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V. R. Vickery	Editor (Society Publications)
D. C. Eldr	Assistant Editor (<i>Bulletin</i>)

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ENTOMOLOGICAL SOCIETY OF CANADA

EXECUTIVE COMMITTEE

President:	D. K. McE. Kevan, Dept. of Entomology, Macdonald College, P.Q.
President-Elect:	J. R. McLintock, Research Station Canada Agriculture, University Campus, Saskatoon, Sask.
Past-President:	P. S. Corbet, Dept. of Biology, University of Waterloo, Ontario

MANAGING COUNCIL

Secretary:	D. M. Davies, Dept. of Biology, McMaster University, Hamilton, Ont.
Treasurer:	E. C. Becker, 1320 Carling Ave., Ottawa, K1Z 7K9
Editor:	D. P. Pielou, Dept. of Biology, Dalhousie University, Halifax

CHANGE OF ADDRESS

The headquarters of the Entomological Society are now located at 1320 Carling Avenue, Ottawa, Ontario K1Z 7K9. All correspondence to the Treasurer and Managing Editor and all correspondence dealing with dues, missing and back issues of *The Canadian Entomologist* or the *Bulletin of The Entomological Society of Canada* and especially changes of address should be sent to the new address.

E. C. Becker
Treasurer

CONTRIBUTIONS

Contributions and correspondence should be sent to: D. C. Eidt, Editor, *Bulletin of the Entomological Society of Canada*, P. O. Box 4000, Fredericton, New Brunswick. Inquiries about subscriptions and back issues should be referred to the Treasurer, Entomological Society of Canada, 132 Carling Ave., Ottawa, Ontario, K1Z 7K9.

DEADLINE

The deadline for the next issue, Vol. 5, No. 2 for June 1973 is 15 May.

Editorial

DISCUSSION GROUPS

Most of us were vaguely aware that the 1973 Annual Meeting at Banff was to have some innovations called Discussion Groups and Special Interest Groups. Those of us who were lucky enough to get to the Annual Meeting soon discovered they were a satisfying alternative to submitted papers. Submitted papers still provided an outlet for reporting current work, and a feature symposium on the systems approach to pest management at the beginning of the program, set a high intellectual atmosphere for what was to follow. The innovations were a bonus.

The differences between discussion groups and special interest groups were more in the way they were organized than in the way they were run. Discussion groups were formed by bringing together those who indicated common topics on the reply form sent out by the Program Committee, under a chairman designated by the Committee. Special interest groups were called by strongly motivated people under the aegis of the Committee. Regardless of the recipe, the products were similar.

In spite of the plaudits they have received, not all groups were outstanding successes, although none was a flop. They were run in a variety of ways, depending on the chairman. At one extreme, were "show-and-tell" sessions and at the other, were intense discussions of a series of sub topics. Some were open to everybody in the room, while others had inner circles of participants and outer circles of spectators who participated at the discretion of the chairman.

The program committees of the ES Alberta and the ESC are to be commended for the innovation. The keys to success seemed to be: 1. good chairmanship 2. good knowledge of the subject by the chairman 3. preparation by the participants 4. groups of manageable size, ie. the inner circle, 5. recognition of the outer circle by the chairman.

We hope future program committees will learn from the Banff program. Indeed the 1974 Annual Meeting in Halifax will include discussion groups, which they prefer to call special interest groups to avoid a sensed connotation of restricted participation. Your interest is solicited on page 117.

SORRY

Prosperity means shortages; in this case space for all the items submitted. They will be held over until the March *Bulletin*.

NEW PRESIDENT INSTALLED



J. R. McLintock

John McLintock was installed as President for 1973-74 at the Annual General Meeting, 3 October 1973 at Banff. Facing him are major problems: a permanent headquarters, fellowships, our relationship with B.C.C. and SCITEC, our stand on certain public issues, scholarships, government policy towards entomology, continuity in the profession.

LETTER TO THE EDITOR

EDITOR OF CANADIAN ENTOMOLOGIST

Sir:

I think your comments in the *Bulletin* (June, 1973) on the recently proposed (but aborted) appointment of a new editor for the *Canadian Entomologist* leave a somewhat erroneous impression with the reader. The objection of the Director of the Entomology Research Institute to that editorial appointment was based largely on the inappropriateness of the selection at that moment in time. It did not represent a blanket policy on the part of the Institute that our entomologists shall not serve. It is true that the professional staff of the Institute has borne the editorship for many years and that a change might be desirable. However, depending on the individual concerned, and the total programme of this establishment at the time, we are always receptive to editorial arrangements involving our staff.

With regard to the previous proposed appointment, arrangements between the Society and the editor-designate had already been completed before the Director of the Entomology Research Institute had even been informed of the matter. Even when the information was received, it came informally from an uninvolved source. In a situation in which even a small proportion of a scientist's research time is concerned, it is certainly in the Director's jurisdiction to approve any extramural arrangements that are made.

D. F. Hardwick, Director
Biosystematics Research Institute

SALUTATIONS A LA SOC. ENT. DU QUEBEC

M. le Président, Mesdames, Mesdemoiselles et Messieurs:

Au nom de la Société Entomologique du Canada, j'éprouve un grand plaisir à offrir des salutations et des félicitations à la Société Entomologique du Québec à l'occasion de son centenaire.

Quoique la Société Entomologique du Québec actuelle se soit développée de la Filiale de Montréal de la Société Entomologique d'Ontario (originellement la Société Entomologique du Canada), il y a cent ans cette année qu'elle fut établie à Montréal, une société entomologique québécoise fut fondée un an avant la société-mère. En mille huit cent soixante-deux, un petit nombre des entomologistes amateurs francophones et anglophones fondée un groupe officiel entomologique près de la ville de Québec, La Société Entomologie du Bas Canada. A part quelques années d'inactivité avant mille neuf cent soixante-treize, ceci permet à la Société Entomologique du Québec, comme la Société Entomologique Américaine de Philadelphie (incorporée la même année), un certain titre d'être la plus ancienne société de son genre des Amériques, parce que quelques-une d'entre les fondateurs de la "Filiale de Montréal" étaient les mêmes gens qu'ont établis le groupe québécois onze ans auparavant! En qualité de membre des trois sociétés (du Canada, du Québec et d'Ontario), je ne manifeste aucune préférence!

Cent ans c'est très long, et il est juste et coutumier de commémorer cette ancienneté, mais le nombre "cent-onze" possède plus de magie que le nombre "cent" tout seul! Puisse la Société Entomologique du Québec anticiper avec optimisme non seulement son bicentenaire, mais aussi sa deux-cent vingt-deuxième année de prospérité, de progrès et d'activité.

Vive la S.E.Q.!

D. K. McE. Kevan
Président, S.E.C.

Mr. President, Ladies and Gentlemen:

On behalf of the Entomological Society of Canada, it gives me great pleasure to extend to the Entomological Society of Quebec, cordial greetings and felicitations on the occasion of its centennial.

While the present Entomological Society of Quebec grew out of the Montreal Branch of the Entomological Society of Ontario (Originally the Entomological Society of Canada), and was established a hundred years ago this year, it put down its roots a year earlier than the "parent" society. In 1862, a small band of francophone and anglophone insect enthusiasts formed an informal entomological society near Quebec City — The Entomological Society of Lower Canada. If one overlooks a few years of inactivity prior to 1873, this gives the Entomological Society of Quebec, with the American Entomological Society (incorporated in Philadelphia in the same year) a certain claim to be the oldest society of its kind in the Americas, because those who formed the "Montreal Branch" included several of the same people who founded the Quebec group eleven years previously! As a member of all three Societies (of Canada, of Quebec and of Ontario) I show no favouritism!

One hundred years is a very long time, and it is both conventional and fitting to celebrate such antiquity, but the number 111 has a more magical ring to it than simply 100! May the Entomological Society of Quebec look forward, not only to its bicentenary, but also to its 222nd year of prosperity, progress and activity.

Long live the ESQ!

D. K. McE. Kevan
President, ESC

COLLOIDAL SUSPENSE

The following is the text of the address of Professor Brian Hocking to the Joint Annual Meeting of the Entomological Societies of Alberta and Canada, Banff, 2 October 1973, when he was presented with the Gold Medal Award for Outstanding Achievement of the Entomological Society of Canada.



Brian Hocking

I think by now it goes without saying that a recipient of the ESC gold medal achievement award recognizes this as a signal honour and is correspondingly flattered. I am flattered — and I use that word deliberately — because this year I was backing another and in my view a more worthy horse, for this honour. I am particularly appreciative when I look down the list of previous medallists, all but two of whom I have had the pleasure of being associated with in some capacity or other. Indeed a goodly company of twelve.

What to talk about on an occasion such as this is a sticky problem; one's own work? — enough is said in the citation; take a snap at the hand that feeds and criticize the Society? or praise it for a wise choice? Surely not. Yet there are precedents for all these things, and a title was needed weeks ago. My reputation for revealing nothing in my titles thus remains, I hope, unimpaired.

Speaking of citations: had I been more alert when I read, some months back, a draft of what I believe appears on the sheets of paper fluttering among my audience, I would have made more changes. Specifically I should have made it plain that nearly a third of whatever the number of publications referred to is, were co-authored; many by people in this room. From Marcus Aurelius to those who advocate the abolition of today's goals, men of nous recognize that a man's accomplishments stem from those with whom he associates. In this sense, this medal should have been awarded also to my co-authors wherever they may be, and perhaps especially to my colleagues and co-workers at the University of Alberta: students, from whom I have learned so much, and staff, at all levels, and I should not forget the many charming insects. This is hardly practical, but I should be remiss if I failed to devote a moment of the free time which comes with this medal to thanking all of these beings for the pleasure I have had from their cooperation. I am happy to share the credit for this medal with them and to accept it on their behalf as well as my own. Behind every success, too, there is a woman; I need say no more.

Albert Einstein, asked for a mathematical formula for success, is reputed to have said that if 'a' is a success then $a = x + y + z$, where x is work and y is play. Asked what z is he replied: z is keeping your mouth shut. I shall, so to

speech, pay lip service to this idea in that what I have left to say will be brief — though some of it may be expensive. I would like to look briefly into the past and then into the future.

It is said by some chemists that papers in that field of science can be ignored if they are over ten years old. This denial of history raises a double danger. Firstly, history only repeats itself precisely if it is ignored — and repeating chemical history is expensive. And secondly only if we know what has passed can we hope to foresee and to mold what is to come. Sir Winston Churchill once said that if we open a quarrel between the past and the present we shall find that we have lost the future. The coherent, colloidal, stickiness of biology as compared with the physical sciences arises necessarily, as a part of that advancing panoply of togetherness which we call evolution. It is not repetitious. Firstly then, a word about an earlier goodly company of entomologists. In the early history of this science in Canada there were giants among entomologists: James Fletcher, Léon Provancher, William Saunders, Norman Criddle, E.M. Walker — we could all add to the list. And great entomologists elsewhere have also influenced Canadian entomology. None of these men, of course has received the ESC gold medal; to award medals now to such men would profit neither them nor us. But should we not copy, naturally with improvements of our own, the Founders' Memorial lecture of our friends south of 49? Pick each year a good speaker, instruct him to talk about the work of such a man and to trace its influence on his successors. H.T. Pledge (Science since 1500, HMSO, London, 1939) has shown how important the influence of teacher on student has been in the history of science. Shall we profit from this, or are we content to emulate the chemists?

If we wish to ensure that we have further goodly companies of entomologists in the future, we should be doing something about it now. The first requirement for the evolution of social life was a parent who lived long enough to take an interest in her offspring. Further, the survival of any species or even population, depends on the effectiveness of its concern for the next generation. This is why the current anti-education wave in North America is so deplorable. All of us, even if we have never held an academic appointment, are teachers. This is what publication is all about. We must all concern ourselves about the next generation. Of course we have had our programs to encourage young entomologists, but these mostly stop when they are most needed: they are too little and perhaps, too early. The obvious next step is prestigious graduate scholarships, tenable anywhere. We have said in the past, I know, that we can't afford it; this is like the man with two cars and a snowmobile and trail bike for each member of the family who can't afford to pay his taxes. I would like to indicate two ways in which we might afford it.

A colleague of mine has calculated that with two coffee breaks a day at 15¢ he spends \$75 per annum on coffee breaks. Can we not afford to invest a similar amount in a future distinguished entomologist? With 816 members at \$75 this might yield \$60,000 — almost enough for a dozen prestigious scholarships.

For a second approach, I offer the following. I enjoy a free cocktail hour as well as the rest of you; but I do believe that most of us have reached a stage where we can afford to buy our own drinks and perhaps even some for our colleagues who can't. I appreciate the men who each year go, cap-in-hand, to our members from industry and to non-members and ask, on our behalf, for, among other things, the price of our drinks. But I think this does less than nothing for our internal cohesion (or colloidal success) and still less for our public image. I will even rashly suggest that our sponsors might give twice as much,

(or at least give it half as unwillingly) if the cause we asked them to support was a future distinguished entomologist.

These are just two suggestions. I would like to see a note in every future issue of our publications saying that the Treasurer welcomes contributions to a scholarship fund for future entomologists. This might be all that it would take. The survival of societies, like that of species, may well depend on the effectiveness of their concern for the next generation. The Entomological Society of Canada has made a good start with honoring present workers; but just think of the names that might have graced the list, had we started ten years earlier. Let us not delay and miss out on too many great names for the future. It seems to me that we should NOW bring in history and, look to the future.

HISTORICAL HIGHLIGHTS

Reprinted from the program of the Centennial Anniversary Meeting, Entomological Society of Quebec, Forêt Montmorency, 24-26 September 1973.

The carefully preserved minutes of our Society tell us that during the summer of 1873 the naturalists William Couper, Frank Caulfield, William Hibbins, Charles and George Pearson met by chance on Mount Royal and talked about the formation of an entomological society in Montreal.

At their first meeting on August 30th, 1873, they requested affiliation with the Entomological Society of Ontario, then considered the national Society. The proposition was accepted and, on October 16th, the Montreal Branch was officially established with an executive as follows:

President:	W. Couper	Sec.-Treas.:	F. B. Caulfield
Vice-Pres.:	M. Kollmar	Curator:	W. Hibbins Jr.
Council:	G. J. Bowles, P. Keutying and C. W. Pearson		

On November 11th, bylaws were formulated and accepted, they were effective for 78 years, i.e., until the revival of the Entomological Society of Canada. (In fact, the Entomological Society of Canada founded in 1863 existed only until 1871). In 1951, the Entomological Society of Canada was officially re-organized and, soon after, the Montreal Branch with a new constitution became the Entomological Society of Québec. Presently the Entomological Society of Québec has a Montreal and Québec Branch.

These are the historical highlights of our Society, primarily founded to collect and study the insects of the Province of Québec. Regular meetings held in the past and at present have aided in achieving the Society objectives. Also to its credit, we should mention that having started with only five naturalists, the Society includes presently more than 175 members, that more than 700 regular meetings have been held, and the minutes delivered to the newspapers have been replaced by the publication of Annals and Memoirs. We should also underline the important collections and lists of insects prepared by the members, their active participation in the Xth International Congress of Entomology held in Montreal in 1956 as well as their participation in the joint meeting of the Entomological Society of America, the Entomological Society of Canada, and the Entomological Society of Québec held also in Montreal in 1972.

On account of the progress realized and the actual spirit of cooperation, the Entomological Society of Québec should proudly commemorate this Centennial Anniversary.

R. O. Paradis

MINUTES

TWENTY-THIRD GENERAL MEETING



ENTOMOLOGICAL SOCIETY OF CANADA

The Banff Centre, Banff, Alberta

3 October 1973

The President, D. K. McE. Kevan, called the meeting to order at 1545 hours.

Notice of Meeting

The Secretary informed the meeting that the notice was published in the *Bulletin* 5(1):14, March 1973.

Proxies

None was declared.

Deceased Members

The meeting paid its respects to the memory of Willard R. Allen, H. Rodney Dodge and George B. Rich, members or former members.

Minutes of the Twenty-Second General Meeting

The minutes were adopted as published in the *Bulletin* 4(4):78-82, December 1972, including the President's Report of 1972. Motion by D. M. Davies and G. E. Ball. Carried.

President's Report on behalf of the Governing Board

The President's Report was received on a motion by D. K. McE. Kevan and G. T. Harvey. Carried.

Auditor's Report

(See *Bulletin* 5(3):74-75)

The Auditor's Report was circulated for the information of members. E. C. Becker, Treasurer, indicated that the Society was financially healthy.

Revised By-Laws

The revisions in the By-Laws, recommended by the Governing Board, appeared in the *Bulletin* 5(2):56-61, June 1973. It was pointed out by the

Secretary that in Article IV the items on Emeritus Members had been approved already by mail ballot early this year. In Article XIII, item 1, lines 3 to 6 from bottom of page should be deleted. One other change should be made in Article XIII, item 1, line 8: Write "April" instead of "March".

The revisions in the By-Laws will come before the members for decision on the next mail ballot.

New Achievement Award

The present committee is called the Achievement Award Committee, rather than the Gold Medal Committee, thus the proposed silver medal falls within the terms of reference of this Committee. Several members considered the name Silver Medal connoted a second class award and that the award might be better named after a distinguished Canadian entomologist.

There were members both young and old who spoke strongly in favour of or against such an award. D. C. Eidl urged members to express their views through the *Bulletin*.

It was moved by G. E. Swailes and A. M. Harper that the question of having a medal, confined to entomologists under 40 years of age, be put before the whole membership by mail ballot. Carried. (32 pro, 5 con).

It was moved by P. S. Corbet and C. R. Harris that when the question of having an award for entomologists under 40 years of age is put to a vote that some name, other than Silver Award, be given to it and that the next Governing Board make recommendations. Carried. (40 pro, 2 con).

Fellowships

The President indicated that, as the membership had approved the principle, an ad hoc committee consisting of J. R. MacBain Cameron and W. G. Wellington had been appointed to develop a mechanism of choosing Fellows that would be acceptable to the membership. This proposal would appear in the *Bulletin* at least two months before the next Annual Meeting, at which time the members could discuss it, and the proposal would be placed on a mail ballot thereafter. There was no discussion.

Election

The Secretary reported that K. G. Davey, Convenor, Election Committee, had informed him on 16 July 1973 that the successful candidates were C. R. Harris, President-Elect; F. L. McEwen and I. W. Varty, Directors-at-Large (1973-76). The election of C. R. Harris as President-Elect created a vacancy among the Directors-at-Large, and the Executive Committee asked S. R. Loschiavo to fill this position for one year to which he agreed.

Honorary Membership

The election of Dr. G. P. Holland and Mr. G. F. Manson as Honorary Members was strongly supported by the members. Each was presented with the Society's Honorary Membership Certificate at the opening ceremonies.

Installation of New President

The chairman invited J. R. McLintock, the new President, to take the chair. Dr. McLintock presented Dr. Kevan with the Society's Service Award Shield.

Installation of New Officers

Dr. McLintock introduced the President-Elect and the three new Directors-at-Large.

Auditors

It was moved by S. R. Loschiavo and C. D. F. Miller that Geo. A. Welch and Company, Ottawa, be re-appointed as Auditors. Carried.

Committees and Appointments

The President announced only changes in appointments, but indicated that the minutes would include the complete list of Officers, Chairmen and Representatives.

- Executive Committee: J. R. McLintock (Chairman)
C. R. Harris, D. K. McE. Kevan
Archivist: L.-C. O'Neill, Sherbrooke
Editor: V. R. Vickery, Ste. Anne de Bellevue
Assistant Editor (Bulletin): D. C. Eidt, Fredericton
Editorial Board: C. M. Yoshimoto, Ottawa (1976), Chairman
J. L. Auclair, Montreal (1977)
S. Salkeld, Ottawa (1977)
- Achievement Award Committee: C. R. Harris, London, Chairman
Common Names Committee: J. E. H. Martin, Ottawa, Chairman
Election Committee: K. G. Davey, Ste. Anne de Bellevue, Chairman
Employment Committee: A. G. Robinson, Winnipeg, Chairman
Finance Committee: D. M. Wood, Ottawa, Chairman
E. C. Becker, (ex. off.), Ottawa
A. Cloutier, Montreal
W. T. Cram, Vancouver
C. R. Sullivan, Sault Ste. Marie
- Gift Subscription Committee: H. J. Teskey, Ottawa, Chairman
Honorary Membership Committee: N. V. Tonks, Victoria, Chairman
Insect Colonies Committee: J. S. Kelleher, Ottawa, Chairman
Membership Committee: R. E. Bellamy, Saskatoon, Chairman
Nominations Committee: D. K. McE. Kevan, Ste. Anne de Bellevue, Chairman
G. E. Ball, Edmonton
R. O. Paradis, St. Jean
- Program Committee (1974): C. R. MacLellan, Kentville, Chairman
Publicizing Entomology: K. S. McKinlay, Saskatoon
Science Policy Committee: W. F. Baldwin, Chalk River, Chairman
Student Encouragement Committee: D. Lehmkuhl, Saskatoon, Chairman
Canadian Committee on Water Pollution: A. L. Hamilton, Winnipeg, Representative
Canadian Council on Animal Care: A. E. R. Downe, Kingston, Representative
- C. S. A. Committee on Common Names for Pest Control Chemicals: L. A. O. Roadhouse, Ottawa, Representative

Biological Council of Canada:

B. N. A. Hudson, Ottawa, and D. R. Oliver, Ottawa, Representatives; S. B. Hill, Ste. Anne de Bellevue, and R. K. Stewart, Ste Anne de Bellevue, Alternates.

SCITEC: R. K. Stewart, Representative; S. B. Hill, Alternate

Resolutions

It was moved by F. L. McEwen and P. S. Corbet that the following resolutions, drawn up by the Resolutions Committee, F. L. McEwen (Chairman), R. K. Stewart and J. B. Gurba, be adopted.

1. Whereas the Banff Centre has provided excellent facilities for the professional and social activities of the Entomological Society of Canada for its 23rd meeting, be it resolved that this Society extend thanks to the Banff Centre for their excellent accommodations.
2. Whereas the Entomological Society of Alberta has arranged for excellent facilities and a stimulating program for this joint meeting, be it resolved that the Entomological Society of Canada commend and warmly thank the Entomological Society of Alberta for their efforts on our behalf.
3. Whereas the success of this meeting was made possible by the joint and individual efforts of many people, be it resolved that the Entomological Society of Canada thank all those who contributed.
4. Whereas the Lieutenant-Governor of Alberta, the Honorable J. Grant McEwan has honored the Entomological Society of Canada by being its banquet speaker, be it resolved that this Society express its pleasure.

Twenty-Fourth General Meeting

The Secretary announced that the Society would meet with the Acadian Entomological Society in Halifax 26 - 29 August 1974. Chairman of the 1974 Program Committee is C. R. MacLellan.

Achievement Award

C. R. Harris, Chairman, Achievement Award Committee, requested members to send their nominations for the 1974 Achievement Award to him, marked "Confidential, Achievement Award." A written announcement will be mailed to the members. The names of the two Assessors can be obtained by writing to him or the Secretary. The deadline for nominations will be 30 November 1973.

Other Business

S. R. Loschiavo reminded members, especially student members, that Employment Service is available through the Employment Committee. As there was no further business, the Chairman adjourned the meeting at 1700 hours.

ACTIONS OF THE GOVERNING BOARD

30 September — 1 October 1973

- | | |
|-------------------------|---|
| Regional Societies | 1. Noted that the Society wished to increase communication and interaction with Regional Societies. |
| Editorial Policy | 2. Recommended that authors wishing to publish in The Canadian Entomologist should submit an original and two copies of their manuscripts. |
| Archives | 3. Approved plans for transferring appropriate archival material to the Public Archives of Canada. |
| Common Names of Insects | 4. Approved an investigation of the publication of a revised trilingual list of Canadian insects which might lead ultimately to the production of a continental list. |
| Headquarters | 5. Recommended that the Finance Committee continue to investigate the matter of a permanent headquarters for the Society. |
| Essay Contest | 6. Noted that 40 entries had been received and that the contest closes on 31 December 1973 (see Bulletin 5(2):37, September 1973). |
| BCC | 7. Noted that the Society had submitted recommendations on reports of six Task Forces that BCC is forwarding to the Canadian Council of Resources and Environment Ministers: No. 2 Population, No. 4 Qualitative and quantitative information for decision making, a dynamic inventory of man and resources, No. 5 Education, No. 6 Long-term planning in resource development and use, No. 7 Environment protection, and No. 6 Northern development. |
| Science Policy | 8. Noted that the Science Policy Committee is finalizing a position paper on the "Contemporary Role and Responsibilities of the Entomological Society of Canada." |
| TIEG | 9. Recommended that \$750 be sent annually through the Student Encouragement Committee to the Teen International Entomology Group (TIEG) to assist them in publishing one number of their quarterly Newsletter . TIEG is doing excellent work in stimulating interest in entomology among North American youth. |
| By-Laws | 10. Noted that revisions in By-Laws recommended by the Board and published in the Bulletin 5(2):59, June 1973 will appear for decision on the next mail ballot. |
| Rules and Regulations | 11. Asked Dr. Ellen MacGillivray to prepare a revision of the Society's Rules and Regulations including the Terms of Reference of Committees. |
| Fellowships | 12. Asked the ad hoc Fellowship Proposal Committee to finalize its recommendations on the mechanism of choosing Fellows. This will appear in the Bulletin before the 1974 Annual Meeting allowing full discussion by the membership. |

Extension
and Research

13. Asked Dr. W. J. Turnock to formulate proposals on how a study of systems of coordinating information on problems, research and extension nationally and among provinces can be implemented.

15th Intl.
Congress

14. Accepted the invitation of Dr. C. Sabrosky, Congress President, that the ESC President in 1976 be an Honorary Vice-President of the Congress.
-



Dr. D. P. Pielou was recently presented with a Society plaque, commemorating his 7 years as Editor (1966-1973) of *The Canadian Entomologist* and other Society publications. Above, making the presentation on behalf of the Entomological Society of Canada, is Dr. C. R. MacLellan (left) and Dr. Pielou. Other Society members, Miss June Herbert, Sec.-Tres. of the Acadian Entomological Society, Dr. Albert MacPhee, President of the A.E.S. and Dr. Lyn Martin, Director, Nova Scotia Museum, joined Pat and Roger to celebrate the affair with dinner, wine and reminiscences.

PROGRAM

The Program Committee welcomes comments on the innovations at the Banff Meeting, and any criticism and suggestions that may improve future meetings. They are particularly interested in your reaction to the Discussion Groups and Special Interest Groups. Address your comments to C. R. MacLellan, Chairman, at Agriculture Canada Research Station, Kentville, N. S.

ACTIONS OF THE GOVERNING BOARD

4 October 1973

- | | |
|---------------------|--|
| Appointments | 1. Approved appointment of S. R. Loschiavo as Director-at-Large (1973-74) to fill a vacancy left by C. R. Harris, President-Elect. |
| | 2. Approved the Managing Council: E. C. Becker, Treasurer; D. M. Davies, Secretary; V. R. Vickery, Editor. |
| | 3. Approved Presidential appointments of Committees and Representatives. |
| Finance | 4. Approved a budget for 1974 that anticipated a surplus of \$2,181.00. |
| | 5. Authorized the Executive Committee, on the recommendation of the Finance Committee, to reinvest up to \$25,000 of the Society's money now in the bank. |
| Achievement Award | 6. Agreed that the deadline for submission of nominations be 30 November 1973. |
| By-Laws | 7. Requested that the Treasurer check whether any of the proposed revisions of the By-Laws, especially those relating to formation and dissolution of Standing Committees, contravene any laws. |
| Photo Salon | 8. Recommended that the Insect Photo Salon be continued but that the giving of mementos other than Award Shields be investigated. |
| Archives | 9. Recommended that Regional Societies be asked if they wish to cooperate in a venture in which the ESC would collect recordings of retired entomologists. |
| Annual Meetings | 10. Suggested that the Society might have more input in planning the scientific programs of Annual Meetings. |
| | 11. Noted that plans for the 1974 Annual Meeting with the AES in Halifax are progressing well. |
| | 12. Approved that, at the joint Annual Meeting with the ESS in 1975, the Canadian Botanical Association and the Canadian Phytopathology Association meet with us if suitable arrangements can be made. |
| Manpower Study | 13. Recommended that the feasibility of doing a manpower study be determined. |
| Scholarship Fund | 14. Recommended that the President appoint a committee of three to investigate a way of establishing a Scholarship Fund for encouraging students interested in entomology at university. |
| Government Research | 15. Suggested that the Society present its views strongly concerning ways in which government can improve development and support of research. |



Front Row: S. R. Loschiavo, Director-at-large; C. R. Harris, President-Elect; B. N. A. Hudson, at-large; J. R. McLintock, President; M. E. MacGillivray, Acadian; D. K. McE. Kevan, Past-President; Gérard Rioux, Québec.

Back Row: N. V. Tonks, British Columbia; D. M. Davies, Secretary; W. J. Turnock, proxy for S. C. Jay, at-large; J. A. Downes, at-large; E. C. Becker, Treasurer; F. L. McEwen, at-large; I. W. Varty, at-large; L. Burgess, proxy for K. S. McKinlay, Saskatchewan; V. R. Vickery, Editor; G. T. Harvey, Ontario.

Absent: S. C. Jay, Manitoba; W. O. Haufe, Alberta.

NOTE FROM THE EDITOR

I would like to draw attention to some changes which will soon appear on the cover of *Canadian Entomologist*.

1. The Associate Editors who acted during part of 1973 completed their terms in October. The Associate Editors who will be assisting during the next year (or longer or shorter time; only a three-year maximum is fixed) are Dr. Rita Wensler, Mr. C. A. Miller, Dr. L. L. Pechuman and Mr. Ray F. Morris.

2. The composition of the Editorial Board has changed. Dr. C. M. Yoshimoto is now Chairman.

3. A statement, in bold-face type has been inserted which states *The Canadian Entomologist* accepts manuscripts in all entomological fields. This is in response to criticism which unjustly implies that preferential treatment is given to papers on certain aspects of entomology. The statement makes clear that all manuscripts on entomology receive due and equal consideration.

4. On the inside back cover, under "Notice to Contributors", section 2, TEXT, it is requested that, in future, all submissions of manuscripts consist of the original and two additional copies, either carbon or duplicated copies. This may appear to be imposing a hardship on authors but it is requested so that the editorial staff can improve their service to authors. At present, the original copy of text and illustrations is kept in our Carling Avenue office in Ottawa. Only the second copy is now available to send to referees, so it has to be sent out twice. Two copies can be sent to referees at the same time, thereby decreasing the time taken for review and enabling quicker handling and publication of papers.

Some members may wonder what the Associate Editors duties are so I will outline, briefly, how manuscripts submitted to *The Canadian Entomologist* are processed. All manuscripts received at the Carling Avenue, Ottawa, office are assigned a reference number by Miss M. R. McBride, Managing Editor. Copy 1 is then filed and Copy 2 is sent to me. I scan each paper as received but do not read any in detail at this stage. I determine which Associate Editor should deal with the paper, depending upon the subject matter. Forms for referee appraisal are prepared and are sent with the manuscript to the selected suitable referees. In certain cases, manuscripts are sent directly to referees by the Editor, without the assistance of Associate Editors. Any of the Associate Editors may act as one referee, if they choose to do so. After a manuscript has been reviewed twice, it, and the comments of the referees, one copy signed and one copy unsigned, are returned to me. The Associate Editor then destroys all correspondence regarding the manuscript. As Editor, I then must check the manuscript and the comments of referees, then decide whether to accept the paper without change, to reject it, or to return it to the author or authors for minor or major revision. I usually follow the recommendations made by the referees and Associate Editors. If a manuscript is revised, I evaluate the extent of revision to determine that any contentious points have been clarified. When approved, the manuscript, in the original or revised form is sent back to Miss McBride, who makes any editorial changes required and sends it to the printer.

Final decisions on manuscripts are made by the Editor on the advice of referees and Associate Editors and on the Editor's final evaluation of the manuscript. Following acceptance of a manuscript, all correspondence, referee appraisals, etc., concerning that manuscript, are destroyed.

All notifications of receipt of manuscripts and, later, of acceptance of manuscripts are sent to authors by Miss McBride. When a paper is rejected or

returned for revision, I send Copy 2 to the author together with unsigned copies of the referees' appraisals. In the case of a rejected paper, I ask Miss McBride to return Copy 1 to the author. Whenever possible, a suggestion is made to the author that certain parts of the paper could be rewritten and resubmitted as a "note" for publication in **The Canadian Entomologist**. All papers have some points worth publishing, even though the original submission may be rejected.

There is one complaint that can be made about the quality of papers currently being submitted for publication in **The Canadian Entomologist**. The percentage of papers which have to be returned to authors for minor or major revision is so high that one is forced to conclude that authors are relying upon referees to point out the faults in their papers. If this is so, and it appears to be, although some authors may not realize it, it can be corrected by authors having their papers reviewed more extensively by more people prior to submission. Such action would certainly result in fewer manuscripts being returned to authors, earlier publication of papers, and less extra editorial work.

I hope this discourse on our procedures will assist authors as well as inform our membership. Our only wishes are to serve you well and to ensure that the high standards of **The Canadian Entomologist** are continued. The journal is recognized as one of the foremost entomological journals of the world and we intend to keep it in this eminent position. We solicit your assistance and understanding in maintaining this excellence.

V. R. Vickery, Editor

PRELIMINARY ANNOUNCEMENT

22nd ANNUAL MEETING

Halifax, N. S.

26-29 August 1974



Feature Symposium

ENTOMOLOGY AND THE ENVIRONMENT

Special Interest Groups

This successful feature of the 1973 Annual Meeting will be a prominent feature in 1974. See page opposite.

Submitted Papers

An opportunity will again be given for presentation of current work in your field. Titles and abstracts will be called for in the March 1974 **Bulletin**. Deadline for returns will be 30 April 1974. Resumes for the press are encouraged.

Photo Salon

Applications for the Fourth Annual Insect Photo Salon will be solicited in the March 1974 **Bulletin**. Consider entering now.

Pre-registration and accommodation reply forms will also be available in the March 1974 **Bulletin**.



CALL FOR ACTION

SPECIAL INTEREST GROUPS

1974 Annual Meeting

Special Interest and Discussion Groups were very successful at the 1973 Banff Meeting. Included were a welcome diversity of contributions tempered with just the right touches of criticism and controversy. Many took the opportunity to show-and-tell while others discussed special topics in detail. The exchange of ideas was stimulating and rewarding to both participants and listeners.

Special Interest Groups will be a prominent feature of the 1974 meeting in Halifax. Group sessions will be structured to allow the Chairman or a special speaker to develop the subject, to be followed by participants relating their views, interests or findings on the subject, clearly and concisely. Anyone is invited to speak to cover the diverse aspects of the topic and to introduce to the group those whose efforts or interests are less known.

Suggested Topics

- New developments in integrated control
- New methods of insect control
- Side effects associated with DDT replacements
- Cost analysis of resource protection
- Survey and monitoring techniques
- Attractants
- Biting flies
- Beneficial insects
- Urban Entomology
- Ecology of Introduced pest species
- Other topics

Suggested Formats

- | | |
|-------------------|--------------------------|
| — Show-and-tell | — Workshops |
| — Decision making | — Identifying priorities |
| — Urgent interest | — Common interest |

ACT NOW! If you are interested in organizing or participating in a Special Interest Group, contact:

C. Roger MacLellan
Canada Agriculture
Research Station
Kentville, N. S.

PRESIDENT'S REPORT



on Behalf of the
Governing Board
of the
Entomological Society
of Canada
3 October 1973

Before making this report, I should like to thank most sincerely my fellow members of the Executive Committee, the Managing Council, all my fellow members of the Governing Board, Chairmen and Members of our various committees and our representatives on other bodies for their help and support throughout the year. Although it is perhaps invidious to do so, I would like to make special acknowledgement of the assistance rendered by our hard-worked Secretary and by our President-Elect, without whom I would have doubtless committed more sins of commission and omission than I actually have done.

During the past year, there have been certain changes in the Society's affairs, the most notable being our move to 1320 Carling Avenue, Ottawa, and a change of Editor. So far, business has been running smoothly in our new office and the change-over did not present any notable difficulty. Any member of the Society who visits Ottawa is most welcome to drop in to see our new headquarters. The replacement of Pat Pielou as Editor was not achieved without problems, but I would not wish to proceed without endorsing the tribute paid to him in the *Bulletin* for his sterling services over many years. I should also like to thank Vern Vickery for stepping into the breach at short notice, despite poor health at the time, and not only for keeping us going, but for doing an excellent job.

The Governing Board met three times: 30 November 1972 in Montreal, 12-13 March 1973 in Ottawa, and 30 September — 1 October 1973 in Banff. The President was not able to attend as many meetings of Regional Societies during the year as he would have liked, because several of the Regional meetings were not held within the actual term of his office. He did, however, in an official capacity, attend the Annual Meeting of La Société Entomologique du Québec in Montreal in November, 1972, and a meeting of its Montreal Branch early in 1973. He also carried felicitations (in French) on behalf of the Society to the centennial celebrations of the same society at the Forêt Montmorency, 24-26 September, 1973. He was officially represented by a member of the Governing Board, N. V. Tonks, at the Annual Meeting of the Entomological Society of British Columbia in March, 1973.

Entomological anniversaries seem to have been in vogue in 1973, and, in addition to taking this opportunity of extending the Society's good wishes to the Entomological Society of Alberta, our hosts, on their Coming of Age (old style), the President has sent salutations to the Entomological Society of Queensland, in Brisbane, and (in Spanish) to La Sociedad Chilena de Entomología, in Santiago, both of whom have very recently celebrated their semi-centennials. In view of the political disturbances which began in Chile almost simultaneously with the latter Society's celebrations, you will be gratified to learn that reciprocal greetings have been received from the Chilean Society.

It would also be appropriate here to quote now from a letter from Gordon E. Guyer, President of the Entomological Society of America:

On behalf of the entire membership of the Entomological Society of America, I want to wish you a most successful meeting at Banff. I am sure that the members of our Society will be particularly attuned to this meeting for we all remember the most successful joint meeting we had with you and the Quebec Society. I hope you will make sure to extend our best to all of our most respected colleagues and friends in Canada.

The good wishes of our Society for a successful meeting in Dallas this winter will be forwarded to the Entomological Society of America.

Although developments during the past year have not been spectacular, the Officers of the Society and the Governing Board have conducted a considerable amount of business, and the actions of the latter, up to and including those of the March meeting, have been reported in the **Bulletin**. It is not, therefore, necessary to enlarge upon these here. Certain important issues that have been discussed will be brought up later in the meeting. Other general areas which have received attention include: greater participation of the membership in the affairs of the Society; increase in effective liaison between the Society and its Affiliated Regional Societies; means to increase public awareness and to enhance the image of entomology; how best to increase the role of the Society in formulating national science policy; how best to serve the greatest number of members (and to increase that number); and how to enhance the value of our publications. All these things need the full co-operation of the membership. If any member has a good idea or a grouse he should let the Governing Board know. Its members may be remarkable, but most of them are not psychic!

The Society's Publications

As you will have learned from the **Bulletin**, almost immediately on moving to our new offices (but not as result of it), we ran into problems which had not been anticipated. The first of these (the least serious and not reported) was an unfounded but persistent rumour that **The Canadian Entomologist** was not considered by the National Research Council to be a sufficiently acceptable publication for serious scientific research papers. At the President's request, the President of N.R.C. had this charge investigated, and himself replied unequivocally that the rumour was deemed false. **The Canadian Entomologist** is as highly regarded by N.R.C. as is any other biological journal. The second problem, a compound one, followed the resignation of our esteemed Editor, Pat Pielou, who had been finding it increasingly difficult to continue. The short report in the **Bulletin** has already stated with commendable reserve something of what occurred. We have now cleared the hurdle by the Presidential appointment, on the recommendation of the Executive Committee, of Vern Vickery, who kindly agreed to serve provisionally as Editor. It would be appropriate also to express our appreciation to the Managing Editor, Miss McBride, and to a number of Ottawa members (notably Drs. Becker, Cartier, Yoshimoto and Hudson) for ensuring the continued processing of manuscripts and publication during our period of difficulty. Our problems did not end with the settlement of the editorial question, however, for, while all the other difficulties were being experienced, our printer transferred his plant. It is this, and this alone, that caused the publication of **The Canadian Entomologist** to fall somewhat behind schedule recently. However, we expect to be back to normal soon. We apologise to certain authors for the unavoidable delays and irritations. The **Bulletin** continues to grow in size and to fulfill an increasingly valuable role, thanks to the commendable efforts of its editor, Doug Eidt. Its continued success depends upon you, the membership, to provide appropriate copy and com-

ments — and these we urge should be in a form suitable for publication as they stand, be they committee reports or anecdotes.

The Editorial Board

Harold Madsen was unfortunately unable to complete his term of office as Chairman of the Editorial Board owing to his absence overseas. The President therefore appointed Carl Yoshimoto of the Board to be Chairman for the balance of the year. Owing to the emergency situation regarding the editorship and other important issues, the Board (including the President, *ex officio*) held a special meeting in Ottawa on 6 April 1973. The vacancy in the editorship remained unfilled at that time, but other important actions were taken. Policy regarding *The Canadian Entomologist* was discussed. It was agreed that there would be no special merit in dividing the journal into two at this time, although this may have to be reconsidered. Grouping of papers within the present format was recommended; the existing policy of encouraging the submission of papers in all fields of entomology was strongly endorsed. To assist the Editor in the matter of reviewing submitted papers, a panel of four Associate Editors from different fields was appointed on an interim basis for the balance of the year. The situation will be reviewed in the light of the new Editor's experience. The names of the Associate Editors were announced in *The Canadian Entomologist* and in the *Bulletin*. We were sorry to learn that R. F. Morris, one of their number, suffered an injury and was unable to assist. A degree of clarification of the announcement in the *Bulletin* is called for. The Associate Editors were not appointed to be specifically or exclusively responsible for the fields appearing opposite their names — were this so, obvious gaps in coverage would be apparent. The Associate Editors assist the Editor, as and when called upon to do so, in locating appropriate reviewers. They are not themselves the reviewers (although they may volunteer to be such) and the anonymity of the latter is maintained. The system is functioning well.

Archives

The Governing Board has recommended the deposition of the Society's archival material in the National Archives, Ottawa, partially as a matter of convenience, but, more important, because it is felt that the material relating to the oldest national scientific society in Canada is part of our national heritage and transcends purely Society interests. The Governing Board and our Archivist, Louis O'Neill, established contact with the appropriate person at the National Archives, but a change in personnel has resulted in interruption of communication. There is thus nothing further to report except that the Governing Board has authorized the Archivist to arrange a visit by the National Archives representative to inspect the Society's material.

Standing Committees in General

The President has initiated a review of all terms of reference for such committees with the object of updating these where necessary and of avoiding duplication and of indicating possible weaknesses. Some anomalies have already come to light and one of the Governing Board, Ellen MacGillivray, has agreed to attempt to collate and co-ordinate the terms of reference for all standing committees. The reports from various committees are published elsewhere in this issue of the *Bulletin* so that they need not be reviewed in detail here.

Finance

The Society's finances appear to be in good shape. The Finance Committee is one of the most important in the Society, and are again beset with

temporary problems. The Chairman, Dick Prentice, who has served for several years and to whom we are most grateful, particularly for his part in negotiating the change to our new premises, unfortunately found himself unable to continue. At the same time, Everett Lindquist, the one other remaining member of the Committee, who has served for many years, wished to be relieved of his duties. We were thus faced with the task of forming an entirely new Finance Committee with a number of important, if not immediate problems before us, such as: finding permanent quarters when our Carling Avenue lease expires; increased financial involvement with "umbrella" organizations; publication costs vis-a-vis members' dues; etc. It has always been policy that the Finance Committee should (for practical reasons) be Ottawa-based, but, since finance touches us all perhaps more than any other matter, the President believed that a wider geographical representation was desirable. As a compromise, therefore, he appointed (on an interim basis) a larger Finance Committee from among members across the country, but with a strong Ottawa nucleus (including the Treasurer as an ordinary voting member). This Committee, under the chairmanship of D. Monty Wood, has not been long in office, and, for a number of technical reasons, has not yet got its teeth into the matters that it has been asked to study (including those referred to in the Minutes of the last Annual General Meeting). Like other scattered committees, the Finance Committee, as at present constituted, can deal with much of its business only by correspondence, but there is enough strength concentrated in one place (Ottawa) to deal with emergencies, should they arise. It is anticipated that this committee will be reappointed and that its report will be presented to the first Governing Board meeting in 1974.

Achievement Award

The results of the activities and the precise terms of reference of this Committee are now known to you through the *Bulletin*. The matter of the proposed second Medal award (also reported in the *Bulletin*) will be referred to later.

Common Names of Insects

This Committee, under the chairmanship of Jack Martin, continues to discharge its normal duties. In addition, in response to a request from a number of members, it has been asked by the President to look into the desirability and feasibility of producing a trilingual list of names of common insects for Canada, i.e., a list similar to that produced by the Quebec Society for the Protection of Plants for their Province, but extended somewhat to cover the whole country. The Governing Board has accepted in principle the desirability of pursuing this matter further in co-operation with the Q.S.P.P. and a projected continental list being considered by the Entomological Society of America. The Governing Board recommends also that publicity be given to the Quebec list, which is currently being revised and which is of much wider application than its title suggests.

Elections and Nominations

The results of the activities of these committees are now known. The impending vacancy on the Governing Board resulting from the elections has been considered by the Governing Board and will be referred to later.

Employment

Sam Loschiavo and his Committee have done the Society a very great service during difficult times. While the prospects for entomologists are still

far from satisfactory, there seems to have been a slight improvement — perhaps because entomologists are probably the most versatile of all biologists and thus turn their skills to fields other than entomology. The Committee's report is published in this issue of the **Bulletin**.

Gift Subscriptions

The chairman of this Committee, H. J. Teskey, notes a slight increase in the number of members donating subscriptions of **The Canadian Entomologist** to worthy recipients. Members are encouraged to contribute to this scheme, and identify potential recipients.

Insect Colonies

The Chairman, J. H. Kelleher, prepared a list which was circulated with the June, 1973 **Bulletin**. He would appreciate receiving comments on the usefulness of the list, which seems to have been well received.

Insect Photo Salon

Last year's experience (owing to the confusion with the Entomological Society of America's photo salon) was discouraging, but it was decided to go ahead with the 1973 Photo Salon under more normal circumstances. Reiny Brust and his Committee have worked hard to make the event a success. The future policy will rest largely upon the results of their efforts.

Membership

Membership remains relatively static. There were 938 members at the end of August 1973, including 132 student members, 24 emeritus members and 8 (now 10) honorary members. Buck Bellamy, the new chairman of the Membership Committee, has been active and a new membership application form should be ready soon for distribution to potential sources of recruitment. Closer liaison with regional societies is being sought and the reasons for reluctance to join the Society and for resignations are being investigated. It would therefore be of interest to this Committee (as well as to the Governing Board) if causes of dissatisfaction among actual members be made known to it.

Programme

The successful results of Wib Haufe's and the Programme Committee's work in association with that of the local committee of the Entomological Society of Alberta are obvious from the events which are taking place. We owe both these bodies our gratitude. Comments from members on the innovations (discussion and special interest groups) and on other programme matters will be welcomed by the Programme Chairman for the next meeting, Roger MacLellan.

Publicizing Entomology

The most tangible result of the work of Mac McKinlay and this new Committee has been the launching of the Entomological Society of Canada Essay Competition in association with **Insect World Digest**. Details have been made public by flyers issued with the **Bulletin** and circulated by other means. This seems to have created considerable interest. 35-40 essays have already been received with three months still to go. Means of making the essays available to members after the competition are being worked out. The Committee

is also engaged in various other projects aimed at enhancing entomology in the public image.

Student Encouragement

R. G. H. Downer, Chairman of this Committee, reports progress in co-operating with regional societies in continued liaison with the Teen International Entomological Group. In this regard, the Finance Committee is being asked to advise on the possibility of a substantial increase in the grant to the Committee in support of the T.I.E.G. publication. It is urged that it is the duty of each member of the Society to foster the interests of entomology among young people nationally and locally to whatever extent they can. The President observes that, in his view, interest in entomology among young people seems to be increasing, perhaps in inverse proportion to the disinterest currently and distressfully being shown by politicians and administrators, not to mention some fellow-scientists.

Science Policy

Most of the activity outside meetings of this Committee, under the chairmanship of Bill Baldwin and Vice-Chairmanship of Anne Hudson, has been in preparing a "position paper" entitled "The Contemporary Role and Responsibilities of the Entomological Society of Canada" (see minutes of previous Annual General Meeting). This report will be made public soon. Much of the other business of the Committee has been concerned with the affairs of BCC and SCITEC (see below). There is some concern whether this is properly a major one of the Committee's responsibilities.

Representatives on Other Bodies

Biological Council of Canada (BCC)

The BCC representatives (particularly Anne Hudson) and the President have urged a greater degree of positive action on the part of BCC. We are still concerned that BCC should demonstrate its value to the Society and that it should recognize, by more adequate representation on its Executive, our Society's large financial input. Our point of view appears to have been acknowledged. Results still seem slow in forthcoming and there has been a tendency for BCC to "pass the buck" back to us. The ESC is committed to support BCC, and the Governing Board believes it to be to our long term advantage to do so, but it is up to the Society, by individual or collective action of its members, directly or through its BCC representatives (Drs. Hudson and Oliver) and alternates (Drs. Stewart and Hill) to initiate action. Anne Hudson has responded to the request of the Canadian Council of Resource and Environment Ministers for recommendations relating to a number of "task forces" appropriate to the Society's interests.

Association of Scientific, Engineering and Technological Community of Canada (SCITEC)

Your new representative, Robin Stewart, and his alternate, Stuart Hill, have been keeping a finger on the pulse of this body. As ESC is a member of SCITEC through BCC, we have been disappointed at the latter's input to SCITEC even on its own behalf, and we regretfully detect a hint of the development of a "power-group" situation in SCITEC. A forum on "Energy and its Economic and Social Implications", was held in Montreal early in 1973, at which ESC's stand was made clear by the presentation of three main points brought forward from its Science Policy Committee. The report of the SCITEC

representative appears in this issue of the **Bulletin**. There has been an exchange between the President and the President of SCITEC, Virginia Douglas, regarding the latter's advocacy of a policy that SCITEC representatives from individual societies should be presidents or members of executive of these societies. She has been informed that in the President's view (which has been unanimously endorsed by the Governing Board) that this has, to say the least, no special merit, in the case of ESC. There is little or nothing concrete to report on the "House of Science and Technology" developments.

Canadian Standards Association (Common Names for Pest Control Chemicals)

Lloyd Roadhouse reports that he has been active in the preparation of the relevant parts of the latest (1973) list which now contains about 425 names.

ESO-ESC Joint Committee on Exchanges

Our representative, Frank McAlpine, has nothing new to report. The Governing Board is continuing to investigate the possibility of a mutual agreement whereby the long-standing arrangement with ESO may be terminated. It is our representative's view that (even if the instrument of agreement continues in force) the Committee, as such, has ceased to fulfill a useful function.

National Research Council Grant Selection Committees

BCC has recently proposed to NRC that Societies participating in BCC be represented on the above bodies and has called for nominations. General acceptance of the idea seems to have been achieved, but the actual proposals and their outcome seem somewhat nebulous. Keith Kevan has been nominated on behalf of ESC, but the outcome of this is not known.

Actions of the Governing Board and Other Matters

The **Bulletin** has already reported various actions of the Board, so that details of these need not be repeated. One of the most important items of business has been the consideration of Revision of the By-Laws. This matter will be brought before the membership later as will be another topic that has occupied much time: the consideration of implementing the proposal for a Fellowship class of membership. It is believed that we are now near to allaying the misgivings of waverers.

Modular Course in Entomology

The Governing Board has expressed interest in a modular course in entomology directed at undergraduate university students and in process of development by Stuart Hill of the Department of Entomology, Macdonald Campus, McGill University. The University is anxious to have the co-operation of other universities and institutions in the preparation of modules. Anyone willing to contribute to the programme is therefore urged to contact Stuart Hill or Keith Kevan.

Canadian Achievements in Science and Technology

A rather ambiguous request from the Ministry of Science and Technology asking ESC to assist by compiling a list of outstanding Canadian entomologists and their achievements is still in the lands of the Executive. The more we have looked into the preparation of such a list, the more difficult we have found it to compile. If it is not now too late, the matter will receive further attention, probably involving a call to the membership for assistance.

Liaison between Research and Extension Entomology

The Governing Board has approved in principle an investigation into the possibility of preparing a brief on making effectual communication between various forms of research and extension workers (and, indeed, those who lie between) throughout the country, with special emphasis on agricultural entomology.

XV International Congress of Entomology

This will be held in Washington in 1976. The President of the Congress, Curtis Sabrosky, has extended an invitation to the Presidents of the Entomological Societies of Canada and of Mexico, who will be in office at the time, to be Honorary Vice-Presidents of the Congress. The Board is very appreciative of this gesture and has given its sanction on behalf of the, as yet unknown, President of ESC.

Future Annual Meetings

The 1974 meeting is, of course, to be in Halifax, August 26-29. The 1975 meeting will be in Saskatchewan, probably at Saskatoon; the Governing Board has approved in principle the concept of a joint meeting with the Canadian Botanical Society (which would likely involve also the Canadian Phytopathological Society). The Governing Board did not look with favour upon a tentative suggestion for an international meeting with the North Central Branch of the Entomological Society of America and the Entomological Society of Ontario following the International Congress, or upon any other international meeting in that year. However, President Fisher of the ESO has subsequently proposed a joint meeting with his Society and the Canadian Agricultural Chemicals Association. The Governing Board's attitude to this proposal should be forthcoming shortly.

It only remains for me to thank you for your forbearance during this long report and to wish you well for the rest of the meeting and always.

ELECTION 1974

The Nominating Committee, D. K. McE. Kevan, Chairman, G. E. Ball and R. O. Paradis will prepare the usual slate of nominations for President-Elect and two Directors-at-Large.

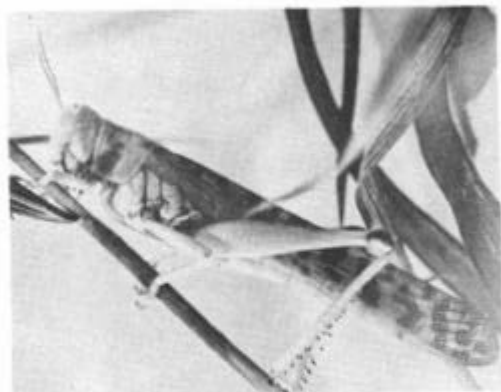
Nominations from the membership may be submitted in writing over the signatures of at least three active members of the Society, with a signed statement from the nominee indicating his willingness to accept office if elected. Such nominations shall be submitted not later than 31 March 1974.

D. M. Davies
Secretary

1973 PHOTO SALON WINNERS
BLACK AND WHITE



First: *Surfing* by E. J. Ford, Ottawa



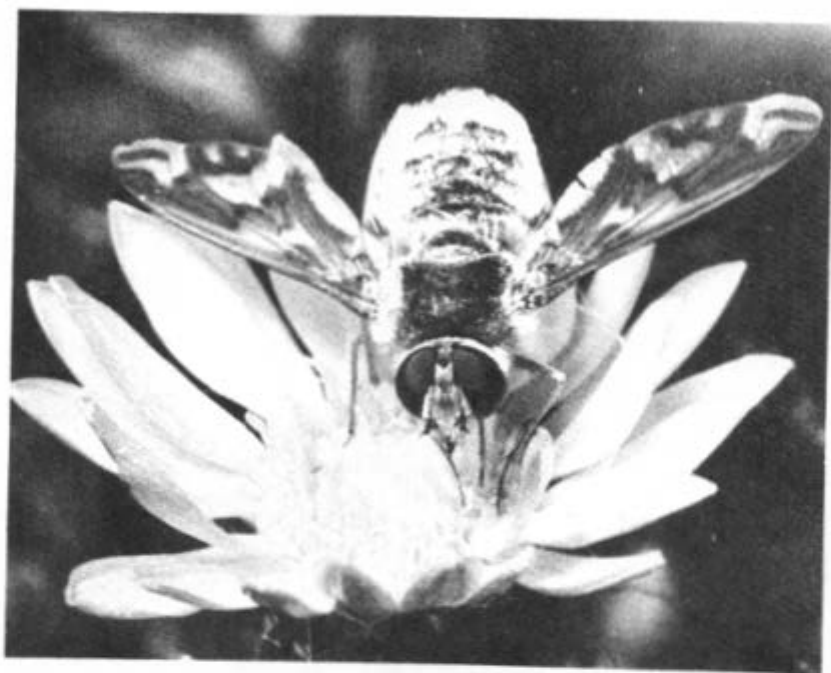
Second: *Grasshopper*
by G. S. Glen, Saskatoon



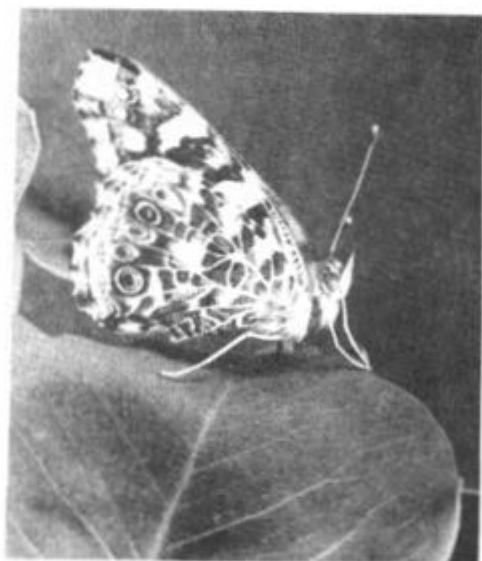
Third: *Sculpture*
by J. R. Beyers, Ottawa

The First award winner in each category received a beautiful engraved shield bearing the Crest of the Entomological Society of Canada.

1973 PHOTO SALON WINNERS
COLOR



First: *Bee fly* by Evan T. Gushul R. B. P.



Second: *Painted Lady*
by E. T. Gushul R.B.P.



Third: *Sphinx Caterpillar*
by E. T. Gushul R.B.P.



Keith Kevan

PRESIDENT'S REMARKS

Having been informed this morning that some words of wisdom were expected of me this afternoon, I occupied myself between lunch and now in an endeavour to oblige.

It had been my intention to present a Presidential Address pregnant with philosophical prognostications as to the glorious future that lay ahead for entomology. I had hoped that, like the opening address of this joint meeting by President Kathleen Ball of the Alberta Society, my remarks would be stimulating and

nistic. However, on reflecting on the pragmatism presently prevailing throughout the world, on the submersion of entomology beneath the shade of larger and larger umbrellas, and on the way in which universities are now forced (and I regret, in some instances, not too unwillingly) to prostitute academia for the sake of financial and political expediency — based upon such criteria as how many first-year social-science undergraduates can be squeezed into a telephone kiosk, with little or no regard for anything even remotely esoteric — I find myself just ever so slightly cynical!

Entomology, as a discipline, like the study of mediaeval Chinese literature, may be erudite, but it is not currently one of the most "popular" among job-hungry (?) students, nor, because of popular misconception, does it seem to have appeal for those who want to put the world to rights. As a result, it is feeling a financial, and thus an academic squeeze — under the reigning philosophy, a field that is not overcrowded with wondering and uncomprehending undergraduates can surely have but slight significance — a luxury readily subject to economies. Interdisciplinary studies, also, are now heavily (and rightly) stressed, but could it be that this has reached the point at which the disciplines themselves, including entomology, are in danger of disappearing altogether? If so, this is, to me, an unhealthy sign. How can one be interdisciplinary if there is no discipline? Entomologists have always been prominent among the leaders of an integrated scientific approach to certain problems, but they have also been among the strongest protagonists of rugged individualists, without whom history has indicated that science never did, and indeed cannot, advance.

My message to you, therefore, issues the warning that if we are not on our guard, entomologists may prove to belong to an endangered species. It is up to all of us to recognize this and to take the necessary steps to prevent extinction. Let us not lose the essence of entomology in our enthusiasm to clamber on to the bandwagon of mission-oriented research and interdisciplinary studies for their own sakes, no matter how worthy their aims may be. Let us keep matters in proper perspective. The number of "trained" entomologists who know more than the basic rudiments of entomology outside their own immediate experience are even now declining, in proportion if not in actual numbers.

It was Gaius Petronius, in the first century of our era, who wrote (in Latin, of course): "... I was to learn in later life that we tend to meet any new situation by reorganizing, and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralization." (Government departments and universities please take note). Let us pray that it is still not too late for our politicians and administrators, and indeed for some

of our members, to heed these sage words. If this is not done, we may soon be so reorganized as to be left without the necessary expertise with which to contribute to problems for which such expertise is essential. (The field of taxonomy provides a salutary example).

On the other hand, let us not take an isolationist stand. We must make every endeavour to ensure that entomology and entomologists are adequately represented in major sociological, industrial and environmental studies. It is up to us to press for the recognition of the very vital role we can play. So far, the corporate or individual expertise and advice of entomologists in Canada has rarely been sought, and never seriously taken in such matters. We must demonstrate what we can do. Few bodies anywhere have been as enlightened as the British steel industry of some years ago, which recognized the versatility of entomologists and the complexity of entomological problems to the extent that they actually hired entomologically oriented biologists to help solve some of their problems!

I am now reminded (because I just happen to have them with me for another purpose!) of some Renaissance Latin lines on locusts by Andrea Alciati, published in 1552 in his book 'Emblema' under the title "Nil Reliqui" or "Nothing Else Remains," which I render into English verse:

" 'Tis evident what this decides, e'en after our so many ills
By which the locusts carry off whate'er is in the fields.
We see them numberless, their swarms directed by the wind;
Such were there not with Attila, nor yet in Xerxes' camps.
They will consume this fodder, all the millet and the grain.
Hope lies in sanctity; stand, trust o'er all in prayer." ¹

I suggest that, to-day, for some of our major problems, we are doing little more effectual than trusting in prayer, so long as entomologists are ignored — and I do not refer only to insect problems, but to wider issues. Nevertheless, I would urge you, in the interests of future employment for entomologists, and for the continued existence of schools of entomology, to join with me in this prayer: that a few catastrophic insect outbreaks may occur at propitious times in order to indicate once again our very practical contribution to society, which our very success as scientists has, to our own detriment, tended to minimize in the eyes of the public. My own recent efforts in this direction, on your behalf as your President (or Shaman?), seem to have produced a resurgence of the Bertha armyworm (creating at least one post for an entomologist), threats of considerable future outbreaks of grasshoppers on the Prairies, and almost unprecedented discomfort from mosquitoes in parts of Alberta this year!

Those whose belief in the power of prayer is superior to mine may have even greater success, and we may even hope to see a future demand for entomologists in excess of the supply! A well known Israelite, some time ago, obtained substantial results by invoking insect pests and insect-borne diseases, although he did so for different political ends from ours. To remind you of his success, I paraphrase into doggeral English verse (which, again, I chanced to have with me,) some equally doggeral mediaeval Latin lines written concerning the "Ten Plagues of Egypt" (the majority either of arthropods or associated with them), by Johannes Victoriensis about 1341 A.D.:

¹ Scilicet hoc decrat, post tot mala denique nostris
Locustae ut represent, quisquid inesset agris.
Vidimus innumeras Euro duce tendere turmas,
Qualia non Atyla, castraque Xerxis erant,
Hae foenum, milium, farra omnia consumpserunt.
Spes et in auguste est; stant nisi vota super.

"Firstly, it was the red flood;
 frogs succeeded the blood;
 Next came the doleful gnat;
 worse flies succeeded that;
 Fifthly, were cattle struck down;
 sixth, boils and blanes did abound;
 Next it poured down with hail;
 then locusts came in on the gale;
 Ninthly, the sun was hidden
 and lastly, the first-born were smitten."²

Who knows what we might achieve if we tried? I do not suggest we need yet go as far as did Moses, but so long as young, competent entomologists are unemployed in their own field, we should make every effort to see that the demand for them is there. We know that there is the need. Let us not acquiesce to the prevailing trend that regards entomology as simply another overspecialized branch of biology. Well-trained entomologists are undoubtedly among the most versatile and adaptable of scientists, not narrow specialists.

A BENEFICIAL MONOPOLY

The Department of Entomology at the University of Manitoba has always maintained an active role in Extension Entomology in Manitoba, due mainly to the influence in this field for many years of the late Professor A. V. Mitchener. But few people are aware that this department virtually has a monopoly on Extension Entomology in the four provinces of Western Canada. One definition of "monopoly" is "exclusive control of the supply of any commodity or service in a given market". Our graduates occupy almost every position in Extension Entomology in Western Canada!

In Kelowna, B.C. we have placed P. J. Procter (B.S.A., M.Sc.), Regional Entomologist. With the Government of Alberta, in Edmonton, we have R. D. Dixon (B.S.A., M.Sc.) and M. G. Dolinski (B.S.A., M.Sc.). Also in Edmonton, in charge of Mosquito Abatement for the City, is K. W. Evans (B.S.A., M.Sc.). In Regina is C. F. Barrett (B.S.A., M.Sc.), Pest Control Specialist for Saskatchewan. In Manitoba the first Provincial Entomologist was D. R. Robertson (M.Sc.), now manager of the Manitoba Co-operative Honey Producers Ltd. The present group in Manitoba comprises D. L. Smith (B.S.A., M.Sc.) and A. J. Kolach (B.S.A., M.Sc.), with R. G. Barker (B.S.A., M.Sc.) in Extension Apiculture.

Six publications on insect control in Manitoba are revised every second year, and published in cooperation with the provincial entomologists. This effort, along with the supply of extension personnel for Western Canada has been provided without neglecting basic research. In the last five years there have been 60 scientific publications from our Department in journals such as the *Canadian Entomologist* and the *Canadian Journal of Zoology*.

A. G. Robinson

² Prima rubens unda, ranarum plaga secunda,
 Inde culex tristis, post musca nocivior istis,
 Quinta pecus stravit, vesicam sexta creavit,
 Inde subit grando, post brucus dente nefando,
 Nona tegit solem, priman necat ultima problem.

BUGGY PROBLEM SOLVER



Harold Wolverson Goble retired from the Department of Environmental Biology, Ontario Agricultural College, University of Guelph in December, 1972.

Harold has been connected with entomology at the O.A.C. since the early thirties and except for a short stint at Iowa State and the Ontario College of Education spent his professional career working in the applied field.

During his initial period at O.A.C. he worked closely with many of the outstanding entomologists of that time, setting the ground work for what were to become the present day guidelines for insect control in agriculture. He worked out control policies with such people as

A. W. Baker, Lawson Caesar, Alan Dustan, W. N. Keenan and W. A. Ross as well as entomologists in other parts of the country.

In 1948 he was appointed Provincial Entomologist, a position which he held until his retirement.

During the many years the name of Goble became synonymous with applied entomology and he was looked to for guidance by extension workers and growers in every phase of crop production. His vast store of knowledge concerning insect control and regulatory measures served many outlets and he was relied upon to come up with the answer to all "buggy problems".

At O.A.C. he has been known as Professor Goble to a long list of students who received their introduction to economic entomology from him. They'll never forget those practicals where one had to examine knawed, bored, rolled, webbed and otherwise maimed plant tissue to identify the long-gone villain.

Harold has recently taken over the job of "Pesticides Editor" with the Ontario Ministry of the Environment so he will still be connected with insect problems and will be available for consultation to a limited extent.

He and Mrs. Goble plan to continue to live in Guelph and have been busy during the past summer at their cottage retreat at Conestoga Lake. Harold has developed a keen interest in boating and curling in past years, and this should serve as an outlet for his well known bubbling energy.

W. C. Allen

AGRICULTURAL RESEARCH REORGANIZATION

Recent reorganization within the Research Branch, Agriculture Canada has resulted in the establishment of a new Biosystematics Research Institute. Under Director David F. Hardwick, the new Institute combines the former Entomology Research Institute, the mycology section, and the taxonomic and economic botany sections of the Research Branch. All identification services and national collections for fungi, plants and insects will now be located in the one branch establishment in the K. W. Neatby Building, Ottawa.

A new Ornamentals Research Service has also been created to include work on ornamentals, turfgrass and greenhouse crops within one coordinated unit.

1973 ANNUAL MEETING



The Head Table



The Hockings



Discussion Group: Mountain Fauna

BANFF, ALBERTA



Mr. Pres.-Elect Ron Harris



Mme. Pres. Kay Ball



Western Barbeque



REPORTS OF TREASURER, EDITOR, COMMITTEES AND REPRESENTATIVES

EDITOR'S REPORT

Three events, which occurred about the same time early in 1973, caused some delay in handling manuscripts. First — our editorial office was moved from the Neatby Building to its present location at 1320 Carling Ave., Ottawa. Second — Runge Press, who have handled nearly all of our printing, moved their physical plant to another location. Third — Dr. D. P. Pielou resigned as Editor and a time lag occurred before a replacement was named. Due to a great deal of effort on the part of Miss McBride and of certain dedicated individuals at the Entomology Research Institute (now Biosystematics), Ottawa, handling of papers continued until the present editorial organization was set up in May (see *Bull. ent. Soc. Canada* 5 (2): 34). The first and third events have not caused delay, but Runge Press has been very slow in printing *The Canadian Entomologist* so that monthly issues have been late. We hope to have this rectified and publish monthly issues on time. The difficulties with the printers have caused extra word load for Miss McBride, due to uneven flow of galleys from the printer to her office.

In spite of delays we continue to make progress. New forms for referee's comments are in use and methods of streamlining operations are under discussion.

I would personally like to thank Miss McBride for her work. I cannot praise her efforts too highly. I would also like to express my thanks to the three Associate Editors, and to all those kind people who took the time to referee manuscripts. In future, they will receive a card acknowledging their assistance. Unfortunately, Dr. R. F. Morris suffered an injury and has been unable to act as Associate Editor.

All books for review, and all queries on waiving page charges, are referred to the Chairman of the Editorial Board.

The following is a brief summary of handling manuscripts (May 3 to Aug. 27)

Manuscripts received	— 76
Reviewed and approved (many revised)	— 40
Returned to authors for revision	— 5
Rejected	— 2
In hands of referees	— 29

Nearly all papers have been found to require major or minor revision, in addition to editorial changes.

V. R. Vickery

REPORT OF THE ASSISTANT EDITOR (BULLETIN)

Volume 4 for 1972 had 116 pages and one supplement, the December 1971 revision of the membership list. The first two numbers of the current volume have a total of 64 pages, well ahead of any previous volume. A steady growth in the *Bulletin* is evident with a well-balanced flow of feature articles, biography, reviews, Society news and news of members.

One supplement, "Laboratory Colonies of Insects, Mites and Ticks in Canada" accompanied volume 5 number 2.

The 1973 Programme Committee for the joint meeting of the Entomological Societies of Alberta and Canada purchased 200 reprints of the programme, **Bulletin 5 (2): 46-50.**

Accompanying **Bulletin 4 (4)** was a request for nominations and accompanying **Bulletin 5 (2)** was a handbill publicizing the writing contest. These were prepared and supplied by the committees concerned.

For modest remuneration Mr. G. C. R. Croome, Regional Editor, Maritimes Forest Research Centre, Fredericton, has checked copy and proofs in his spare time, leading to a substantial decline in errors. I must accept responsibility for those that remain.

Action on previous recommendations concerning the **Bulletin** has achieved the desired results and I have no recommendations to make this year.

D. C. Eidt

TREASURERS REPORT

See Financial Statements, **Bulletin 5(3): 74.**

Number of Canadian Entomologist Mailed in December

	1965	1968	1970	1971	1972	Aug. 1973
Members	748	882	810	791	793	782
Students	138	168	130	113	132	132
Exchanges	66	67	35	36	37	38
Subscribers	654	818	894	884	911	945
	<u>1606</u>	<u>1935</u>	<u>1865</u>	<u>1824</u>	<u>1873</u>	<u>1897</u>
Donors	14 (Receive Bulletin , donate Can. Ent.)					
Emeritis	24 (Receive Bulletin only)					

REPORT OF THE COMMITTEE ON COMMON NAMES OF INSECTS

The Committee consists of J. E. H. Martin, Ottawa (Chairman); C. J. S. Fox, Kentville, N.S.; D. C. Herne, Vineland Station, Ont.; C. C. Loan, (member at large) Ottawa, Ont.; A. G. Robinson, Winnipeg, Man.; F. J. H. Fredeen, Saskatoon, Sask.; G. E. Ball, Edmonton, Alta.; and A. F. Hedlin, Victoria, B.C. Assistance has been received from R. O. Paradis, St-Jean, P.Q., who has acted on behalf of the Entomological Society of Quebec and L. McMullen, Victoria, B.C. who has acted in the absence of A. F. Hedlin.

During 1973 the Committee has balloted on and approved seven submissions to be forwarded to the E.S.A. for consideration. The Committee has also considered a proposal forwarded to the President of ESC for a Canadian Committee on Common Names of Insects. The findings have been forwarded to the President for further consideration at the Annual Meeting.

J. E. H. Martin

REPORT OF THE ELECTION COMMITTEE

See **Bulletin 5(3): 75.**

REPORT OF THE EDITORIAL BOARD

The Editorial Board met on April 6 in Ottawa to act upon the motions passed by the Governing Board at their March meeting and to consider other business relative to publication policies.

1. **Editor.** It was decided to appoint an interim Editor who would serve until the October meeting of the Governing Board at which time a permanent appointment will be made. Dr. V. R. Vickery was appointed Interim Editor by President Kevan.

2. **Associate Editors.** The duties of Associate Editors will be to arrange for review of manuscripts in appropriate fields. Manuscripts must be reviewed by two referees, and the Associate Editor can act as one of the referees if he or she wishes. The flow of manuscripts will be: All manuscripts are sent to the Managing Editor, Margaret McBride, who assigns the proper number. They then go to the Editor who reads them and sends them to the appropriate Associate Editor for review. Reviewed manuscripts go back to the Editor who contacts authors with regard to reviewers' comments. The final decision on whether a manuscript should be published rests with the Editor. The following people have agreed to serve as Associate Editors on the interim basis until the Governing Board meets in October: Mr. C. V. G. Morgan, Dr. Rita Wensler, Dr. R. Franklin Morris, Dr. C. R. Harris.

3. The subject of two journals, one applied and one fundamental was discussed. There was unanimous agreement that at the present time there is no justification for two journals. If and when a serious backlog of manuscripts creates a problem the subject can be raised again. To create two journals just to provide an outlet for "clean" and "dirty" entomology is not a valid proposal in the opinion of the Editorial Board. Dividing each issue of the *Canadian Entomologist* into sections was discussed, and the decision was not to provide sections and headings in the journal. It was suggested that the Editor should arrange papers in each issue so that those in the same fields would be together.

4. The present review form which originated many years ago was evaluated. It was agreed that this form is not adequate and that the new Editor should revise it as soon as convenient.

5. The work load of the Managing Editor, Margaret McBride, with respect to the *Canadian Entomologist* and the *Memoirs* was discussed with Miss McBride. There seems to be no doubt that Miss McBride can handle the workload associated with publishing the *Canadian Entomologist*, but that the *Memoirs* require many overtime hours. This work is not on a regular or predictable basis as the number of *Memoir* manuscripts each year is extremely variable. The Board agreed with Miss McBride that editorial assistance should be provided for the *Memoirs* on a part-time basis. Regular scheduling of *Memoirs* so that the number of manuscripts per year will be known in advance was suggested, but the Editorial Board was not able to implement this suggestion.

Recommendations:

1. When Associate Editors are appointed, their appointment should be for a 3-year period.
2. The Editor should place a bold-face statement inside the cover of the *Canadian Entomologist* stating that the *Canadian Entomologist* accepts manuscripts in all entomological fields.
3. The Editor should revise the present review form as soon as possible.

4. The Governing Board should authorize part-time clerical assistance to assist with preparing **Memoir** manuscripts for publication.
5. The Chairman and members of the Editorial Board should be appointed by the President of the Entomological Society of Canada with the approval of the Governing Board.

C. M. Yoshimoto
S. E. Dixon
J. J. Cartier
W. G. Wellington
H. F. Madsen, Chairman

REPORT OF THE COMMITTEE FOR PUBLICIZING ENTOMOLOGY

The writing prize was announced in the June issue of the **Bulletin**. Requests for entry forms have been coming in steadily and the number should increase as Ross Arnett and **Insect World Digest** get their publicity campaign running in the States. Further publicity is planned to coincide with the beginning of the Fall term at the Universities.

It is suggested that a copy of **Insect World Digest** containing the article which won first prize should be sent to all members at the Society's expense, (about \$200). We hope to offer members wishing to see the other prize-winning articles a choice: They could make a personal subscription to **I.W.D.** and read the articles as they appear, or they could purchase, at the end of the year, an "Entomology Annual, 1974" which would be published jointly by ESC and **I.W.D.** and contain all the winning articles. The cost of producing this Annual should be minimal, since Dr. Arnett and **I.W.D.** will have retained all blocks and plates used to print the articles in the magazine.

K. S. McKinlay

REPORT OF THE MEMBERSHIP COMMITTEE

From March to September 1973, the Membership Committee has consisted of P. E. Blakeley, Lethbridge, P. S. Barker, Winnipeg, R. W. Stark, Moscow, Idaho, and R. E. Bellamy, Saskatoon. Some tentative "Terms of Reference" for the Membership Committee have been drafted and submitted for consideration by the Board of Directors, and a draft of a membership application form was developed. All regional entomological societies were contacted to explore possible mutually beneficial actions with regard to membership.

R. Edward Bellamy

CANADIAN ENTOMOLOGIST 100 YEARS AGO

Prof. Planchon described the ravages of the insect on the grape-roots in France, and thought them less destructive on the roots of American species of grapes than the European; and one of the objects of his mission was to ascertain this fact definitely, so that in Europe some American vines might be used as stocks for their vineyards. — 5(10):199.

REPORT OF THE HONORARY MEMBERSHIP COMMITTEE

Dr. George P. Holland and Mr. George F. Manson were elected to Honorary membership. Pictures and citations were supplied to the Editor of the *Bulletin*, and presentations are planned for the Annual Meeting.

At the request of the Governing Board, the Committee is examining its terms of reference.

The Honorary Membership of the Society should at all times represent the wishes of all the Regional Societies. Accordingly the Committee is constituted of representatives of the Regional Societies. However, even within the smaller membership of the Regional Societies communication may be a problem, between Annual Meetings particularly. To help overcome these problems, the following motion was approved by the Governing Board, March 1973:

"The Honorary Membership Committee need not necessarily fill vacancies in Honorary Membership within the year following the occurrence of such a vacancy and should wait until each Regional Society has had a chance to consider it at its next Annual Meeting". This motion will be incorporated into the terms of reference of the Committee. It is hoped that when vacancies in the Honorary Membership occur in the future, Regional Societies will recognize their responsibility to consider submitting nominations.

N. V. Tonks, ESBC
W. O. Haufe, ESA
L. G. Putnam, ESS

P. S. Barker, ESM
J. J. Cartier, ESQ
C. A. Miller, AES

G. T. Harvey, ESO, Chairman

REPORT OF THE ARCHIVIST

The past year was not a very active one, due to the increased commitments and duties of the Archivist in his full-time position.

Additions

A few photographs and other documents of interest were received from various members of the ESC, and incorporated to the material on hand.

Loans

A loan from the Archives to the Chemical Control Unit, Canada Department of Fisheries and Forestry, of a series of five display panels pertaining to the use of aircraft in the application of chemicals for insect control, is outstanding since the spring of 1969. Acknowledgement of this loan is being sought.

Correspondence

Some correspondence was exchanged with a few people, most involved in the Centennial Meeting of the Quebec Society, and also some interested in the refurbishing of the Criddle homestead in Manitoba. When the information sought was available from the Archives, it was made known to the people involved; most of the time, however, there was little that could be done. No material was transferred or loaned out as a result of this correspondence.

Deposition in the Public Archives of Canada

Following the meeting of the Board in Montreal, in November 1972, little headway has been made in this direction. Contact was established with the representative of the Public Archives who was then present in Montreal. However, he turned out to have been transferred to another section of the organization in question, and followthrough, which was to come from some other individual, did not materialize.

Recommendations:

- that the person in question, a Mr. W. Yeo, be contacted;
- that he be invited to come to Sherbrooke and see the material on hand, at Society expense;
- that he be invited to make a proposal to the ESC regarding transfer of the different types of material on hand, i.e.: correspondence relating to the setting up of the 1963 Centennial meeting, photographic, official publications (*Bulletin*, *Can. Ent.*, and *Memoirs*), and graphic and display material;
- that the Board examine such proposal and rule on it.

With approval of the Board, I will undertake to execute the recommendations, it being my feeling that the Public Archives representative should really be faced with the material at hand, before he can make the ESC a sound proposition.

Louis-C. O'Neil

REPORT OF THE COMMITTEE ON STUDENT ENCOURAGEMENT

A major objective of the Committee on Student Encouragement during the past year has been to establish active local committees in each Province. It is gratifying to acknowledge the excellent co-operation which has been received from the President of each regional society in the furtherance of this goal.

The Committee has continued to provide Canadian liaison with the Teen International Entomological Group and to support the activities of this organization with an annual grant of \$100.

The following local initiatives have been supported by the Committee:

The Entomological Society of Alberta again sponsored an insect-collection competition for pre-university students, and supplied collecting equipment to interested amateur entomologists.

The Entomological Societies of Manitoba and Saskatchewan have worked closely with local Science Teachers' Associations with a view to demonstrating the potential of insects in the classroom. Meetings and field trips have been organised, and articles provided for teachers' journals.

In conclusion, the Committee wishes to emphasize that student encouragement is a Society responsibility, and all members are encouraged to work at the local or national level to increase entomological awareness among young people and thus ensure a healthy future for the profession.

Roger G. H. Downer

REPORT OF THE EMPLOYMENT COMMITTEE

At the 1972 Annual Meeting at Montreal, the Employment Committee manned a placement service used jointly by the Entomological Societies of America and Canada. The following services and information were available for candidates seeking employment and for prospective employers.

1. A file containing curriculum vitae of people seeking employment in various disciplines in entomology.
2. A file containing job descriptions of positions available.
4. Literature pertinent to career opportunities and employment in entomology.

A large number of applications from Americans suggests a tight job situation in the U.S.A. The number of applicants for positions in entomology in Canada has greatly declined since last year. This may reflect an easing of the employment situation or a decline in the number of graduates and post graduates in entomology at Canadian universities.

Recently, announcements by university-oriented associations indicate that almost all of the 1972 Ph.D. graduates from Canadian universities are employed. However, this Committee has not been able to determine whether their employment was related to their training. We have found that enrollment in Canadian universities increased only slightly in the last two years, and in many western Canadian universities, enrollment declined.

There is no doubt in the minds of those close to agriculture and forestry that there will be an increased demand for skilled scientists to face the challenge of higher and more efficient production. One hopes that the political leaders who make policy decisions also recognize this need.

It is generally recognized by scientists at least, that research can be justified on economic grounds. However, obtaining documentation to support research on these grounds is a most difficult task. An attempt in this direction was made last year by the Employment Committee and a report was submitted to the President. This year, additional data are provided in an extended version of this report which will be forwarded to the President. I hope that the incoming Committee will continue to accumulate data to show the need for continued support of entomological research in Canada.

I acknowledge with thanks the support of fellow Committee members, C. S. Jay and L. A. Roadhouse, and the co-operation of the many people who seriously answered our survey questionnaires.

S. R. Loschiavo

REPORT OF THE REPRESENTATIVE TO SCITEC

The Association of the Scientific, Engineering and Technological Community of Canada was founded in January 1970, and its stated broad objective is "to marshal the scientific, engineering and technological community; to provide leadership, to communicate, cooperate and work within itself, with government and the public in the national interest in those areas in which it can make a competent contribution".

The President (of SCITEC) in his report of April 1973, confirmed the idea that SCITEC should be an umbrella, or federation of societies and also a forum of opinion. The activities of the past year reflect this objective.

The SCITEC Forum on Science Policy was held in Ottawa in October 1972, more or less in response to the Larnontagne Report. More than 30 societies were represented at the conference and it resulted in a White Paper giving SCITEC's official recommendations on science policy to the Ministry of State for Science and Technology. The White Paper and key addresses to the conference are published in *Science Forum* 6: 1, February 1973.

I was appointed ESA Representative in SCITEC in April 1973 and represented our Society at the SCITEC Forum on Priorities in Science and Technology in Canada, Energy and its Economic and Social Implications held at McGill University 1-4 May 1973. On the instructions of our Society's Science Policy Committee I brought the following points to the attention of the SCITEC Council:

- a. That while it is recognized that there is a necessity for energy use, there should be proof that environmental factors are adequately examined before any developmental projects are put into effect.
- b. The ESC is against the exploitation of the environment in any form. Damage must be minimal and commensurate with a real need.
- c. A need for a definition of necessary energy, and a rational and informed expression of priorities with respect to energy use.

The Science Policy Committee received a full report of the forum from me in May. There was much discussion in both business and council meetings on the concept of a House of Science and Technology (HOST). SCITEC has approached the Ministry of State for Science and Technology to propose the establishment of this, to allow the secretariats of the scientific, engineering and technological societies of Canada to be grouped under one roof. This should allow better communication, reduced service costs, etc. The societies showed concern about the lack of detailed information on costs and the possibility of lost autonomy. The SCITEC executive will continue investigations of the possibility of establishing HOST and will welcome comments from societies.

The next forum planned is to be entitled "The Conserver Society".

Robin Stewart

REPORT OF THE GIFT SUBSCRIPTION COMMITTEE

In the past year, three gifts involving back numbers of *The Canadian Entomologist* and *Memoirs* or subscriptions to future issues of the journal or both have been donated to educational institutions in Fiji, Chile, and Quebec. This brings the total number of gifts that have now been arranged to sixteen.

We again remind all members of the Society that it is primarily through you that we learn of potential gift recipients. Your international contacts put you in an ideal position to learn of such things. Keep the Gift Subscription Program in mind during such contacts as we have several subscriptions on hand waiting a suitable home. Our thanks to members who have assisted us in this regard in the past year.

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

REPORT OF REPRESENTATIVE TO CSA COMMITTEE ON COMMON NAMES FOR PESTICIDES

The Canadian Standards Association (CSA) Committee on Common Names for Pesticides met 12 December 1972. A report on the 10th Plenary Meeting of the International Organization for Standardization (ISO) Technical Committee 81, Common Names for Pesticides, was presented. Seven proposed Canadian common names under consideration by the ISO Technical Committee were reviewed and discussed. Six will be retained in the new Canadian Standard.

The manuscript for the revised CSA Standard Z-143 entitled "Common Names for Pest Control Chemicals" has been forwarded to the Canadian Standards Association. It will be published late this year or early next. The new Standard will contain about 425 common names. The chemical name, structural formula, empirical formula, and class will be listed for each pesticide.

L. Roadhouse

REPORT OF THE COMMITTEE ON INSECT COLONIES

A revised list of "Laboratory Colonies of Insects, Mites and Ticks" was published as a supplement to *Bulletin* (5) 2, June, 1973.

Recommendations:

Telephone numbers should be included with the addresses of custodians in future revisions.

To gauge the usefulness of the list, to a certain extent, custodians should be asked the number of times sub-colonies have been requested, when the next revision is being prepared.

J. S. Kelleher

REPORT OF THE INSECT PHOTO SALON COMMITTEE

As a result of the joint meeting with the Entomological Society of America in 1972, the Insect Photo Salon, for that year only, became part of the 15th American Insect Photographic Salon. At the encouragement of Drs. Loschiavo, Kevan and Corbet, the third Canadian Insect Photo Salon was set up for 1973. The Chairman is R. A. Brust, and the Committee members S. Zettler and Bob Cheale, all from Winnipeg. As in the first Insect Photo Salon in 1970, contributors were asked to submit only large black and white or color prints. Prizes were to be awarded in both categories.

R. A. Brust

CANADIAN ENTOMOLOGIST 100 YEARS AGO

Mr. Mead says nothing about light. I advise a *square* tin lantern with a good reflection and some means of shutting off the light, which should be turned on suddenly. A Bull's-eye concentrates the light too much. Strap the lantern around your waist. I like a little rum in the molasses for the moths, and a little for myself. — W. V. Andrews, Notes On Collecting, 5(11): 210.

EDNA MOSHER, 1878-1972

AUTHORITY ON THE PUPAE OF LEPIDOPTERA*

On 7 May 1972, at the age of 93 years, Miss Edna Mosher died at Windsor, Nova Scotia following a series of heart attacks. Shortly before her death she was living alone in the house in which she was born.

Edna Mosher was born on 20 July 1878 at Kempt Shore, Hants County, Nova Scotia and was the first of eight children. Her father, John Fulton Mosher, and her mother, Margaret Harvie Mosher, were also born in Hants County.

Edna's father and grandfather Mosher were keenly interested in natural history, and they instilled in her at an early age an intense love of the natural world. Her mother and grandmother Harvie were keen gardeners, and Edna began gardening as a child, developed into an expert and continued her horticultural activities until her final illness.

At an early age, Miss Mosher expressed the wish to become a teacher of agriculture. After graduating from the Provincial Normal School in 1902, she tried to find a place in a Canadian university, but she found that none would accept a woman candidate for an advanced science degree. She learned that Sir William McDonald was endowing some school gardens, and Edna decided to train for the program. To obtain funds for her advanced education she taught school in Nova Scotia between 1902 and 1905. She then applied for a scholarship and, in 1905, went to Cornell University at Ithaca, New York, where a course in gardening was being organized. She found, much to her great disappointment, that the course was too elementary for her, and, as she told me, it was being conducted by "book gardeners" for students who knew little or nothing about gardening. She then obtained permission to alter her university course to that of a degree student in science. She studied both botany and zoology and then enrolled in entomology. She was so stimulated by the Comstock school that she took all of the courses offered in entomology as well as some special research before graduating. It was during her undergraduate years at Cornell that she became interested in the pupae of the Lepidoptera (which Prof. Comstock described as "interpolated stages").

After obtaining her B.Sc. degree from Cornell in 1908, she found it necessary to teach school again to enable her to accumulate funds for further university training. She therefore went to Hampton, Virginia, as supervisor of nature study and school gardens until 1910. She also taught for a short time at Gary, Indiana. She then obtained a fellowship in entomology at the University of Illinois. Miss Mosher told me that when she took up her duties at Illinois she was asked what research she proposed to undertake, and she replied that she wished to study the structure and classification of the pupae of moths and butterflies. The department head told her that was quite impossible because nothing could be gained from such a study. After much discussion Edna proposed that she be allowed to begin the project and that if she failed she would return the University stipend. This was agreed, but the Dean said "If you fail, don't come crying to me." She began work on the saturniid moths and demonstrated that the pupae could be classified. Part of her studies were published as her first paper in 1914. She earned her M.Sc. degree in 1913 and then took up the study of the pupae of American Sphingidae. During her work on the sphingids she obtained assistance from Lord Rothschild who, with Karl Jordan, was the world leader in the study of the Sphingidae. She proposed to continue and to

* An offshoot of my Microlepidoptera of Hawaii studies; partly supported by a grant from the U.S. National Science Foundation. — E.C.Z.

broaden the scope of her studies of pupae in preparation for obtaining her doctorate. Her application for a fellowship was refused, because the University was not anxious to grant Ph.D. degrees in science to women. The Illinois Natural History Survey at Urbana came to the rescue and offered her the opportunity to work there. She then expanded her studies of lepidopterous pupae and reared several hundred species and obtained for study as many as was possible from other workers and institutions. In 1914 she was granted a "double fellowship" to allow her to complete her work as a thesis. She told me that certain professors who were opposed to women science doctors "tried their best to fail me on my final oral examination, and admitted it afterwards, but my good training at Cornell was better than they had, so they were the ones who failed!" In June 1915, she and one other woman were granted their doctorates in science at Illinois. Her thesis was her principal work, **A Classification of the Lepidoptera Based on Characters of the Pupae**, and it was published as a major bulletin of the Illinois State Laboratory of Natural History.

After obtaining her Ph.D., she spent the summer of 1915 as a member of the Maine Agricultural Experiment Station summer staff and gathered the material and data for her 1918 paper on the pupae of Maine Notodontoidea.

In that paper (1918b:29) Miss Mosher wrote that "It is only in recent years that entomologists have realized the value of studying the immature stages of insects, although immature forms are responsible for more damage to crops than adults. Now that the need for such studies is felt, it is surprising how very little we really know about the subject. The pupae have rarely been considered even from the standpoint of the systematist, much less from that of the economic entomologist. Nevertheless it is important to be able to recognize an insect pest at any stage of its life-cycle, even if it does no damage while in that stage." It is surprising how little advancement there has been in the field since those lines were published. The pupae of many insects display excellent characters for the differentiation of species and higher categories, and in some groups the pupae have more salient characters for species differentiation than do the adults.

Following her summer of work in Maine, she taught for three years as an instructor in the graduate school at Illinois. She then spent parts of 1918 and 1919 at Ohio State University and published on the strange wood-boring larva of the eucmenid beetle *Deltometopus* and prepared a useful, well-illustrated report on lepidopterous borers in connection with her studies on the European corn borer. With that paper, and a companion paper on the pupae of the European corn borer and an associated species, her contributions to entomological research and literature most unfortunately ceased.

After her brief stay at Ohio State University, she went to the University of New Mexico to substitute for two years for a staff member who went to Illinois to obtain his doctorate. With no prospect of obtaining an entomological position that would allow her to continue her work on the pupae of Lepidoptera, and having grown fond of the University of New Mexico, she decided to remain in New Mexico and to pursue her interests in botany (she was particularly interested in grasses). She became Professor of Biology and later Dean of Women at the University of New Mexico. After her mother became ill, she decided to move closer to her Nova Scotian home. Hence, in 1923, she went to Adelphi College in Garden City, New York, where she taught biology until her retirement in 1942. Upon retirement she returned to her place of birth and took up with renewed interest her horticultural work. Although stricken with arthritis and glaucoma and having lost the sight of one eye, she did not allow those severe handicaps to defeat her. She continued her reading, her gardening and her church work until her heart failed.

Edna Mosher long will be remembered by entomologists for her basic work on the pupae of moths and butterflies. Her doctoral thesis remains today, nearly 60 years after its first appearance, the classic work on lepidopterous pupae. The numerous, clearly delineated illustrations that she prepared for her publications have proven highly instructive and invaluable to all who have had occasion to study lepidopterous pupae since her works were published. It has long appeared to me an anomaly that other workers have not followed in Edna Mosher's footsteps and have failed to build upon the foundations she laid. The time has long passed when the study of lepidopterous pupae should have received intensive study by skilled workers. We can only wonder why professors have not encouraged some of their best students to specialize in such studies. It has been a great loss to science that Edna Mosher was not given a suitable post in a university or a museum where her work would have been properly appreciated and where she could have spent a lifetime working on the immature stages of the Lepidoptera. There is little doubt that she could have developed into a great master of the study of the larvae and pupae of the Lepidoptera.

The Entomological Publications of Edna Mosher

- 1914. The Classification of the Pupae of the Ceratocampidae and Hemileucidae. Ann. Ent. Soc. America 7: 277-300.
- 1915. Homology of the Mouth-Parts of the Preimago in the Lepidoptera. Jour. Ent. and Zool. (Pomona College) 7: 98-106, figs. 1-23.
- 1916a. The Classification of the Pupae of the Saturniidae. Ann. Ent. Soc. America 9: 136-156, pls. 5, 6.
- 1916b. A Classification of the Lepidoptera Based on Characters of the Pupae. Bull. Illinois State Lab. Nat. Hist. 12(2): 15-159, figs. 1-116.
- 1918a. Pupae of Common Sphingidae of Eastern North America. Ann. Ent. Soc. America 11: 403-441, pl. 36.
- 1918b. Pupae of Some Maine Species of Notodontoidea. Maine Agric. Exper. Sta. Bull. 259: 29-84, figs. 1-6.
- 1919a. Notes on the Immature Stages of *Deltometopus rufipes* Mels. (Coleoptera, Eucmenidae). Ann. Ent. Soc. America 12: 49-54, pl. 4.
- 1919b. Notes on Lepidopterous Borers Found in Plants, With Special Reference to the European Corn Borer. Jour. Econ. Ent. 12: 258-268, figs. 1-45.
- 1919c. Notes on the Pupae of the European Corn Borer, *Pyrausta nubilalis*, and the Closely Related Species, *P. penitalis*. Jour. Econ. Ent. 12: 387-389, figs. 18-19.

In 1969, a bound reprint edition containing the 1914, 1916a, 1916b, 1918a and 1918b papers was issued in the U.S.A. by Entomological Reprint Specialists, and these important papers are once again readily available. It is unfortunate that the publishers of the reprint edition did not include also at least the important 1915, 1919b and 1919c papers to make a complete reprinting of all of Miss Mosher's monographs on lepidopterous pupae.

I am indebted to Miss Mosher's sister, Mrs. Mary L. Sanford, of Truro, Nova Scotia for assistance in preparing these notes. I am indebted to Ian Common, Canberra, and to D. C. Ferguson, W. D. Field, E. L. Todd and D. M. Weismann, Washington, D.C., for suggestions.

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GEORGES GAUTHIER 1901-1972



Les entomologistes du Québec déplorent la perte d'un distingué collègue en la personne de Georges Gauthier. Celui que nous aimions saluer amicalement en diverses occasions nous a quittés, non sans laisser un profond souvenir de son attachante personnalité.

Georges Gauthier est décédé le 27 juillet de l'année écoulée après un trop bref état de repos et de sérénité dans la retraite. Il naquit à la Baie St-Paul en 1901 et a grandi dans ce milieu rural au sein d'une nombreuse famille. Dès son jeune âge, il était très attaché à l'agriculture et aux sciences naturelles pour lesquelles il consacra une large part de ses activités.

Il a fait ses études classiques au séminaire de Chicoutimi, puis il s'inscrivit à la Faculté d'Agriculture de l'Université Laval, à La Pocatière. Diplômé de cette Faculté en 1930, il prit charge de la protection des vergers dans le Bas-Saint-Laurent pendant deux ans, puis entreprit des études avancées à l'Université Cornell à Ithaca, New York, où il obtint en 1935 une maîtrise ès-sciences. De retour au Québec, il prit la direction de la Division de l'Entomologie au Bureau de la Protection des Plantes et, dans le but de promouvoir la défense des cultures, il organisa des laboratoires champêtres dans les principales régions agricoles de la Province.

En 1938, M. Gauthier obtint un "fellowship" pour des études spéciales à l'Université de Berkeley, Californie, sur les maladies à virus véhiculées et transmises par certains insectes des plantes cultivées. Par la suite, il rédigea une thèse qui, présentée à l'Université Laval en 1943, lui mérita le titre de docteur ès sciences. En cette même année, il était nommé entomologiste provincial et prenait charge du Bureau de la Protection des Plantes.

Les occupations professionnelles du docteur Gauthier furent nombreuses et variées. En 1944, il présenta ses travaux scientifiques au grand concours organisé par le Secrétariat de la province de Québec et partagea, avec le Dr Georges Maheux, le prix David pour la section des sciences naturelles. Toute sa carrière fut au service du Ministère de l'Agriculture du Québec et c'est en déployant ses efforts dans diverses fonctions d'organisation et d'administration en protection des végétaux qu'il s'avéra un chef de haute compétence. En outre de ses responsabilités administratives, le Dr Gauthier a été, pendant plusieurs années, chargé d'un cours d'entomologie et d'écologie à la Faculté d'Agriculture de l'Université Laval à la Pocatière, pour devenir professeur agrégé en 1949 et professeur titulaire de la chaire d'entomologie à Laval, en 1954.

A cause de son renom et de ses capacités, le Dr Gauthier a été invité à occuper des postes de premier plan qui ont constitué, en quelque sorte, le couronnement de sa carrière. Ainsi, il a été président de la Société Linéenne de Québec (1943), de la Corporation des Agronomes de la province de Québec (1947-1949), de la Société entomologique du Québec (1951-1953), du Conseil des Recherches Agricoles du Québec (1952-1962), de la Société zoologique de Québec (1954-1958), de la Société de Québec pour la Protection des Plantes (1954-1945) et de l'ACFAS (1959-1960).

Il fut appelé à représenter le Ministère de l'Agriculture du Québec à plusieurs congrès nationaux et internationaux et il participa, entre autres, à une conférence sur l'application de la science et de la technologie au profit des pays en voie de développement économique. Cette conférence a eu lieu en février 1963, à Genève, et le Dr Gauthier profita de son séjour en Europe pour visiter plusieurs centres de recherches agricoles.

Il s'est continuellement dépensé à orienter et à stimuler les divers comités d'étude et d'exécution dont il faisait partie. Son dévouement à la cause de l'agriculture tant dans les secteurs de la recherche que de l'enseignement universitaire et de l'administration publique lui a valu l'honneur de l'Ordre du Mérite agronomique et également l'admiration de tous ceux qui l'ont connu.

Il fut l'époux choyé de Madeleine Clot et le père d'un fils et d'une fille qui lui survivent pour honorer sa douce mémoire.

J.-B. Maltais et R. O. Paradis
*Reproduit de l'Annals de la Société
entomologique de Québec*

EPIGRAM ON THE EMBLEM OF THE SOCIETY

(A doodle done during duties and deliberations by the President)

The Latin word *emblemata* implies an allegorical design. It comes from the Greek, meaning "a thing put on" and is derived from *emballlein*, "to throw in". This seems appropriate, as the following was certainly thrown in; it was also something of a "put-on".

Emblema: The Living Fossil of Sulphur Mountain

The emblem of the Society
was selected with propriety.
It does not matta
that *Grylloblatta*
campodeiformis
is not enormis.
Our interest lies,
not in its sies,
nor its lack of ubiquity,
but in its antiquity:
it's as old as the hills
upon which it dwills!

The "inspiration" came one dinner-time at the joint meeting of the Society with the Entomological Society of Alberta at Banff, October, 1973, following an examination of some immature specimens of *Grylloblatta* obtained for the meeting from the nearby type locality, Sulphur Mountain.

Dinner-time ditties depend on the Muse,
Not upon moments to spare — nor on booze!

On receiving his service award, bearing the insignia of the Society, on his retirement from office, the President unwisely chose to make public his ditty, which is here published in response to the popular acclaim of a couple of misguided members.

D. K.

BOOK REVIEW

Agromyzidae (Diptera) of Economic Importance. Kenneth A. Spencer. Series Entomologica, Vol. 9, xi + 418 pp., 543 figs., 13 pl. Dr. W. Junk B. V., The Hague. 1973. 110 Dutch guilders. (Received for review September 1973.)

This book is a superb addition to the small list of volumes dealing, on a world basis, with economically important families of phytophagous Diptera. H. F. Barnes' careful studies on gall midges (Cecidomyiidae) were published in seven volumes over a ten-year period, and although the systematics of Cecidomyiidae present much more formidable problems (with twice as many species and over twenty times as many genera as in Agromyzidae), Dr. Spencer's treatment of his subject in a single volume of about 400 pages is an achievement deserving the highest praise.

Larvae of Agromyzidae damage plants by feeding just beneath the surface of leaves and stems, usually not deeper than the palisade layer. Less frequently, they bore into stems and root collars or seeds and seed pods. Tunneling beneath the leaf surface produces characteristic "mines" that are important for species diagnosis.

The book is divided into thirteen chapters. Introductory material includes a key to genera of pest species, with diagrams to aid the non-specialist in understanding systematic terminology. Two lists provide ready cross-references to the miners and their host plants. There is an extensive bibliography, and two indices, the second being for parasites.

Ten chapters deal with individual species under different crop headings (legumes, cereals, etc.) and type of damage (leaf or stem mining, boring, etc.). Each species receives a descriptive summary of all known stages, with illustrations, including the all-important aedeagus, and characteristic damage. This is followed by data on host plants, biology, distribution, parasites, and lastly a discussion of the taxonomy and estimate of economic importance. Some important polyphagous species, and a new genus of tropical species damaging tea and coffee are each given separate chapters. Because these flies are, in general, strongly host-specific, economic botanists can also profit from consideration of the facts presented here, and their implications in relation to plant breeding, plant ecology, and related fields. The last two chapters discuss control measures, and use of leaf miners in weed control. A total of 158 species are dealt with altogether.

There is little for this reviewer to criticize, either in the book's content or its form of presentation. If there are important errors or omissions, the specialist reader will have to uncover them for himself. Plants are referred to by their scientific names and this is as it should be. However, entomologists are mostly ill-versed in botanical names and suffer for this lack every time they are faced with the latin name of a plant whose common name and characteristics they may be perfectly familiar with. Dr. Spencer has given them little help, and what there is hard to find. Barnes understood this defective characteristic of entomologists much better, and his volumes on gall midges are a rich source of botanical scientific and common names properly linked together.

Although primarily a fund of information for the practical ecologist and pest-control expert, this volume is also, in part, a systematic treatise. Scattered through its pages are descriptions of seventeen new species and one new genus of Agromyzidae, as well as much new synonymy and many generic transfers.

These are listed in an appendix. Taxonomists will also have to study critically Dr. Spencer's quite extensive discussion of agromyzid phylogeny, much of which is controversial. The author, among other things, makes a case for transferring the important pest of tropical legumes, *Melanagromyza phaseoli* to the genus *Ophiomyia*, presenting arguments that conservative taxonomists would use without hesitation to combine these two genera in a single unit.

G. E. Shewell

BOOK REVIEW

Biting Fly Control and Environmental Quality. Proceedings of a Symposium held at the University of Alberta, Edmonton, May 16-18, 1972. Ann Hudson Ed., Information Canada Publication 1973, Cat. No. DR. 3-1673, 162 pp.

This book contains 14 articles under the following headings:— a) Statement of the Problem, b) Area Control, c) Personal Protection, and d) Behavioral Ecology of Populations.

The statement of the problem is presented in papers by Drs. Provost and Hocking. They take a philosophical but forceful approach in stating that the environment is very complex and there is a need to preserve environmental quality for the survival of biological systems. Both papers set the stage very well for what follows.

Of the next 12 papers, which were to up-date information on the status of research on biting flies and recommend areas for research development, seven could be classified as reports of progress on research, and five as reviews. All of the papers are well written and adequately convey the message that exciting advances are being made in biting fly control in the general areas of chemical control, cultural and biological control, and personal protection. The discussions that follow each set of papers greatly enhance the subject matter of the papers because the participants in the discussion freely injected their own experiences and views. Most of the papers involve applied approaches to biting fly control with relatively little reference to basic studies. From the information presented in the papers and in the discussions, it can be inferred that the new techniques being tried for biting fly control will have to be integrated with chemical control, therefore chemical control will remain in the forefront for at least the next decade.

The book contains five resolutions that were voted on and passed by the majority of members present at the Symposium. In my opinion, the resolutions were too general and did not clearly define or recommend areas for research development on biting flies and environmental quality. I wonder if they should have been a part of this book.

The volume is well produced. It has a table of contents, a list of contributors, a subject index and a species index. I would like to have seen a list of members present at the Symposium as part of the document. The quality of printing is excellent. The binding is wire spiral with soft shiny black cover. The wire spiral is a little tight for the number of pages, which may cause some pages to tear out with use. The book is larger than regular book size and is awkward to store on some book shelves. It presents current information which makes it a useful document for people working in the field of biting flies.

J. A. Shemanchuk

BOOK REVIEW

Biological Indicators of Environmental Quality — A Bibliography of Abstracts.

William A. Thomas, Gerald Goldstein and William H. Wilcox. Ann Arbor Science Publishers Inc. 256 p. \$6.50.

This book gives a cross-referenced bibliography of papers on biological indicators of environmental quality. The authors point out that organisms in an environment are usually the best integrators of environmental conditions and thus give a more sensitive measure than the measurement of single factors. The papers are arranged at a series of hierarchical levels from cell-free systems through cells, tissues, organisms to communities.

That there is some bias in the scope of the book reflects as much the available research background as it does the authors' interests. The section on cell-free systems concerns itself mainly with pesticides and the rest of the book shows a considerable bias towards the effects of air pollution on organisms. The coverage of papers on water pollution is less thorough and could be improved.

The effects of pollution and a lowering of environmental quality on communities are given a short section at the end of the book. As communities are even better environmental integrators than single organisms it is regrettable that more effort was not made to make this section more complete.

One feature which would have improved the book greatly would have been a commentary or introduction to each section — what for instance is the significance of changes in diversity as a result of pollution. A critical evaluation of existing work and the needs for further research would be helpful to those using the book as an introduction to a new field.

The whole book has the feel of a bibliography constructed from key words and a computer. There are gaps in the coverage which appears to arise from a lack of key words and a bias in the authors expertise.

G. P. Harris
Department of Biology
McMaster University

NEW BOOKS

Perspectives in Aphid Biology, edited by A.D. Lorne, August 1973. Entomological Society of New Zealand, publisher. NZ \$7.50.

Strategies of Development for the Canadian Computer Industry. Science Council of Canada, Report No. 21, September 1973.

Health Care in Canada: A Commentary. Science Council of Canada, Special Study No. 29, August 1973.

A Government Organization for the Seventies. Senate Special Committee on Science Policy, Report No. 3. This is a comprehensive report which includes a model for organization of science policy, the future of the Ministry of State for Science and Technology and that of the Science Council of Canada, the re-organization of departments and agencies, the interfaces of science policy, and a plan for action.

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.

POSITIONS WANTED

PhD. with wide interests in insect ecology seeks research or teaching position. Research experience in population ecology, arctic insects, insect parasitoids and limnology. Teaching experience in ecology and pest management. Ref. No. 43-4-73.

POSITIONS AVAILABLE

Agricultural Technical Representatives

The expansion of Marketing, Field Research and Technical Service activities of a basic agricultural chemical manufacturer has created openings for Technical Representatives in Ontario, Quebec and the Maritimes. These positions offer challenge and real opportunity for market-oriented technical people capable of assuming initiative and participating in a major development program. Applicants should have an agricultural degree with field experience in the pesticide industry. Excellent salary, company car and full expenses provided.

Please send resume in confidence to: Chemagro Limited, 77 City Centre Drive, Mississauga, Ontario.

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*.

SCIENCE COUNCIL APPOINTMENTS

Seven appointments to the Science Council of Canada, all for three-year terms starting 1st August, 1973, have been made by the Governor-General in Council. Dr Gabriel Filteau, Vice-Dean of Sciences at Laval University, and Dr. Mervyn Franklin, Dean of Sciences at the University of New Brunswick, are reappointed to second terms on the Science Council. New members are: Dr. David V. Bates, Dean of Medicine, University of British Columbia; Alan C. Cagney, President of Hermes Electronics Ltd., Dartmouth, N. S.; Dr. Albert J. Coleman, Head of Mathematics Department, Queen's University; Dr. Henry E. Duckworth, President and Vice-Chancellor of the University of Winnipeg; and Dr. Blossom T. Wigdor, Associate Professor of Psychology, McGill University.

PERSONALIA

Professor Rae Brown is Acting Dean of Forestry at the University of New Brunswick during the academic year 1973-74.

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Dr. C. S. Holling, Institute of Animal Resource Ecology, U.B.C., was a member of a Canadian Scientific Mission which visited the People's Republic of China in September. Buzz was ESC Gold Medallist in 1970.

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Dr. Don Oliver, was recently appointed Assistant Director, Biosystematics Research Institute, Research Branch, Agriculture Canada.

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L. L. Pechuman, Dept. of Entomology, Cornell University, has won 1st prize for "The Horse Flies and Deer Flies of New York", a "Search" publication of the College of Agriculture and Life Sciences, from the American Association of Agriculture College Editors. The publication was cited for "beautifully presented and well organized content, and excellent photos and maps".

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L. A. Carruth has retired as Chairman of the Department of Entomology, College of Agriculture, University of Arizona.

• • • • •

Margaret R. MacKay, who retired from the Entomology Research Institute in April 1972, has embarked on what is becoming an entirely new career in art. From her home in Ottawa she writes with enthusiasm of her sojourn last winter at the Mexican Institute for Fine Arts and her plans to go again this winter. We wish you luck Margaret.

RAYMOND DE RUETTE

On the 28th of May, 1973, Ray de Ruette retired after 23 years of service with the Coleoptera Unit of the Entomology Research Institute, Agriculture Canada. Ray, a native of Belgium, came to Canada as an avid amateur coleopterist. He joined the staff of the E.R.I. as a technician and eventually was responsible for many of the Coleoptera determinations sent out by the E.R.I. His care and meticulous attention to the appearance of the Coleoptera in the Canadian National Collection is evident in the many families (especially in the Carabidae) that Ray organized during the years. He and his wife Inez will continue to reside in Ottawa where Ray will pursue his hobbies of fly tying, fishing, hunting and gardening.

D. E. Bright

FORTHCOMING MEETINGS

Entomological Society of Canada, 26 to 29 August 1974, Halifax, N.S.
1975, Saskatoon, Saskatchewan with the Canadian Botanical Association. 1976, Ontario.

XVth International Congress of Entomology, 1976, Washington, D. C.

4th Annual Conference on Mosquito Abatement, 21-22 February 1974, Department of Entomology, University of Manitoba, Winnipeg. Contact A. J. Thorsteinson before 1 February 1974.