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ENTOMOLOGICAL SOCIETY OF CANADA
1970 - 1971

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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

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J. J. Cartier, to 1973
H. F. Madson, to 1974, Chairman

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S. E. Dixon, to 1974
D. P. Pielou, *ex officio*

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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, Central Experimental Farm, Ottawa, Ontario.

Editorial

EDITORIAL POLICY

The Board of Directors, at Victoria, 23 August 1971, directed that publication in *The Canadian Entomologist* be restricted to members, and further, that sponsors of *Memoirs* be offered the opportunity to determine further distribution to interested persons. It seemed at the time that the new policies, conceived by the Editorial Board, went through rather easily. These actions were reported to the General Meeting by the President, but there was no motion at that meeting. Now, one of our members, Dr. Herbert Habeeb, has questioned these actions and raised some points that other members may have considered. Most of us kept silent. Dr. Habeeb has rightfully challenged decisions made by the Board on his behalf, because he does not like them. As our legislating body, the Board should be scrutinized constantly and members should speak out if they do not like or understand its actions. The changes in publication policy are rather profound, and it is surprising that more controversy has not been generated. Other opinions are needed. Already the Treasurer has asked the membership, by circular letter, for opinions on the method of distributing *Memoirs*. The Editorial Board and the Finance Committee will perhaps wish to reply to Dr. Habeeb's letter in the next issue of the *Bulletin*.

PHOTO SALON, 1971

We regret that we are unable to publish reproductions of the winning entries but the results of the judging are given in this issue as promised. In spite of the shortage of entries in the color print category, the quality in all categories was good to excellent, and interest in the exhibition was high. Photo Salon time is no time for reserve. Another year, why not enter?

NOTICES

In its role as a communication medium for the Society, this issue contains an unusually large number of Society notices. Don't overlook them: an appeal for help in a new venture in student encouragement p. 82, 1972 election of officers p. 92, a new membership list and an opportunity to nominate somebody to Honorary Membership p. 93, a solicitation of opinion on employment prospects p. 94.



UNIVERSITY OF VICTORIA

VICTORIA, BRITISH COLUMBIA

Department of Biology

29 September, 1971

Dr. D.C. Eide,
Editor,
Bulletin of the Entomological Society of Canada,
P.O. Box 4000,
Fredericton, N.B.

Dear Doug,

I would like to take this opportunity to thank sincerely all of the people in the Entomological Society of British Columbia who helped make the Annual Joint Meeting at the University of Victoria, August 23-26, 1971, such a resounding success. Firstly, my thanks to Doug Finleyson who, as President of the Society, was the moving force behind the whole meeting. His constant encouragement and interest were greatly appreciated. The success of any conference must surely be shared jointly by the Program Committee that co-ordinates the overall program and is directly responsible for its scientific calibre, and by the Local Arrangements Committee that has the awesome responsibility for local arrangements, the social and entertainment side of the conference, and generally keeping everyone happy. Now that the dust has settled on the conference I think it safe to say that we managed to meet this multifaceted challenge, even though there were some minor points that could have been improved upon. To quote past President Baldwin "I personally feel that the meetings excelled all previous gatherings, but of course I am prejudiced. I must tell you that I had only one moment of terror, and that was when I soloed the first bar of 'O Canada' at the banquet - I was sure I was going to do the whole thing by myself!"

Secondly, I wish to express my gratitude to the other members of the Program Committee, John Chapman, Nora Tonks, Al Hedlin and Chet Neilson. Our meetings were long and frequent, and these members proved unflinching in their efforts and cooperation. Having John Chapman as a liaison officer proved extremely successful this year and I can only speak in favour of its continuation. To Rod Carrow, Chairman of the Local Arrangements Committee, I would like to express my particular appreciation. We worked in very close cooperation at all times and it was a pleasure working with him. My highest regards go to him and the other members of his committee, Dave Oyer, Les McMillen and Roy Shepherd, for the excellent and efficient manner in which they organised the varied social and other events and for their help in maintaining the tempo of the meetings. Many thanks to John Borden for registration arrangements, to Ed Chetelle for his excellent judgments in the photo salon, to Teg Jones for handling publicity arrangements, and to Nora Tonks for his financial genius in bringing us out of all this in the black.

Finally, thanks are due to all the unnamed people who acted behind the scenes and who contributed in a myriad of other ways to the meetings, to the Symposium chairman and invited speakers, and to all of you who submitted papers at the scientific sessions. All of you deserve the plaudits which have come in concerning the success of our 21st Annual Meeting.

Sincerely yours,

Richard A. Ring
Chairman, Program Committee
and
President, Entomological Society of B.C.

1971 ANNUAL MEETING PHOTO SALON AWARDS

BLACK AND WHITE

- FIRST - *Beetles mating*
Evan T. Gushul, CDA Research Station,
Lethbridge, Alberta.
- SECOND - *Mosquitos on fingers*
Thomas Stovell, Research Institute,
228 Oundas St. E., Belleville, Ontario.
- HONORABLE MENTION - *Wasp ovipositing on pupa*
Ronald Long, Biosciences Department,
Simon Fraser University, Burnaby, B.C.

COLOR

Because only two were submitted, by the same individual, the Photo Salon and Judging Committees decided there could be no meaningful competition in this category. However, an Honourable Mention was awarded one of the prints in recognition of its fine quality, to R. Cheale, Winnipeg, Manitoba.

35mm COLOR SLIDES

- FIRST - *Tachinid fly*
Evan T. Gushul, Lethbridge
- SECOND - *Arctiid moth*
Evan T. Gushul, Lethbridge

The Photo Salon Committee and the Program Committee for the meeting wish to thank all contributors to the second Entomological Society of Canada Photo Salon. The number of entries was disappointingly small and only the care and interest of those who did participate made this a worth-while and interesting part of the program. All submissions were exhibited at an informal meeting the evening of August 23, when awards were announced, and were later displayed at the site of the scientific sessions, where they were viewed by all attending the meeting.

J. Chapman,
for 1971 Photo Salon Committee

COMMONWEALTH AGRICULTURAL BUREAUX

The Commonwealth Agricultural Bureaux are introducing computer techniques for the provision of specialist scientific information services for agricultural research workers. The new system will facilitate: (a) speedier journal production and earlier notice of papers, (b) the inclusion of improved indices in each journal issue, (c) the search of the whole CAB data base to provide special outputs, (d) the interchange of information with other major information services, (e) the supply of magnetic tapes.

Some automated journal production will start in 1972. Enquiries should be addressed to:

Systems Manager,
Commonwealth Agricultural Bureaux
Farnham House, Farnham Royal,
SLOUGH SL2 3BN, England.

LETTER TO THE EDITOR

PUBLICATION POLICY

Sir,

I am opposed to some of the things that I have recently read in the pages of the *Bulletin*. They sound like expressions of provincialism. Exception has been taken especially with the following from No. 3, Vol. 3:

Page 56: (Recommendations) 1. *That publication in The Canadian Entomologist be restricted to members*

Important changes in synonymy detected for Canadian insects by foreign workers in many cases could be ineligible for publication in *The Canadian Entomologist*. The pages of *The Canadian Entomologist* should be open to non-members who have something to say taxonomically important about Canadian Insecta (*sen. lat.*). If Ales Smetana has something to say about Canadian Staphylinidae, I hope he does it in *The Canadian Entomologist* regardless of membership in the Entomological Society of Canada. I would expect the editorial board to promote the publication of works on Canadian Insecta regardless of where they came from, even by the Devil himself — were he to desire publishing the description of some soul-biting insect found in Stygian depth under Canadian territory. Surely, all entomologists worthy of the title of *savant* expect the same.

Page 56: (Recommendations) 3. . . . *that all book reviews be published in the Bulletin.*

In my opinion, *The Canadian Entomologist* should always be open for reviewing a pertinent, great work, like Lindroth's "The Ground-Beetles of Canada and Alaska", or some future entomological work of equal importance to Canadian entomologists. The Editorial Board must be out of its "insect-picking" mind when it fails to insist that book-reviews go into the traditional empty spaces found at the end of long papers.

Page 56: (Discussion) 1. *With a heavy backlog of manuscripts and the it seems logical to place some restrictions upon publication in The Canadian Entomologist.*

As if restrictions were not already spelled out in *The Canadian Entomologist*, the reader should look in *The Canadian Entomologist* under "Notice to Contributors" and under "Publication Charges" given on the back cover of the Journal. The Society could stop its policy of banking surpluses and turn the money over to editing and publishing.

Page 51: (President's Report) *The Board has made some important decisions in regard to the Memoirs The Board decided that distribution shall be determined by the sponsor and members could simply request copies from authors.*

I question the legal propriety of such a procedure! How can a Memoir of a Society be of said Society, if the distribution of the Memoir is determined by an agency not necessarily of the Society, or its Members, and with a mailing list not necessarily of the Society?

As a member of the Entomological Society of Canada, I am not going to pay dues, if I cannot be assured of receiving its publications by my annual subscription, or, in exceptional cases, for Memoirs by a sales price offered by the Society — not by a sponsor. Buddy-buddy professionals may take care of each other when it comes to publications, but, the general public understands that a Memoir to be recognized as a valid publication must be offered to the general public for a price.

It is hard to believe that the President and the Editors of the Entomological Society of Canada may not fully understand what constitutes the act of scientific publication as recognized by taxonomists. Even under the present set-up, the new species of Insecta published in recent Memoirs could be declared *nomine invalida* by a critical international congress hostile to our Society, as the individual Memoirs are not advertised as being individually available to the public for a price. But, the fact that a Memoir may be purchased by buying the volume of *The Canadian Entomologist* of the same year as the Memoir itself, should validate the Memoir. But a truly legal mind might balk at accepting this, for it can see the possibility of a divorce of the Memoir from the Volume, the like of which is even now being proposed as mentioned above. So that there will not be a chance of my being accused of committing a similar sin taxonomically speaking, I wish to mention that I have set aside a number of my Leaflets of Acadian Biology in sets of Nos. 1 to 52 which can be purchased from the author of this letter for the price of \$40.00 per set.

Page 66: (Report of the Assistant Editor) *Comments and criticisms are welcome from anybody at any time, . . .*

You asked for it!

With apologies to the shades of Marcus E. Jones and M. L. Fernald, I remain respectfully yours,

Herbert Habeeb

SYMPOSIUM

on

Biting Flies and the Environment

An examination of ways in which the control of biting flies can be reconciled with the preservation of environmental quality.

To be held on
May 16, 17 and 18, 1972

at

The University of Alberta at Edmonton

Jointly organized by the Advisory Committee on Entomology to the Defence Research Board and the University of Alberta.

If you plan to attend, please notify:

Dr. Susan B. McIver
Department of Parasitology
School of Hygiene, University of Toronto
Toronto 181, Ontario, Canada

A MANUAL OF EXPERIMENTS WITH INSECTS

In an attempt to introduce greater entomological content into the high school biology curriculum, the Committee on Student Encouragement is hoping to publish a series of experiments, involving insects, suitable for upper year high school or first year university students. In addition to listing experiments in many facets of entomology, it is hoped that the publication will include information on maintaining laboratory cultures of certain species.

A publication of this nature will be of benefit to both high school teachers and university teachers, and should ensure greater use of insect material in the classroom. It is hoped that as a result of increased exposure to insects, students will develop a greater appreciation and interest for entomology.

Members of the Society are invited to participate in the publication by providing details of suitable experiments or details of maintenance procedures for laboratory cultures of appropriate species.

The following guidelines are suggested for preparation of manuscripts:

1. At first the publication will be in English, though it is hoped that a French version will be produced in due course.
2. Authors are requested to write in a form which will be intelligible to high school students, with technical terms reduced to a minimum, and a glossary if necessary.
3. The preferred format for manuscripts on experiments is:
 - (i) Title (or Object) e.g. To study the effect of temperature on the rate of insect development.
 - (ii) Materials - Apparatus, chemicals, solutions, etc., insects.
 - (iii) Theory - such background information as may be required to understand the experiment.
 - (iv) Procedures.
 - (v) References (if appropriate).
4. The preferred format for manuscripts on insect cultures is:
 - (i) Name of Species.
 - (ii) Notes on the Species: normal habitat of the species, economic or medical importance, how to obtain, etc.
 - (iii) Cages or Containers.
 - (iv) Maintenance Procedures.
5. All manuscripts should be typed, double-spaced throughout, on one side of the paper with margins at least 1 inch on all sides. The ribbon copy and one carbon copy of the text should be submitted.
6. Illustrations and lettering should be scaled to allow a reduction of 1.5 to 3 times.
7. Captions for all illustrations should be numbered consecutively and typed in order, at the end of the manuscript. Captions must not be attached to illustrations.
8. Articles appearing in the publication will include the author's name and affiliation.

Manuscripts should be sent to: Dr. R. G. H. Dowser, Chairman,
ESC Committee on Student Encouragement,
Department of Biology,
University of Waterloo, Ontario.

Deadline: 1st June, 1972.

POPULATION LIMITATION AND RESOURCE USE

8 September 1971

Dr. O. M. Solandt,
Chairman, Science Council of Canada,

Dear Dr. Solandt,

About a year ago (9 September 1970) the President of the Entomological Society of Canada sent you a copy of a brief that the Society had submitted to the Prime Minister emphasizing the need for a national policy relating to population limitation and resource use in Canada. As was mentioned in the brief, one of the main reasons for the Society taking such action was that it wished to give prompt and explicit support to certain scientific advisors at the national level who, like yourself, had already chosen to speak out on this fundamental, albeit politically sensitive, issue.

I am writing this letter on behalf of the membership to tell you: that the Entomological Society of Canada has been greatly heartened by the section that you devoted to this subject in the last Annual Report of the Science Council of Canada, 1971 (Annual Report of the Chairman, I. Population and policies for the future, pp. 31-36); that it shares your views regarding the nature of the main problems and their urgency; and that should you, or the Science Council, wish to enlist the Society's help in achieving the aims that we have both identified, such assistance will be readily forthcoming.

I enclose for your information a copy of the letter that accompanied the brief sent to the Prime Minister last year (10 September 1970).

Yours sincerely,
Philip S. Corbet
President,
Entomological Society of Canada

Ed. note: See Bulletin 3:6:9

21 September 1971

Dr. Philip S. Corbet
President, Entomological Society of Canada

Dear Dr. Corbet,

Thank you very much for your kind letter of September 8. Speaking both for the Science Council and personally, the support of the Entomological Society of Canada is most welcome. I will seek an early opportunity to present your letter and the earlier correspondence with the Prime Minister to The Honourable Alastair Gillespie, the new Minister of State for Science and Technology, so that he will be aware of your Society's interests.

Again thanks and kind regards,

Yours sincerely,
O. M. Solandt
Chairman, Science Council of Canada

BOOK REVIEW

Life Histories of the South African Lycaenid Butterflies by Gowan C. Clark and C. G. C. Dickson. 272 pages, 125 plates in colour. Purnell, Cape Town. Price R. 15.00 (approx. \$21.50).

The butterfly fauna of the Ethiopian Region consists of some 2800 known species. Well over two thirds (about 1200 species) are lycaenids and it is in Africa that this group attains its greatest diversity, several subfamilies and indeed one family, (the Liptenidae, if we accept Clench's classification), being endemic to that continent. As well as being extremely diverse in structure, the African lycaenids are of great biological interest. Polymorphism is exceptional and mimicry is rare, but amazingly accurate in the few genera in which it does occur (*Mimacraea*, *Cooksonia*, *Erikssonia*, *Pseudaletis*). The life histories, poorly known except in South Africa, thanks to the work of Clark and Dickson, are of the greatest interest and diversity. Many families of dicotyledonous food plants are used by the larvae, though some genera feed only on lichens. Certain species are carnivorous, preying on various Homoptera and there are many symbiotic associations with a variety of ants, ranging from total dependence to commensalism and casual protection by ants in exchange for the secretion of the lycaenid honey glands. The phytophagous species also vary in behaviour, some feeding on the foliage, some on the flowers and buds, others such as *Lampides* and *Deudorix* spending their larval lives inside fruits, seeds and galls, while *Capys* burrows into the flower buds of its host plant.

The authors have spent some forty years investigating the life histories of South African butterflies, many of which were recorded in painstakingly accurate and detailed paintings of great beauty by the late Gowan Clark. Those dealing with the Papilionidae, Pieridae, Danaidae, Satyridae and Acraeidae were published in the first three volumes of the late Dr. G. van Son's very fine work (*The Butterflies of Southern Africa*, Transvaal Museum, 1949, 1955 & 1963). Clark's paintings of the life histories of the Nymphalidae (*sensu stricto*) and of the Hesperidae are still unpublished and it is to be hoped that one day they will appear in a volume as well produced as the present one.

The work under review covers 125 species from a total of over 200 so far recorded from the Union of South Africa. Only those species of which the life histories are included are mentioned and therefore the book is not meant to be a monograph of the South African lycaenids. The text has been written by Dickson. The original combination and reference are given for each species, followed by its dimensions, food plants, flight season, geographical distribution, by a description of the early stages, an account of the parasites and notes on habitat and behaviour. Dickson also describes the adult and early stages of a new species of copper (*Lycaena clarki*) which had for a long time been confused with the common Cape species *L. orus* (Cramer); figures and descriptions of the life histories are also given for two previously undescribed *Aloeides*, but no names are proposed. An excellent bibliography completes the work.

South Africa is a purely political entity and has no zoogeographic significance. Even the Southern African Subregion (Africa south of the Zambesi and Cunene rivers), used for convenience by so many authors, has little meaning. However, the southern and western parts of this area, including the Cape Province and the coastal areas of South-West Africa as well as the montane areas in the east form a very distinctive zoogeographic unit of great interest and of little affinity with tropical Africa. It is here that most of the numerous

endemic elements of the South African flora and fauna are concentrated, including about 90 species of lycaenids and some 40 satyrids. It is fortunate that this endemic element is so well represented in the book under review, since such information will eventually help us better to understand the origins of this very isolated and puzzling southern fauna.

The classification of the African lycaenids presents some difficult problems and a number of systems have been proposed. Aurivillius (*Rhopalocera Aethiopica*: 251-353, Stockholm, 1898), was the first to attempt a reasonably natural classification based principally on wing venation and on the structure of the palpi and antennae. Since then a new system based on the structure of the male genitalia and of the forelegs has been worked out by Stempffer, who has been the foremost authority on the African lycaenids for many years (*Fasc. 3, Lycaenidés, Initiations Africaines, I.F.A.N. 14: 1-223, 1957* and *Bull. Br. Mus. nat. Hist. (Ent.) Suppl. 10: 1-322, 1967*) and H. Clench has also proposed a classification based on a variety of characters of the adult (*Mem. Amer. ent. Soc. 19: 267-403, 1965*). In 1958 Clark and Dickson suggested a classification for the South African species based on the early stages, especially the egg and the first instar larva (*J. ent. Soc. Sth. Afr. 19 (2): 195-215*). In the present work no mention is made of taxa above the generic level, but the arrangement of the species agrees with the 1958 paper and reveals some interesting discrepancies from M. Stempffer's views.

The book is well produced, but the plates have lost something of the brilliance of Clark's original paintings, possibly through being printed on mat paper rather than on art paper, presumably an unavoidable economy. It is a monument to the industry and patience of the authors, two of the grand old men of African entomology and it is sad that Gowan Clark did not live to see the results of his labours reproduced in this beautiful work.

This is a book which will be of great value to all serious lepidopterists and indispensable to students of the Lycaenidae or of the African butterfly fauna.

R. H. Carcasson,
Vancouver
(Formerly Director,
National Museum of Kenya.)

CANADIAN ENTOMOLOGIST 100 YEARS AGO

DESTRUCTION OF THE WALSH CABINET IN THE CHICAGO FIRE.

We have no reason to suppose that the great Chicago fire consumed any considerable number of noxious insects, with the exception of that very familiar and domestic species known, in scientific language, as the *Cimex lectularius*. If these had been the only insects destroyed, resignation would have been an easy virtue. But, as if it were ordained that no kind of interest should escape grief and loss from that great calamity, so the science of entomology was put under heavy contribution, by the destruction, not only of many small amateur collections of insects, but also by the ruin of the large collection belonging to the Chicago Academy of Science, and over and above all, in value and importance, was the admirable cabinet of insects purchased by the State from the heirs of the late Benj. D. Walsh, of Rock Island, and which had been deposited in the Academy for safe keeping. The value of this collection consisted not only in the large number of species represented, but still more in the scientific accuracy with which they were labelled and classified.

T. N. FREEMAN MICROLEPIDOPTERIST, MACROENTOMOLOGIST



Tom Freeman of the Entomology Research Institute retired on October 15, 1971, after 35 years service. Dr. Freeman has bridged the era between McDunnough and Forbes, the last great general lepidopterists in North America, and our contemporary workers who have specialized in one or at most a few families of the order. Tom is a taxonomist with a naturalist's approach to his field. He has been practising biosystematics since the thirties.

Dr. Freeman was born in Saskatoon sixty years ago, but grew up on a farm near Simcoe, Ontario. Like many other boys and girls reared on the farm, Tom developed an interest in the outdoors which remained with him throughout his career.

He graduated from the Ontario Agricultural College in 1934 with a B.S.A., from the University of Colorado in 1936 with an M.Sc., and from the University of Toronto in 1946 with a Ph.D.

Tom's real interest was in taxonomy so it was natural that he should join the Systematic Entomology Unit at Ottawa. That year, 1936, marked the beginning of a long and distinguished career in entomology for Dr. Freeman. It also marked the beginning of a long period of service to the Canadian farmer and forester. Tom never lost sight of the importance of the problems of these people. Thus his studies were confined primarily to Canadian insects of economic importance. Dr. Freeman had collected butterflies as a boy and to this love of Lepidoptera he turned when he joined the Systematic Unit. Later he became almost wholly involved in the large and difficult group known as the Microlepidoptera.

The work on the Microlepidoptera was interrupted from 1947 to 1961 when Tom was appointed coordinator of the newly-organized Northern Insect Survey. This was a large scale project with numbers of survey parties all over the arctic and subarctic regions of Canada. Out of this work came invaluable information on the flora and fauna of the far north. Tom played a large part in the success of this work which yielded facts basic to the future management of the North.

Although deeply engrossed in the Northern Insect Survey Tom found time to produce two memoirs on the Microlepidoptera. These were: *The Archipinae of North America (Lepidoptera: Tortricidae)*. Can. Ent. Supp. 7, 1958, and *Needle-Mining Lepidoptera of Pine in North America*. Can. Ent. Suppl. 16, 1960.

Able in 1961 to devote full-time once again to the Microlepidoptera, Tom became involved with the economically important leaf-mining forms. This interest has continued to the present. To date he has published about 150 papers, almost 80 of these on research results.

Tom has had many honours in his career. His work with the Lepidopterists' Society was recognized by his election to president in 1958. He has been active in the Entomological Societies of Canada and of Ontario. He has

had three species or subspecies of Lepidoptera named after him: *Diarsia pseudonorcia freemani* Hardwick 1950, *Erebia epipsodea freemani* Ehrlich 1955, *Nepytia freemani* Munroe 1963.

On October 22 a large number of Tom's friends met to pay their respects on his retirement and to present him with a camera and a purse of money.

Dr. Freeman married Gertrude Munro on March 12, 1938. They have two children, Marianna (Mrs. W. J. Cantwell) and Leslie. The couple now live on 6 1/2 acres near Manotick, Ontario.

Tom and his wife are going to Haiti this winter to collect insects, particularly butterflies. Tom has never abandoned his love of the butterflies. After the trip to Haiti he plans to write a book on the butterflies of Canada.

W. C. McCuffin

E. M. DUORTE, 80 AND STILL ACTIVE

Sunday, October 24, 1971, marked the 80th birthday of one of Canada's outstanding entomologists, Dr. Ernest Melville DuPorte. It was celebrated the following day in the Department of Entomology, Macdonald College, by an informal party, which both Dr. and Mrs. DuPorte attended. The staff and students attended to offer their congratulations and also to express their appreciation to Dr. DuPorte for his efforts in building the Department into what is now recognized as one of the best of its kind.

At the time of his retirement in 1957, it was said that approximately half the practicing entomologists in Canada had studied under Dr. DuPorte at one time or another. Despite his pre-eminence as a world authority on insect morphology, his fondest memories are of his associations with students over the years. These associations still exist with former students who visit Macdonald College and also with students now attending the College.



Dr. DuPorte has been at Macdonald since he first enrolled here as a student in 1910, and was a staff member from 1913 until 1957 when he retired as Chairman of the Department of Entomology. He was appointed Emeritus Professor by the University and, during the Centennial of Entomology in Canada, 1963, was one of four eminent Canadian entomologists who received the degree of Doctor of Science, *honoris causa*, from Carleton University.

His accomplishments and achievements are too extensive to be listed here. Suffice it to say that he is still active, still works in his office at Macdonald College four to five hours a day, completing a textbook on insect morphology.

He still has his keen sense of humour and his friendly attitude toward everyone, which endear him to all who know him. I am sure that all of his former students and associates will join me in wishing him many more "Happy Birthdays".

V. R. Vickery

BOOK REVIEW

The Moths of America North of Mexico, Fascicle 21, Sphingoidea, by Ronald W. Hodges. E. W. Classey Limited and R.B.D. Publications Inc., London, 1971. 158 pp. + 14 coloured plates. Price U.S. \$24.00 (£ 10 sterling), plus postage, handling and applicable sales tax. Distributed in North America by Entomological Reprint Specialists, P.O. Box 77971, Dockweiler Station, Los Angeles, California, 90007.

This is the first published fascicle in a series of 41 that are planned to deal with the moths of America north of Mexico and including Greenland. This outstanding publication deals with 115 species contained in 40 genera of the Hawkmoth family Sphingidae. It defines the family and includes a key to the genera based on the adults, and partial keys to the genera, based on pupae and mature larvae. Keys are given to the species in each genus based on the adults. The scientific and common names, if known, are given for each species. These are followed by plate or text figure references followed by a reference to the original description and a citation of the type locality. These in turn are followed by any synonymy and type localities of the synonyms. If necessary, a discussion of the variation in maculation is given. A description of the larva, if known, is included along with its food plants. The distribution is outlined, and frequently differences in the male and female genitalia are discussed. Flight dates and moth habits are given if they are known. The text figures are excellent and the coloured plates are superb.

The male and female characters are given for most of the species in the genera *Erinnyx* and *Sphinx*, but in some species only one sex is dealt with, and in some cases both are omitted. This leaves the reader wondering if the genitalia have no specific characters, and on the basis of the genitalia what is the closest allied species. The distribution of *Hyles euphorbiae* (Linn.) is misleading. The author is quite correct when he states this species was introduced into western Canada from Europe to help control certain euphorbs in the grazing country. However, the species did not survive there and is known to have become established only in southern Ontario.

I heartily congratulate those who have prepared this most informative book, and highly recommend it for all entomologists, laboratories and libraries in North America.

T. N. Freeman

CANADIAN ENTOMOLOGIST 100 YEARS AGO

The Codling Moth *Carpocapsa pomonella* . . . Excellent traps may be made for them out of common bottles — wide-mouth ones preferred — by partly filling them with a mixture of vinegar and water, well sweetened with sugar, and having a little rum or other strong-smelling spirit added to it. These may be fastened among the branches of the trees with cord or pieces of wire. The insects being attracted by the smell of the compound, they are lured into the bottle and drowned, and thus the mischief they were about to perpetrate is nipped in the bud. Later in the season the wormy fruit should be carefully gathered, and either dipped in boiling water to destroy the grubs, or fed to hogs. — Wm. Saunders

ENTOMOLOGY IN MAURITIUS

Mauritius is probably better known to stamp collectors than to entomologists, even if DeBach, in his book on biological control, cites this Indian Ocean Island as one of the places where biological control was operative before the present century. For others, it is just the "Island of the Dodo". Independent since 1968, Mauritius is today one of the most overpopulated areas of the world: 800,000 people on 720 square miles. About 70% of its people are of Indian origin; people of Chinese, French and mixed descent account for the remaining 30% or so of the population. In spite of this, Mauritius is one of the places where the European influence has so much made its mark that the traveller from North America is baffled to find so many French and British characteristics, 6000 miles from Paris or London.

Entomology always had a place of its own in Mauritius since colonization of the island by the French at the beginning of the 18th century, because of the importance of agriculture in the economy of the island, and later, because of malaria. Sugar cane, tea, tobacco and aloe are the main crops, sugar being by far the main export item. More than 50% of the territory is under cultivation and it is a fascinating experience to arrive by plane on a clear day and view from above this gem of the Indian Ocean, after a 22-hour flight from Montreal.

One could say that insects are literally having a ball in Mauritius today: a major infestation of rhinoceros beetle on coconut trees, scale insects on sugar cane, banana leaf rollers, the Natal fruit fly, to cite only a few. And only three trained entomologists are there to fight them. Research and control is in the hands of Mr. Monty entomologist with the Department of Agriculture, Mr. Williams with The Mauritius Sugar Industry Research Institute, and Dr. A. Orian, former government entomologist, now working with the sugar estates and chemical control companies. These three men hardly manage, in spite of their good work, to cope with all the problems facing sugar cane growers and other people involved in agriculture. Because of the size of the island, forest entomology is not a major area of concern, which does not mean to say there are no insect on trees — termites are particularly active in certain parts of the island.

Perhaps the most conspicuous problem of the entomologists in Mauritius is their isolation. True, they correspond or collaborate with entomologists in neighbouring islands, namely La Réunion and Madagascar, but this is far from sufficient to give them access to information they need to pursue their endeavours. Funds are very limited in that part of the world, particularly for the government-employed scientists, and they are seldom given the opportunity to travel far enough to centres of excellence, either to meetings or to places where they could familiarize themselves with new techniques.

Malaria is no more a problem in Mauritius, the World Health Organization having managed, with the help of local health authorities, to practically eradicate the disease. So, on the local front, the major problem facing the entomologists is the protection of crops on an island where there are already too many people to feed. One of the most depressing things to the visitor is to see so many of the fruit-bearing plants with unchecked insect pests.

Mauritius is one of these countries which could certainly benefit from Canadian help, particularly in the fields of chemical and biological controls. The local government certainly does not have the money and the men needed to embark on a comprehensive insect control program, yet more must be done.

Bernard J. R. Philogène
Dept. of Plant Science, U.B.C.

STUDY OF CANADIAN SCIENCE-BASED SOCIETIES

Dr. Louis Berlinguet, President of SCITEC, the Association of the Scientific, Engineering and Technological Community of Canada, has announced the initiation of a study of national science-based societies in Canada. This study, under contract with the Science Council of Canada, is being conducted by Professor A. S. West, who is on leave from the Department of Biology, Queen's University, Kingston. Headquarters for the study are in Ottawa.

The SCITEC study will assess the roles, characteristics, resources, activities and needs of more than 100 societies, including those of the social sciences, by way of requests for certain basic documents and information, and by interviews with officers of societies and leading scientists. The differences among these societies are almost as numerous as the number of societies; size, age, interests, purposes, activities, publications, involvement with advancing or regulating a profession, and financial status are but a few.

Largely emanating from the deliberations of the Special Senate Committee on Science, scientists have been urged to speak with one voice on matters relating to the development and direction of science policy in Canada. Can a voice be developed by this diverse assemblage of scientific societies? Or is it more likely that there will be an ineffectual cacophony?

SCITEC was formed to provide a forum among scientists and among scientific societies, to assist in interpreting science to the public, and to assist in developing a more effective liaison between science and government. SCITEC has contracted with Science Council for the present study in the belief that there need not be a cacophony, but that there can be a powerful and effectual chorus.

Even the most casual observer of the Canadian scientific societies would quickly learn that many face problems of finance, dispersion of membership, competition from foreign societies, and conflict between regional and national bodies. From the study, SCITEC will attempt to suggest ways in which some of the problems may be solved, and ways in which these societies could better serve Canada in matters of science policy and respond more expeditiously on matters of public concern.

Further information on this study may be obtained from Professor A. S. West at Science Council of Canada, 150 Kent Street, Ottawa, K1P 5P4, telephone (613) 095-6868.

CANADIAN ENTOMOLOGIST 100 YEARS AGO

Report of Messrs. W. Saunders and E. B. Reed, on the Colorado Potato Beetle — We are fully satisfied, from personal observation, that the current newspaper reports respecting the enormous numbers of these insects which have crossed into Canada from the State of Michigan are but little, if at all, exaggerated; and that the evils resulting from this invasion are already of sufficient magnitude to excite serious alarm respecting the safety of a crop which is so indispensable to all classes of the community; and we apprehend that before the close of the season the natural increase of the insect will have extended the mischief throughout the greater portion of Ontario.

BELLEVILLE RESEARCH INSTITUTE TO CLOSE

Before the end of September, 1972, all research staff at Belleville will be transferred to other Canada Department of Agriculture establishments in Canada. Most will be moved to Winnipeg to form a section which will develop integrated control methods for cereal pests; the parasite and predator Importation Service will be moved to Ottawa; three research scientists will transfer to Regina to work on the biological control of weeds. Other transfers, involving one or two research workers, are to Entomological Research Institute and Chemical and Biology Research Institute in Ottawa, and to CDA Research Stations at Harrow, Smithfield, Saskatoon and Summerland. The Bulletin will attempt to inform its readers of all moves as soon as known, and publication dates permit.

DISPERSAL

(Sad thoughts on the closing of the Research Institute, Belleville)

If only we were truly free, like birds or the insects!
Free to find our own ecology
We would fly, sampling grades and currents of air,
In this blest role.

People whine, seeking a visible foe, testing strength,
Sending queries to the empty sky:
Why? Why this death of program, this mad uprooting?
Distasteful change.

On the wind we scatter like leaves on fresh-packed snow.
Winter and night a single entity.
Winnipeg! A city on the edge of infinite prairie,
City of pioneers.

C. D. Doodale

NOTICE

Liberation Bulletin — Parasites and Predators — 1971

Records of liberations of insect parasites and predators in Canada have been kept at Belleville since 1910 and are published annually in a Liberation Bulletin. These are a valuable reference for taxonomic and biological control purposes. Copies are available on request.

The cooperation of all Canadian workers in recording and submitting data pertaining to any such liberations in Canada during 1971 is solicited before 31 December. Forms may be obtained for this purpose by contacting: Importation Officer, Research Institute, C.D.A., P. O. Box 367, Belleville, Ontario.

INTERNATIONAL SOCIETY OF BIOMETEOROLOGY

The 6th International Biometeorological Congress will be held 3 - 9 September, 1972 at Grand Hotel Huis ter Duin, Noordwijk, The Netherlands. Abstracts of papers should reach the Secretariat not later than 31 March, 1972 and hotel reservations are to be made directly by the delegates before 1 May, 1972. Details may be had from Dr. S. W. Tromp, Secretary-Treasurer, International Society of Biometeorology, c/o Biometeorological Research Centre, Haarlemmertrekvaart 33, Oegstgeest (Eiden), The Netherlands.

The program includes six plenary sessions:

1. Near-future prospects of the meteorological environment in developed countries.
2. Near-future prospects of the meteorological environment in developing countries of the tropics.
3. Effects of weather and climate on behaviour, population density and migration.
4. The significance of biological rhythms in biometeorology.
5. Telemetry in biometeorological studies.
6. Effects of extra-terrestrial physical stimuli in living organisms.

Twelve study groups include:

- Effects of weather and climate on insects.
- Effects of meteorological stimuli on rhythmic phenomena.

A symposium will be organized on "The effects of light on biological rhythms in plants, animals, and man."

The representative of the Entomological Society of Canada to the Congress is Dr. W. O. Haufe, C.D.A. Research Station, Lethbridge.

ELECTION 72

The Nominating Committee, W. F. Baldwin (Chairman), H. L. House and E. H. Salkeld, has submitted the following slate of nominees for President-Elect and two Directors-at-Large:

President-Elect:	G. S. Cooper, Rexdale, Ontario J. J. McLintock, Saskatoon, Saskatchewan
Directors-at-Large: (1972-5, two to be elected)	K. P. Butler, Kentville, Nova Scotia B. N. A. Hudson, Ottawa, Ontario R. A. Ring, Victoria, British Columbia C. Ritchot, St-Hyacinthe, Quebec

Additional nominations may be submitted to the Secretary in writing over the signatures of at least three active members of the Society, and with a signed statement from the nominee indicating his willingness to accept office if elected. Such nominations shall be submitted not later than 31 March 1972.

D. G. Peterson,
Secretary.

NOTICES

MEMBERSHIP LIST

A new membership list will accompany the March 1972 *Bulletin*. Because the list changes constantly and is never up-to-date, every effort should be made to have it as correct as possible. Members are urged to check their address as given on the wrapper of this *Bulletin* issue or a recent *Canadian Entomologist* and notify Mrs. Christine Deane, Room 3108, K. W. Neatby Bldg., Carling Ave., Ottawa, K1A 0C6, of any changes. Please send the face from the envelope with the correction written below the old address. People being moved in 1972 (Research Institute, Belleville, please note) might send the new address because it will be most used during the life of the new list.

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HONORARY MEMBERS

The Honorary Members of the Society are A. W. Baker, R. E. Balch, R. D. Bird, E. M. Duporte, G. R. Hopping, W. N. Keenan, A. D. Pickett, J. G. Rempel and W. R. Thompson.

The By-Laws permit the election of a tenth Honorary Member by the next mail ballot. Any five active members may submit, for consideration by the Honorary Membership Committee, the name of a member who has made an outstanding contribution to the advancement of entomology. The Committee may nominate one member for election to Honorary Membership.

Submissions, accompanied by supporting statements, should be sent to the Secretary not later than 1 January 1972, for forwarding to the Committee. Previous submissions will not be considered by the Committee unless resubmitted.

RETIRED MEMBERS LUNCHEON

Those honoured at this informal luncheon at the Annual Meeting in Victoria were:

Dr. R. D. Bird
Dr. R. H. Hanford
Dr. R. R. LeJeune
Mr. H. A. Richmond

Dr. A. E. Brower
Rev. Dr. K. M. King
Dr. J. G. Rempel
Dr. L. L. Sitt

CHARTER MEMBERS

(Named in Letters Patent, January 27, 1956)

A. B. BAIRD
R. E. BALCH
A. A. BEAULIEU
J. MacB. CAMERON
F. M. CANNON
C. W. FARSTAD
O. FOURNIER
R. GLEN
J. D. GREGSON

W. N. KEENAN
A. V. MITCHENER
R. H. OZBURN
A. D. PICKETT
M. L. PREBBLE
L. G. PUTNAM
W. R. THOMPSON
F. L. WATTERS
R. H. WIGMORE

P. H. H. GRAY 1891-1971

Dr. P. H. H. Gray, Digby, Nova Scotia, died 11 October 1971, in his 80th year. He retired as Chairman of the Department of Agricultural Bacteriology at Macdonald College, Ste. Anne de Bellevue, P.Q., in 1957. During the thirty years he was associated with the College he trained many students in microbiology who now hold prominent positions across Canada. In addition to microbiology Dr. Gray had a great interest in entomology and formed a good local collection of Lepidoptera, collected for the most part in his garden while resident at Baie d'Urfe, P.Q. This interest was continued after his retirement to Nova Scotia. Besides numerous research papers published on microbiology, some 25 papers were published on Lepidoptera in *The Canadian Entomologist*, *Lepidopterists' News* and *The Entomologist*. He is survived by his wife Heather and one son, to whom we extend our sympathy.

A. C. Sheppard

MEMORIAL TO W. H. BRITAIN

A memorial plaque, donated by the alumni association of Macdonald College, will be placed in the Morgan Arboretum. It reads:

This arboretum is the creation of William Harold Britain, 1889-1971, the first graduate of Macdonald College, Professor of Entomology, Dean of Agriculture and vice-principal 1934-55. This plaque erected by grateful graduates in recognition of his leadership and of the pleasure the arboretum gave him and gives us.

The plaque was unveiled on October 30 by Mrs. W. H. Britain, Dr. Britain's widow, and Prof. A. R. C. Jones.

EMPLOYMENT PROSPECTS

The Employment Committee is studying the prospects of employment in entomology in the next 10 to 15 years. The results of this study could have profound effects on career planning by students and provision of training facilities by universities. You are invited to express your opinion to S. R. Loschiavo, Chairman, at the address printed opposite.

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 considerable experience and publications on population dynamics of arthropods desires research-teaching position in biological control of insect pests, integrated control, or insect ecology. Ref. No. 39-22-71.

Post doctoral fellow with teaching experience and background in toxicology available now for research or research-teaching position in this field; has published papers on insecticide toxicity and metabolism. Ref. No. 37-23-71.

Ph.D. candidate interested in endocrinology, ultrastructure and ecology desires a post-doctoral research position in insect physiology or teaching in general biology and entomology. Ref. No. 43-24-71.

Ph.D. candidate available in fall of 1972 for research-teaching. Primary interests are entomology and limnology. Ref. No. 45-25-71.

Ph.D. candidate with major interest in biophysics in entomology desires a research-teaching position for fall of 1972. Ref. No. 40-26-71.

Postdoctoral fellow interested in taxonomy and systematics of spiders desires positions as museum curator or university teacher and researcher. Ref. No. 37-27-71.

B.Sc. with overseas experience in pesticide field evaluation and development desires post with an agricultural chemical company in Canada in pesticide evaluation. Ref. No. 44-28-71.

M.Sc. candidate with major interest in taxonomy and biology of parasitic wasps interested in working in taxonomy of Hymenoptera, illustration preparation, or as research associate. Ref. No. 40-29-71.

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

There are no specific listings available for this issue but, for guidance in position-seeking, reference to the general remarks in *Bulletin* 3(2):39, bottom half of the page, may be helpful.

PERSONALIA

Eugene Munro of the Entomology Research Institute left August 31 for the Museu de Zoologia da Universidade de Sao Paulo, Brazil, under the N.R.C.'s scientific exchange program. For nine months he will work on the museum's collection, give seminars, and collect for the Canadian National Collection. Afterward he will visit museums and collect in neighbouring countries, returning to Ottawa in late July 1972.

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Joe Shemanchuk, veterinary-medical entomologist at Lethbridge visited the Institute of Zoology, U.S.S.R. Academy of Science in Leningrad, the Institute of Biology, Siberian Division, U.S.S.R. Academy of Science in Novosibirsk, and the All-Union Research Institute of Veterinary Hygiene in Moscow. With specialists at the institutes, he discussed problems with blood-sucking flies at northern latitudes. He hopes to relate these problems to changes in species composition, abundance and distribution which have resulted from agricultural and industrial development.

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Henry Hurtig, C.D.A. Research Coordinator for environmental quality, presented an invitation paper to the International Conference on Pesticides and the Environment in Paris, 23 September. He headed a Canadian delegation to a special meeting of Codex Alimentarius (World Food Standards) in Copenhagen 11-16 October, the purpose of which was to agree on principles governing pesticides residues in food moving in World commerce. He was also a third country participant in a U.S.A.-Japan closed seminar on the environmental toxicity of pesticides at Oiso, Japan, 25 October to 7 November.

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Dr. Peter Kevin has joined the staff of the C.D.A. Plant Research Institute as a postdoctorate fellow. He is conducting research on insect-plant relationships.

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Charles C. Smith, Extension Supervisor on tree pests for the Canadian Forestry Service's Maritime Forest Research Centre at Fredericton, was named the recipient of a Merit Award from the Public Service of Canada. The Award, which carries a stipend of \$1500 was in recognition of performance in the Public Service at an unusually high level over an extended period of time. His 40 years of experience and broad knowledge of pests of ornamental and shade trees have been increasingly utilized by forestry, agricultural, provincial, and municipal agencies and by the public.

CANADIAN ENTOMOLOGIST 100 YEARS AGO

During the siege of Paris, Dr. Boisduval, although much engaged every day in attending the sick and wounded, nevertheless continued his work upon the Spilings; he laboured ardently upon it during the whole continuance of the siege, in spite of the shells and projectiles which exploded all around his house, and fell upon the Val-de-grace and the Pantheon, the tremendous concussion of which shattered the glass of his cabinets!

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