.  |
| Membership      | 24. Instructed the Membership Committee to pursue further the idea of a computerized membership list including the cost of keeping it up-to-date.   |
|                 | 25. Referred the matter of a different addressing system to the Treasurer for consideration.  |

### 18 August 1975

- |                          |   |
|--------------------------|---|
| Managing<br>Council      | 1. Approved Managing Council (see page 66).   |
| Committees               | 2. Named committees and representatives (see page 66).  |
| Annual<br>Meeting        | 3. Noted that the 1976 Annual Meeting will be held jointly with the ESO in Toronto, 27 October 1976.  |
|                          | 4. Decided that the subject of the one half day program to be conducted by the ESC at the 1976 annual meeting will be "Insect-man interactions and northern development."   |
| Archives                 | 5. Dissolved the Archives Committee because custody of the Archives is now with the Canadian Archives. Vested the remaining duties of the Archivist (receiving and depositing materials and answering requests) in the Secretary.               |
| Interim G. B.<br>Meeting | 6. Accepted invitation to hold the interim meeting of the Governing Board at Winnipeg so that there might be interactions with students at nearby universities, such as occurred at University of Guelph in 1975 and Macdonald College in 1974. |

# OFFICERS, COUNCIL, COMMITTEES, AND REPRESENTATIVES

1975-76

## EXECUTIVE COMMITTEE

President	G. S. Cooper, Mississauga
Past-President	C. R. Harris, London
President-Elect	M. E. MacGillivray, Fredericton

## MANAGING COUNCIL

Secretary	G. H. Gerber, Winnipeg
Treasurer	E. C. Becker, Ottawa

## BULLETIN

Editor	P. E. Morrison, Waterloo
Assistant Editor	
— To December 31/75	D. C. Eidt, Fredericton
— From January 1/76	B. J. R. Philogène, Ottawa

## COMMITTEES

Achievement Award	
M. E. MacGillivray	
Common Names of Insects	
J. E. H. Martin (Chairman), C. C. Loan, C. J. S. Fox, D. C. Herne, A. G. Robinson, F. J. H. Fredeen, G. E. Ball, A. F. Hedlin, R. O. Paradis	
Elections	
K. G. Davey (Chairman)	
Employment	
A. G. Robinson (Chairman), S. R. Loschiavo, B. Heming	
Fellowship (Interim Committee)	
G. P. Holland (Chairman), R. E. Balch, D. K. McE. Kevan, E. J. LeRoux, G. F. Manson, A. S. West	
Finance	
D. M. Wood (Chairman), C. R. Sullivan (Vice-Chairman), A. Cloutier, H. F. Howden, J. S. Kelleher, P. H. Westdahl, E. C. Becker (ex-officio)	
Gift Subscriptions	
G. H. Gerber	
Honorary Membership	
W. A. Charnetski, L. G. Putnam, P. S. Barker, R. W. Fisher, J. J. Cartier, J. B. Adams (Chairman to be elected by Committee)	
Insect Colonies	
J. S. Kelleher (Chairman)	

## Membership

J. McNeil (Chairman)

## Nominating

C. R. Harris (Chairman), R. D. McMullen, L. A. Miller

## Insect Photo Salon

H. J. Herbert (Chairman)

## Program

C. D. F. Miller (Chairman), G. H. Gerber, W. Y. Watson

## Publications (replaces Editorial Board)

To be appointed

## Public Education

A. D. Tomlin (Chairman), D. M. Lehmkuhl, G. G. Grant, D. F. J. Hilton, R. H. Wright

## Scholarship Awards

C. R. Harris (Chairman), A. Hikichi, J. E. Laing

## Scholarship Fund Raising

To be appointed

## Science Policy

E. G. Munroe (Chairman), B. N. A. Hudson (Vice-Chairman), W. F. Baldwin, I. W. Varty, J. A. Downes (ex-officio), W. J. Turnock (ex-officio), F. L. McEwen (ex-officio), R. K. Stewart (ex-officio), G. S. Cooper (ex-officio)

## AD HOC COMMITTEES

### Biological Survey of Insects

J. A. Downes (Chairman), D. K. McE. Kevan, E. G. Munroe

### By-Laws, Rules & Regulations

D. C. Eidt (Chairman), J. A. Downes, E. G. Kettela, M. E. MacGillivray, D. B. Waddell

### Extension Study

W. J. Turnock (Chairman)

### Manpower Study

F. L. McEwen (Chairman), C. R. Harris, A. J. McGinnis, G. S. Cooper (ex-officio)

## REPRESENTATIVES

### SCITEC

R. K. Stewart, S. B. Hill (alternate)

### Canadian Committee on Water Pollution

A. L. Hamilton

### Canadian Council on Animal Care

A. E. R. Downe

### CSA Committee on Common Names for Pest Control Chemicals

L. A. O. Roadhouse

## A. D. BAKER 1894-1974



Dr. A. D. Baker, former Chief of the Nematology Section, Entomology Research Institute, died 9 December 1974. He was 80.

Alex Baker had a long and distinguished career of scholarly studies in nematology, entomology, and helminthology. He left a legacy of significant contributions and devoted service to his fellow nematologists that will remain indelible in the history of nematology. Alex was foremost a meticulous, dedicated worker who excelled in all his undertakings.

Dr. Baker entered McGill University after serving 3½ years overseas with the Canadian Army during World War 1, and obtained his M.Sc. in 1925. He was awarded his Ph.D. by the University of Toronto in 1933. He held teaching positions at McGill and Toronto before accepting a post with the Federal Department of Agriculture in 1935. In 1945, he was placed in charge of Nematology in Ottawa, a position he held until his retirement in 1962.

During his tenure as Chief of the Nematology Section, he established, at no small personal sacrifice, a badly needed library and card index file of taxonomic literature, which by the time of his retirement ranked as one of the most complete in the world. His contributions in nematode systematics earned him an international reputation as one of the top authorities in nomenclature.

Through his leadership and example, Dr. Baker exerted a profound influence on the development of nematology in Canada. He is remembered with respect by his former staff and friends as a man of small stature who was a giant among his peers.

Tableau, April/June 1975

Alex Baker was a former member of the ESC, and played active roles in Society affairs, for example as Assistant then Associate Editor of the *Canadian Entomologist* from 1936 to 1952. —Ed.

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## INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Required six months' notice is given of the possible use of plenary powers by the International Commission on Zoological Nomenclature in connection with the following names listed by case number: (see *Bull. zool. Nom.* 32, part 2, 27th June 1975)

- 2044. Suppression of *Acarus pseudogallarum* Vallot, 1836 and *Phytoptus coryligallarum* Targioni Tozzetti, 1885 (Acarina, Eriophyoidea).
- 1944. *Lyda alternans* Costa, 1859 (Insecta, Hymenoptera) proposed precedence over *Lyda inanis* Klug, 1808.
- 2068. *Phloiotribus* Latreille, 1796 (Insecta, Coleoptera) proposed suppression.

Comments should be sent in duplicate, citing case number, to the Secretary, International Commission on Zoological Nomenclature, c/o British Museum (Natural History), Cromwell Road, London, SW7 5BD, England. Those received early enough will be published in the *Bulletin of Zoological Nomenclature*.



## BEP PHOTO SALON AWARDS

Saskatoon, Saskatchewan 18-21 August 1975

### BOTANY SECTION

#### *Prints — Macro Photography*

1st Award and Best in Salon (Botany) — John Dueck, Saskatoon, Saskatchewan

2nd Award — A. Ceska, Victoria, B.C.

3rd Award — Dennis Barabe, Montreal, Quebec

#### *Light Microscopy Prints*

1st, 2nd, and 3rd — G. L. Barron, Guelph, Ontario

#### *Electron Microscopy Prints*

1st and 2nd Awards — R. J. Adams and J. K. Norton, Waterloo, Ont.

3rd Award — J. N. Owens, Victoria, B.C.

#### *Slides*

1st and 2nd Awards — B. T. Aniskowicz, Ottawa, Ontario

3rd Award — D. L. Schuder, West Lafayette, Indiana

### ENTOMOLOGY SECTION

#### *Prints*

1st and 2nd Awards — Ralph Underwood, Saskatoon, Saskatchewan

3rd Award — Gerhard F. Fedde, Research Triangle Park, North Carolina

#### *Slides*

1st Award and Best in Salon (Entomology) — M. E. Badgley, Sunnymead, California

2nd Award — R. Underwood, Saskatoon, Saskatchewan

3rd Award — W. B. Preston, Winnipeg, Manitoba

The six 1st prize-winning photographs will be published in black and white in the December **Bulletin**.

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### INSECT IDENTIFICATION SERIES

The Information Division will soon be releasing the first leaflets of a new insect identification series. By 1977, 100 leaflets, each on one of the major pests in fruits, vegetables, field crops and livestock, will have been issued. The information leaflets will be bilingual and will help commercial producers and hobbyists to identify destructive pests. The life cycle of the pest, and the damage it causes the host, are illustrated in color.

The identification leaflets will be listed in the index of publications and single or bulk quantities of copies will be available on request from the Information Division, Agriculture Canada, Ottawa, K1A 0C7.

Canada Agriculture, Summer 1975

During the 50's and early 60's a number of top-notch administrators led to outstanding years of achievement in Canadian entomology. Robert Glen's administrative genius stood out among the others. Bob has been showered with honours and awards, was Gold Medallist in 1964 and ESC President in 1956-57 (*Bulletin* 6(3):6). After receiving his honours, he noted "The Entomological Society of Canada gives entomology a home, because entomology does not exist essentially in one place as it once did in the old Entomology Division of the Canada Department of Agriculture".



### FORTHCOMING MEETINGS

- Lockwood Conference, Perspectives of Forest Pest Management, 15-17 October 1975, Connecticut Agricultural Experiment Station, New Haven, (see detailed announcement *Bulletin* 7(2):47).
- Vth Soil Microcommunities Conference, 15-17 October 1975, College of Environmental Science and Forestry, State University of New York, Syracuse.
- Entomological Society of America, 30 November 4 December 1975, Marriott Hotel, New Orleans, Louisiana.
- Southeastern Branch ESA, jointly with the Entomological Society of America in New Orleans.
- Southwestern Branch ESA, 10-12 February 1976, Oklahoma City, Oklahoma.
- North Central Branch ESA, 7-9 April 1976. Denver Hilton Hotel, Denver, Colorado.
- XI National Congress of Entomology, 8-10 March 1976, Centro de Convenciones, Reforma 445, México 5, D. F.
- North American Benthological Society, 24-26 March 1976, Holiday Inn, La-Crosse, Wisconsin.
- XV International Congress of Entomology, 19-27 August 1976, Washington, D.C., U.S.A. For information write Ernest C. Bay, Secretary General, Box 151, College Park, Maryland 20740.
- Entomological Society of Canada, 25-27 October 1976, Toronto, Ontario. Jointly with the E.S.O.; 1977, Manitoba.
- Entomological Society of Ontario, 25-27 October 1976, Toronto, Ontario. Jointly with the ESC.

Williamson J. Brown is the foremost Canadian authority on Coleoptera, particularly the Chrysomellidae. Now retired, he was for reasons of health, unable to receive his honours at Saskatoon in person. Bill is a former Editor of *The Canadian Entomologist* (1939-1944).



## MEMBERS' ADDRESSES

The Governing Board recently approved a request submitted by the Membership Committee to study the feasibility of developing a computerized membership list for the E.S.C. As such a list must incorporate or complement the Society's mailing list a meeting was arranged with the Treasurer, Dr. E. C. Becker, and his staff to consider this aspect of the problem. During our discussion a number of points were raised which should, in our opinion, be brought to the attention of the membership.

Each year members receive a statement for the payment of dues and they are requested to indicate (a) affiliated Societies, if any (b) if they wish to receive the *Memoirs* and (c) if their address, printed on the statement, is correct. Unfortunately many members do not take the time to answer these questions correctly which results in additional and unnecessary work for an already overworked staff.

Members often include the dues for an affiliated Society but fail to indicate to which affiliate they wish to belong. Similar problems exist concerning addresses. Material sent out by the Society is often returned by the Post Office because of an incorrect address. While this is the fault of the individual for not providing a correct address, the blame is often placed on the staff at the head office. For example, in the current mailing list, there are no less than five different addresses for a group of research scientists all working in the same Federal building! It would help all concerned if each member provided the correct address including the appropriate postal code. Also certain members change their mailing address several times a year creating a number of administrative difficulties, not to mention increased costs. Under the present system each change of address costs the Society \$0.50. We realize that a certain number of changes are unavoidable, however it is possible that the Society will have to adopt a policy of charging a nominal fee to cover expenses, a policy already employed by a number of other Societies. While student members are the most frequent offenders, they are not alone. We urge each member to provide the most appropriate mailing address and to change it only when absolutely necessary.

Membership Committee

# FINANCIAL STATEMENTS

## Year ended 31 December 1974

To the Members of the  
ENTOMOLOGICAL SOCIETY OF CANADA

We have examined the balance sheet of the Entomological Society of Canada as at December 31, 1974 and the statement of financial activity for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

As is usual in organizations of this kind, it was not possible to completely verify the revenue from all sources and therefore the statements show the recorded revenue.

In our opinion, subject to the foregoing, these financial statements present fairly the financial position of the Society as at December 31, 1974 and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Geo. A. Welch & Company  
Chartered Accountants

Ottawa  
July 14, 1975.

### BALANCE SHEET, DECEMBER 31, 1974

#### ASSETS

	1974	1973
Cash	\$ 39,150.49	\$ 84,871.23
Accrued interest on bonds	2,671.75	1,580.00
Receivable re reprints and back issues	15,770.00	26,638.50
Term deposit — 8 3/4% due January 15, 1975	25,000.00	—
— 10 1/4% due January 17, 1975	25,000.00	—
— 10% due February 3, 1975	15,000.00	—
— 8 3/4% due December 29, 1978	10,000.00	10,000.00
Government and government guaranteed bonds — at cost — (quoted value \$43,156; 1973 \$43,850)	49,848.03	49,848.03
Other bonds — at cost — (quoted value \$23,800; 1973 \$24,550)	25,000.00	25,000.00
	<u>\$207,440.27</u>	<u>\$197,937.76</u>

#### LIABILITIES AND SURPLUS

##### LIABILITIES

Accounts payable and accrued liabilities	\$ 16,416.67	\$ 14,997.94
Prepaid memberships, subscriptions and reprints	28,049.50	23,636.00
Scholarship fund	76.00	—
	<u>44,542.17</u>	<u>38,633.94</u>

##### SURPLUS

Balance, December 31, 1973	159,303.82	138,168.06
add:		
Net revenue for year	<u>3,594.28</u>	<u>21,135.76</u>
Balance, December 31, 1974	162,898.10	159,303.82
	<u>\$207,440.27</u>	<u>\$197,937.76</u>

# FINANCIAL ACTIVITY, YEAR ENDED DECEMBER 31, 1974

	1974	1973
<b>REVENUE</b>		
Regular memberships	\$ 13,790.50	\$ 14,015.50
Student memberships	1,304.00	1,073.00
Sustaining memberships	400.00	100.00
Subscriptions	31,205.15	29,907.65
Sale of reprints including page charges	44,450.10	52,420.90
Sale of back issues	3,307.60	1,976.50
Publishing Memoirs	15,602.00	22,587.00
Interest earned — net	11,938.14	8,292.45
Gain on redemption of bonds	—	250.00
	<u>121,997.49</u>	<u>130,623.00</u>

<b>EXPENDITURE</b>		
Publishing costs — Canadian Entomologist	48,161.28	35,852.59
— reprints	4,976.93	5,430.25
— Memoirs	11,994.69	17,816.59
Annual meeting — grants	3,597.03	4,374.38
— travel and expense	5,102.33	5,412.02
Other societies		
— dues and grants	3,592.00	3,453.94
— delegates	1,057.15	942.36
Salaries	24,071.79	19,848.86
Directors' expenses	3,194.50	4,010.98
Canada Pension Plan	212.40	163.74
Unemployment Insurance	247.80	109.36
Professional fees	450.00	375.00
Postage and office supplies	2,593.61	2,891.06
Telephone	291.66	322.79
Bulletin	6,025.72	4,863.92
General expense	1,022.40	1,491.90
Insurance	—	1,002.50
Rent	1,811.92	1,125.00
	<u>118,403.21</u>	<u>109,487.24</u>
NET REVENUE FOR YEAR	\$ 3,594.28	\$ 21,135.76

## Numbers of Canadian Entomologist Mailed

	Dec. 1965	Dec. 1970	Dec. 1971	Dec. 1972	Dec. 1973	Aug. 1974	Dec. 1974	June 1975
Members	748	810	791	793	805	806	829	774
Students	138	130	113	132	139	135	141	142
Subscribers	654	894	884	911	980	955	996	963
Exchanges	66	35	36	37	42	41	43	42
	<u>1,606</u>	<u>1,869</u>	<u>1,824</u>	<u>1,873</u>	<u>1,966</u>	<u>1,937</u>	<u>2,009</u>	<u>1,921</u>

Exchanges include free list.

In addition 15 gift issues are sent from 15 donor members (donors receive Bulletin only).

35 Emeritus Members plus Can. Science Writers' Association, receive the Bulletin.

104 members do not receive the Memoirs, at their request.

# REPORTS OF EDITORS COMMITTEES AND REPRESENTATIVES

## EDITOR

It is ten months since the editorship has changed hands, however, no major changes have taken place. I will attempt to present information which on an annual basis will be helpful.

Irregularities in the receipt of manuscripts from month to month (Table 1) were due to the mail strike in February, and other factors including the change of Editor.

Most of the manuscripts originated in North America (ca 95%) and 71.3% originated in Canada.

The number of papers by subject will be of general interest; French language papers were not classified as to subject because they were all reviewed through one Associate Editor.

Biology	49	21.7%
Taxonomy	44	19.5%
Ecology	37	16.4%
Economic entomology	31	13.7%
Physiology	25	11.1%
Toxicology	19	8.4%
Forest entomology	13	5.7%
French language	8	3.5%

I have submitted to the Editorial Board three recommendations that our Society should consider:

- 1) Publish Scientific Notes — there is an increasing number of requests by authors and referees to publish notes in the *Can. Ent.*
- 2) Improve picture reproductions in the *Can. Ent.*
- 3) Improve the front or title page of the *Can. Ent.*

I would like to encourage these changes.

Table 1. Manuscripts received from 1 October 1974 to 31 July 1975, and their status as of 31 July.

	RECEIVED	ACCEPTED	REJECTED	UNDER REVIEW	UNDER REVISION	WITHDRAWN
October	29	22	3		3	1
November	11	11				
December	14	10	1		3	
January	25	18		2	5	
February	15	11	2	2		
March	29	20		3	5	1
April	23	5	1	11	6	
May	21	6		6	9	
June	34	6	2	16	10	
July	25			25		
<b>TOTAL</b>	<b>226</b>	<b>109</b>	<b>9</b>	<b>65</b>	<b>41</b>	<b>2</b>

Paul E. Morrison

## ASSISTANT EDITOR (BULLETIN)

I have notified President Harris that I will be unable to accept re-appointment as Editor of the **Bulletin** if it is reoffered in 1975-76. After 6½ volumes, or 24 issues, the **Bulletin** is now well established as a viable medium. I feel it is time that another member have the opportunity to undertake this most rewarding duty.

The first issue was assembled, edited and issued from Ottawa by Dr. Pat Pielou with Miss Margaret McBride's assistance. The second issue was assembled and edited by me at Fredericton then printed and issued from Ottawa. With the third issue, which began volume 2, the complete operation moved to Fredericton.

The success of the **Bulletin** has been due to the response of the members. Material has seldom been solicited — the **Bulletin** contains what the members contribute, which is, apparently, what the members want. We are all better informed now on Society affairs and have a medium through which we can participate and express opinions. The myth that the ESC is run by a clique is no longer tenable.

I have many regrets, but two stand out. Many significant activities of members may have gone unnoted, in particular, honours, retirements and even deaths. Also I would have liked more contributions in French, not translations, because most anglophone entomologists can read French if they want to.

This has been a soliloquy rather than a report, but then much has happened since the motion that launched the **Bulletin** was conceived by a few members in a Banff tavern during the 1966 Annual Meeting. My report is the successful production of all scheduled issues to date.

D. C. Eidt

## BY-LAWS COMMITTEE

The By-Laws Committee submitted a revision of the **By-Laws Entomological Society of Canada (1969 Revision)** to the Board for consideration at the 1975 mid-winter meeting. This was further revised and published as a separate in the June 1975 issue of the **Bulletin** for the consideration of members.

The Standing Rules for the Society have been studied and amended based on the proposed revision of the By-Laws. The first draft of these have been submitted to the Committee and to the Executive Committee. Not until the content of the By-Laws is finally approved can the Standing Rules be completed.

Once the By-Laws and Standing Rules have been approved by the membership it is recommended that the responsibilities and terms of reference for each officer and committee of the Society be assembled. A copy of these guidelines, once accepted, should be given to each committee member at the time of his appointment.

Antony Downes, Douglas Eidt,  
Edward Kettela,  
Ellen MacGillivray, Chairman



## EDITORIAL BOARD

We have examined several suggestions for cutting publication costs for *The Canadian Entomologist* and found no way to do this and still maintain the format and quality of the journal. *The Canadian Entomologist* is now published more cheaply than any other journal of the same quality. We have found that the Managing Editor works very closely with the press to prevent or reduce excessive changes from occurring and to maintain and improve printing quality.

To improve the financial situation, the majority of the Board recommends that advertising be placed on the inside and outside back covers of the journal in every second or third issue by replacing the "Notice to Contributors". The advertising charge must be at least \$1000/page/year. Someone to solicit advertisements would be required.

The majority of the Editorial Board recommends that a section for scientific notes be included in *The Canadian Entomologist*. A paper assigned to this section would be no longer than three manuscript pages, double-spaced, with no more than one plate. The section would be assigned to the last few pages of an issue and the papers would be printed consecutively so that reprints might contain parts of the preceding and following papers.

We suggest that the publication of textbooks and handbooks by the Society would be in direct competition with commercial publishing companies, and with federal and provincial government agencies where publishing costs are of secondary importance. In addition, there already exist many excellent textbooks in each of the entomological disciplines, as well as handbooks of the semi-popular and popular type such as the "Golden Nature Guide" and the "How to know" series. We also note the program of the Biosystematics Research Institute includes the publication of handbooks on Canadian insects and that some of these are already in press. If the Board of Directors wishes the Editorial Board to pursue this matter further, we request more information concerning the type and scope of the handbooks and textbooks envisaged.

J. L. Auclair, H. Salkeld,  
V. Vickery, W. G. Wellington,  
C. M. Yoshimoto, Chairman.

## COMMITTEE FOR STUDENT ENCOURAGEMENT

Some regions of Canada have been very active in student encouragement. The Manitoba committee participated in the Manitoba School Science Symposium, visited various schools to discuss insects with students, maintains a mailing list of over 60 interested students in the Winnipeg area, and has a continuing program of field trips which have been received very well by both parents and students.

The Quebec committee has conducted an insect collection contest for students and is in the process of organizing a photo contest. The B.C. committee proposes to distribute copies of J. Borden's book "Insects in the Classroom" to various schools. The Saskatchewan committee is promoting the publication of articles on entomological subjects in naturalists magazines; one article has been published and others are in preparation.

On a national level the major objective of the past year, in addition to general communication among regional committees, has been to obtain addresses of institutions and organizations throughout Canada for the TIEG (Teen International Entomology Group) complementary mailing list (repayment for the ESC annual contribution to TIEG). Several dozen schools, libraries, and other organizations have been placed on the mailing list and it is hoped that in the immediate future the number will be increased to 100 or more. I have sent requests to all regional committees asking for names and addresses of clubs, schools, libraries and other groups which might be interested.

In sum, I feel that the Committee serves a useful purpose, is functioning reasonably well, and I have no major recommendations for change.

Luc J. Jobin, R. D. McMullen  
T. D. Galloway, F. J. H. Fredeen  
I. W. Varty, D. M. Lehmkuhl, Chairman

## SCIENCE POLICY COMMITTEE

The Society has received 12 copies of the Mettrick report on "University Research in the Biological Sciences". In a covering letter Dr. Bidwell (Secretary of BCC) says that "The BCC is now in the process of organizing the machinery to set up or invent an entirely new kind of organization of biologists in Canada".

The recommendation to establish a HABITAT Committee was not followed as a chairman could not be found. Also it appears unlikely that any support for ESC participation would be forthcoming from the HABITAT organization.

The draft of the contract for the Biological Survey is almost completed. The committee has been authorized by the President to forward the contract to Dr. Peter Meyboom, Director-General of Science and Engineering Procurement, DSS Science Sector. Before this is done approval of the final draft will be sought from the Advisory Committee.

The proposal is for \$400,000 over a period of 2 years:

\$100,000 for the Coordinating office and the Advisory Committee.

\$100,000 for exploratory survey activities.

\$200,000 for a feasibility and design study, and a trial run of an automated storage and retrieval system for whatever aspects of the survey seem to lend themselves to this treatment.

Contacts made with other departments and organizations have been sympathetic to the proposal and those made in DOE have asked to be advised of presentation of the contract so that they can assist its progress.

Separate reports of the subcommittees on the Extension Study and Funding of Entomological Research are not now available. Separate reports of the subcommittee on the Manpower Study and of the SCITEC Representative were received (see elsewhere in this issue).

E. G. Munroe, Chairman

## COMMITTEE ON PUBLICIZING ENTOMOLOGY

We have tried to access and evaluate the past activities and policies of this Committee and have attempted to formulate some new approaches. Due to Dr. Tomlin's work leave to England from September 1974 to August 1975 we have not met. However, through correspondence we have several ideas on methods of publicizing entomology that we will discuss when we meet.

At the meeting of the Governing Board in Halifax in 1974 a suggestion was made that the Society consider hiring a freelance reporter on a retainer basis to produce stories on entomology. Mr. Dick Brown, a professional writer who wrote the article on mosquitoes in the 20 July 1974 issue of the *Canadian Magazine*, was contacted. Mr. Brown is not interested in writing on a retainer basis but is very interested in writing articles on insects after consulting with an entomologist who is an expert on a group of mutual interest. He is particularly interested in insects of economic importance or public interest throughout Canada. He wishes to present life cycles and habits of insects in a story form that can be understood and enjoyed. It is my (R. E. W.) personal opinion that co-operation with this writer would result in some excellent general interest stories and valuable free publicity. Mr. Brown is very concerned that his material be factual, and in the mosquito story was very careful to have his statements verified. I would like to suggest that an announcement of Mr. Brown's interests be made to the 1975 General Meeting and if any one is interested they can contact him through our Committee. Whereas Mr. Brown was not interested in the retainer approach, the Committee will contact other freelance writers.

The Committee agrees that perhaps the best method of publicizing entomology is through school systems. Certainly the assessment of methods and means of promoting knowledge of insects in school will be one of our highest priorities. In addition, the Committee will look into the best ways of bringing entomological information to various naturalist and youth groups.

The committee is also very interested in methods by which coverage of insects can be increased on TV, radio, in newspapers, etc.). Perhaps such coverage cannot be increased until a public demand is created, but contacts will be made with various media to determine this.

Other ideas that will be evaluated by the Committee are:

- i increases in quantity and quality of insect displays by museums, etc.;
- ii distribution of general or popular publications on insects in public and school libraries;
- iii encouragement and organization of insect collection activities through summer school programs, 4H groups, youth groups, etc.;
- iv preparation of brochures on entomology and entomological activities;
- v methods of obtaining better press coverage of entomological meetings and research activities in university, industry, provincial and federal laboratories and institutes.

Dr. Stuart Hill said that the British Ecological Society is now using the services of a press consultant. The Committee is interested in the potential of using a public relations officer, but this is certainly a topic that needs to be discussed by the Governing Board and brought before the membership. Our committee welcomes any comments or directives from the Governing Board.

Dr. George Cooper, President-Elect, has suggested a possible merger of our committee with the Student Encouragement Committee. We believe that such a merger would be a good idea with the continued memberships of both committees. It is suggested that one or two additional members representing other groups in our Society could be added.

G. G. Grant, A. D. Tomlin, Chairman,  
R. E. Wright, Acting Chairman

## FINANCE COMMITTEE

At the President's request, the Finance Committee has considered the manner in which the ESC collects fees, as the present complex arrangement results in bookkeeping problems and revenue losses. It unanimously recommends a single uniform fee for all ESC active members, and further recommends that the ESC discontinue the policy of collecting part of the fees of some affiliated societies along with its own. The rule now reads "Effective 1 Jan. 1975 annual dues for direct active membership shall be twenty dollars (\$20) while those for active members through an affiliated society shall be eighteen dollars (\$18)". The majority of the committee was in favour of a single uniform fee of \$20 for each member of ESC even though this may involve a \$2 fee increase for some members, and consequently it recommends emendation of Rule 3.1 to read "Effective 1 Jan. 1977 annual dues for direct active membership shall be twenty dollars (\$20)". Although no decision was made as to how to use the additional \$2 (which will total approximately an additional \$1000 annually) opposition was expressed to the idea of a direct grant or rebate to the regional societies in proportion to that part of their membership also belonging to the ESC. One suggestion was to make the additional money available to that regional society sponsoring the annual joint meeting.

Throughout the past year the Finance Committee Chairman and the Treasurer have attempted to maximize investment income, by taking advantage of higher interest rates on short term certificates. In early 1975, however, falling interest rates made some longer term investments look more attractive and \$20,000 and \$30,000 was invested at 9 3/4 and 10 1/4 for 5 and 10 years respectively.

During the winter of 1974-75 housing prices in the Ottawa area dropped substantially, as a result of the scarcity and high price of mortgage money. Although prices did recover gradually during 1975, this form of investment is not as attractive now as it was when first proposed. The whole matter may be academic, however, for no suitable building has yet been found which is within our price ceiling of \$150,000.

We received a grant of \$10,000 for publication of papers from members normally eligible for an NRC grant. It is recommended that we reapply for at least \$15,000 (the Treasurer will know by December what amount will be required).

A. Cloutier, H. F. Howden,  
G. McLeod, C. R. Sullivan,  
P. H. Westdal, E. C. Becker (ex officio)  
D. M. Wood, Chairman

## SCHOLARSHIP COMMITTEE

The terms of reference of the Committee are interpreted as being to administer the Fund and prepare a plan for administration of the Scholarship program following the general conditions laid down by the Board. Since at present a sufficient fund for administration has not yet been accumulated, the major duty of the Committee is to outline the method by which successful applicants for the Scholarship and the interim Award will be chosen and the Award paid. However, future Committees will have to decide on the specific amount of the initial Scholarship.

The Committee addressed itself first to outlining a method for choosing a recipient for the Scholarship. This was done by paraphrasing and adapting to our needs the N.R.C. brochure on postgraduate scholarships and application forms. This was deemed to be appropriate because the N.R.C. has had many years' experience in the administration of scholarship programs. Drafts of the announcement of the Scholarship, of regulations governing the Scholarship, instructions for completing an application and drafts of the application forms have been completed in English.

The announcement, regulations and applications for the Society's Postgraduate Award were prepared by adapting for the Award the announcement, regulations and application forms drafted for the Scholarship. They were prepared first in English and the Committee is deeply indebted to Dr. J. Cartier for the French version. Copies of the announcement were mailed to 57 Canadian universities and colleges on 14 April 1975 and a supply of application forms was deposited with the Secretary who will distribute them on request. The cost of printing the announcement, regulations and application forms for the Award and for mailing the announcement to universities and colleges in Canada was \$45.28.

The Committee considered it not only desirable but essential that the Award holder demonstrate or instruct and stipulated that, subject to the approval of his or her department head, the holder of the Award be permitted under normal circumstances to demonstrate or instruct for a maximum of 200 hours per annum and to accept remuneration for such work at the rate in effect at the university concerned.

It was not originally indicated if the Award and Scholarship were to be awarded for the first, second, third or any specific year of post-graduate study. The Committee decided that the \$500 Award should be to assist a student in a first year of post-graduate study and research in entomology. This was done on the assumption that the Award would assist a worthy student to show what he could do and the student would then be able to obtain further assistance for the remainder of the time of study.

Some confusion arose regarding the nationality of applicants for the Award and Scholarship. The original Ad Hoc Advisory Scholarship Committee recommended that a (successful) applicant "... must be a Canadian citizen or a landed immigrant resident in Canada at the time of application. A landed immigrant, who intends to study abroad, must have a degree from a Canadian university." The Committee considered several alternatives that would define an acceptable nationality requirement and finally decided on, "At the time of application, an applicant must be a Canadian citizen or have a baccalaureate from a Canadian university."

The new Scholarship Committee will have two main duties during the coming year: evaluating applications received to the 15 December 1975 deadline and choosing a successful applicant to be announced in March 1976 (and

paid in January 1977). Preparing and sending out the announcement and application forms for the \$500 Award to be announced in March 1977 (and paid in January 1978).

As of 17 April 1975 the Fund amounted to \$1643.00 after having been in existence for 6 - 7 months. It appears therefore that the Fund will require more than voluntary effort and will require a separate committee assigned that task and no other.

### Recommendations

1. That, regarding the nationality requirement, the eligibility of a successful applicant for the Society's Post-graduate Award or Scholarship be stated as, "At the time of application, an applicant must be a Canadian citizen or have a baccalaureate from a Canadian university."
2. That the Board establish a fund-raising committee with the sole objective of raising funds for the Society's Post-graduate Scholarship Program.
3. That a sum of \$200 be voted to defray Scholarship Committee expenses for 1975-76.

J. McLintock, Chairman

## EMPLOYMENT COMMITTEE

The Employment Committee of the ESC maintains a file containing curriculum vitae of members of ESC seeking employment in entomology, and a file containing requests from employers with positions available. Advertisements are placed in the *Bulletin* under Positions Wanted or Positions Available for those who request this service.

	1974	1975 (to 1 June)
Positions requested		
published in <i>Bulletin</i>	9	0
not published	6	3
Positions offered		
published in <i>Bulletin</i>	3	1

S. R. Loschiavo, B. Heming,  
A. G. Robinson, Chairman

## INTERIM FELLOWSHIP COMMITTEE

The report of the interim Fellowship Committee was confidential because it contained the names of the first candidates for Fellowships. No names were suggested by the membership so the first list was composed by the Committee. Because of its own composition the Committee excluded consideration of Honorary Members, former presidents, and gold medallists. They attempted to balance the list geographically, culturally, by age and by sex. They recommended eight prospective Fellows from which the Society would elect the first Fellowship Selection Committee. Following Board approval and consent of the candidates, the Fellowship programme will be in operation as conceived.

-Ed.



## MEMBERSHIP COMMITTEE

The recruitment of new members in 1974-75 was undertaken by each member of the Membership Committee through personal contact. It is the intention of the Committee to continue with this approach next year together with a large scale recruiting drive using the **Bulletin**.

The possibilities of computerising the Society's membership list were discussed with certain individuals of the Computer Center at Laval University. A canned programme already exists that would meet the needs of the Society. The estimated cost of punching and verifying the computer cards (4,000 cards based on a membership of 2,000 individuals) is \$1,000. The name, address, membership status, fields of interest and publications received from the Society would be included for each member. With this information the programme could provide the following types of print-out:

- a) An alphabetical list of all Society members with their current addresses.
- b) A list of student members.
- c) A list of members resident in Ontario interested in pathology.

The cost for any given list would naturally vary with the computer time used. A complete membership list would be the most expensive, costing between \$25. - \$50.

As recommended by the Governing Board, Dr. B. Philogène and Dr. J. McNeil met with the Treasurer, Dr. E. Becker, to discuss the pros and cons of including the mailing list on the same programme with the membership list. While it is possible to have the computer print the names and addresses onto peel-off labels, the cost is rather high (no estimates were provided but it would be more than \$50. each time). Considering the volume of mail sent out by the Society and the time required to put the labels onto the envelopes, the computerised mailing list would seem impractical. By chance the same morning of the meeting a salesman for the Scriptomatic Addressing System came to the office and demonstrated one of their machines. A report describing this machine, together with price listings, was sent to the President of the Society.

At our meeting with Dr. Becker a number of problems concerning the membership were discussed which we felt should be brought to the attention of the Society. Accordingly a note is published in this issue of the **Bulletin**.

### Recommendations

1. that the membership list of the Society be computerised.
2. That the mailing list be kept separate and that the Society buy a Scriptomatic Addressing System (or a similar model) for this purpose.

M. G. Dolinski, B. J. R. Philogène  
R. E. Wright, J. N. McNeil, Chairman

## GIFT SUBSCRIPTION COMMITTEE

No subscriptions have been donated nor gifts arranged in the past year. However, we are currently investigating the possible transfer of two gift subscriptions.

D. E. Bright, B. V. Peterson,  
H. J. Teskey, Chairman



## COMMITTEE ON COMMON NAMES OF INSECTS

No proposals were received this year. The committee is unchanged, as follows:

- C. C. Loan, Ottawa, Ontario (member at large)
- C. J. S. Fox, Kentville, Nova Scotia (AES)
- D. C. Herne, Vineland Station, Ontario (ESO)
- A. G. Robinson, Winnipeg, Manitoba (ESM)
- F. J. H. Fredeen, Saskatoon, Saskatchewan (ESS)
- G. E. Ball, Edmonton, Alberta (ESA)
- A. F. Hedlin, Victoria, British Columbia (ESBC)
- R. O. Paradis, (Acting) St-Jean, Quebec (ESQ)
- J. E. H. Martin, Chairman, Ottawa, Ontario

## PROGRAM COMMITTEE

The 1976 Annual Meeting was set for 25-27 October at Toronto, jointly with the Entomological Society of Ontario. The Committee settled on the theme "Entomology and the Future Production of Food and Fibre" with emphasis on "future". The Scientific Program Committee is G. Gerber, CDA Winnipeg, Peter Harris, CDA Regina; Robert Trottier, CDA Vineland; Jim Stewart, Ciba-Geigy, Cambridge Ont.; and C.D.F. Miller, Chairman, CDA Harrow. Chairman for local arrangements is F. L. McEwen, U. of Guelph. Various subcommittees have been established. It was agreed that the program should be as brief as possible because of the many entomological functions, especially the XV International Congress, taking place in 1976.

Plans were begun last May for the 1977 Annual Meeting to be held at the University of Manitoba, Winnipeg. Committees have already been established. Suggestions for theme, symposia, SIG's, etc., would be welcomed. —Ed.

## MANPOWER COMMITTEE

The Manpower Committee has secured funding for the Manpower study from the Department of Supply and Services, Ottawa.

After review of two contract proposals the committee selected Potentia Associates to conduct the study and negotiations were made with that organization. In effect the work of the Manpower Study was transferred to Potentia Associates but, as required by the Department of Supply and Services, ultimate responsibility for the study is retained by the Entomological Society of Canada.

In preparation for the study, Mr. Mike Valiquet, Potentia Associates, visited Dr. D. McMullen who had earlier conducted a study in British Columbia. Through excellent cooperation from the Regional Directors, a listing of all professional entomologists in Canada, all graduate students in entomology in Canadian universities, and Canadian students at other universities was prepared. A questionnaire was distributed about 15 August with a covering letter from President Harris.

Dr. A. J. McGinnis, Dr. C. R. Harris,  
Dr. F. L. McEwen, Chairman

## COMMITTEE ON INSECT COLONIES

The report of this committee will be the publication of a new list of Laboratory Colonies of Insects and other Arthropods in Canada. Custodians who contributed to the last list have been contacted for revisions and the new list is scheduled to be available in September. This will be announced in the **Bulletin**.

J. S. Kelleher, Chairman

## ELECTION COMMITTEE

The Election Committee of the Entomological Society of Canada met in Toronto 17 July to open and count those ballots received by the Chairman before midnight of 15 July. A total of 731 ballots were mailed to members by the Secretary, and 381 were returned. The following are the results of the election:

President-Elect:	M. Ellen MacGillivray.
Directors-at-Large:	J. Lucien Auclair Susan B. McIver (2 ballots were spoiled).

Honorary Members:	Williamson J. Brown: Yes (1 ballot spoiled) Robert Glen: Yes (1 ballot spoiled).
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S. S. Tobe, D. E. Bignell,  
K. G. Davey, Chairman

## REPRESENTATIVE TO CANADIAN STANDARDS ASSOCIATION COMMITTEE ON COMMON NAMES FOR PEST CONTROL CHEMICALS

A meeting of the Canadian Standards Association Committee on Common Names for Pest Control Chemicals was convened on 24 November 1974. Several new common name proposals were discussed. Six names were considered acceptable and will be included in a future addendum to the Standard. The content and style of documentation to be utilized in future issues of the Standard and addenda was considered.

The new Standard Z-143 entitled "Common Names for Pest Control Chemicals" was published and became available in September 1974. The booklet contains 332 approved common names, with corresponding chemical definition, empirical formula, structure, and class, for the complex chemicals used for the management of pests. Copies are available from the Canadian Standards Association. A notice of the new edition of the publication appeared in the March 1975 issue of the **Bulletin**. An addendum consisting of approximately 100 additional common names is in preparation and will be published as soon as possible.

L. Roadhouse

## HONORARY MEMBERSHIP COMMITTEE

There were eight Honorary Members of the Entomological Society of Canada at the time of the 1974 Annual Meeting: E. M. Duporte, W. N. Keenan, R. E. Balch, A. D. Pickett, J. G. Rempel, H. H. Ross, G. F. Manson and G. P. Holland. Mr. Williamson J. Brown and Dr. Robert Glen were subsequently nominated and elected bringing the number to the maximum of ten.

J. B. Adams, AES	J. J. Cartier, ESQ
L. G. Putnam, ESS	W. A. Charnetski, ESA
P. S. Barker, ESM	R. W. Fisher, ESO
N. V. Tonks, ESBC, Chairman	

## REPRESENTATIVE TO CANADIAN COMMITTEE ON WATER POLLUTION

A request for a \$50. membership fee from represented societies was based on the need to broaden the base of support for C.C.W.P.R. since the Department of Environment was showing signs of being reluctant to support the entire cost. There are, however, no penalties associated with failure to contribute to supporting C.C.W.P.R.

I have been appointed as one of the Directors of C.C.W.P.R. and one of the principal tasks that I have been assigned is to contribute to the early planning of the 1980 Congress which will be held in Toronto.

Andrew L. Hamilton

## REPRESENTATIVE TO SCITEC

The plans for the House of Science and Technology (HOST) were refined by discussions with scientific associations and MOSST was consulted about their support. MOSST's most recent position is that SCITEC and the societies would probably have to earn the House by administering government sponsored programmes. SCITEC is determined to proceed with HOST with or without MOSST's assistance.

SCITEC had working groups concerned with financial assistance to societies, international non-government science and technology representation, scientific publications, communications amongst societies and between these and government, science in the service of the nation, financing of science, and decentralization of research and development. A member of the SCITEC Executive sits on the Editorial Board of Science Forum. A working paper on the "SCITEC Forum on the Underlying Assumptions of Vol. III of the Lamontagne Report" has been circulated to societies. A computerized directory of Canadian scientific associations has been compiled, updated and made available on request.

SCITEC sponsored a meeting between scientists and parliamentarians in May 1975, with the theme "Issues and Priorities in Canadian Science and Technology". It has planned a discussion on "The Justification and Classification of the Role of Scientific and Technical Societies" for October 17th at the Council meeting in Quebec.

R. K. Stewart

## BOOK REVIEWS

**Butterflies of Lebanon.** Torben B. Larsen. National Council for Scientific Research, (C.N.R.S.), Beirut, Republic of Lebanon, 1974, xv + 255 pp., 16 colour plates, cloth bound. Distributor: E. W. Classey Ltd., Park Road, Farington, Oxon. SN7 7DR. England, £7.50

I have found this book, as a regional study, to be well written, attractively bound and illustrated, and thorough in its treatment. In addition to the essential sections on species and possible species, habitats, and major collecting areas, the book is augmented by an interesting discussion of zoo-geography and of the phytogeographic zones of Lebanon. These latter topics, often skimmed over in a book such as this, are thoroughly analysed, and contribute greatly to an understanding of the make-up of the Lebanese butterfly fauna.

The plates, while excellently reproduced, have been photographed on a coarse, unevenly lit burlap background, which I find annoyingly distracting in some of the lycaenid and hesperiid plates.

Although the region considered is small (about 4,000 square miles), elements of the African, Asian and European faunas, as well as five species endemic to Lebanon, are included in the country's 140 species. Disregarding the restricted geographic area covered, the book contains a wealth of background information on such generalized subjects as the effects of glaciation and physiography on distribution patterns. The "Butterflies of Lebanon", while indispensable to the Lebanese collector, has qualities that will appeal to the North American reader as well.

J. D. Lafontaine

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**The Historical Development of Diptera.** Boris Rohdendorf. Translated from the Russian by J. E. Moore and I. Thiele, edited by Brian Hocking, Harold Oldroyd, and George E. Ball. The University of Alberta Press, 1974, 360 pp. 85 figs. (Original Russian edition, 1964).

This is the promised translation, awaited with great interest by many entomologists, of Boris Rohdendorf's book on the evolution of the order Diptera. The work was published, in Russian, in 1964, and was evidently both interesting and somewhat unorthodox, but most western workers became acquainted with it in barest outline only. There are four sections. The first presents a comprehensive account of the author's ideas on the characteristics of the order and of its parts, to the level of the main families; the second reviews the geological history of Diptera, and gives for the first time in English an extensive account of the Triassic (Rhaetic) fossils — the oldest Diptera known — that Rohdendorf described from Issyk-Kul; the third uses these materials to discuss the phylogenesis of the Diptera; and the fourth takes up some general questions about the evolutionary process and how it can be studied.

It proves to be both a valuable and a troublesome book. It is valuable, of course, for an independent approach to many problems of the evolutionary history of Diptera, and for the extensive information on the Rhaetic fossils and on the only slightly better known middle Jurassic fauna from Karatau. It is troublesome partly, one is tempted to say, because there is such a wealth of new fossils that they are hard to assimilate and assess, but also because the fragmentary condition of many of these fossils leaves this reader,

at least, unwilling to give full assent to the interpretations presented. It is troublesome also because of an unexpected approach to "phylogeny", because of Rohdendorf's injection of a dialectical philosophy of evolution in certain parts of the text, and sometimes indeed because the author has not held clearly to the one opinion throughout the work. There are also problems of translation; sometimes it is a matter of a single word, as when *Musidora*, a primitive cyclorrhaphan, is said to retain part of the head skeleton (head capsule was certainly intended), and sometimes it is the syntax that is not apt, and the reader has to try to puzzle out what contribution the sentence was intended to make to the context.

The book is entitled, with justification, **The Historical Development of Diptera**; but it is important to recognise that its main concern is not with the usual cladistic aspect of phylogeny. Rohdendorf is concerned, rather, to identify the situations, the functional and ecological needs and the evolutionary responses, that have acted to bring about the diversification of the order as we know it. He believes that the various groups tend to be rather clearly defined because they originated as a particular adaptive solution (in fact as one of two possible antithetical solutions) of an historical problem, and in virtue of which they have succeeded and persisted to the present time. Thus the branching diagrams (Figs. 81-85) truly attempt to describe the phylogenesis of the group as he sees it, but they relate to his opinions as to functional considerations and lack precision from the phylogenetic (origin of clades) point of view. In many cases his interest in function leads to a gross overvaluation of peculiarly adapted and strongly modified groups. Thus *Nymphomyia*, *Deutero-plebia*, *Termitoxenia*, *Braula*, the Nycteribiidae and the Streblidae are all given the rank of infraorder, along with such groups as the Tipulomorpha and Asilomorpha (=Brachycera Orthorrhapha). These opinions are impossible to accept in any reasonable context, and in fact they sometimes become meaningless within Rohdendorf's text, as when Termitoxeniomorpha (an infraorder) is said to be "a direct . . . descendant of the Phoridae" (pp. 98-99), and is shown thus also in fig. 81. In other cases, however, Rohdendorf practices, with great acuity, a strictly phylogenetic approach, even at the cost of discounting evident functional similarities. Thus among the pupiparous flies he points out clearly the close relationship between *Glossina* and the hippoboscids, and separates this group widely from both the Nycteribiidae and the Streblidae, which are set aside as unresolved problems.

I would like to add some remarks, unfavourable I fear, on the discussion of *Nymphomyia* and the Archidiptera. *Nymphomyia* is of considerable interest here at the present time. It is a small highly peculiar and in some ways highly reduced fly first described from Japan, and related forms have been found in recent years in several places in Canada. There has been no agreement as to its relationship, but equally, in the opinion of most entomologists, no positive reason for suggesting that it is anything other than a curiously modified nematoceran, probably of psychodiform or culiciform affinity. Rohdendorf's diagrams (1964) showed it, however, as the unique representative of the suborder Archidiptera, set against the suborder Eudiptera comprising all the rest of the order Diptera as it exists today. He associated with it in the Archidiptera two groups of the triassic fossils. Rohdendorf's reasons for this very high ranking of *Nymphomyia* now become generally available; but they are, in my estimation, quite inadequate to support his classification. His description and definition of the suborder Archidiptera is on p. 26, and occupies a mere two and a half lines. The four characters mentioned all relate directly to the Nymphomyiidae as we know them today; moreover they are all characters of shape and size that could well be developed many times in the diversification of a large order. There is no support for subordinal rank here. The triassic fossils

are certainly very interesting and remarkable and may well represent, as Rohdendorf maintains, very early divergent stocks with no known successors. The fossils consist of wings only. But the only wing character attributed to the Archidiptera is that the front and hind margins are parallel, and I can discover no other reason for the association of *Nymphomyia* and the ancient fossils in the suborder Archidiptera than this one rather trivial feature. Along with his evaluation of the other much modified forms mentioned above, I believe that Rohdendorf's placement of *Nymphomyia* must be rejected, as not supported by facts.

I have tended to be critical, in order to point out the many difficulties and uncertainties in this book. But it is an important and useful book, a storehouse of new facts and insights and of discussions that are always addressed to questions of substance. Something of his dedicated quest has been captured on the cover of this English edition, with its attractive sketches of *Empis*, *Protoplasia*, *Sciadocerella*, *Clythia*, and *Leptoconops*, a nice selection of flies renowned for ancient lineage but still essentially undetermined origins.

J. A. Downes

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**Population and Community Ecology**, by E. C. Pielou. Gordon and Breach Science Publishers, 1 Park Avenue, New York, New York 10016. 424 pp. Price \$39.00 (Text edition \$17.50).

The title of this book may be somewhat misleading to those biologists who do not know Dr. Pielou's scientific interests; perhaps a better title might have been "A Theoretical Approach to . . .". This book is basically concerned with the theoretical, mathematical approach to the study of populations and groups of populations. According to the preface, it was written as a text for a two-semester course for undergraduates, and requires only a single course in calculus and one in statistics as prerequisites, the rest of the required mathematical background being included in the appendices.

The book does, in fact, cover a much wider range of topics than her earlier book. I would be hard-pressed to name any major topic in theoretical ecology which is not included, and treated rigorously and thoroughly. I am not quite so sure that it is at a much lower mathematical level than the first book.

The book is well written, thorough, and concise. I can think of no topic I would wish to add, and the papers from the ecological literature which she uses as examples are well chosen. The treatment is so inclusive that I am led to wonder what is left for the graduate courses. On the debit side, the language in which the ecology is couched is strongly mathematical. Although the necessary background material is present in the appendices, the biology student not already familiar with this mathematical language will find himself referring constantly to the appendices, in order to follow the text. Also, the book gives no quarter; it states things only once, and if you miss the point, you had better go back and read it again until you understand. Both the calculus and the statistics are really needed, and the statistics course had better be a course in probability mathematics, rather than the cookbook course in statistical techniques sometimes offered to biologists. I suspect that books like this one will serve a secondary purpose in upgrading introductory statistics courses, also. The one real weakness of this book is also a strength; it concentrates on what is known, what can be measured, what can be predicted, and as a result it avoids much of the hotly debated territory in ecology. It thus gives the student a view of ecological theory which makes it seem perhaps too solid. But then, maybe the semi-soft areas of the field should be left until graduate school.



I would recommend this book very highly for an advanced undergraduate or beginning graduate course in the principles of ecology; I cannot imagine it being superseded except through the advancement of the whole field. The price of the text version is reasonable, and the physical layout is good. This book will not fire the imagination of ecology students in the way that Slobodkin's little book did back in the 1950's, but it should be the standard by which such texts are judged for the next ten years.

Peter J. Wangersky  
Dalhousie University

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**The Windows to His World. The Story of Trevor Kincaid.** By Muriel L. Guberlet, with a forward by Melville H. Hatch. 287 pp., illustrated Pacific Books, Palo Alto, California 94302. Price, \$9.95.

This informative little book about Trevor Kincaid is written in a chatty, anecdotal style, making it light, easy reading. The discriminating reader may find it overstuffed with detail, but the fascinating personality of the world-renowned entomologist and teacher is thereby fully revealed, so perhaps the overkill of minutiae should be forgiven.

Born in Peterborough, Ontario, in 1872, Trevor Kincaid, at a remarkably early age, exhibited an intense curiosity about the natural world around him, an interest wisely fostered by his parents. At seventeen, Kincaid was already a keen collector, and continued this interest when he moved with his father to Olympia, Washington, in 1889. By the time he entered the University of Washington in 1894, he had collected and sent 100,000 specimens to scientists throughout the country. As early as his sophomore year he began teaching classes at the University, and, in just seven years, had become a full professor and head of the Department of Zoology.

Among his many accomplishments and endeavours Kincaid founded the Puget Sound Biological Station, studied the fur seals of the Pribilof Islands, was sent by the U.S. Bureau of Entomology to Japan and Russia to find parasites of the gypsy moth, and was largely responsible for the revival and development of the Pacific Northwest oyster industry. Over 75 species of animals and plants have been named in his honour. His own list of publications is relatively short, his main contribution to science being through his teaching.

The book is recommended as a fascinating glimpse into the life, both public and private, of an oldtime naturalist, an "omnologist", as he called himself, who lived and worked in an interesting period in the development of natural science in North America.

G. A. Bradley

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**The Social Behavior of the Bees.** C. D. Michener. 1974. The Belknap Press of Harvard University Press, Cambridge, Massachusetts. 404 pp., 213 Figs., 32 Tables.

Professor Michener is eminently qualified to write "The Book" on a comparative study of the social behavior of bees. Besides his extensive studies on bees, which have been carried out on almost every continent, he has directed the activities of dozens of graduate students, many of whom have since become internationally known experts in their disciplines. His and their studies,



especially of the primitively social groups, have produced the large amounts of data required to interpret the evolution of social behavior among this most important group of insects.

This book contains many illustrations all of which were carefully chosen to complement the text. Unfortunately, the text is often very hard to follow because of the format, length of sentences, and terminology. Michener constantly refers the reader to other segments of his book; so, to follow a line of thought, one must often leaf to another section in another chapter. Proof that the book would be hard to read by others was obtained by determining the "fog index" (the criterion some editors use to determine the ease with which a passage can be read). In some passages chosen at random, the fog index was about 28, which is 13 points higher than that usually encountered in other American scientific literature. However, though it cannot be read with ease, a tremendous amount of information and thinking can be extracted from it—information that was abstracted from more than 700 papers and texts as well as from personal communication with many in the discipline.

Those parts of the book that I read most critically were the sections on the Bombini. It is a group that has not been researched extensively by Michener. His interpretation is therefore largely a result of his review of the literature. I believe that, because of his lack of first-hand knowledge of this group, his review of the literature has not been sufficiently discriminatory. One example: T. H. Frison's papers are listed among the "... several excellent general accounts of bumblebees . . .", but are not mentioned further, whereas E. O. Plath, who wrote a book on bumblebees but who knew much less about them than Frison, is referred to often.

Nevertheless, my overall impression of Michener's account of the bees is that, though it must be read when one is alert, it is well worth reading.

G. A. Hobbs

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## NEW BOOKS

**The Odonata of Canada and Alaska**, volume 3, by E. M. Walker and P. S. Corbet. June 1975. University of Toronto Press.

This volume completes the monograph based largely on E. M. Walker's lifelong study of Canadian dragonflies. Volumes 1 and 2, by Dr. Walker, were published in 1953 and 1958 respectively.

**Insect Neurobiology**, by J. E. Treherne, 1974. North-Holland Pub. Co. Amsterdam and New York. 460 pp., US \$44.25.

**History of Entomology in the Pennsylvania Department of Agriculture**. A. G. Wheeler and Karl Valley. 1975. Commonwealth of Pennsylvania, Department of Agriculture, Bureau of Plant Industry, 2301 N. Cameron St., Harrisburg. 37 pp., free on request.

**Science Council of Canada, Annual Report 1974-75** Information Canada, Ottawa.

Contains Dr. Roger Gaudry's final report as Chairman, in which he reviews science policy since the creation of the Council in 1966 and forecasts for the next 9 years.

**University Research in the Biological Sciences: The Urgent Need for Increased Funding**. By D. F. Mettrick and D. B. Walden for the Biological Council of Canada. 33 pp., mimeo

## EMPLOYMENT

The Entomological Society of Canada maintains a list of employment opportunities in Canada for members, and has an employment office at annual meetings of the Society. Positions wanted and available are published in the **Bulletin**. Forms for the use of prospective employers and employees are available on request. Those seeking employment through and filing curricula vitae with the Employment Committee will please indicate their membership in the ESC.

Please direct all inquiries and correspondence to: A. G. Robinson, Chairman, Employment Committee, Entomological Society of Canada, Department of Entomology, University of Manitoba, Winnipeg R3T 2N2.

Do not direct inquiries to the **Bulletin**.

## POSITIONS WANTED

Ph.D. 1973 from North Carolina State University, landed immigrant, with major interests in host plant resistance, or research and development of insecticides, desires employment in research or teaching, with university, government or industry. Reference No. 46-2-75.

Ph.D. from University of Bristol, September 1975, landed immigrant, desires employment in research, teaching or both, in ecology and ecological entomology. Present studies are on population ecology of the winter moth in apple orchards. Reference No. 50-1-75.

## ACHIEVEMENT AWARDS

Members are reminded to submit by 30 November 1975, their nominations for the Entomological Society of Canada Gold Medal for Outstanding Achievement in Entomology and for the C. Gordon Hewitt Award for recipients under 40 years of age. Conditions governing these awards were summarized in the **Bulletin** 7(2):35. Eligibility for both awards may be based on research accomplishment of consequence to entomology in Canada or on service and dedication to research administration, extension, and education, and to the Society or its Affiliates. The Awards will be made only if suitable recipients are nominated.

Nominations marked "Confidential" may be sent to the Society headquarters or directly me.

M. Ellen MacGillivray, Chairman  
Achievement Awards Committee  
P.O. Box 20280  
Fredericton, New Brunswick  
E3B 4Z7

## PERSONALIA

Dr. T. A. Angus has been appointed Director of the Insect Pathology Research Institute, Canadian Forestry Service, Sault Ste. Marie, Ontario. He succeeds Dr. J. MacBain Cameron who died earlier this year (*Bulletin* 7(2):36).

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Donald A. Chant has been appointed Vice-President and Provost at the University of Toronto effective 1 July. He has been Chairman of U. of T.'s Zoology Department since 1967.

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Douglas M. Davies, McMaster University, will be on sabbatical leave from 1 July to 31 December to study Oriental Simuliidae. He will visit London (British Museum of Natural History), Sri Lanka, India, Malaysia, and Java.

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Tom Cram has been in England on a year's postdoctoral transfer at the University of Reading. Working with Dr. F. Van Emden on aphid physiology, he has visited many British workers on the strawberry tortrix moth, one of his interests at the Vancouver Research Station, Agriculture Canada.

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Paul Wilkinson has returned to the Agriculture Canada Research Station Lethbridge after spending about a year with Canada Health and Welfare to investigate a problem with the American dog tick in Nova Scotia. He will continue his work on ticks at Lethbridge.

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Theo Olthof, nematologist at the Vineland Research Station, Agriculture Canada, is currently working at the Institut voor Plantenziektenkundig Onderzoek, Wageningen, the Netherlands on a postdoctorate transfer of work. He is working with Drs. Seinhorst and Oostenbrink who are leaders in the development of mathematical models of host-nematode relationships. Theo is using the tobacco plant in his studies and will be gaining experience and knowledge in the use of models on this important Canadian crop.

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The University of Lethbridge, at its May convocation, conferred the honorary doctorate of law on Neil Holmes, Head of the Crop Entomology Section, Agriculture Canada Research Station, Lethbridge. Neil has a long and distinguished connection with education in Lethbridge and Southern Alberta. He has served on the Lethbridge public school board and on the board of governors of the Lethbridge Community College. Neil was also instrumental in the campaign to bring a university to Lethbridge, and served as chairman of the Board of Governors from 1967 to July 1974. He was honored for these accomplishments.

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## GRADUATE DEGREE

Joe D. Shorthouse Ph.D., University of Saskatchewan. Thesis: The roles of insect inhabitants in six *Diplolepis* (Cynipidae, Hymenoptera) rose leaf galls of western Canada. He is presently an N.R.C. Postdoctorate Fellow in the Biological Control of Weeds Division of the Agriculture Canada Regina Research Station and is studying structural damage and host specificity of gall formers.