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## **THIS ISSUE**

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## ENTOMOLOGICAL SOCIETY OF CANADA

1970 - 1971

President: W. F. Baldwin  
President-Elect: P. S. Corbet  
Past-President: E. J. LeRoux

Secretary: D. C. Peterson  
Treasurer: E. C. Becker  
Editor: D. P. Pielou

There are some changes in the list of boards, committees and representatives in Bulletin 2(3). Since many of these offices will change in August after the Annual Meeting, a complete list will be published in the September issue.

### EDITORIAL BOARD

D. G. Fiedlayson, to 1971  
J. J. Cartier, to 1973  
H. F. Madsen, to 1974, Chairman

W. C. McCuffin, to 1972  
S. E. Dixon, to 1974  
D. P. Pielou, *ex officio*

### COMMITTEES

Employment:  
Honorary Membership:

S. R. Loschiavo  
J. J. Cartier

### REPRESENTATIVES

Biological Council of Canada:  
Alternates:  
C.S.A. Committee on Common Names for  
Pest Control Chemicals:  
International Congress of Biometeorology:

J. L. Auclair, J. A. Chapman  
W. C. Friend, P. Harris

L. A. O. Roadhouse  
W. O. Haufe

Contributions and correspondence should be sent to: D. C. Eide, 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 E. C. Becker, Treasurer, Entomological Society of Canada, K. W. Neatby Building, Central Experimental Farm, Ottawa, Ontario.

# of the Entomological Society of Canada

## *Bulletin*

Vol. 3, No.3, September, 1971

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### *Editorial*

#### D. G. PETERSON

The Secretary of the Society is the key man in all its diverse activities. Particularly since the Society has become concerned with national matters such as science policy, pollution, and human population, the job has increased in scope. Doug Peterson has been excellent in this position, coping with the increased work, coordinating the Managing Council and the Governing Board, and keeping all of us informed. He served the Society for four years, but he was unable to accept reappointment for 1972. Every member owes you a debt of gratitude Doug.

#### RETIRED MEMBERS' LUNCHEON

This was a new innovation at the Annual Meeting at Victoria. It was simply an informal luncheon, where the retired members who attended were introduced. Each of them spoke for a moment on his present activities (which led one to wonder if they were really retired). Your editor lost his list of those honoured and rather than chance missing one, omits all their names. It was a most pleasant occasion and might well become a tradition.

#### DEADLINE

The deadline for the next issue, Vol. 3, No. 4, for December 1971 is November 15, 1971.

#### 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 E. C. Becker, Treasurer, Entomological Society of Canada, K. W. Neatby Building, Carling Avenue, Ottawa 3, Canada.

## ENTOMOLOGICAL SOCIETY OF CANADA MEDAL

*Presented to*



*Jacob Gerhard Rempel*

Victoria, British Columbia, August 26, 1971

The Entomological Society of Canada Medal is awarded to Jacob Gerhard Rempel for outstanding achievement in the fields of education and research in Canadian entomology.

Professor Rempel has contributed to Canadian entomology in many ways, but it is primarily his distinguished performance as a teacher that the Society wishes to recognize, and for which he is most widely known and respected. To the many students and colleagues who have been exposed to his scholarship and pedagogic talent at the University of Saskatchewan, Professor Rempel has been an educator, catalyst and source of inspiration. The courses that he gave in general medical and economic entomology and insect embryology provided a sound basis of fundamental knowledge and were enlivened by his infectious enthusiasm and keen interest in research. In his research, as in his teaching, Dr. Rempel has maintained extremely high standards, and these have been reflected in the performance of his many graduate students, numbers of whom have made significant contributions to the science of entomology.

The stature and vigour of entomology in Canada today is due in large measure to a few dedicated teachers of Professor Rempel's calibre who have maintained momentum and growth in this discipline during the last few decades.

Dr. Rempel's research career has been varied and productive. He is best known for his work in insect taxonomy, morphology and embryology, and in medical entomology. A detailed study of the life-history and morphology of the midge, *Chironomus hyperboreus*, in 1936 saw the beginning of his continuing involvement in chironomid taxonomy and biology, including work on the intersexuality induced by mermithid parasitism. He subsequently became increasingly interested in biting flies. The outbreak of western equine encephalitis in 1941 revealed the need for more information on insect vectors of disease in the Prairies and stimulated two of Dr. Rempel's publications that have become standard references: "A guide to the mosquito larvae of Western Canada" (1950) and "The mosquitoes of Saskatchewan" (1953). Western equine encephalitis has remained one of his primary interests and he has been active and effective in obtaining money and people for the multidisciplinary study of the epidemiology of this disease in Saskatchewan that has been in progress for the last ten years. He has also played an important part in programs designed to devise rational control measures for black flies in the Saskatchewan River. Dr. Rempel's research interests have included the morphology and embryology of moths and spiders and, more recently, of the blister beetle, *Lytta viridana*, a species he is continuing to study in his retirement.

Dr. Rempel was born in the Ukraine and came to Canada as a young man. In 1931 he received the degree of Bachelor of Science from the University of Saskatchewan with High Honours in Biology and the Governor General's Gold Medal; and in 1933 he obtained the Master of Science degree there. He taught at the Regina College branch of the University until 1946, taking a year's leave of absence to obtain the degree of Doctor of Philosophy from Cornell University in 1937. He moved to the Saskatoon campus, in 1946, being appointed Professor of Biology in 1951 and Rawson Professor in 1962. He retired in June 1970, having been associated with the University of Saskatchewan for about 40 years.

When the Society celebrated the Centennial of Entomology in Canada in 1963, Dr. Rempel was Chairman of the Program Committee. He has served as President of the International Conference of Diseases in Nature Communicable to Man; Associate Editor of the Canadian Journal of Zoology, and member of the Advisory Committee on Entomological Research of the Defence Research Board of Canada. He has been a Director of the Entomological Society of Canada and President of the Entomological Society of Saskatchewan. He was elected a Fellow of the Royal Society of Canada in 1955, and was awarded a Centennial Medal in 1967 in recognition of his services to Canada. The Entomological Society of Canada made him an Honorary Member in 1970.

The Society honours this outstanding teacher, scholar and scientist for his manifold and distinguished contributions to entomology in Canada, and deems him a worthy recipient of the Gold Medal.

#### MEDALISTS

1962, R. Frank Morris  
1963, A. W. A. Brown  
1964, Robert Glen  
1965, M. L. Frebble

1966, C. W. Farstad  
1967, B. N. Smallman  
1968, W. G. Wellington  
1969, K. E. F. Watt

1970, C. S. Holling



## THE PRESIDENT'S ADDRESS

Dr. W. F. Baldwin

Entomological Society of Canada,

Victoria, B. C.

23 August 1971

As President of the Entomological Society of Canada, it gives me great pleasure indeed, on behalf of our Society, to welcome all of you to this Joint Meeting with the Entomological Society of British Columbia on the occasion of the 100th anniversary of their Province. As the Editor of our Bulletin has reported, it took a foresighted government to join confederation in 1871 so that the two Societies could meet together this year; however, it is an exciting time to be in Canada's most western province and to feel that we, as a Society, can take some small part in celebrating the Centennial with our British Columbia members.

The theme of my talk today must be, in these unsettled times, Canadian entomology and entomologists. Recent developments in austerity programmes in our country have had, in several instances, serious repercussions among the entomological fraternity, especially in Federal Public Service. We are all familiar by now with the very serious dislocations and in some instances dismissals following the closure of several projects of the Fisheries and Forestry Department by Mr. Jack Davis; in this case, a whole laboratory evaporated in Winnipeg, and it was reported that a total of 250 people including entomologists were seriously affected by these actions. As all of you know, our Society submitted a letter to the Prime Minister in which we expressed our serious concern to him and to members of his government over the impact of current policies on our discipline, and clearly stated that the problems posed in Canada by insects of the human environment will not be solved by reducing our entomological effort. The letter stated that we were concerned immediately with the layoffs of entomologists, and that a number of established careers had been interrupted and perfectly competent individuals laid off by a sudden revision of plans that had been many times reviewed and approved. Signed by the then President, Dr. LeRoux, the letter concluded with a statement that our Society stands ready to provide details and to cooperate with the government in any program that will effectively develop and use the entomological resources of our country. The response to the brief was immediate and clearly sympathetic on the part of the President of the Treasury Board, Mr. C. M. Drury, the Minister of Agriculture, Mr. Bud Olson, and by the Minister of Health and Welfare, Mr. John Munro. However, the minister most concerned, Mr. Jack Davis, responded only in March of this year after I had written once again, as incoming President, to the Prime Minister. His answer, however, was reasonable, when viewed from the point of a frozen budget and rising expenditures involving rapidly increasing outlays for salaries and wages following negotiated retroactive salary adjustments. These are his words.

Since then, another laboratory, the Research Institute at Belleville, staffed wholly by entomologists, has begun the process of closure, to permit

the transfer of the projects elsewhere. This Institute employs 22 professionals and 32 technicians plus auxiliary service people, and to close this place must have been the result of a decision based on many months of serious consideration by people in high places faced with rapidly rising costs tied into an inflexibly pegged budget. This new departure from the old system of balancing expanding expenditures by merely supplying funds conjured up from some mysterious source to operate government laboratories, (and for that matter university departments), to a system where whole projects are being cancelled to maintain expenditures at a fixed level, has most entomologists, and many other groups, wondering what will happen next. Admittedly, the new system is well designed to produce ulcers, and hinder rather than promote good science.

Today, I would like to talk about what we, as entomologists and members of the E.S.C., should have done or should do to bolster a discipline which is important to the economy of our country, and important, as well, to our comfort and well-being.

A year ago I attended the Entomological Society of Ontario meetings at Vineland, and it was here that the inspiration for my presidential address was born. The program included a very good symposium organized by Mr. Doug Peterson, dealing with this same subject of what entomologists should be doing and what is an entomologist. The speakers dealt with different aspects of the subject, ranging from educational requirements for entomologists to what does agriculture expect of applied entomologists. As I remember, the latter speaker expressed the need for better and more cooperation between entomologists and growers. Prof. Donald Chant, on education, gave me the impression that entomologists should avoid entomology like the plague, and concentrate only on physics, chemistry, mathematics and so on; I agree fully that we need this knowledge, but at the time I remember thinking that many of my courses in entomology would certainly be useful in giving one the intimate knowledge required for those who might be planning the destruction of an insect.

At these same meetings, Dr. Roy Edwards presented a very interesting report on the number of positions for entomologists in Ontario. The majority of these jobs were with the Canada Department of Agriculture and the Canadian Forestry Service (103 of 115), and the conclusion of the survey was that on their figures covering the past 3 years, the opportunities for employment of entomologists in universities, industry, and government service are on the decline, and do not look too promising for the next few years. In this connection, the total numbers of existing positions including Federal and Ontario government service, industry, and universities in Ontario has declined from 166 in 1969 to 161 in 1971.

Looking further than Ontario, nearly 200 professional entomologists are employed by the Research Branch, Canada Department of Agriculture. This sounds like an impressive number for one government service, especially when one considers the total budget at \$40,000/man to be \$8,000,000. However, when the totals are broken down in regions, the numbers dwindle, especially in some provinces. For instance, the Maritime Provinces together have only 18 CDA entomologists, Quebec 7, British Columbia 10, with 43 and 93 in the Prairie Provinces and Ontario respectively. Again, when one examines the distribution of CDA entomologists within provinces, for example in Ontario, a new facet emerges — the 93 individuals in Ontario are segregated into groups of 48 at the Research Institute in Ottawa, 22 at Belleville (which is closing), 7 at Vineland, 1 at Delhi in the centre of the tobacco growing industry, 9 at London and 6 at



Harrow. Thus the whole professional force of graduate entomologists in the Federal government is concentrated in 4 or 5 laboratories; of the total, half are in Ottawa at the Institute there. The concentration at the Research Institute at Ottawa is, of course, the result of the growth of a systematic group which is unique throughout the world, and one of which we can be justifiably proud. However, it does seem that our governmental force of entomologists must be suffering from over-concentration of an already thin group in a few places.

Another inconsistency was brought forcibly to my attention over a year ago. I come from an Ontario village, where, during the month of June, there are times when blackflies, mosquitoes, no-see-ums (punkies) and tabanids are so ferocious that it is almost impossible to venture into one's garden without a virtual bath in a good repellent. This situation holds all across the Canadian Northland, and in the face of so much agitation by politicians to open up this huge section of our land, the incredible fact exists that only a very few people are working on biting flies. For instance, in the projects of the Research Branch, Canada Department of Agriculture, where I expected to find people working on biting flies on humans, in a total of 177.2 man hours divided among horticulture (43), cereal crops (20.9), plant pests (43.2) and so on, only 12 man hours are designated for mosquitoes, blackflies, cattle grubs and ticks, and almost all these are listed under a section named Beef Cattle.

Considering all these facts, I would like to advance the proposition that in the face of an abundance of entomological problems, entomology as a discipline is now on the decline in Canada and shows signs of further deterioration in the future. All this despite the fact that work on insect control is urgently required in our country. In this company it is not necessary to enumerate the important insect pests requiring research dealing with control. In northern Ontario, where agriculture is virtually absent, we have all of the biting flies plus all of the numerous forest pests. Elsewhere, the armyworm problem, alfalfa weevil, apple maggot, codling moth, carrot rust fly, all the cereal crop insects and others together should constitute a broad basis for a large and growing corps of entomologists. Admittedly, there are already numbers of competent entomologists in provincial and federal service and in universities studying these problems, but from the indications of the total employed, their numbers are relatively small. Since the passing of DDT which has been banned in Ontario and elsewhere except for use on a few crops (including tobacco), new and novel methods of control must be developed, methods which could be used in conjunction with non-polluting insecticides and gain favour in this pollution-conscious world. However, these statements regarding entomological problems bring me back to question how the present situation regarding cancellation of long standing projects has come about.

In the first place, the government austerity program has, of course, formed the prime motivation. We should question, however, how the situation ever developed where whole laboratories, conceived and built over the years with the aim of controlling insect pests, could become redundant and susceptible to an untimely death. Does the fault lie with the planners, people who are close to government and who should be able to advise on policy and problems and how continuing attacks against insect pests should be conducted? I often wonder how, in all scientific organizations, policy makers, who are often remote from the actual research, function in their capacity, and I think that sometimes, to quote from Robert Penn Warren, project planning in the past in entomology may have been analagous to Marianne Moore's poetry, which she says deals with real toads in imaginary gardens. This theme was developed to apply to Congress in the U. S., where Warren said that "Congress deals with

real solutions to imaginary problems". Sometimes, however, it deals with "imaginary solutions to real problems". When genius begins to be inflamed, it deals with imaginary solutions to imaginary problems; again, it ascends beyond the pitch of mortal thought and deals with imaginary solutions to imaginary problems of imaginary people.

To be truthful, I suspect that much of the fault, if there is a fault, must lie not with the planners but with the individual scientists who are actually engaged in doing research. Most entomological projects in the beginning have had a goal, and usually fall under the heading of applied or mission-oriented research, and the leader himself has a good grasp of a line of attack. All of you must admit, however, that there is a wonderful tendency for all scientists to settle into a rut and spend year after year researching the same problem in the same way without really making too much progress towards a solution. Most of us are independent and rather selfish and suspicious creatures, and not only do we shun publicity, but it never occurs to us to seek the help and advice of people in other disciplines. Multidisciplinary research is the *modem* "thing" — how many of you know entomologists who actually work with chemists, mathematicians, or even physicists? Also, to go farther, we would never propose that it would be worthwhile to work with others either within our own laboratories or in other organizations or in other locations. The past ten years has seen the emergence of the molecular biologist, and the fashion now seems to tend towards very esoteric and sophisticated research and away from applied studies which would yield practical results. All of these factors are now important under the new budgetary restrictions, and to me it is clear that the projects which have the best chance of survival under continuing austerity are those which not only have the advantages of industrious and imaginative leadership, but deal with real solutions to real problems. In other words, we entomologists must realize that our thinking and our research point at well defined goals, that we must work together and with other people in order to take advantage of each other's special skills, and that one of the best ways to keep one's job is to cooperate with a good Public Relations department and make sure that our work is well publicised. Believe or not, people are interested in insects and one method of getting public support is to tell the public about them. However, if you do lose your job, please take note that your progressive Governing Board of the E.S.C. has created an Employment Committee which has set up an Employment Agency here at these meetings.

At present, my only suggestion for our Society in this situation is that we form yet another Committee of experts from the different fields of Entomology with the function of pointing out to our Government where the entomological problems exist in Canada and what should be done about these problems. Our Science Policy Committee could be enlarged to serve this purpose; at present, its only function, seemingly, is to review and report on the Lamontagne Report. I am convinced that the letter and the brief to the Prime Minister concerning the employment situation and the other brief on the need for a population and resource policy carried a great deal of weight with government, and in the case of advancing entomology, a brief from a panel of our members would be impressive indeed. This is an appropriate role for our Society, and I hope within the next year, that the group can be formed and that you will hear about their efforts.

To Dr. Boyd Ring and his very active program and social committees, may I say congratulations on your efforts in organizing these meetings. The program looks great, and I can assure you that all of us are looking forward to one of the best annual meetings we have ever had.

## ACTIONS OF THE GOVERNING BOARD

23 August 1971

### Bulletin Supplements

1. The Managing Council was authorized to reprint "Pesticides and the Environment" if the 2000 copies on hand were not sufficient to meet the demand, and to inform recipients that the supplement may be reproduced locally.
2. Directed that reprints of supplements continue to be distributed free of charge.

### Membership

3. Accepted, in principle, the establishment of a new class of members to be known as "Fellows". An *ad hoc* committee is to develop detailed plans.

### Canadian Entomologist

4. Directed the Editorial Board, in cooperation with the Finance Committee, to prepare descriptions of the duties of the editorial staff and other officers concerned with the publication of the journal, noting the Editor's relocation to Halifax.
5. Directed that publication in the journal be restricted to members except that if there are joint authors, only one of the authors need be a member.
6. Directed that page charges will be levied against all authors, but, if an author claims lack of sponsorship, exemption may be authorized by the Editorial Board.
7. Authorized the use of offset printing beginning in January, 1972.

### Memoirs

8. Directed that, in addition to distribution to subscribers, the Archives and the Society's stock of back numbers, sponsors of Memoirs be offered the opportunity to determine further distribution to interested persons. A notice of publication of each Memoir would be published in the Canadian Entomologist and members could obtain copies by request.

### Book Reviews

9. Directed that book reviews be published in the Bulletin, and that all books received for review be sent to the Chairman of the Editorial Board.

### Archives

10. Directed that the Managing Council provide the Archivist, from the stock of back numbers, as complete a series as possible of The Canadian Entomologist, Memoirs, and the Bulletin.
11. Directed the Secretary to request affiliated societies to deposit complete series of their publications in the Archives.

### Annual Meetings

12. Directed the Finance Committee to review and report on the adequacy of the grants, i.e., \$1250, made by the Society to the host society.
13. Requested that Dr. Haufe, Program Committee, pursue the proposal that the Society meet with the Canadian Society of Zoologists in 1973.

- |                       |   |
|-----------------------|---|
| B.C.C.                | 14. Ratified the increase of dues from one to three dollars per member proposed by B.C.C.   |
| 14th Intern. Congress | 15. Named Dr. P. C. Corbet as the Society's official delegate to the Congress and to the meeting of the New Zealand Entomological Society that follows. |

## ACTIONS OF THE GOVERNING BOARD

August 26, 1971

- |                        |  |
|------------------------|--|
| Appointments           | 1. Appointed W. F. Baldwin and G. S. Cooper as members of the Executive Committee which is chaired by the President.   |
|                        | 2. Re-appointed E. C. Becker and D. P. Pielou as Treasurer and Editor, respectively, for 1972.   |
|                        | 3. Authorized the Executive Committee to appoint a Secretary, effective January 1, 1972, succeeding D. C. Peterson.  |
|                        | 4. Tentatively appointed A. Hamilton as Representative on the Canadian Committee on Water Pollution.   |
|                        | 5. Tentatively re-appointed A. S. West as Correspondent for the Canadian Council of Animal Care.   |
|                        | 6. Re-appointed L. A. O. Roadhouse as Representative on the C.S.A. Committee on Common Names for Pesticides.   |
|                        | 7. Re-appointed J. F. McAlpine as Member of the E.S.O.-E.S.C. Committee on Exchanges for Can. Ent.   |
|                        | 8. Learned of the President's appointment of W. F. Baldwin as Chairman of the Nominations Committee, and F. J. H. Fredeen as Convenor of the Election Committee.   |
| Finance                | 9. Approved a budget for 1972 that anticipates a surplus of \$3,084.   |
|                        | 10. Directed that, at the discretion of the Managing Council, requests for funds by Officers, Committees and Boards that require Governing Board approval, be referred first to the Finance Committee for review and recommendation. |
|                        | 11. Authorized the Treasurer, with the approval of the Finance Committee, to increase the Society's invested reserve of \$54,923 by up to \$20,000.  |
| Annual General Meeting | 12. Recommended to host societies that the Gold Medal Luncheon should not be at a cost to members that is separate from the registration fee, so as to encourage all registrants to attend.  |
|                        | 13. Directed the Editorial Board to investigate the possibility of the Society publishing the symposia and invitation papers presented during the 1971 meeting.  |

# MINUTES

## Twenty-First General Meeting



### ENTOMOLOGICAL SOCIETY OF CANADA

University of Victoria, Victoria, B.C.  
August 25 , 1971

The President, W. F. Baldwin, called the meeting to order at 1530 hrs.

#### *Notice of Meeting*

The Secretary informed the meeting that the notice was published in the Bulletin 3:1, March 1971.

#### *Minutes of the Twentieth Meeting*

The Minutes were adopted, as published in the Bulletin, on a motion by Messrs. Angers and Sullivan.

#### *Deceased Members*

The meeting paid its respects to the memory of W. H. Brittain, Honorary Member and J. Clark, Member, who had died during the past year.

#### *President's Report*

In my term of office, meetings of the Board of Directors have been held at Guelph following the 20th Annual Meeting, at Ottawa on 28-29 January 1971, and at Victoria on 23 August 1971. In a meeting at Montreal 10-11 June, the President-Elect, Dr. Corbet, the Secretary, Mr. Peterson, our Program Chairman, Professor Auclair, Mr. Pilon and Prof. Morrison, of the Program Committee and I met with a delegation from the ESA to discuss arrangements for the joint ESA-ESQ-ESC meeting in 1972 in Montreal. The American representatives were the President of the ESA, Dr. Eden and the Executive-Secretary, Mr. Murdock. Also, I have met several times at Ottawa, usually with the Secretary and the Treasurer, Dr. Becker, in order to expedite the business of our Society.

Our Society is in a very healthy financial state. The net revenue in 1970 was \$19,000 and our reserves have reached approximately \$73,000. This sum is well on the way to the \$100,000 objective recommended by the report of the Financial Committee last year. The auditors' report for 1970 will be presented for your consideration later in this meeting.

Membership in our Society has dropped again for the second year by 90 members. Undoubtedly this decrease can be blamed on the increase in fees but our Treasurer reports that the trend seems to have levelled

off and that we may be gaining members now. Your Board has considered the question of **Emeritus** membership and we recommend that retiring members be classified as such, not paying dues but receiving the Bulletin. A mail ballot will be conducted to amend the By-Laws. Also, the Board of Directors has approved in principle the election of "Fellows" to the Entomological Society of Canada. Drs. Corbet and LeRoux were asked to prepare detailed plans for the election of Fellows. A mail ballot will eventually be conducted for the necessary amendments to the By-Laws.

Our Canadian Entomologist continues to be a flourishing journal. The Editor has moved to the Maritimes, and in view of this, the Editorial Board has been asked to review the whole procedure of publication. In the interests of economy, the Governing Board decided to adopt offset printing on January 1, 1972. Also, members only may publish in the Journal, except in the case of joint authorship, when one author must be a member. Page charges will be levied against all authors, except where there is no sponsorship, and these cases will be referred to the Editorial Board.

The Board has made some important decisions in regard to the Memoirs. Originally, our Society was commissioned to edit, print and distribute the Memoirs at the expense of the sponsor, and the Memoirs are sent to the members at no cost. Anticipating the concern of the sponsors over rising expenses, the Finance Committee was asked to review the whole procedure. Two approaches to lowering the costs are possible: (1) distribution could be reduced and (2) printing expenses could be substantially lowered while maintaining the quality of the Memoirs. The Board decided that distribution shall be determined by the sponsor, who will be given the opportunity of restricting distribution to interested persons and agencies, and not to all members as at present. Notice of publication will be given in the Canadian Entomologist, and members could simply request copies from authors. The Finance Committee has not completed its study of alternative printing methods.

All members of the Board have expressed their satisfaction with the development of the Bulletin under the editorship of Dr. D. C. Eide. In the future, Book Reviews will appear in the Bulletin. The Board has accepted the recommendation from the Editorial Committee that supplements of the Bulletin will continue to be distributed free of charge. Reprinting of popular supplements such as Pesticides and the Environment, will be at the discretion of the Managing Council. The Bulletin will be used to notify members of the availability of the Entomological Society of America list of common names of insects, as this list is revised.

At the request of Dr. O'Neil, Archivist, the Board directed that the Archives shall contain complete series of the Canadian Entomologist, the Memoirs and the Bulletin. Complete series are not available from our present holdings, and the Archivist will be asking for donations of missing issues. Affiliated societies will be asked to deposit complete series of their publications in the Archives.

An Employment Committee was established this year, under the chairmanship of Dr. Sam Loschiavo. This committee has been very active, and has already placed job advertisements in our Bulletin. The Committee plans a thorough study of the present and future employment situation among Canada's entomological force.

Nine gift subscriptions of our journal have been sent to fellow entomologists in Barbados, Cuba, Nigeria, Kenya, Congo, India, Ceylon and Thailand. This has exhausted our supply of contributors, and more donors are required to meet the demand.

This year the Board decided that the national society should take a more positive position in planning the annual meetings, and that through our Program Committee Chairman, should participate actively in the overall organization of the meeting, including choice of theme. Our representative this year was John Chapman, who was able to contribute substantially towards this very successful meeting in Victoria.

Under student encouragement, the Board plans to give grants totalling \$1,000 to the affiliated societies developing an effective program of student activity. The allocation of this money will be based on the population served by these regional societies.

Our Society became affiliated with the Biological Council of Canada in 1966. Our representatives at the present time are Dr. John Chapman and Prof. Lucien Auclair, the latter being elected to the executive of the BCC. In reference to the Biological Council of Canada, the Board recognizes the value of this organization in representing Canadian biology; also, the ESC supports SCITEC through the BCC. Recently the Council has asked our Society to ratify an increase in dues from one dollar to three dollars per member, representing a total rise in fees from about 8850 to 82,550. The Board has accepted this increase and directed that our BCC dues be paid from general revenue.

Considerable progress was made in advancing several different scientific issues. Pesticides and the Environment, our Society's definitive statement of our stand on this subject, as approved at the last General Meeting, was widely distributed and has received enthusiastic recognition. To date more than 3,000 copies have been circulated. The Population and Resources statement, also approved at the last meeting, has been widely acclaimed, and a reply from the Minister of Health has been published in the Bulletin. A statement on the subject by Dr. Corbet has been published in the June issue of Science Forum. Dr. Solandt has published a similar statement in a recent issue of Time, and has made it the subject of his report as Chairman in the Science Council Annual Report. A letter from Mr. Davis concerning employment of entomologists in the governmental services was published in the Bulletin.

The Science Policy Committee, chaired by Dr. A. S. West, has Vol. 1 of the Lamontagne Report and is awaiting Vol. 2 prior to preparing a report for our Society.

The 14th International Congress of Entomology will be held in August, 1972, at Canberra, Australia. Our official representative at the Congress and at the New Zealand Entomological Society meetings will be Dr. Corbet, who will attend these two sessions. The Secretary will investigate the feasibility of organizing a charter flight from Canada through the Bulletin.

In conclusion, I take pleasure in acknowledging the excellent work of the Board of Directors and Committee Chairmen. In particular, I wish to thank the Secretary, Mr. D. C. Peterson, and the Treasurer, Dr. E. C. Becker, for their time and patience required to guide me through my term of office. I present this report for your acceptance.

The acceptance of the President's report was moved by P. S. Corbet and seconded by C. R. Sullivan. Carried.

### *Auditors' Report*

It was moved by P. Belton and seconded by D. K. McE. Kevan, that the report of Geo. A. Welch and Company (pages 58 and 59) be adopted. Carried.

### *Election*

The Secretary reported that he was informed by Marcel Mailloux, Convenor, Election Committee, on July 18, 1971, that the successful candidates were D. K. McE. Kevan, President-Elect; and J. A. Downes and C. R. Harris, Directors-at-Large (1971-4).

### *Installation of New Officers*

The Chairman installed P. S. Corbet as President. Dr. Corbet introduced the President-Elect and the newly-elected Directors-at-Large.

### *Auditors*

It was moved by P. Belton and seconded by J. J. McLintock that Geo. A. Welch and Company, Ottawa, be appointed as auditors. Carried.

### *Committees*

The President announced the following appointments:

Archivist:	L. C. O'Neil, Sherbrooke
Asst. Ed. (Bulletin):	D. C. Eidt, Fredericton
Member, Editorial Board (1971-5):	W. G. Wellington, Vancouver
Chairman, Common Names Committee:	H. B. Wressell, Chatham
Chairman, Employment Committee:	S. R. Loschiavo, Winnipeg
Chairman, Finance Committee:	R. M. Prentice, Ottawa
Chairman, Gift Subscriptions:	H. J. Teskey, Ottawa
Chairman, Insect Colonies:	J. S. Kelleher, Belleville
Chairman, Membership:	L. A. O. Roadhouse, Ottawa
Chairman, Science Policy:	A. S. West, Kingston
Chairman, Student Encouragement:	R. Downer, Waterloo

### *Resolutions*

It was moved by A. T. Wilkinson, and seconded by H. R. MacCarthy, that the following resolutions be adopted:

1. Whereas the joint meetings of the Entomological Society of Canada and the Entomological Society of British Columbia have been scientifically stimulating and enjoyable:

Be it resolved that the appreciation of the members be expressed to:

- the General Chairman
- the Publicity Committee
- the Local Arrangements Committee
- the Finance Committee
- the Registration Committee
- the Photo Salon Committee
- and especially the Program Committee.



2. Whereas the British Columbia Department of Agriculture was host to members and guests at the banquet August 25:

Be it resolved that this Society express its sincere appreciation by letter from the Secretary to the Minister of Agriculture.

3. Whereas the members attending this meeting and their families enjoyed the entertainment provided on the evening of August 24 at Sooke:

Be it resolved that the Secretary write a letter of appreciation to the Sooke Community Association for their wholehearted effort.

4. Whereas the members attending this meeting appreciate the excellent facilities provided by the University of Victoria:

Be it resolved, that the Secretary write a letter of thanks to President Partridge.

Carried.

### *Twenty-Second Meeting*

The President announced that the Society would meet with the Entomological Society of Quebec and the Entomological Society of America, at the Queen Elizabeth Hotel in Montreal, Quebec, on November 27-30, 1972.

### *Achievement Award*

D. K. McE. Kevan, Chairman, Achievement Award Committee, requested members to send their nominations to him, marked "Confidential". The announcement is to be repeated in the Bulletin. The deadline for the submission of nominations will be October 31, 1971. The Chairman adjourned the meeting at 1010 hrs.

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## NEW BOOKLET

Bibliography of Climatology for the Prairie Provinces 1957-1969, by Richmond W. Longley and John M. Powell, The University of Alberta Press, Edmonton, 1971. Contains 665 references listed alphabetically by author. A general subject index lists many under agriculture and forestry and 45 under entomology.

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## CANADIAN ENTOMOLOGIST 100 YEARS AGO

The good effects of Entomology are numerous: patience, perseverance, and punctuality are essential for successful collecting; memory, discrimination, and logical reasoning are necessarily cultivated; early rising is encouraged; the mind and body of youth find occupation; temptation to immoral pursuits loses its effect; and liberality with a desire to assist brother collectors is generally engendered, sometimes because it is pleasant, at others because it pays better than greediness.

## REPORTS OF TREASURER, EDITOR, COMMITTEES AND REPRESENTATIVES

### REPORT OF THE HONORARY MEMBERSHIP COMMITTEE

As indicated in my January report honorary membership was at the maximum level of ten members. The recent death of Dr. W. H. Brittain opens the membership again. As soon as the committee has its full complement of members, I will initiate the procedures to propose a new Honorary Member in time for the next meeting of the Board.

Before contacting the members of my committee, I wish to bring to the attention of the Board that members representing Ontario (H. Boyce) and Manitoba (W. J. Turnock) should have terminated their one-year term a year ago. This year, two new members representing Alberta and Acadian Societies should be nominated in lieu of A. W. MacPhee and W. Haufe.

May I remark, that the rotation of the members of the committee every two years may be unnecessarily complicated since there may be long periods of inactivity due to the limit on the number of honorary members. It might be simpler to appoint the local directors on an *ad hoc* basis when there is a need to meet as a committee and to consider nominations.

J. J. Cartier

### REPORT OF THE LIBRARY COMMITTEE FOR EXCHANGES OF THE CANADIAN ENTOMOLOGIST

In 1970-71 the standing joint committee for determining exchanges of the Canadian Entomologist for the Library of the Entomological Society of Ontario consisted of W. C. Allan, Entomological Society of Ontario, and J. F. McAlpine, Director-at-Large of the Entomological Society of Canada.

No change was made in the number of exchanges this year, and the same 36 exchange subscriptions provided last year are still in effect.

A proposal for the Entomological Society of Canada to cancel this exchange program and direct all its efforts to its Gift Subscription Program was made to Professor Allen, on the grounds that the Entomological Society of Ontario Library is now, in effect, a part of the McLaughlin Library, University of Guelph. Professor Allen expressed opposition to this proposal and felt the matter should be brought before the Entomological Society of Ontario for full discussion before any change is made in the present policy.

J. F. McAlpine

### 1972 ANNUAL MEETING

The next Annual Meeting will be held jointly with the Entomological Society of Quebec and the Entomological Society of America in the Queen Elizabeth Hotel, Montreal, 27 to 30 November 1972. The format will be similar to that of the joint meeting with the E.S.A. held in Detroit. Programme chairmen are: E.S.C., Dr. J. L. Auclair; E.S.A., Dr. Roger Morse.

## REPORT OF THE EDITORIAL BOARD

At the January 1971 meeting of the Governing Board, Entomological Society of Canada, the Editorial Board was requested to consider and formulate recommendations on the following subjects: a policy on whether publication in the *Canadian Entomologist* should be restricted to members of the Society, a policy on free page charges, and whether book reviews should be published in the *Canadian Entomologist* or in the *Bulletin*. The Board has considered these items and have formulated recommendations for action by the Governing Board.

### Recommendations

1. That publication in the *Canadian Entomologist* be restricted to members of the Entomological Society of Canada with the following exception. If there are joint authors, the senior author must be a member of the Society, but junior authors need not be members.
2. That page charges be levied against all authors. If an author claims he has no sponsorship and cannot meet page charges, the case should be referred to the Editorial Board for a decision.
3. That all book reviews be published in the *Bulletin* rather than in the *Canadian Entomologist*.

### Discussion

1. With a heavy backlog of manuscripts and the prospect of an increased backlog, it seems logical to place some restrictions upon publication in the *Canadian Entomologist*. Many organizations require that authors be members of the Society. The Board feels that this restriction will not affect the quality of papers published, but may have an influence upon quantity. The possibility of giving priority to papers by members was considered, but rejected in favor of a firmer policy. The relatively few entomologists affected by this policy would then have a good reason to join the Entomological Society of Canada.
2. It is difficult to take a firm stand on page charges as it is recognized that there are some qualified entomologists without financial support. However, the vast majority of authors can budget their publications through their institution, government or industry. Cases where non-support is claimed can be reviewed by the Editorial Board, thus relieving the Editor of the responsibility for such decisions. Foreign authors sometimes plead a shortage of or no funds, and it is questionable if some of these papers should be published in the *Canadian Entomologist*. It is felt that a firm statement that page charges be levied against all authors is the best way of solving the problem.
3. The question of book reviews is not critical, and it was the unanimous opinion of the Editorial Board that all book reviews be published in the *Bulletin*.

J. J. Cartier  
S. E. Dixon  
D. G. Finlayson  
W. C. McGuffin  
H. F. Madsen, Chairman

## EDITOR'S REPORT

In the 12-month period June 1970 - June 1971 we received 215 manuscripts. We published 226 papers (not counting book reviews) in the *Canadian Entomologist* and published 8 Memoirs. There was a notable increase in length of papers. I have a suspicion that what might have been Memoirs are now being condensed to become rather long papers in the *Canadian Entomologist* because it costs authors about twice as much per page to publish in the Memoirs as in the journal. This is because the journal is partly financed by membership fees and other income, whereas the entire cost of a Memoir is borne by the author.

I have been somewhat embarrassed by the sharply increasing number of authors who ask to have page charges waived. Many of these are at well known institutions. In the past, on my own initiative, I occasionally waived page charges on short papers when circumstances seemed to justify this privilege. Now, however, I am getting requests to waive page charges of three or four hundred dollars. This may be the thin edge of a wedge that could demolish our financial structure. I would like a definite policy set. A definitive policy would simplify my work in dealing with authors.

Our competent Assistant Editor, Miss Margaret McBride, continues her excellent work of keeping the journal in production month after month. It is now, I remind you, 32 pages per issue longer than it was 18 months ago. Miss McBride is engaged by us on terms exactly parallel to an Editor in the Public Service (except for her lack of superannuation!) in the Information Services, where she is near the limit of Level 2. In view of her increased duties, increased competence and unfailing reliability, I recommend that she be promoted to the equivalent of the first increment in Level 3 effective November 1, 1971. It is understood, of course, that if there is any increase in Public Service rates these changes would apply to Miss McBride exactly as if she were a Public Servant. As a matter of fact I am firmly convinced that Miss McBride is doing more, and with less guidance, than a Public Service Editor with this salary.

Further, I think Miss McBride's title of "Assistant Editor" is a misnomer. The comparable position in the Entomological Society of America is called "Managing Editor"; in the Agricultural Institute of Canada journals it is called "Staff Editor". I recommend that the title of the position be changed to "Staff Editor" thus emphasizing that she is a fully paid employee of the Entomological Society of Canada.

D. P. Pielou

## REPORT OF THE COMMITTEE ON GIFT SUBSCRIPTIONS

Through the generosity of certain members of the Society, nine gifts of a subscription and various back numbers of *The Canadian Entomologist* have now been completed. Recipients of the gifts are located in Barbados, Cuba, Nigeria, Kenya, Congo, India (2), Ceylon, Thailand.

The provision of these gifts has nearly exhausted our lists of donors and potential recipients that were compiled following the initial announcement of the program in Bulletin 2(2), 1970. Therefore, we again ask members to donate their subscription of *The Canadian Entomologist* for this worthy program and to let us know of persons or organizations who might receive a gift subscription.

H. J. Teskey

## TREASURER'S REPORT

### Auditor's Statement

To the Members of  
ENTOMOLOGICAL SOCIETY OF CANADA

We have examined the balance sheet of the Entomological Society of Canada as at December 31, 1970, and the statement of financial activities for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

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

Subject to the foregoing, we report that in our opinion the accompanying financial statements present fairly the financial position of the society as at December 31, 1970 and the results of its operations for the year then ended in accordance with generally accepted accounting principles.

Geo. A. Welch & Company  
Chartered Accountants  
18 June 1971

### ENTOMOLOGICAL SOCIETY OF CANADA

(A corporation without share capital)

Balance Sheet  
December 31, 1970

#### ASSETS

Cash	\$ 50,270.15
Receivable re Memoirs	34,058.00
Receivable re reprints and back issues	22,501.00
Term deposit — 8 3/4% — due September 18, 1973	10,000.00
Term deposit — 8% — due December 29, 1973	10,000.00
Government and government guaranteed bonds — at cost (Quoted value — \$27,912)	34,923.03
	<u>\$151,747.18</u>

#### LIABILITIES AND SURPLUS

##### LIABILITIES

Accounts payable and accrued liabilities	\$ 43,607.82
Deposit for publishing Memoirs	2,500.00
Prepaid memberships, subscriptions and reprints	25,400.29
	<u>71,508.11</u>

##### SURPLUS

Balance, December 31, 1969	60,654.89
add:	
Net revenue for year	<u>19,584.18</u>
Balance, December 31, 1970	<u>80,239.07</u>
	<u>\$151,747.18</u>

# ENTOMOLOGICAL SOCIETY OF CANADA

(A corporation without share capital)

## Statement of Financial Activity

Year Ended December 31, 1970

### REVENUE

Regular memberships	\$ 13,463.66
Student memberships	1,080.50
Sustaining memberships	400.00
Subscriptions	26,785.75
Sale of reprints	46,255.49
Sale of back issues	1,570.60
Publishing "Memoirs"	97,132.00
Interest received on investments	3,117.34
Foreign exchange	823.48
	<hr/>
	190,608.82

### EXPENDITURE

Publishing costs — "Canadian Entomologist"	47,126.66
— reprints	7,093.63
— "Memoirs"	79,991.58
Annual meeting — grants	1,250.00
— travel expense	981.52
— miscellaneous	281.00
Biological Council of Canada — dues	914.00
— delegate	324.06
SCITEC — founding grant	500.00
— delegate	65.00
Salaries	18,606.00
Canada Pension	143.07
Professional fees	450.00
Postage and office supplies	1,443.36
Telephone	107.63
Repairs and maintenance	460.53
Insurance	1,002.50
Bulletins	4,513.33
Workmen's Compensation	33.81
General expense	88.40
Directors' expenses	4,837.19
	<hr/>
	171,024.64

### NET REVENUE FOR YEAR

\$ 19,584.18

E. C. Becker

## REPORT OF THE REPRESENTATIVE TO CANADIAN COUNCIL ON ANIMAL CARE

Newsletters of the Council have been received during the year. There has been no correspondence.

E.S.C. members who use animals should be aware of the publication "Care of Experimental Animals, a Guide for Canada" (in French and English). This guide has been widely distributed. Additional copies probably can be obtained by contacting J. P. W. Gilman, D. V. M., Executive Director, Canadian Council on Animal Care, 151 Slater St. Ottawa 4, Ont.

A. S. West

## REPORT OF THE FINANCE COMMITTEE

The Governing Board on January 28-29, instructed the Finance Committee to explore cost alternatives and cheaper methods of printing the *Canadian Entomologist* and the *Memoirs*, respectively, and recommend to the Governing Board courses of action that would represent acceptable compromise between low cost and high quality of production. It was further instructed to examine the feasibility of establishing a policy whereby a charge would be set for supplementary publications distributed to individuals, groups, and agencies outside of the membership.

The Committee, consisting of R. M. Prentice (Chairman), W. J. Turnock, and E. Lindquist, with E. Becker, M. McBride and D. Peterson as advisors, met three times to explore these motions.

### Printing Costs

The Committee is investigating alternative printing methods for the *Canadian Entomologist* and *Memoirs* but a final report cannot be submitted now. Estimates on sample manuscripts submitted to three different printing firms in Ottawa suggest that the Society has been receiving very fair treatment from Runge Press, particularly for the regular printing of the journal. One estimate that was a particular surprise, from Compkey, where they use highly sophisticated computers and the latest methods in photo setting, was substantially higher than those of the other companies. The Committee will explore further, looking into facilities, cost, and quality of vanitytype methods.

### Canadian Entomologist

If regular issues could be printed by offset there would be (1) a reduction in the cost of paper, (2) an increase in the number of articles per issue, and (3) a reduction of approximately 90% in the cost of half tones, tables, and line cuts. The Committee therefore recommends that starting in January 1972, regular issues of the journal be reproduced by offset printing. Offset printing of the journal would effect an \$800-900 saving per issue.

### Memoirs

Although the Finance Committee was not asked to look into the policy for distribution of *Memoirs* the question came up for discussion in the review of costs. The Committee agreed that the Entomological Society of Canada must continue to provide access to a high quality publication for papers that are not well suited for publication in journals and these papers should be distributed on a world-wide basis to libraries and interested individuals. Under the present system of distribution all members of the Society receive copies of all *Memoirs*. This is considered wasteful since their content is of interest to relatively few members. The Committee recommends that an alternative system offering some saving to sponsors through a reduction in printing and distribution costs should be made available:

- a) the number of copies to be printed and distributed will be decided separately for each *Memoir*, by agreement between the sponsor and ESC;
- b) the total number of copies printed shall be sufficient for:
  - i distribution to subscribers (libraries and dealers) to the ESC;
  - ii ESC archives and stock of back numbers;
  - iii distribution to other interested persons;

- c) the number of copies required for distribution under (b)(iii) shall be determined by the sponsor, who shall bear the responsibility for distribution of copies to interested individuals;
- d) to advertise the availability of Memoirs, the ESC shall print a "Notice of Publication" for each Memoir in the Canadian Entomologist, which shall include the title, author's name and affiliation, plus an Abstract or Summary of the Memoir and the address from which copies may be obtained (the sponsor). The total length of this advertisement shall not exceed one printed page of the Canadian Entomologist;
- e) the contract with the sponsor shall specify the following:
  - i editorial and printing services to ensure a high quality publication;
  - ii world-wide distribution as provided by the E.S.C. mailing list of subscribers and backed up by a limited store for future distribution;
  - iii delivery, in bulk to the sponsor, of the copies requested by the sponsor for distribution to interested individuals;
  - iv advertisement of each Memoir in the Canadian Entomologist.

### Supplementary Publications

The Finance Committee examined the feasibility of charging for supplementary publications distributed outside of the membership and reached the following conclusions:

- a) the present policy of printing and distributing on alternate years, the membership list and the list of insect colonies, should be continued. The number of copies printed should be just sufficient to satisfy the mailing list plus about 100 copies for later requests, subscriptions and new members. These publications provide essential services to the members and the cost should be borne by the E.S.C.;
- b) special publications such as the 'Pesticide' brief provide a vehicle for publicizing the views of the E.S.C., providing educational material for public and class use, and advertising the Society. The cost of 5,000 reprints of the Pesticide brief was \$700. This brief has been very well received and over 3,000 reprints have been distributed, on request. The Finance Committee agreed that the value of the Pesticide brief far outweighed its cost and that the cost of similar supplementary publication be carried by the E.S.C. The possibility of charging a fee for such publications was rejected because the administrative burden of handling such a system would be far greater than the price that could be attached to such a publication. The possibility of charging a fee for bulk orders was also rejected. Such orders are usually received from teachers for class use and a fee would probably result in either the discontinuance of class use of the material or individual orders from every member of the class. Both alternatives are undesirable.

The Committee recommends that the Society continue to publish and distribute supplementary publications without charge, as long as such publications are limited to material which provides a service to the members or an expression of the view of E.S.C. on important matters.

R. M. Prentice



## REPORT OF THE ARCHIVIST

### Activities

- Further progress in the classification of material, especially in the identification of photographs and other visual documents, their dating, localizing, and the identification of persons appearing on these. To the above-mentioned end, a two-day visit in Ottawa to confer with Mr. C. S. Walley of the Systematic Unit and Mr. L. R. St. Laurent of the Biographic Unit, both well versed in the nature and origin of much of the material in question. Their generous collaboration was very helpful, and it is a pleasure to acknowledge it.
- Return of all material previously on loan from the Biographic Unit, after securing copies of pertinent and worthwhile documents, with assistance, again, of the above-mentioned persons. Duplicates of photographs were obtained from Mr. St. Laurent, courtesy of the Biographic Unit.
- Publication in the Bulletin of a note re the Archives, asking for collaboration and suggestions by the membership of our Society.
- Publication in *Annales de la Société Entomologique du Québec* of a French translation of the above-mentioned note, courtesy of the editor, Dr. R. O. Paradis.

### Additions

- Duplicates of numerous documents (photos mostly) previously on loan from the Biographic Unit.
- Various documents received from membership, in limited quantity.
- Some brochures prepared to accompany past awards of the Society's Gold Medal, also programmes of past meetings, received from D. G. Peterson and P. S. Corbet, respectively Secretary and President-elect of the E.S.C.
- Two copies of *Centennial of Entomology in Canada* by Dr. C. B. Wiggins, purchased from the Royal Ontario Museum.
- Mr. D. G. Peterson is in the process of assembling a complete series of the *Entomology Newsletter*, insofar as possible, for inclusion in the Archives.

### Loans

- From the Archives to the Chemical Control Research Institute, Canadian Forestry Service, a series of five display panels pertaining to the use of aircraft in the application of chemicals for insect control; outstanding since the spring of 1969.

### Recommendations

That the Board of Directors consider without delay the inclusion of the following material in the Archives, and that in the event of a favorable opinion, they take such action as necessary to implement their decision:

- a complete series of the *Canadian Entomologist*,
- a complete series of the *Memoirs of the E.S.C.*,
- a complete series of the *Bulletin of the E.S.C.*,
- inasmuch as possible, complete series of publications of regional societies, when such exist.

This material is sought not only for its inherent value once it is assembled in a repository such as the Archives, but also for the various biographies, obituaries, etc., which summarize, to some extent, entomological history in Canada.

### Plans

Most of next year's effort should be directed towards finishing the classification and identification of material presently on hand, contacts with Mr. Walley, Mr. St. Laurent and other Ottawa-based people being maintained to this effect.

Louis-C. O'Neil

## REPORT OF THE REPRESENTATIVE TO THE BIOLOGICAL COUNCIL OF CANADA

During the last year, there were two meetings of the Biological Council of Canada, both in Ottawa, on Oct. 30-31, 1970, and on March 26-27, 1971. I attended both meetings and the minutes are available from me.

The meetings were concerned mainly with the preparation and distribution of a biology brochure, discussions of the Science Council Report on "The Future of Biology in Canada", the method for selection of nominees to the Canadian National Committee for the International Union of Biological Sciences, representation of Biology on the Canadian UNESCO Commission, the role and importance of SCITEC, contacts with the Youth Science Foundation and the Canadian Association of Science Teachers, the preparation of an Inventory of Biological Societies and of Biologists in Canada, the representation of biologists to various NRC committees, and the establishment of a permanent secretariat in Ottawa.

On March 26, Dr. W. G. Schneider, president of the National Research Council, addressed the BCC Meeting on the general organization and responsibilities of NRC, particularly those aspects that affect the biological community. He mentioned among other things that an Advisory Committee on Biology had been reconstituted and is to : (1) co-ordinate and synthesize research funding information to provide a more rational way for developing support, (2) to help develop long range planning for biological research in Canada and (3) to assess the role of biological research in Canada. Dr. Schneider concluded his remarks by indicating that they were extremely pleased to have input from the Biological Council of Canada particularly suggestions on representation for the various NRC committees. He hoped that there would continue to be a strong dialogue and liaison between various national committees and the Biological Council of Canada.

During both meetings, in several workshops, delegates studied subjects pertinent to biology and made recommendations. The subjects included: Canadian biology now and in the future; Canadian science policy; representation of biologists on national and international committees; Department of the Environment; a single voice for biology in Canada; biological inventory; communication for biologists; biological education in Canada.

An important item was the establishment of a permanent secretariat. This is a development which is long overdue and should provide a permanent home for the BCC. There are numerous advantages, some of which are the establishment of a regular news bulletin to the members of the society and maintenance of an up-to-date membership file. Furthermore, the creation of the Biological Council of Canada has produced a strong and effective voice for Canadian biologists. The BCC is a respected policy body that has developed a new awareness for the importance of biology with government agencies, such as National Research Council, Science Secretariat, Science Council and government committees. There has been a steady growth in the demands and recommendations from government policy-making bodies to the BCC for advice and recommendations concerning biology in Canada. We have now an important input from the professional associations representing Canadian biologists. For all these reasons, the establishment of a permanent secretariat appears essential to the progress of BCC and the proposed enlarged program of communication. However, to enable this, an increase in fees would be necessary and the Council unanimously recommended an increase of fees from \$1.00 to \$3.00 effective in 1972. This increase must be ratified by the society members of the Council. I recommend strongly ratification by the members of the Entomological Society of Canada.

J. L. Auclair

## REPORT OF THE COMMITTEE ON STUDENT ENCOURAGEMENT

I was informed after the E.S.C. Meetings in August 1970 that the Committee on Student Encouragement was being asked by the Board to administer a program under which \$1000.00 could be spent during 1971 in subsidizing Affiliated or Regional Society efforts to encourage the interest of pre and possibly Junior College Students in Entomology. Pro rata grants were to be authorized by this Committee to such Regional Societies as proposed acceptable promotion schemes. In February the details of this scheme were clarified and an additional duty added, to recommend ways in which the Society could support and encourage the Teen International Entomology Group (TIEG) and especially increase support of this effort by individual Canadians.

During the ensuing months a \$100.00 grant to TIEG was authorized and the attention of Dr. D. Larson (University of Calgary) was called (May 17) to TIEG and to the possibilities of some publicity for their efforts being arranged at this year's meetings. No further information on this has been received. The existence of TIEG was also brought to the attention of the other Regional Societies. The existence of TIEG was noted in the September 1970 Bulletin and as a result one enquiry re membership was received from a Fredericton youth and the information forwarded.

Ninety dollar grants for 1971 have been authorized to the Entomological Society of Ontario and to the Entomological Society of Alberta. A query as to the possibility of Regional Societies accumulating their annual credits has been replied to tentatively by suggesting that (1) authorization of the present expenditure is for 1971 but it is anticipated that it will continue, (2) should a program be presented for approval which envisions a carry over to make it possible, it will be judged on its merits, but application must be made annually on a basis of each year's program, and funds not applied for and approved are forfeit.

Frank O. Morrison

## REPORT OF THE COMMITTEE ON INSECT COLONIES

A list of Laboratory Colonies of Mites, Ticks and Insects in Canada was published as an insert in the Bulletin (Vol. 3 No. 2) June, 1971. Although no formal members were appointed to the committee, excellent cooperation was obtained from the Assistant Editor (Bulletin), taxonomists of the Entomology Research Institute, C.D.A., Ottawa, stenographers of the Research Institute, C.D.A., Belleville and from 108 cooperators who provided the list of 220 species. The Governing Board has decided that the list should be published every two years i.e. the next one should appear in June, 1973.

### Recommendations:

- (1) In the interests of economy, the Governing Board should consider publishing the list separately, possibly mimeographed, and available on request but free of charge to members, cooperators and perhaps a limited number to others.
- (2) Additional typing and clerical services should be provided to simplify procedures in gathering information from cooperators e.g. preparing index cards, filling out form letters.
- (3) The committee should include an insect taxonomist to provide comments of a general taxonomic nature.

J. S. Kelleber

## REPORT OF THE MEMBERSHIP COMMITTEE

The Membership Committee has continued its activity during the past year. Professor R. W. Stark, Moscow, Idaho, was added to the Committee to aid in the recruitment of potential members in the United States.

The Committee continued its campaign for new members. As of July 1971, membership in the Entomological Society of Canada consisted of 721 full members, 110 student members and 9 sustaining associates.

For the second year in a row there was a decrease of 90 in the total membership. Many of the members dropping out, when contacted by the Society indicated they were doing so as a result of the increase in membership dues.

The Committee recommends the establishment of Emeritus Membership in the Society and drafted relevant revisions of the By-laws as follows:

Article IV (1)a. Add statement as follows:

- (4) Emeritus member — any active member in good standing who has retired from active service may, on request, and on the approval of the Board, continue as an emeritus member without payment of dues.

Article IV (2). Add a statement as follows:

- c. Emeritus members may attend and take part in discussions at meetings but shall not vote or hold office in the Society. Such members shall receive the Bulletin, but not The Canadian Entomologist or Memoirs, except by payment therefor at membership subscription rates.

This plan for establishing emeritus membership in our Society was patterned after that of the Entomological Society of America and has been presented to the Board of Governors.

L. Roadhouse

Action taken in January 1971, see Bulletin 3:10. Ed.

## REPORT OF THE REPRESENTATIVE, INTERNATIONAL BIOMETEOROLOGICAL CONGRESS

Organizational operations for the 8th International Congress of Biometeorology became a victim in May of the strikes and general instability in travel and convention accommodation in Italy. A paralyzing strike in the hotel complex in Suresa, Italy, chosen as the site of the Congress, resulted in a change in ownership and management. The new management refused to honour the agreement on conference facilities, signed more than a year ago by the original owners, unless rates were almost doubled to meet expected inflation. The executive of the International Society of Biometeorology was forced to act immediately and relocate the Congress to preserve a reasonable rate structure. A new agreement has now been arranged with hotels at the North Sea resort in Noordwijk, approximately 10 km. west of Leiden in the Netherlands. The Congress will be convened on the same dates, September 3-9, 1972. It will be followed by the 4th International Interdisciplinary Cycle Research Symposium at the same location, September 11-15.

The general outline of the program has been completed and printed circulars are expected to be out within a matter of weeks. The theme will be

Future prospects of maintaining the meteorological environment for life processes in developed countries, including plants, animals, and man'. Emphasis in this theme will be placed on animal and plant production and the importance of predicting and preventing pestilence and disease for the preservation of the world food supply. Air pollution and tropical environments in developing countries will receive attention as major challenges to biometeorological research in the need to accommodate increasing urbanization and population growth.

The Study Group on entomological aspects of the theme is being organized by Dr. Roger T. Huher, Department of Entomology, Purdue University, Lafayette, Indiana 47907, who is also the representative of the Entomological Society of America. Canadian entomologists interested in participation or in the development of this program should communicate directly with Dr. Huher to be included on mailing lists for entomologists. Some entomologists active in studies of insect behaviour may wish to establish similar contact with the Study Group on 'Effects of meteorological stimuli on rhythmic phenomena in plants, animals and man'. Interested individuals may contact W. O. Haufe, Canada Agriculture Research Station, Lethbridge, Alberta, one of three Co-chairmen, or the Secretary of the Study Group, Dr. S. W. Troop, Biometeorological Research Centre, Leiden, Aert van Neslaan 117, Oegstgeest (Leiden), The Netherlands, to be included in mailing lists for program information.

Further information on programs of special interest to entomologists will be supplied to the editor of the Bulletin to be published at his discretion during the next few months.

W. O. Haufe

#### REPORT OF THE ASSISTANT EDITOR (BULLETIN)

Four full numbers have been published over the past twelve-month period. Volume 2 (1970) had 112 pages; numbers 1 and 2 of volume 3 totalled 40 pages. Two supplements were published: "Pesticides and the Environment" with Vol. 3, No. 1 and "Laboratory Colonies of Mites, Ticks and Insects in Canada" with Vol. 3, No. 2. In addition, 5000 copies of "Pesticides . . ." and 200 copies of "Laboratory Colonies . . ." were reprinted. The Entomological Society of Manitoba purchased 200 reprints of the programme for the 1970 Annual Meeting.

The flow of material has been good. Committees have made good use of the Bulletin although some committees might still gain some advantage through greater use. The Bulletin has contained mostly volunteered items and therefore some items of importance have gone unnoticed. Members are urged to submit material voluntarily because there is usually neither time nor assistance to solicit it.

Regional Societies could make more use of the Bulletin, in particular by preparing historical and other background material in advance of annual meetings in their region. The Archives of the Society at U. of Sherbrooke and those of Regional Societies are rich sources of material for this purpose.

Comments and criticisms are welcome from anybody at any time, either publicly in the Bulletin, privately to the Editor or anonymously through the Secretary. It is respectfully hoped that the Bulletin has kept the membership better informed of the activities of their Society in the past year.

D. C. Eidt

## REPORT OF THE EMPLOYMENT COMMITTEE

This committee was created by a motion passed at last year's meeting and at present has three members: S. R. Loschiavo, S. C. Jay, and L. A. Roadhouse. The purpose of the committee is to develop and maintain an employment service for entomologists.

Letters outlining the statement of purpose were sent to appropriate people at all levels of government, the agricultural chemicals industry, and universities. These were followed by application forms for those seeking employment and forms for those offering positions.

An initial announcement of the activities of the committee appeared in Volume 3, No. 1 of the Bulletin. Further information and a list of positions wanted and positions available was prepared for publication in Volume 3, No. 2. Originally we had also hoped to place this list in Nature and Science but the high cost of classified advertising in these journals precluded this possibility.

During the year we had requests from prospective employers seeking suitable candidates for employment. In compliance with these requests we screened lists, selected applicants whose experience and interests seemed best suited to the requirements of the position, and submitted copies of their applications to the prospective employer.

The committee arranged to have a room available in Victoria during the joint meetings of the Entomological Societies of Canada and British Columbia, where contacts could be made and interviews held between prospective employers and candidates for employment. Application forms for positions available and positions wanted are available. Completed files may be obtained on request.

I have received considerable correspondence in praise of the concept of this committee. Many have taken advantage of its services and probably the number will increase as news of its existence and service function spreads throughout the scientific community.

As its sphere of activity and responsibility expand, this committee should seek answers to the following questions.

1. How much recruiting of entomologists is being done by government departments and agencies, universities, and industry?
2. What percentage of graduates is finding employment?
3. Are sufficient numbers of students taking post graduate work in entomology to meet future requirements?
4. How can the Society ensure the future of entomology in Canada?

In conclusion I would like to thank S. C. Jay and L. A. Roadhouse for their interest and participation on this committee, D. C. Eidt, editor of the Bulletin for his cooperation and help, and R. A. Ring, chairman of the local program committee, for providing facilities for the employment committee during the Victoria meetings.

S. R. Loschiavo

## REPORT OF THE REPRESENTATIVE, CANADIAN STANDARDS ASSOCIATION COMMITTEE ON COMMON NAMES FOR PEST CONTROL CHEMICALS

A meeting of the Canadian Standards Association Committee on Common Names for Pest Control Chemicals was held on October 7, 1970. This meeting was called primarily to brief the Chairman on the position he should take regarding common name proposals as Canada's representative to the meeting of the Technical Committee on Common Names for Pesticides of the International Organization for Standardization. No additional common names for pest control chemicals were adopted during the past year.

L. Roadhouse

## REPORT OF THE COMMITTEE ON SCIENCE POLICY

The Committee consists of a Chairman who with the advice of the Executive, or on direction from the Board, coopts members for *ad hoc* assignments.

One assignment exists at present. The Chairman will be assisted by E. C. Munroe and C. S. Holling in reviewing the Lamontagne report. This group is in turn part of SCITEC's Response Committee to assess the Report of the Special Senate Committee on Science Policy (Lamontagne Report).

Vol. I of the Report was released in January and copies have been provided to the members of the E.S.C. committee. The release of the Vol. II scheduled for January or February, has been delayed and at the moment there is no word on the probable release date. A submission to SCITEC will be requested shortly after Vol. II becomes available. A SCITEC conference will be held in Ottawa for a full discussion of the Report. E.S.C. as a founding society of SCITEC will be invited to send delegates.

A. S. West

## REPORT OF THE ELECTION COMMITTEE

The ballot counting committee composed of MM. J. P. Perron; I. Rivard, and M. Mailloux, convenor, examined on July 18, 1971, the ballots received before midnight July 15 for the 1971 election of the officers of the Entomological Society of Canada.

Ballots mailed:	752
Ballots cast:	433
Ballots spoiled for President Elect:	4
(2 blank; 1 voted for more than one; 1 ballot signed)	
Ballots spoiled for Directors-at-Large:	8
(6 blank; 1 voted for more than two; 1 ballot was signed)	

Successful candidates were:

President-Elect:	Dr. D. K. McE. Kevan
Directors-at-Large:	J. A. Downes
	C. R. Harris

The Election Committee hereby certifies that all the ballots were accurately counted and that the results are correct.

Marcel Mailloux

## A TABLE OF THE INSECTS THAT ARE FOUND IN CANADA

Adders.

Asps.

Rattle-Snakes.

Lowing Frogs.

(bull frogs)

Gnats or Midges.

(mosquitoes and probably black flies)

Cad-Bees.

(tabanids)

Brulots or burning Handworms.

(ceratopogonids)

### A Description of the Insects of Canada

**T**HE *Adders of Canada* do no harm at all. The *Asps* indeed are very dangerous, when the People bathe in the stagnating Water towards the South Countries. The *Rattle-Snake* or *Sounding Serpent* is call'd, in regard that at the extremity of its Tail, it has a sort of a Case, containing certain bones which make such a noise when the Serpent creeps along, that 'tis heard thirty Paces off. These Serpents betake themselves to flight when they hear the sound of Mens Feet, and commonly sleep in the Sun either in green Fields, or open Woods. They never sting but when they are trod upon.

The *Lowing Frogs* are so call'd with respect to their croaking, which sounds like the lowing of an Oxe. These *Frogs* are twice as large as those we have in Europe. The *Canada Gad Bees* are a sort of Flies about twice as big as Bees; but of the same form with a common Fly. They sting only between Noon, and three a Clock in the Afternoon; but then they do it so violently, that they fetch Blood. However, 'tis only upon certain Rivers that they are met with.

The *Brulots* are a sort of Hand-worms, which cleave so hard to the Skin, that their pricking occasions the same sense, as if 'twere a burning Coal, or a spark of Fire. These little Animals are unperceivable, though at the same time they are pretty numerous.

From: *New Voyages to North America 1683-1694.*  
Written in French By the Baron LABONTAK, Lord Lieutenant  
of the French Colony at Placentia in Newfoundland, new in  
England. Done into English. In Two VOLUMES. A great  
part of which never Printed in the Original. LONDON: 1703.

Contributed by L. L. Peckham



## J. D. GREGSON; LEADING TICK AUTHORITY



The description of *Argynnis rhodope gregsoni* Gunder (Can. Ent. 1932, 64:281) includes this comment "Collected by and named after Mr. J. D. Gregson, Courtenay, V.I., B.C., a young Canadian entomologist of whom I know we will hear in the future". J. D. Gregson, Canada's leading authority on ticks, retired in May, 1971, after 35 years of continuous service with Canada Agriculture. His career extended from the virtually pioneer era to the modern electronic, technological era. His contemporaries ranged from such early indomitables as Hearle, Spencer and Strickland, armed as they were with little more than butterfly nets and their own ingenuity and dedication, to modern enthusiasts equipped with electronics and computers.

Born near Blackfalds, Alberta, in 1910, the only child of the first settler (1884) in the Red Deer area, Jack spent his boyhood on the prairie, and his teen-age on the sea-coast at Courtenay, Vancouver Island. He entered U.B.C. In 1930, subsisting virtually on the proceeds of fir-cones and cascara bark harvested during the previous summer. In 1931 he spent the summer in the isolated Forbidden Plateau collecting Lepidoptera for a wealthy American amateur entomologist. In 1932 he was called to Canada Agriculture as a special assistant to the ailing Eric Hearle, then engaged in developing a mosquito control project at Jasper, Alberta. The remainder of his career was with C.D.A. and the Livestock Insect Section at Kamloops. In 1934 he achieved B.A. (Hons.) under Prof. Spencer, and in 1936, M.Sc. at University of Alberta under Prof. Strickland. In 1939 he married Barbara Claxton of Kamloops.

His early years with C.D.A. were divided between biting flies and ticks, but ticks were always his primary interest. During World War II he collaborated with George Holland in a study of cattle warbles or grubs, which culminated in a method of collecting and rearing large numbers of *Hypoderma* pupae and the first known studies of adult behaviour using adequate numbers of insects. In 1947 and 1948 he served as a consultant to U.S. and Canadian Army Medical teams studying biting flies in Alaska and the Yukon. His final biting fly episode was in 1952, when, with L. C. Curtis and C. L. Neilson, he surveyed and initiated biting fly control for the projected Kitimat aluminium smelter and city.

During his early tick studies he described three new species of *Ixodes*, and his 1946 experiments with BIIC resulted in the first practical method of protecting B.C. range cattle from tick paralysis. In 1956 he published a monograph of the Ixodoidea of Canada. His widest recognition and his greater contributions arose from his preoccupation with what he termed the "enigma" of tick paralysis. This led him into studies of tick feeding mechanisms and behaviour, and to the publication of a series of authoritative papers that gained him international recognition. He developed several techniques for studying tick feeding, that are now widely used, including the use of the oscilloscope. He was included in the WHO/FAO tick panel at its inception and attended several of its meetings abroad. In 1969 the U.S. Naval Medical Unit sponsored him as a consultant on tick morphology and feeding to several study centres in the Middle East. During the final years of his career several international

acarologists spent extended periods at Kamloops working under his direction, and virtually no "tick man" visited Canada without a visit to Gregson at Kamloops.

He published more than 70 papers, the majority on ticks. His name has appeared in the bibliographies of practically all publications on the Ixodidae during the past decade, and will continue to do so for many years to come.

He is also widely known as a lover of nature and particularly of the British Columbia alpine areas, a superb photographer, and a gifted artist. Several of the alpine expeditions that he organized and led received international coverage. "Showings" of his colour photography on nature, mountains, and travel are in constant and wide demand. Although his oil paintings number only a dozen or so, hung in his home, knowledgeable observers frequently speculate that had he chosen the brush and palette rather than the tick-drag and microscope, he would have gained equally wide recognition and probably greater financial reward.

Quiet, almost shy in manner, he has a remarkable ability to stimulate friendship, and to promote loyalty to nature and to entomology. After marking his retirement with a year-long "wander" through Eurasia, he and Barbara will return to their home and garden on the river-bank in Kamloops, and he expects to continue some aspects of his preoccupation with the Ixodidae.

C. B. Rich

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## KAMLOOPS LIVESTOCK INSECTS SECTION CLOSED

The sequence of retirement by J. D. Gregson, transfer of P. R. Wilkenson to Lethbridge, and movement of G. B. Rich from the C.D.A. Mission Flats location to the C.D.A. Range Station location at Kamloops, marks the end of the Kamloops C.D.A. Livestock Insects Section, 43 years after its inception. During that period a total of 75 persons served on its staff, including 15 entomologists, and it has produced more than 175 publications, including several monographs.

Veterinary entomology as a specialization appeared to have originated in Canada about 1910 through the entomological interest and enthusiasm of the veterinary-pathologist, Seymour Hadwen, during his service at the Agassiz G.D.A. station. Hadwen's contributions to entomology included studies of the Tabanidae or horseflies, a role in defining the endo-parasitic migration of the *Hypoderma* or cattle grubs, and the definition of the role of the Rocky Mountain wood tick in paralysis of domestic animals in the interior of British Columbia.

Veterinary entomology became a recognized discipline within C.D.A. in 1926, when the biting-fly expert Eric Hearle was transferred from Vernon, B.C. to Indian Head, Sask., to study pests of livestock. The Dominion Entomologist, Arthur Gibson, assigned to Hearle the responsibility of setting up a Canadian Livestock Insect Laboratory, and in 1928, Hearle selected Kamloops as the most strategic location, with his laboratory in the Kamloops post-office building, and auxiliary space in an adjacent log cabin.

Although Hearle was basically an expert on biting-flies, he organized his laboratory on broad lines, covering in particular the *Hypoderma* or cattle

grubs and Ixodidae or ticks. In 1929 he introduced demis into Canada for control of the *Hypoderma*, and organized the first extensive control campaigns carried out in North America. His vast and varied labours, which with hardships and wounds suffered in World War I led to his early death, were not completed until 1938, when Mail, Gregson and Holland completed editing and publishing his "Ticks of Canada", and his illustrated bulletin "Insects and allied parasites injurious to livestock and poultry in Canada" — a bulletin still widely used as a reference on the biology of many of these insects, and for which occasional requests are still received.

Hearle's death in 1934 was a set-back to the station which existed until 1936 by virtue of nominal supervision by Prof. G. J. Spencer of the University of British Columbia, summer activity by J. D. Gregson, and full-time activity by T. K. Moulliet. Spencer pressed for erection of a definitive laboratory on property on Mission Flats, adjacent to Kamloops, and in 1938, with G. Allen Mail as officer-in-charge, the Mission Flats laboratory was erected on a 32-acre location.

The inclusion of a section of the Canadian Department of Health at the Mission Flats location led to surveys of Rocky Mountain spotted fever and bubonic plague. This in turn led George Holland to a preoccupation with fleas, and to publication of his monograph, "The Siphonaptera of Canada" in 1949.

Because of its location within the area affected by tick paralysis, ticks have been a major concern of the laboratory, and particularly of J. D. Gregson. In 1946 he developed the first known method of protecting range cattle from paralysis, a method still in use 25 years later, and which has been so successful as to mask the existing potential for paralysis of cattle in B.C. Gregson's extensive publications include a monograph, "The Ixodoidea of Canada", 1958, extensive studies of tick paralysis and general biology, and authoritative papers on tick morphology, feeding mechanisms, and feeding behaviour. Gregson and Holland collaborated in studies of the *Hypoderma* leading to the development of the first known method of collecting and rearing large numbers of pupae, and to the hypothesis that flight was a prerequisite to mating.

Although now only an entry in the history of the Canada Department of Agriculture, the names and contributions of the various entomologists of the Kamloops Livestock Insect Laboratory and Section will long be commemorated by their appearance in the bibliographies of veterinary-entomological publications.

G. B. Rich

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## EMPTY SPACES

Recent numbers of the *Canadian Entomologist* have had large expanses of white space, for which there is no obvious explanation. The Editor, Dr. Pielou, explains that by beginning each paper on a right-hand page and letting it end where it may, reprints can be run at the same time as the journal. By overcoming the need to rearrange the type, reprint delays, a source of much complaint, have been overcome at no additional expense to the Society.

## LORD OF INTEGRATED CONTROL RETIRES



Frank T. Lord, Entomologist, Research Station, Kentville, retired on May 31, 1971, after 38 years of service with the Canada Department of Agriculture. Frank was born in Saint John, N.B., and received his elementary and high school education in that city. In 1928 he entered the Nova Scotia Agricultural College, and completed his BSA at the Ontario Agricultural College in 1933. He did post-graduate work at Macdonald College, receiving his M.Sc. in 1947. In 1938 he married Margaret Ross of Fredericton, N.B. and they have one daughter, Judith.

In his student days he worked at the Annapolis Royal Entomological Laboratory during the summers. Upon graduation from O.A.C. he joined the Dominion Entomological Laboratory at Fredericton, N.B. In 1940 he moved to Annapolis Royal and spent his summers working on blueberry maggot control in Yarmouth County. During the major portion of Frank's career he has been concerned with ecological studies of apple insects. He was responsible for working out the integrated control of oyster shell scale, in which fungicides harmless to scale parasites and predators are used. His research on European red mite elucidated the cause of mite outbreaks and procedures for suppression were developed. With the mites, many species of predators were involved with no one being all important—a much more complex relationship than that involved with scale.

Frank has made a noteworthy contribution to the development of the philosophy of modified integrated control. His name has been associated over the years with measures taken to encourage populations of predators and parasites of the insect pests of Annapolis Valley apple orchards. At the request of the Indian Government the Canadian International Development Agency sent him to India in 1969 to advise on pest management in agricultural crops.

Recently Frank was made an honorary member of the Nova Scotia Fruit Growers' Association in recognition of the importance of his studies of scale and mite pests of apples in establishing more economical control methods.

Frank and Marge will continue to reside at Kentville, N.S. where he will pursue his hobbies of golf, fishing, photography, cooking and carpentry.

H. J. Herbert

### NOTICE

Members interested in a charter flight to Australia in 1972 for the 14th International Entomological Congress please contact the Secretary, Mr. D. G. Peterson, K. W. Neathy Bldg., Carling Ave., Ottawa, KIAOC6.

If enough people are interested an attempt will be made to arrange a flight and you will be contacted.

## ENTOMOLOGICAL SOCIETY OF CANADA MEDAL FOR OUTSTANDING ACHIEVEMENT IN CANADIAN ENTOMOLOGY

Members of the Society are invited to nominate individuals whom they regard as eligible for this award. Nominations should be sent to D. K. McE. Kevan, Macdonald College, P.Q., in an envelope marked "Confidential", and should comprise: (1) the name of the nominee; (2) a brief statement of relevant achievements (maximum 30 words); and (3) the name of the nominator. To be considered by the Achievement Awards Committee nominations must bear a postmark no later than 30 October 1971.

The following conditions govern this award:

- Outstanding contributions shall be judged on the basis of  
(a) superior research accomplishment either as a single contribution or as a series of associated endeavours and which may be either in entomology or a related field where the results obtained are of great consequence; or  
(b) dedicated and fruitful service in the fields of Society affairs, research administration, or education.
- No more than one award shall be granted per year but, where circumstances warrant, more than one individual may be mentioned in a single award.
- Recipients need not be members of the Society providing their contribution is judged to have a major impact on entomology in Canada.
- The medal may be granted on different occasions to the same recipient but for different contributions to entomology in Canada.

### COMMON NAMES LIST

The publication *Common Names of Insects* was revised in December 1970. It contains all English common names of insects and other invertebrates recognized by the Entomological Society of Canada.

Entomologists concerned with common names are urged to obtain copies. Extension entomologists and editors of manuscripts using common names should not be without it. Copies may be obtained from the publishers:

Entomological Society of America  
4603 Calvert Road  
College Park, Md. 20740, U.S.A.

Single copies \$2.00, 5-24 copies \$1.75 each, 25 or more copies \$1.50 each, U.S. funds. Members of the Entomological Society of America may obtain one free copy on request.

## EMPLOYMENT

The Entomological Society of Canada will maintain a list of employment opportunities in Canada for entomologists, and establish an employment office at annual meetings of the Society where prospective employers and employees may contact one another and conduct interviews. Up-to-date listings of positions available and positions wanted will be published in this and future issues of the Bulletin. Listings will appear in one issue only unless otherwise requested. Blank forms designed for use by prospective employers and candidates for employment are available on request. The employment committee will not publish names unless expressly requested by individuals concerned. All resumes received will be accessible to interested persons at the placement office at annual meetings unless otherwise instructed by applicants.

## POSITIONS WANTED

Ph.D. with background and experience in economic entomology and toxicology desires research or teaching position. Ref. 37-17-71.

M.Sc. candidate with background in insect ecology. Primarily interested in population ecology. Available October 71. Ref. 47-18-71.

Ph.D., fluently bilingual, interested in insect control and residue analysis of pesticides desires position in research and sales in industry, or teaching of pest control methods and some physiology. Ref. 43-19-71.

B.Sc. with zoology-entomology training seeks position as a laboratory technician in forestry, agriculture, museum or university. Ref. 49-20-71.

Ph.D. candidate interested in behaviour and ecology of insect parasites and predators, integrated pest management, and insect taxonomy. Special interest in sensory perception and host finding. Ref. No. 43-21-71.

Please direct all inquiries and correspondence to:

S. R. Loschiavo, Chairman,  
Employment Committee,  
Entomological Society of Canada,  
c/o Research Station,  
25 Dafoe Rd.,  
Winnipeg 19, Manitoba.

DO NOT direct inquiries to the Bulletin.

## POSITIONS AVAILABLE

Field and laboratory research in biological control for Ph.D. interested in field-crop pest management, particularly with life systems of pests associated with corn and soybean culture. Position requires 25% teaching and is at the assistant professor level. Contact Dr. P. A. Dahm, Department of Zoology and Entomology, University of Iowa, Ames, Iowa 50010, for further information.

Ph.D. with significant research experience and publications required to fill position in pest management to develop a multifactorial approach to management of insect pests of corn agroecosystems, i.e., biological factors, chemical methods, cultural practices, and plant resistance. Position requires 75% time for research and 25% for teaching. Contact Dr. P. A. Dahm, Department of Zoology and Entomology, University of Iowa, Ames, Iowa 50010, for further information.

## PERSONALIA



Dr. Freeman McEwen has been appointed chairman of the new Department of Environmental Biology at the University of Guelph, effective July 1, 1971. Dr. McEwen's field is pesticide use and biological control of insects. He is a member of the pesticide advisory committee of the Ontario Department of Health, of the environmental quality committee of the Ontario Council of Health and vice-chairman of the pesticide committee of the Ontario Department of Agriculture and Food. He was trained at Prince of Wales College, Macdonald College and University of Wisconsin. He

held earlier teaching and research appointments at the New York State Agricultural Experiment Station, Cornell University, the University of Hawaii, and, since 1969, at the University of Guelph.

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Dr. Roy Pickford, C.D.A. Research Station, in August began a 1-year transfer of work to the Anti-locust Research Centre, London, where he will continue his work on reproductive behaviour of grasshoppers with Dr. R. S. Chapman. He will also travel to the Anti-locust Research Centre in the Sudan to gain on-the-spot information.

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Dr. Philip Corbet, University of Waterloo, spent three weeks in Tanzania under the auspices of WHO where he advised on the feasibility of biological control of the yellow-fever mosquito.

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Dr. D. P. Pielou has accepted a post as Research Associate in the Department of Biology at Dalhousie University, Halifax. He was formerly with the Canada Department of Agriculture, Ottawa. Dr. Pielou has accepted re-appointment as Editor of the publications of the Entomological Society of Canada for 1972 and as such is a member of the Society's Managing Council.

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## POST GRADUATE DEGREES

Pickford, Roy. Ph.D. University of Saskatchewan.

Thesis on the reproductive biology of the migratory grasshopper, *Melanoplus sanguinipes* Fabr.

## OBITUARY

Dr. John Clark, Fredericton, died August 8, 1971 at the age of 58. He retired from the Canadian Forestry Service in July 1970 due to ill health. As a plant physiologist he was not widely known in the entomological community but he maintained membership in both the Canadian and Acadian Societies because of his interest in the consequences of insect defoliation on the physiological state of trees. He is survived by his wife, Mildred, and five children.