

THIS ISSUE

Society Officers	inside front cover
Editorial	48
Letter to the Editor	49
Achievement Award, C. S. Holling	50
New Honorary Members	52
J. G. Rempel Retires	52
Minutes - 1970 Annual Meeting	54
Actions of the Governing Board	56
Reports: Treasurer	58
Editor	60
Representative, Int. Congr. Biomet.	60
Bulletin	61
Election Committee	61
Membership Committee	62
Honorary Membership Committee	62
Representative, Water Pollution	63
Gift Subscriptions	63
Student Encouragement	64
Program Committee	65
Exchanges	66
Science Policy	66
Archives	67
Common Names of Insects	68

(Continued inside back cover)

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THIS ISSUE
(Continued)

Population Limitation and Resource Use	68
Pesticides and the Environment	70
Fisher Report	71
Hanford Retires	72
I. U. B. S.	73
Symposium — Storage of Grain	73
Government Austerity and Entomology	74
President LeRoux's Letter	74
Prime Minister's Reply	78
Treasury Board Reply	78
Agriculture Minister's Reply	79
Rules and Regulations of E.S.C.	80
C. W. K. Stehr 1915-1970	83
H. A. U. Monro 1906-1970	84
R. H. Painter 1890-1970	85
Index to Biography, Entomology Newsletter	86
1971 Achievement Award — Nominations	87
Personalia	88

Editorial

Another annual meeting has come and gone and we can afford to be a little smug about our predictions in the last issue of the Bulletin. It was a roaring success. Bud McGinnis and his committees, in particular the program committee under Jack Heron, started early and worked hard. The chairmen and organizers of the symposia, Bill Baldwin and Ron Harris were especially appreciated for two outstanding symposia.

This issue contains reports from the Annual Meeting. Of particular interest is the recognition of Buzz Holling's work through the Society's Achievement Award. The citation is reprinted here because the brochures are only distributed to those present at annual meetings.

The Society has two important public statements to make. One on population limitation and resource use appears on page 68. Another on pesticides will be printed and distributed as an appendix to a future Bulletin number. A brief based on the full report appears in this number.

The deadline for Vol. 2, No. 4 for December will be 13 November 1970; send material at any time though, two copies typewritten if possible, please.

LETTER TO THE EDITOR

Sir:

The item about the Survey Mission in Nigeria (Bulletin 2(1):15) speaks of trypanosomiasis as "a mosquito-borne disease commonly known as sleeping sickness".

It is my understanding that the mosquito-borne form of "sleeping sickness" is encephalitis, caused by a virus; and that trypanosomiasis is "African sleeping sickness", caused by trypanosomes carried by the tsetse fly, *Glossina* spp. (Muscidae).

Lester A. Swan
San Clemente, Calif.

Trypanosomiasis is any disease caused by *Trypanosoma* spp. The vector of African sleeping sickness in Nigeria and elsewhere is indeed the tsetse fly. The Bulletin erred. — Ed.

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.

Entomological Society of Canada Medal

Presented to



Crawford Stanley Holling

Winnipeg, Manitoba August 24, 1970

The Entomological Society of Canada Medal for 1970 is awarded to Crawford Stanley Holling for outstanding achievement in research and research leadership in Canadian entomology.

Dr. Holling received the Degree of Bachelor of Arts in Honours Biology from the University of Toronto in 1952, and remained there to obtain a Master of Arts in Zoology in 1954. In 1957, he was granted a doctorate in Zoology from the University of British Columbia.

He joined the Federal Government's Forest Biology Laboratory at Sault Ste. Marie in 1952, beginning an association that carried him to the Victoria Forest Research Laboratory in 1965. While he was at Sault Ste. Marie, he began a series of studies on the process of predation in insects and other animals that soon brought him international recognition as a scientist of the first rank. Although his research has since moved beyond the confines of predation processes, he displayed in that first series of studies all the attributes which have caught and held the attention of the larger scientific community outside entomology.

Most scientists are careful observers, and some excel in designing crucial experiments. But few in the biological sciences have a flair for mathematics. And even fewer combine those diverse abilities with that rare blend of insight and imagination which makes the discovery of unifying principles seem such a simple process to the uninitiated. C. S. Holling showed that combination of qualities even in his early work. In the days when most scientists were still bemused by the lightning speed of computers, he saw that their communicative capacity might be scientifically more valuable than their statistical or bookkeeping capacities. He saw clearly then what he has conclusively demonstrated since; that the investigator, the computer, and the experimental material could become a linked system for generating, testing, and modifying successive hypotheses in a far more rapid and rigorous manner than had hitherto been possible. Thus he transformed the method of 'component analysis',—the step-wise subdivision and reconstitution of intractably complex processes for analysis and explication,—from a drab and often faulty research tool into a highly effective application of the scientific method. And in so transforming it, he raised it from the level of a pedestrian exercise to that of an exciting new art form.

In 1966, he received the George Mercer Award from the Ecological Society of America for one of his papers on predation. In the following year, the Ford Foundation, anticipating present concern over mankind's continual despoilation of the planet, invited him to serve as a consulting ecologist in developing its program to nurture ecological centres of excellence at selected universities. Also in 1967, he joined the University of British Columbia's Department of Zoology and Institute of Animal Resource Ecology, to teach and to train graduate students in ecology, becoming, in 1969, Director of the Institute.

In his present posts, Dr. Holling has been able to continue his own research. But in view of the mounting environmental crisis, perhaps it is even more important that he has in his new role been able to provide effective and clear-headed leadership in the battle to halt environmental degradation. He has long contended that the very complex ecological problems which concern mankind can scarcely be expected to yield to the kinds of fragmented attacks favoured by our more traditional-bound public agencies. In his new role he has been free to develop more realistic and effective methods of attacking resource problems by involving human and economic variables, as well as the more familiar biological ones. And these new procedures surely will serve as models for agency planners to follow in their future battles to conserve resources. More recently at the university, he has been a prime mover in establishing and directing new training programs to provide the interdisciplinary experience and attitudes the ecologists of the future must have to combat man-made environmental problems successfully.

There are fashions, trends, and even counter-currents in research. Each has its followers, its advocates, and its leaders. But there are very few real pioneers. C. S. Holling is one. The Society honours this dynamic and imaginative scientist for his highly original accomplishments, his leadership, and his dedication, and judges him a most worthy recipient of our Gold Medal.

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

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

NEW HONORARY MEMBERS



Professor J. G. Rempel



Doctor R. D. Bird

Two new Honorary Members were received by the Society at its annual Banquet, at Winnipeg, 25 August 1970. R. D. Bird and J. G. Rempel were given standing ovations by the assembled members and guests, after President E. J. LeRoux read the citations.

J. G. REMPEL RETIRES

In June 1970, Professor J. G. Rempel retired from the Department of Biology of the University of Saskatchewan at Saskatoon after more than forty years' association with the University.

Prof. Rempel is widely recognized for his research in insect taxonomy, morphology, and embryology and in medical entomology, but he considered himself first of all a teacher. Throughout his career he gave paramount place to his teaching responsibilities and his students. Always available to those who enjoyed good discussion and those seeking advice of either an academic or personal nature, he has given inspiration and encouragement to countless undergraduate and graduate students. As well as guiding many young people into productive careers in entomology and biology he has stimulated in many others an enduring interest in the life sciences. Prof. Rempel's continuing keen interest in research enhanced his teaching, and the imaginatively and diligently prepared labs that accompanied his lectures are notable examples of creative instruction.

Born in the Ukraine, Jacob Ceshard Rempel came to Canada as a young man, having endured extreme hardships during the turmoil at the end of the First World War. In Canada, he still faced the challenging problems of learning the language and acquiring the resources to continue his education. In 1931 he graduated from the University of Saskatchewan with High Honours in Biology and the Governor General's Gold Medal. In 1933 he received his Master's degree. Other students in the Biology Department at Saskatoon during this time were A. P. Mason, C. W. Farstad, and Robert Glen. Rempel taught at the Regina College branch of the University until 1946, taking a year's leave of absence to obtain his Ph.D. from Cornell University in 1937. He returned to the Saskatoon campus, was appointed Professor of Biology in 1951, and Rawson Professor in 1962.

Prof. Rempel began his extensive research career with a study of the life history and morphology of *Chironomus hyperboreus*. He became involved with chironomid taxonomy and intersexuality induced by nematode parasitism. In response to the need for more information on prairie mosquitoes made apparent by the western equine encephalitis (WEE) pandemic of 1941, he undertook a study of the mosquitoes of Saskatchewan. This resulted in the publication of what have become two standard references, "Guide to the Mosquito Larvae of Western Canada" and "Mosquitoes of Saskatchewan". WEE remained one of his primary interests and encompassed related studies on mosquito feeding habits and the roles of intermediate hosts of the encephalitis virus. He was mainly responsible for drawing the attention of government departments to the possible ecological hazards that might result from the South Saskatchewan River Development Project. He was untiring in his efforts to obtain support for the continuing multidisciplinary, cooperative study of WEE in Saskatchewan.

Prof. Rempel's research interests have also included livestock losses caused by black flies, the biology and control of black flies, and the morphology and embryology of the black widow spider. In recent years he has been particularly interested in the embryology of the blister beetle *Lytta viridana*, and is continuing this research in his retirement. Prof. Rempel is a master of the techniques and art of biological illustration, as is evident in the fine quality of the drawings in his publications.

Prof. Rempel has served as Chairman of the program committee for the Centennial of Entomology in Canada, 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, and in these and many other capacities has given a wide range of valuable service to the entomological community. In 1955 he was elected a Fellow of the Royal Society of Canada and in 1967 was awarded a Centennial Medal in recognition of his service to the nation.

In 1933, Jacob Rempel married Greta Halliday. They have a son, Richard, and two daughters, Helen and Elizabeth. Richard is a former Rhodes Scholar. Prof. and Mrs. Rempel now reside at 3045 Henderson Road, Victoria, B.C.

MINUTES

Twentieth General Meeting



ENTOMOLOGICAL SOCIETY OF CANADA

Fort Garry Hotel
Winnipeg, Manitoba
August 28, 1970

The Chairman, E. J. LeRoux, called the meeting to order at 1015 hrs.

Notice of Meeting

The Secretary reported that a notice of the meeting was published in Volume 2, Number 1 of the Bulletin which was distributed in April, 1970.

Proxies

The Secretary reported that he had not received any notices of proxies. None were received from the floor.

Deceased Members

The meeting paid its respect to the memory of the following members and former members who had died since the Nineteenth General Meeting: R. G. Beard, Ithaca; C. Carl, Victoria; F. W. Gregory, Niagara Falls; H. A. U. Munroe, London; N. A. Patterson, Kentville; C. Wishart, Belleville; R. H. Painter, Lethbridge; G. H. Stehr, Sault Ste. Marie.

Minutes of the Nineteenth General Meeting

It was moved by R. W. Stark, and seconded by W. A. Reeks, that the Minutes be adopted. Carried.

President's Report

It was moved by W. A. Reeks, and seconded by C. R. Sullivan, that the President's report be accepted. Carried.

SCITEC

The meeting, on a motion by A. S. West, seconded by J. E. Guthrie, endorsed the Governing Board's resolution to instruct the Society's representatives to the Biological Council of Canada to support the affiliation of the Council with SCITEC, and the Board's decision to review annually, for the next three years, the possibility of the direct affiliation of the Society with SCITEC.

Standing Rules and Regulations

It was moved by B. Hocking, and seconded by S. R. Loebhavo, that Rules I, 3.3, 13, and 14 be rescinded since they had been made redundant by the revised By-Laws. Carried.

It was moved by J. J. Cartier, and seconded by W. J. Turnock, that Rule 8.1 be revised to read "The Editorial Board shall consist of a chairman and four members, two of the members being from Ottawa and two from other regions. The Editor shall be an *ex officio* member of the Board". Carried.

It was moved by H. Hurtig, and seconded by W. J. Turnock, that Rule 8.2 be revised to read "The term of office of the chairman and members of the Editorial Board shall be four years. One member of the Board shall be replaced each year". Carried.

Election

B. Parent, Convenor, Election Committee, reported that 438 ballots of the 825 mailed, had been examined by his Committee. One set of ballots was blank and one ballot for Directors-at-Large was spoiled. Mr. Parent reported that P. S. Corbet was the successful candidate for the office of President-Elect; that J. E. McFarlane and L. L. Pechuman were the successful candidates for the offices of Directors-at-Large (1970-3); and that R. D. Bird and J. G. Rempel were elected to Honorary Membership. The report was adopted on a motion by B. Parent and W. F. Baldwin.

Installation of President

The Chairman installed W. F. Baldwin as President and the latter introduced the President-Elect, P. S. Corbet.

Auditors

It was moved by L. L. Pechuman, and seconded by J. F. McAlpine, that Geo. A. Welch and Company, Ottawa, Ontario, be appointed as Auditors. Carried.

Committee Appointments

The Chairman announced the following appointments:

- H. B. Wressell, Chairman, Common Names Committee
- B. Parent, Chairman, Election Committee
- R. Prentice, Chairman, Finance Committee
- H. J. Teskey, Chairman, Gift Subscriptions Committee
- L. A. O. Roadhouse, Chairman, Membership Committee
- E. J. LeRoux, Chairman, Nominations Committee
- A. S. West, Chairman, Science Policy Committee
- F. O. Morrison, Chairman, Student Encouragement Committee
- W. O. Hauke, Member, 1970-3, Program Committee

Resolutions

It was moved by W. H. Foott, and seconded by H. B. Wressell, that the following resolutions be adopted:

1. Whereas the joint meetings of the Entomological Society of Canada and the Entomological Society of Manitoba have been highly stimulating and enjoyable:

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

- the General Chairman; A. J. McGinnis
- the Program Committee; S. R. Loschiavo, W. J. Turnock, R. A. Brust and especially the Chairman, R. J. Heron
- the Local Arrangements Committee, led by S. J. Jay
- the Photo Salon Committee; A. Ashraff, S. R. Loschiavo and R. J. Cheale
- the Ladies Committee, chaired by Mrs. P. S. Barker
- W. Romanow, H. Westdal and D. Smith, who so ably carried responsibility for financial and publicity arrangements.

2. Whereas the City of Winnipeg entertained the members at a luncheon; Be it resolved that the City be informed of the appreciation of the Society.
3. Whereas the Manitoba Department of Agriculture was host to the members and their guests at dinner on August 25: Be it resolved that the Society express its sincere appreciation to the Minister of Agriculture.
4. Whereas two topical symposia were the highlights of the scientific sessions: Be it resolved that the appreciation of the Society be expressed to the Chairmen, Dr. C. R. Harris and Dr. W. F. Baldwin, and to all of the participants. Carried.

Notice of Next Meeting

The chairman announced that the Board had accepted the invitation of the Entomological Society of British Columbia to meet with that Society at the University of Victoria in August, 1971.

Other Business

Achievement Award. P. S. Corbet, the Chairman of the Achievement Award Committee, announced that all members were invited to send nominations to him. He requested that these be submitted before the end of October, 1971.

ACTIONS OF THE GOVERNING BOARD

August 23, 1970

The following actions were taken by the Board at its meeting at the Fort Garry Hotel, Winnipeg, on August 23, 1970:

- | | |
|-----------------------|--|
| SCITEC
Grant | 1. Resolved that a founding grant of five hundred dollars be made to SCITEC. |
| SCITEC
Membership | 2. Directed the Society's representatives to the Biological Council of Canada to support the affiliation of the Council with SCITEC, and resolved that the direct affiliation of the Society with SCITEC be the subject of review by the Governing Board for the next three years. |
| Collection
of Dues | 3. Following a review of correspondence with the affiliated Societies, directed the Treasurer to collect all membership dues directly from members and, with the agreement of an affiliated society, collect the dues of that society, rebating these dues to the treasurer of that society. |
| Emeritus
Members | 4. Directed the Membership Committee to prepare a detailed plan for the establishment of a new class of emeritus members, including the resultant revision of the Bylaws. |

- | | |
|-----------------------|---|
| Investments | 5. Authorized the Treasurer to increase the Society's investment fund by ten thousand dollars. |
| Editorial Board | 6. Resolved to change the structure of the Editorial Board so that the Editor would be an <i>ex officio</i> member rather than Chairman, separating the policy-making and editorial functions. |
| Student Encouragement | 7. Resolved that grants totalling one thousand dollars be given to the affiliated societies each year for programs that these societies would conduct to encourage student interest in entomology, the general program being the responsibility of the Student Encouragement Committee. |
| Achievement Award | 8. Resolved that the Achievement Award Committee shall make known to the Governing Board in January its selection, if any, of a recipient of the Award, and if a selection has been made this shall be announced in the Bulletin and by press release. |

August 26, 1970

The following actions were taken by the Board at its meeting at the Fort Garry Hotel on August 26, 1970:

- | | |
|-------------------------------|---|
| Directors | 1. Accepted the resignation, as Director-at-Large, of P. S. Corbet, the President-Elect. |
| | 2. Appointed G. S. Cooper, Rexdale, to be Director-at-Large, 1970-2, vice P. S. Corbet. |
| Managing Council | 3. Appointed D. C. Peterson, E. C. Becker, and D. P. Pielou as Secretary, Treasurer and Editor, respectively, in 1971. |
| Archives and Bulletin | 4. Reappointed L. C. O'Neil, Sherbrooke, as Archivist, and D. C. Eidt, Fredericton, as Assistant-Editor (Bulletin). |
| Editorial Board | 5. Appointed H. F. Madsen, Summerland, as Chairman, Editorial Board, 1970-4. |
| Committee and Representatives | 6. Reappointed J. F. McAlpine, Ottawa, as member of the E.S.O.-E.S.C. Committee on Exchanges; J. A. Downes, Ottawa, as representative on the Canadian Committee on Water Pollution; and A. S. West, Kingston, as representative on the Canadian Council on Animal Care. |
| Pesticide Policy | 7. Resolved that the Society's policy statement on pesticides be published in the Bulletin, one thousand reprints being obtained for general distribution. |
| Employment | 8. Resolved that a committee on employment be established to maintain a list of job opportunities; to operate an employment desk at general meetings; and to invite employers to make use of these facilities. |

REPORTS OF TREASURER, EDITOR, COMMITTEES AND REPRESENTATIVES

TREASURER'S REPORT

Assets and Liabilities as of July 15, 1970

Assets			
Cash on Hand			\$ 46,076.04
Accounts Receivable	Members 79 @ \$16.00	\$ 1,264.00	
	17 @ 18.00	288.00	1,552.00
Reprints, invoiced to include April			2,101.50
Reprints, estimated May to Dec. including page charges			31,600.00
Back Issues, mailed and invoiced			453.50
Bond and Certificate Interest			1,875.00
Memoirs (Numbers 65 and 70 invoiced)			22,105.00
Bonds and Certificates (Bonds estimated only)			35,000.00
			<u>\$140,763.04</u>

Liabilities			
Publishing Can. Ent. (Jan.-Dec. with index, estimated for 1970)		\$29,280.00	
Postage (Aug.-Dec. estimated @ \$400.00 per mon.)		2,000.00	
Reprints (March, May - Dec.)		5,400.00	
Cuts and Tables (estimated)		10,000.00	\$ 46,680.00
Payments in advance	Members	144.00	
	Subscribers	206.10	
	Future Memoir (unnumbered)	2,500.00	2,850.10
Memoirs (numbers 65, 66 and 70 estimated)			15,500.00
Office Expenses	Salaries (and overtime)	8,500.00	
	Paper, Stamps, etc.	1,000.00	9,500.00
Executive Expenses to Annual Meeting (estimated)		3,000.00	
Students' Expenses to Annual Meeting		1,000.00	
Executive Expenses, General		1,200.00	
Bulletin — two issues @ \$800.00 (estimate)		1,600.00	6,800.00
			<u>\$ 81,330.10</u>
TOTAL ASSETS	\$140,763.04		
TOTAL LIABILITIES	81,330.10		
Assets	<u>\$ 59,432.94</u>		

Numbers of Canadian Entomologist Mailed in December

	1962	1963	1964	1965	1966	1967	1968	1969	July 1970
Members	670	689	696	748	778	816	882	918	703
Students	30	56	101	138	188	163	188	188	128
Subscribers	508	549	586	654	716	796	818	895	853
Exchange	95	94	70	66	66	65	67	64	35
	<u>1,303</u>	<u>1,388</u>	<u>1,455</u>	<u>1,606</u>	<u>1,728</u>	<u>1,860</u>	<u>1,955</u>	<u>2,035</u>	<u>1,809</u>

Interim Statement as of July 15, 1970

Receipts

Memberships	1969	\$ 218.26	
	1970	8,908.88	
	1971	<u>144.00</u>	\$ 7,171.11
Students	1970		366.00
Sustaining Members	1970		200.00
Subscribers	1969	250.77	
	1970	13,390.64	
	1971	<u>206.10</u>	13,847.51
Reprints		5,191.70	
Page Charges		<u>11,680.04</u>	16,871.74
Memoirs (numbers 67 to 69)			29,579.00
Sale of Back Issues			1,343.88
Bank and Bond Interest, Exchange			1,900.94
Sundry			<u>37.77</u>
			\$ 71,337.93
Total on Deposit January 1, 1970			<u>42,872.00</u>
			<u>\$114,209.93</u>

Disbursements

Publishing Can. Ent. (numbers 8 to 12, 1969)	\$ 9,905.00	
Postage (numbers 1 to 7, 1970)	<u>3,136.65</u>	\$ 13,041.65
Cuts and Tables		5,460.33
Memoirs (numbers 65 and 67 to 69)		29,287.56
Reprints		<u>3,430.64</u>
Office Expenses	Stationery and stamps	673.44
	Phone, paper, string, etc	101.56
	Refunds	<u>272.00</u>
		1,047.00
Salaries (Including overtime and contracts)		
Bulletin (Numbers 2, 1969; 1 and 2, 1970)	2,399.24	10,052.62
Sundries	Ent. Soc. Canada, B.C.C.	914.00
	Gold Medal	103.90
	Annual Meeting	750.00
	Executive Expenses	1,572.14
	Misc.	<u>74.81</u>
		3,414.85
Cash on Hand, July 15, 1970		68,133.89
		<u>46,076.04</u>
		<u>\$114,209.93</u>

Edward C. Becker

EDITOR'S REPORT

Manuscripts continue to pour into the Editorial Office. On the average, papers for both the *Canadian Entomologist* and *Memoirs* appear to be getting longer.

At one point this year we appeared to have about 12 months backlog of manuscripts — the longest I know of — and, as a result, the *Canadian Entomologist* has twice been increased in length by 16 pages, to the present 144 pages (July 1970 issue). Because of mailing regulations any further increase in weight would bring us under a higher rate. So, should we look forward to producing the *Canadian Entomologist* more often than once a month!?

The manuscripts received cannot be sorted into two approximate equal and natural categories — so time is still not quite ripe for the *Canadian Entomologist* to bifurcate into two journals.

Dr. D. C. Eidt, Fredericton, has now taken over full responsibility for editing the *Bulletin* and for its printing and production in Fredericton.

I regret I have been unable to find opportunity to bring the Editorial Board together under my chairmanship. It is simply a matter of my not having enough time for this additional duty as I pointed out to the President in my letter of June 3. I suggested that the duties of Editor and Chairman of the Editorial Board be vested in different people; I am quite willing to continue as Editor and to receive general instructions from an Editorial Board of which I am not a member.

One of the big problems facing an Editorial Board is the effect of the present financial austerity on those organizations that pay the page charges of the *Canadian Entomologist* and meet the whole cost of producing *Memoirs*. It seems clear that costs will rise; and there are ominous warnings that there will be much less money available in the next few years.

Miss Margaret McBride continues in her invaluable role as full-time Assistant Editor. She is engaged by us, on terms and salary parallel to a technical editor in the Public Service and her salary is tied to the rate for the "Information Service, Level 2" category. I recommend her salary be raised to the next increment (effective November 1, 1970) just as she would if she were a member of the Public Service.

D.P. Pielou

REPORT OF THE REPRESENTATIVE TO THE INTERNATIONAL CONGRESS ON BIOMETEOROLOGY

Stressa, Italy, is being negotiated as the site of the 6th International Biometeorological Congress, September 3-9, 1972. The Congress is being planned in conjunction with the Italian Society of Biometeorology which will convene as a national body on September 10.

No firm plans have been made for the program. Clarification is still required on a possible relation between part of the Biometeorological Congress Program and the United Nations Conference on Environmental Quality.

W. O. Haufe.

REPORT OF THE ASSOCIATE EDITOR (BULLETIN)

Three issues have been mailed since the present Bulletin editor took office. Starting with Vol. 2 No. 1 printing is now done at Fredericton, N. B. resulting in a change of style of the journal but considerable convenience to the editor.

Contributions have been sufficient to fill 24-page issues on time but little surplus material has been available to hold over for possible lean issues. Members are urged to volunteer articles on any subject they feel is of interest to the membership. Photographs are needed to enliven the issues. Regional Societies are urged to use the Bulletin to publicize their activities. Excellent cooperation has been achieved with Dr. A. J. McGinnis and his program committee in providing publicity for the 1970 annual meeting at Winnipeg. The next issue, to appear in late September, will contain reports of the annual meeting.

Recommendations:

(1) Whereas the editor has little time and no assistance to actively seek contributions, that the Board encourage members to volunteer contributions to the Bulletin, and make committees aware that the Bulletin can often be used to further their objectives.

(2) Whereas the Annual Meetings are the highlights of the Society's affairs and generate much information of interest to members not in attendance, that the travel expenses of the Bulletin Editor to the Annual Meeting be paid if necessary as is done with the Officers, the Directors and the Managing Council.

D. C. Eldt

REPORT OF THE ELECTION COMMITTEE

The Election Committee (J. P. Perron, M. Mailloux and B. Parent, Convener) counted on July 17 the ballots received not later than July 15 for the 1970 election of the officers of the Entomological Society of Canada. The number of ballots mailed was 825, 438 were returned, 1 was spoiled, 1 was rejected for the vote of directors (3 votes), 4 did not vote for the president elect.

For President-Elect: Corbet, P. S., Belleville, Ontario; Thorsteinson, A. J., Winnipeg, Manitoba. Dr. Corbet was elected.

For Directors-at-Large: Chiykowski, L. N., Ottawa, Ontario; Cooper, C. S., Rexdale, Ontario; McFarlane, G. E., Ste. Anne de Bellevue, Quebec; Pechuman, L. L., Ithaca, N.Y. Drs. McFarlane and Pechuman were elected.

For Honorary Membership: Bird, R. D., Victoria, B.C.; Rempel, J. C., Saskatoon, Saskatchewan. The great majority voted yes for both.

I hereby certify that the Election Committee has correctly counted all ballots received prior to July 16 and rejected those received later.

Benoit Parent

MEMBERSHIP COMMITTEE REPORT

The Committee continued its campaign for new members. A potential source was considered to be in the United States Forest Service. Accordingly, with the assistance of Professor R. Stark, University of California, "Application for Membership Forms" were provided members of the Forest Service late last year.

As of July 1970, membership in the Entomological Society of Canada was: full membership — Canada 432; United States 301; other foreign 60; student membership — 128.

There was a decrease of approximately 100 in the total membership, no doubt as a result of the increase in membership dues that became effective in 1970.

The Committee, at the request of the Board of Directors, considered the question of emeritus membership. Most members approached were in favor of emeritus membership. However, the question of emeritus membership in the Entomological Society of Canada raised many questions such as: How many people may be involved? What about voting rights of such members? What percentage of dues of active members is for publishing The Canadian Entomologist and the Bulletin? Is the Society interested primarily in numbers of members or in revenue?

The Membership Committee would be in favor of the establishment of emeritus membership with dues to be a percentage of that for active membership — for example \$5.00. For this the emeritus member should be given the Bulletin. However, the Committee felt that publication rights in The Canadian Entomologist should not be granted the emeritus member unless he paid the expense of publication. If a retired member desires to publish in The Canadian Entomologist, he should retain active membership.

The Membership Committee considered that the Entomological Society of Canada might follow the pattern of the Entomological Society of America as a guide in establishing emeritus membership in our Society.

Respectfully submitted,
L. Roadhouse (Chairman)
P. Blakeley, S. Caschiavo

REPORT OF THE HONORARY MEMBERSHIP COMMITTEE

On October 20, 1969, the secretaries of Regional Entomological Societies were asked for nominations. I received the following names:

Quebec (Dec 2/69)	no submission
Saskatchewan (Dec. 9/69)	J. C. Rempel
Manitoba (Dec. 10/69)	Ralph D. Bird
British Columbia (Dec. 22/69)	no submission

The names of J. C. Rempel and R. D. Bird were put on the ballot, since they were the only ones submitted with five supporting signatures and curriculum vitae as required.

J. J. Cartier, Chairman

REPORT OF THE REPRESENTATIVE TO THE CANADIAN COMMITTEE OF THE INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH

There have been two meetings of this Committee, one at Niagara Falls on June 17, 1969 attended by Mr. C. C. Dustan and the other at Montreal on March 20, 1970 attended by myself. The minutes of these meetings are available in my files.

The meetings have been concerned almost exclusively with two matters of organization; firstly, the status and membership of the Canadian Committee in relation to its international parent body and the international conferences, and secondly the dispensing of its funds, which are derived mainly from an annual, though perhaps temporary, grant from the Department of Energy, Mines and Resources. The funds have been allocated primarily to support attendance at the forthcoming International Conference in San Francisco by officers of the Committee and by Canadians selected to present papers. The selection of papers, however, was made by the parent body, and the Committee did little more than vote funds to names on a list supplied.

There have been no discussions of technical or scientific matters relating to water quality, and indeed no discussions of any aspect of water pollution research as such. Perhaps this situation will change in future, because a useful number of professional and scientific societies have now become members of the Committee. While I recommend therefore that this Society should retain its membership in what will probably become, in one way or another, a useful coordinating body, I feel that there is no point meantime in making any great effort to have a representative present at each individual meeting. I might add that the conduct of the meetings is dull and repetitious.

J. A. Downes

REPORT OF THE COMMITTEE ON GIFT SUBSCRIPTIONS

This committee became operational in April. It is presently only a committee of one since I feel there is little need of enlarging it until the program has sufficient acceptance from the membership of the Society.

The need for a program of Gift Subscriptions, and its aims and objectives were advertised in the Bulletin 2(2):47. A follow-up letter is very shortly to be sent to all members requesting their support in supplying information of foreign colleagues requiring a gift subscription and requesting donation of their subscriptions to the Society's publications for this purpose.

Preliminary enquiries have resulted in the accumulation of a list of forty potential recipients of a gift subscription. Verbal offers of the donation of subscriptions for the program have been received. Thus, the future of the program looks good.

H. J. Teskey, Chairman

REPORT OF THE COMMITTEE ON STUDENT ENCOURAGEMENT

The Chairman of the Committee on Student Encouragement reported to the E.S.C. Meeting in Guelph in 1969 that a start had finally been made prior to that meeting on expending some of the money appropriated for student encouragement. This start was a temporary measure by which some of the money was used to defray the expenses of graduate students attending the Winnipeg Meeting. This action was taken on the basis that the Committee had had a mandate for some years to get a program in action. Again at the Guelph Meeting it proved impossible to get a meeting of the Committee Members or their Proxies together as neither were present in sufficient numbers. The Chairman therefore appealed to the Governing Board as the one body representative of the whole country to consider this matter and produce a workable plan. As a result, the Chairman was invited to attend a meeting of the Governing Board in Ottawa on Jan. 29-30, 1970. He reported that the Committee still could not propose an effective program, basically because of the difficulty of a national organization reaching the secondary school students. Science Fairs reach less than thirty percent of that population.

Item 4:15 of the minutes of the Jan. 29-30 Meeting of the Governing Board reads:

Student Encouragement

F. O. Morrison, Chairman of the Student Encouragement Committee, reviewed the activities of the Committee in its attempts to encourage students to develop an interest in Entomology. Although the Board had made funds available, the Committee had not been successful in developing an effective program that could reach the majority of students, particularly in primary and secondary schools.

After considerable discussion, it was moved by W. J. Turnock, seconded by J. J. McIntock, and agreed that, to initiate an effective program, \$1000 be made available through the affiliated societies for prizes to high school students, the selection of the recipients being made by existing regional youth organizations, e.g., the Boy Scouts.

It was then agreed that the Board discuss the matter further on the following day without the Chairman present and decide on a line of action. The result of that discussion was a letter by the President (E. J. LeRoux) to Provincial and Regional officers, dated April 2, which expresses the belief of the Board in the correctness of the original desire to be active in the area of student encouragement. The last two paragraphs of that letter read:

The Board agreed that the allotment for this activity, i.e., \$1000 per annum, be apportioned among our affiliated societies on a basis of the population they serve. These societies would be asked to make known to youth organizations in their regions that cash awards or prizes are available for entomological activities by their members, the recipients being selected by the youth organizations themselves. The award could be accompanied by a suitable certificate, and could be presented by an officer or member of the affiliated society concerned.

We trust that your Society will wish to participate in this program. We would make available to you \$90 each year which would provide 18 prizes of \$5 each or 9 of \$10.

I understand that the negotiations to get this program under way are virtually complete.

The Entomological Society of America has had an active committee on Youth Science Development which last year recommended that their previous award of \$100 and a copy of the "Annual Review of Entomology" given via the National Science Fair be change to a year's subscription to the Aunak and a trip to the Annual Meeting, plus a student membership and a certificate of recognition to certain runners-up. This award is available to Canadians. They suggested that cash awards are becoming less meaningful. (Nevertheless the Governing Board of the E.S.A. has approved a new annual award, The Entomology Research Institutes' GRADUATE STUDENT AWARD, to be presented for the first time in Miami in 1970. The award will be an all-expenses-paid trip to the Annual Meeting plus \$100 cash for a graduate student from each branch.) A number of other recommendations of this Committee appear in E.S.A. Bull. 16(1):62-64.

The same E.S.A. Committee is also active in its support of T.I.E.C., the Teen International Entomology Group, a self-generated international club of amateur teen age entomologists which now has 2000 members in 50 States and 30 foreign countries. I understand the E.S.A. Board has donated \$1000.00 to this group this year. It has been suggested that our Society give its written sanction to this organization (effectively done, I believe, by our donation) and either support one or more elements of an itemized budget sent to us or make an unrestricted annual donation. The budget items look rather out of our reach. The present donation is for this year only, but such an annual grant on a year to year basis seems a sound effort and one of which we can be proud.

Frank O. Morrison, Chairman

REPORT OF THE PROGRAM COMMITTEE

The Program Committee has not met since its formation but it has been examining the operation of the Manitoba Society's Committee on the Annual Meeting to determine how the Program Committee could contribute to the planning by regional committees in the future. As a result the following objectives are proposed for the Program Committee:

1. to evaluate annually the planning and operation of the Annual Meeting;
2. to prepare an annual report, identifying crucial areas in planning and suggesting methods of organization, time tables and pitfalls in the planning of such meetings;
3. after several years, the committee shall draw upon these reports to prepare a guide for use by affiliated societies in planning Annual Meetings;
4. to convey to the affiliated societies suggestions and recommendations of the National Society and to act as a liaison committee in planning national activities at the Annual Meetings e.g. Photo Salons, Gold Medal Awards, Life Memberships.

Preliminary examination of the planning by the Manitoba Society suggests that the Program Committee Chairman should ask the Regional Planning Committee to submit evaluations of the work done by the sub-committees, with particular attention to problems encountered and suggestions for improvement. The Manitoba Committee has suggested that in future the Program Committee Chairman act as Secretary to the regional planning committee. This would help them as well as keep the Chairman fully informed.

A report on the 1970 Annual Meeting will be submitted later.

W. J. Turnock, Chairman.

REPORT OF LIBRARY COMMITTEE ON EXCHANGES FOR THE CANADIAN ENTOMOLOGIST

According to an instrument of agreement between the Entomological Society of Canada and the Entomological Society of Ontario signed November 1, 1954 and revised July 28, 1960, the Entomological Society of Canada agreed to provide up to 110 exchanges, determined by a Standing Committee, for the Entomological Society of Ontario library.

In 1969-70 the standing joint committee for determining the exchanges to be made for The Canadian Entomologist consisted of Chairman, Professor W. C. Allan, Librarian of the Entomological Society of Ontario, and J. F. McAlpine, Director at Large, of the Entomological Society of Canada.

During the year this Committee established the following points:

- (a) In 1969, 65 exchanges were made. At \$30 each, this amounted to an investment of \$1950.
- (b) The names of the recipients of these subscriptions. (Copy on file.)
- (c) The names of the publications received in exchange for The Canadian Entomologist. (Copy on file.)

The Committee met in Guelph on December 15 to examine the exchange program, in the light of the transference, in 1969, of the library of the E.S.O. to the library of University of Guelph. This examination showed that a substantial number of the exchanges were redundant because University of Guelph was already receiving them. Furthermore it was evident that in a substantial number of cases the material received by the E.S.O. library in exchange for The Canadian Entomologist can not be considered a fair exchange. As a result, the Committee recommended the deletion of 29 exchanges (list on file), reducing the exchanges to 36.

The Committee agreed that the library of the E.S.O. has now become an integral part of the library of the University of Guelph. Although Professor Allan continues to stamp some incoming exchange material with an E.S.O. stamp, all of it is incorporated into the general stacks, as was the entire E.S.O. library. Since this disposition of the E.S.O. library was not envisioned in either the original instrument of agreement, or in the subsequent revision of it, the Committee recommended that the E.S.C. review its policy on exchanges, and look into the possibilities of making gift subscriptions to, say ten deserving institutions in underdeveloped or underprivileged countries.

Both of the above recommendations were agreed upon at the E.S.C. Directors' meeting, January, 1970. Those deleted from the exchange program were subsequently informed of the action. A Committee to attend to the matter of gift subscriptions was named and a program is being set up.

J. F. McAlpine

REPORT OF THE COMMITTEE ON SCIENCE POLICY

A report from this Committee, chaired by A. S. West, awaits the report of the Lamontagne Committee, expected in November.

REPORT OF THE ARCHIVIST

Maintenance

A start has been made in classifying the material assembled to date. It is evident that, save for display panels and other exhibit material assembled on the occasion of the Society's Centennial, the bulk of the collection consists of correspondence relating to the organisation of this exhibition, and numerous photographs which, in order to gain any historical value, should be identified and dated where possible. It will probably be necessary to consult files of the Bio-Graphic Unit, and the advice of senior members of the Society, preferably some government people in Ottawa, since they are probably quite knowledgeable in such matters through their dealings with regional establishments.

Little material has been added to what was available when the Archives were started. It has been rightly felt that perhaps this was due to a lack of publicity, and a note for publication in the Bulletin is in preparation and will appear in print in a future issue.

Framed photographs and suitable visual material is displayed in some U. of Sherbrooke biology rooms, with labels "Archives, Entomological Society of Canada".

Additions

1. Two pictures in connection with the use of aircraft in chemical control experiments against the hemlock looper, in the North Shore area of Quebec, back in the late '20's, sent by Dr. J. R. Blais.

2. Copy of an article on the Botanical Section of the Society, when this was located in London, Ontario, sent by Professor W. W. Judd.

Loans

Loans mentioned in the 1968-69 report are still outstanding.

Plans for 1970-71

1. Publication of a short paper relating to the archives, in the Society's Bulletin.

2. A trip to Ottawa (2-3 days) to return photographic material on loan from the Bio-Graphic Unit; to select copies of this material for the Archives; for informal meetings with Ottawa personnel for the identification of photographs and their dating. Funds are solicited from the Society for this purpose, and a commitment is expected before final arrangements are made.

3. A further advance in classifying and arranging the material at hand and that to come (hopefully!) as a result of the publication in the Bulletin.

4. Publication in the Bulletin of papers about distinguished entomologists and their work: a series of such papers is envisioned as being part of the undersigned's duties.

Louis-C. O'Neil

POPULATION LIMITATION AND RESOURCE USE

At the meeting of the Governing Board of the Entomological Society of Canada on 23 August 1970 the following resolution, proposed by P. S. Corbet and seconded by R. W. Stark, was passed:

"That the Entomological Society of Canada, through its President, actively support and encourage the development of a national policy for the limitation of Canada's human population and the stabilization of that population at an ecologically acceptable level, namely a level at which a reasonable standard of living can be sustained for future generations with the resources available".

At the Twentieth General Meeting of the Entomological Society of Canada on 28 August 1970 it was proposed by D. C. Eidt and seconded by E. J. LeRoux that the members present endorse the resolution of the Governing Board. The motion was carried by a large majority.

REPORT OF COMMITTEE ON COMMON NAMES OF INSECTS

During the past year eleven names were considered; nine were accepted, and two were rejected. The accepted names were passed on to the Committee on Common Names of Insects, Entomological Society of America, which accepted eight and rejected one.

There was a great deal of correspondence with Dr. C. C. Blickenstaff, E.S.A. committee chairman, concerning the common names used in Manitoba Department of Agriculture and Conservation Publication 424, *Common names of insects and mites associated with stored products in Canada*. Of 51 names in this list considered by the E.S.A. committee, 28 were approved. Special thanks are extended to H. R. Wong, formerly chairman of the Manitoba Common Names Committee, and to D. C. Eidt, formerly chairman of the E.S.C. Committee on Common Names of Insects, for the part they played in bringing this matter to fruition.

All the accepted names will appear in the next revision of the List of Common names of Insects, to be published by the E.S.A. in 1971. A list is appended.

Harry B. Wressell,	Chairman
D. D. Pond,	A. A. Beal
Glenn Wiggins,	H. R. Woog
C. E. Ball,	L. H. McMullen
J. E. H. Martin,	F. J. H. Fredeen

Common Names Approved by E.S.C. — 1969-70

Blueberry flea beetle	<i>Altica sylvia</i> Malloch
Western cherry fruit fly	<i>Rhagoletis indifferens</i> Curran
McDaniel spider mite	<i>Tetranychus mcdanieli</i> McGregor
Brown mite	<i>Bryobia arborea</i> M. & A.
Obscure root weevil	<i>Sciopithes obscurus</i> Horn
Woods weevil	<i>Nemocestes incomptus</i> (Horn)
Balsam shoot-boring sawfly	<i>Pleroneura borealis</i> Felt
Spruce bud midge	<i>Rhabdophaga swainei</i> Felt
Acute-angled fungus beetle	<i>Cryptophagus acutangulus</i> Gyll.
American spider beetle	<i>Mezium americanum</i> (Lap.)
Australian spider beetle	<i>Ptinus ocellus</i> Brown
Black flour beetle	<i>Tribolium audax</i> Halstead
Black fungus beetle	<i>Alphitobius laevigatus</i> (F.)
Brown flour mite	<i>Gohieria fusca</i> (Oud.)
Brown-legged grain mite	<i>Aleuroglyphus ovatus</i> (Troup.)
Cheese mite	<i>Tyrophagus casei</i> Oud.
Cosmopolitan grain psocid	<i>Lachesilla pedicularia</i> (L.)
Globular spider beetle	<i>Trigonogenius globulum</i> Sol.
Hairy fungus beetle	<i>Typhaea stercorea</i> (L.)
House mite	<i>Glycyphagus domesticus</i> (DeG.)
Larger black flour beetle	<i>Cynaesus angustus</i> (LeC.)
Larger pale booklouse	<i>Trogium pulsatorium</i> (L.)
Mold mite	<i>Tyrophagus putrescentiae</i> (Schr.)
Narrow-necked grain beetle	<i>Anthicus floralis</i> (L.)
Parasitic grain wasp	<i>Cephalonomia waterstoni</i> Gahan
Plaster beetle	<i>Cartodere constricta</i> (Gyll.)
Reticulate mite	<i>Lorryia reticulata</i> (Oud.)
Ridge-winged fungus beetle	<i>Thes bergrothi</i> (Reit.)
Scaly grain mite	<i>Suidasia nesbitti</i> Hughes
Sigmoid fungus beetle	<i>Cryptophagus varus</i> W. & C.
Small-eyed flour beetle	<i>Palorus ratzeburgi</i> (Wissm.)
Spotted hairy fungus beetle	<i>Mycetophagus quadriguttatus</i> (Mull.)
Square-nosed fungus beetle	<i>Lathridius minutus</i> (L.)
Stored nut moth	<i>Aphomia gularis</i> (Zell.)
Two-banded fungus beetle	<i>Alphitophagus bifasciatus</i> (Say)
Warty grain mite	<i>Aeroglyphus robustus</i> (Banks)

NOTICE

Proceedings of the Conference on PRODUCTIVITY AND CONSERVATION IN NORTHERN CIRCUMPOLAR LANDS held in Edmonton, Alberta on 15, 16, and 17 October 1969 edited by W. A. Fuller and P. G. Kevan. Papers by scientists and conservationists on the resources of the tundra regions of the world. This includes contributions on sciences, particularly biology; potentials of renewable and non-renewable resources, and their exploitation; and the effects of man's activities. Published by: The International Union for the Conservation of Nature and obtainable from: The Director-General, IUCN, 1110 Morges, Switzerland at \$6.00 per copy.

Brief prepared for the Entomological Society of Canada at the request of the Board of Governors, 1970. The complete report is expected to appear as a separate publication of the Society within the next 6 months.

Emotional pronouncements and abrupt legislation have left the Canadian public confused regarding the role of pesticides in the environment. There is need for an objective appraisal from an informed source that is not identified with a particular interest-group or affiliation. The Entomological Society of Canada, which includes amateur entomologists as well as those from industry, universities and governments, therefore issues this statement, which analyzes the problem, places it in perspective, and proposes short-termed palliatives and long-term solutions.

In this document the term "pesticide" is used in the restricted sense of "insecticide". Many statements in the brief would apply also to chemical herbicides, but not all do. Though obvious, it must also be stressed that statements regarding the properties of pesticides refer only to the compounds for which relevant data exist.

The pesticide problem is the result of man having placed excessive demands on a finite environment. It is a typical pollution problem — the cause being the number of people and the standard of living they demand, and the symptom being damage to ecosystems from persistent synthetic chemicals.

Since pest control is necessary, and since in most cases pesticides are at present needed to achieve it, man faces a dilemma: to protect some resources (agricultural produce, forest products and human health, as measured by freedom from disease and stress) he wants to use pesticides progressively more, and yet to protect others (the human environment and its component ecosystems) he wants to use pesticides progressively less.

The long-term solution, as in all issues of this kind, is to reduce man's numbers and utilization of resources to a level where an acceptable standard of health and comfort can be maintained without progressive deterioration of the environment.

The short-term solutions lie in two major directions.

(1) Regulating the way in which pesticides are applied, and in particular by:

- requiring that the most dangerous pesticides be sold on prescription;
- limiting their use to licensed applicators, and improving the calibre of such applicators;
- improving the mechanism of registration of pesticides;
- subjecting certain uses (e.g. application from the air) to scrutiny and approval by standing committees representing relevant resource-defined bodies;
- monitoring the side-effects of pesticide application when these are likely to endanger non-target resources.

(2) Reducing the amounts of pesticide used, in an orderly way, whenever possible, and in particular by:

- using pesticides only when necessary and in the minimal amounts needed to give adequate protection;

- reviewing, and where possible relaxing, present tolerances of pest damage;
- making available alternative methods that now await registration;
- developing alternative methods (including new chemicals) that, in appropriate situations, can replace existing pesticides or increase their effectiveness;
- informing the public of the philosophy underlying the use of alternative methods;
- informing the public of the root causes of pollution and of the price that society will have to pay to avoid it.

In Canada pesticides are a continuing source of environmental contamination; unless misused, they do not constitute a significant, demonstrable, direct threat to human health, though the possibility of long-term harmful effects cannot be ruled out. So far the most serious side-effect of regular pesticide use has been the accumulation of residues of chlorinated hydrocarbons in wildlife via food-chain magnification. This is liable to happen promptly when such residues enter natural bodies of water, either through soil run-off or from direct application. As this is a continuing possibility during routine protection of agricultural crops, during pest control in urban situations, and, particularly, during programs against biting flies in northern resort areas, it is desirable that the use of broad-spectrum, persistent pesticides be rendered as much and as soon as possible.

An appeal to emotion may be required to alert the public to the existence of a problem; but emotion should play no part in the subsequent analysis of that problem or in the formulation of a solution. The cause of environmental protection is likely to be served best if full allowance is made for the complexity of the problems it presents, and if attention is drawn to the cause of pollution as well as to its symptoms.

P. S. Corbet

**Panel Reports of the
STUDY OF BASIC BIOLOGY IN CANADA**

by

Kenneth C. Fisher, Study Director
for B.C.C. and C.F.B.S.

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Canada Department of Agriculture
Ottawa 3, Ontario

The Entomological Society of Canada has 4 copies available for short-term loans — contact D. C. Peterson, Secretary.

HANDFORD RETIRES

On Friday evening, May 29, some 70 staff members and associates gathered at the Highlander Restaurant for a dinner to honour the retirement of Dr. R. H. Handford as Director of the Kamloops Research Station, Canada Department of Agriculture. This ends a long and interesting career for Dr. Handford who has had 40 years service with the Department of Agriculture.

As Friday was also Dr. Handford's birthday, this was a double celebration. Mrs. L. Barnhardt, a long time employee of the Station, presented Dr. Handford with a beautifully decorated birthday cake.

In honour of his retirement, Mr. J. D. Gregson presented Dr. Handford with a painting by one of Kamloops' local artists, Ted Smith, and an ornamental desk clock as a token of their esteem from the staff and associates. On behalf of the Minister of Agriculture, Mr. W. B. Holliday, Administrative Officer of the Research Station, presented a 40-Year Certificate.

Dr. Handford graduated from the University of Manitoba in 1930 with a degree of B.S.A., followed by the M.Sc. from the University of Minnesota in 1939. In the years following, Dr. Handford carried out extensive research on grasshopper control, both in Saskatchewan and in the Kamloops area. In 1962, he was appointed Director of the Research Station in Kamloops which carries on research both in entomology and rangeland conditions as they affect the beef livestock industry of B.C.

During their residence in Kamloops, Dr. and Mrs. Handford have taken a keen interest in golf, skating, bridge tournaments as well as chess. They will make their new home at 2758 Dunlevy St., Victoria, B.C.

P. R. Wilkinson

CANADIAN ENTOMOLOGIST 100 YEARS AGO

BOOKS RECEIVED. *Proceedings and Transactions of the Nova Scotian Institute of Natural Science of Halifax, N.S.* — Vol. ii, part 3, 1868-9. It is pleasing to find such tokens of prosperity and success manifested by a scientific society as are apparent in the handsomely printed volume before us.

• • • •

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• • • •

On the 6th of June, 1868, we observed for the first time a handsome green caterpillar eating some lettuce that we were growing in our graper; thinking that it could not very well escape, we merely took a rough description, as follows:— Sixteen-footed caterpillar, about an inch long, pale green (almost the colour of lettuce leaves) above, deeper green below; a white dorsal line, two lateral white lines, the lower passing through the spiracles; all five lines proceeding from head to tail. Before we secured it, it did, however, escape, probably entering the ground.

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES

On 26 June the National Research Council started moves to re-establish its National Committee for the International Union of Biological Sciences. This Committee will serve as a link between N.R.C., I.U.B.S., and Canadian scientific societies, particularly those of the Biological Council of Canada, and will nominate Canadian scientists for attendance and participation in meetings of the I.U.B.S. The Committee will assist Canadian biologists in playing a more active role in international science.

The Committee is under the Chairmanship of Dr. W. B. Mountain, Director, Entomology Research Institute, Canada Department of Agriculture, Ottawa, and includes Dr. B. C. Cumming, University of Western Ontario, Dr. H. E. Welch, University of Manitoba, Dr. A. C. Blackwood, Macdonald College, McGill University, and Dr. J. G. Lafontaine, Laval University. Dr. C. Quadling, N.R.C., is Secretary. Dr. N. E. Gibbons, N.R.C., serves as an *ad hoc* member in his capacity as a member of the Executive Committee of I.U.B.S. (on which he represents its Division of Microbiology). Terms of Reference and Committee membership will be submitted to the next N.R.C. Council meeting for approval.

The XVII General Assembly of the International Union of Biological Sciences will meet in Washington, D.C., from 4-9 October 1970. Drs. Quadling, Cumming, Gibbons, and Welch have been nominated as the official Canadian representatives.

The scientific programme of the XVII Assembly will include symposia on Environmental Monitoring, Population Growth and Consequences, and Environmental Changes and Health. Business sessions will discuss emendations to the I.U.B.S. Constitution and the probable creation of two new Divisions: Functional and Analytical Biology, and Environmental Biology.

INTERNATIONAL SYMPOSIUM ON THE STORAGE OF GRAIN AND ITS PRODUCTS

Winnipeg — 7, 8, 9 June 1971

Sponsored by the Department of Agricultural Engineering of the University of Manitoba the Symposium has been organized to provide a synthesis of research and practical knowledge on the storage of grain and its products and to focus on areas in which further research should be undertaken.

Engineers and bio-scientists from universities and government departments and technical and managerial personnel from industries who are involved in problems of storage, processing, transportation and marketing of grain will be brought together to discuss their common problems.

The program tentatively will include sections on Grain Storage Ecology and Control of Insect and Mite Infestation.

The proceedings of the Symposium are to be published to provide a useful reference book containing the recent advances in grain storage research. For further information please contact:

INTERNATIONAL SYMPOSIUM ON THE STORAGE OF
GRAIN AND ITS PRODUCTS,
c/o Agricultural Engineering Department,
The University of Manitoba,
Winnipeg 19, Manitoba.

GOVERNMENT AUSTERITY AND ENTOMOLOGY

On the instructions of the Governing Board, the President was directed to inform the appropriate members of the Federal Government of the Society's concern over the effect of the Federal Government's program of austerity and the future of entomology in Canada.

28 July 1970

28 juillet, 1970.

The Rt. Hon.

Pierre Elliott Trudeau, P.C., M.P.,
Prime Minister of Canada,

Dear Sir:

The members of the Entomological Society of Canada have asked me to express their serious concern to you and to members of your Government over the impact of current policies relating to scientific expenditures as they affect our discipline.

As you are well aware, the implication of holding the line with respect to total expenditure in support of scientific research in effect means a substantial reduction of effort. This reduction has been brought forcibly to the attention of our members during the past year by the layoff of entomologists in the Department of Fisheries and Forestry and by the virtual cessation of recruitment of entomologists by all departments. If current trends continue, the impact on our discipline will be particularly great since most Canadian entomologists are employed by the federal government.

Because presently available knowledge of a whole array of pest insects is inadequate, it is apparent that we are incapable of solving pest-pollution problems of the human environment by biological or other non-toxic means of control, rather than through the use of pesticides. Clearly, the problems posed in Canada by insects of the human environment will not be solved by reducing our entomological effort.

We are not arguing the case for Government vs. non-Government research, but rather the case for the importance of the service rendered by our discipline to Canada. We believe that any shift in entomological effort

Le Très Honorable

Pierre Elliott Trudeau, P.C., M.P.,
Premier Ministre du Canada,

Monsieur le Premier Ministre,

Les membres de la Société entomologique du Canada m'ont chargé de vous faire part, ainsi qu'à vos collègues du gouvernement, de la répercussion des politiques budgétaires en cours vis-à-vis de la discipline entomologique.

Comme vous le savez sûrement, le plafonnement de tous les budgets consacrés à la recherche scientifique s'est traduit par une activité sensiblement réduite. Nos membres en sont conscients et ont déploré les congédiements effectués, l'an passé, au Ministère de Pêches et des Forêts, ainsi que la discontinuation, à toute fin pratique, de l'embauche de nouveaux entomologistes au sein des autres ministères. Si cette tendance se maintient, elle aura des conséquences particulièrement graves, étant donné que la majorité des entomologistes canadiens sont à l'emploi des services fédéraux.

Les connaissances accumulées jusqu'à présent sur les mille et une particularités du monde des insectes nuisibles se révèlent encore incomplètes et ne nous permettent pas de faire face aux problèmes de la désinsection sans danger de pollution du milieu en ayant recours soit à des méthodes de lutte biologique soit à tout autre procédé non-toxique plutôt qu'à l'emploi conventionnel des pesticides. Il devient donc évident que le problème des insectes en relation avec l'environnement humain ne pourra pas être résolu en diminuant les recherches entomologiques.

Nous ne voulons pas faire ici le procès de la recherche gouvernement-

contemplated by government to universities or industry should be accompanied by an orderly transfer of people and money. Only in this way can we preserve the elements of programs essential to the welfare of Canada.

We are concerned immediately with the layoffs of entomologists. A number of established careers have been interrupted and perfectly competent individuals laid off by sudden revision of approved plans that have been many times reviewed. For many entomologists who have not been laid off, or for whom alternative employment has been found, substantial hardship has been caused by the precipitate interruption of work and living patterns. This coupled with a halt in recruitment and the attendant lack of employment opportunities for recently graduated entomologists has caused widespread alarm and despondency among members of our profession.

We are concerned with the long term effects of present policy on future entomological expertise in Canada. Immediately following the Second World War there was a high rate of recruitment of entomologists by the Government and this has resulted in a population of entomologists concentrated in the 40-50 years of age group. The retirement rate of this group will increase dramatically during the next fifteen years but be particularly high over the next ten years. To meet the anticipated demand for entomologists during this period, we have recently initiated a program for the encouragement of students in secondary schools to develop an interest in entomology and pursue it when they enter university. A lack of employment opportunities will immediately nullify this program.

ale en regard de toute autre forme de recherche; nous voulons simplement souligner l'importance des services rendus par notre discipline envers le Canada. Aussi, nous croyons que tout changement envisagé en ce domaine par le gouvernement en faisant appel aux universités ou à l'industrie devrait être accompagné d'un transfert approprié de personnel et de fonds. Ce serait l'unique façon de conserver les programmes en cours considérés comme essentiels au bien-être des Canadiens.

Nous sommes particulièrement touché par le congédiement des entomologistes. On a ainsi mis fin à des carrières importantes et on a congédié des spécialistes compétents à la suite d'une révision soudaine de projets qui avaient pourtant été approuvés à plusieurs reprises. Ce bouleversement subit dans le travail n'a pas été sans causer un profond malaise chez les entomologistes qui sont demeurés en fonction ou chez ceux qui ont été dirigés vers d'autres tâches. Cette situation, jointe à l'absence d'opportunités d'emploi et d'embauche pour les entomologistes nouvellement diplômés, a créé un climat général d'inquiétude au sein de notre profession.

Nous nous inquiétons de l'effet que la politique actuelle aura, à longue échéance, sur la valeur future de l'entomologie au Canada. Alors qu'il y a eu effectivement une période de recrutement après le deuxième conflit mondial, la majorité des entomologistes se situent maintenant dans un groupe d'âge compris entre 40 et 50 ans. Le taux de personnes qui atteindront l'âge de la retraite augmentera considérablement au cours des quinze prochaines années et, plus particulièrement, dès la prochaine décennie. Pour prévenir une pénurie d'entomologistes durant cette période, nous avons récemment lancé une campagne d'information auprès des étudiants du secondaire afin qu'ils s'intéressent à l'entomologie et se spécialisent en ce domaine à l'université. Or, comme il n'y a plus d'opportunités d'emploi, cette campagne n'a plus de sens.

Traditionally, Canadian students have had to go abroad to obtain doctorates. Only in recent years have small but competent entomological schools been built up at Canadian universities. This educational capacity, developed in the past decade, will be destroyed if job opportunities are not available. In such a climate, the natural reaction of our universities will be to direct undergraduate and graduate students away from entomology while Canada continues to require specialists to service the entomological needs of Agriculture, Forestry, Fisheries, Wildlife, Public Health, as well as the special needs of pollution. If this situation is allowed to develop at universities, corrective measures to meet the demands for entomologists in the future will take much longer to initiate and sustain. A severely fluctuating demand for scientists in any discipline creates an almost impossible situation for our universities, and places the country in the unenviable position of having to recruit from abroad. This method of filling the gap we feel is both inadequate and unfair to Canadian scientists, Canadian universities and the Canadian Public Service.

We trust that your government, being the major employer of entomologists in Canada, will recognize that its present policy not only results in serious hardships for those laid off, but also in the loss of the important contributions that these well-trained scientists could have made to Canadian development. We hope that you will also recognize the long term effect on entomology as a scientific discipline in Canada, bearing in mind that our future capacity to meet our responsibilities in all of the essential fields mentioned above, is involved. We will not be able to discharge these responsibilities if the climate is such that we cannot maintain a responsible training program and replenish our numbers by the recruitment of top quality young Canadian entomologists.

Canadian entomologists have over the past half century made a notable

Pendant longtemps, les étudiants canadiens étaient obligés de s'expatrier pour obtenir un doctorat. Ce n'est que récemment que, dans les universités canadiennes, on a développé des départements d'entomologie, modestes en soi mais compétents. Ce développement, survenu au cours de la dernière décennie, s'avérera inutile s'il n'y a plus d'emplois disponibles. Dans de telles circonstances, nos universités détourneront naturellement les étudiants sousgradés et gradués de l'entomologie, alors que le Canada aura besoin de ces spécialistes pour répondre aux besoins de l'agriculture, de la foresterie, de la santé publique, pour la préservation de la faune ainsi que pour la lutte anti-pollution. Si une telle situation prévalait dans nos universités, il faudrait beaucoup de temps et d'effort pour reconstituer le processus de formation d'étudiants en cette discipline. Lorsque le taux d'embauche des scientifiques dans une discipline quelconque varie considérablement, la situation de nos universités devient intenable et les autorités du pays doivent recruter à l'étranger les spécialistes dont ils ont besoin. Cette façon de procéder nous semble inadéquate et peu équitable pour les scientifiques canadiens, pour les universités canadiennes ainsi que pour les services de la fonction publique canadienne.

Nous osons croire que votre gouvernement, à titre de principal employeur des entomologistes au Canada, reconnaitra que sa politique actuelle se solde non seulement par des situations pénibles faites à ceux qui sont remerciés de leur service, mais aussi par la perte réelle de contributions importantes que ces scientifiques compétents auraient apportées au développement du pays. Nous espérons que vous reconnaîtrez aussi que, ce qui nous préoccupe au sujet de l'effet à long terme sur l'avenir de l'entomologie en tant que discipline scientifique au Canada c'est de pouvoir être en mesure d'assumer pleinement nos responsabilités futures dans tous les champs d'action déjà men-

contribution to the development of the agricultural and forestry industries in Canada, as well as to the improvement of the public health of all Canadians, a point well borne out in several submissions placed before the Senate Committee on Science Policy during the past year. They stand ready to continue to serve these needs, as well as to serve the broader needs of Canadians in the field of pollution. They are particularly well equipped to undertake studies on pesticide pollution because of the background knowledge and expertise they have developed in ecology over the past ten years. Overall, their record is one of excellent service to the nation. It is our firm belief that this service must be maintained.

We are writing here in generalities to make our point. But we will be discussing the specifics of the problem at the next Annual Meeting of our Society to be held August 23 to 26, 1970, at Winnipeg, Manitoba. On that occasion, we would be pleased to place before our membership any information you might feel would be pertinent to the resolution of the problem.

I can assure you, Mr. Prime Minister, that the Entomological Society of Canada stands ready to provide details and to co-operate with your Government in any program that will effectively develop and use, within or outside Government, the Canadian entomological resources of this country.

I have the honour to submit, on behalf of my colleagues the members of the Entomological Society of Canada, the above points for your consideration.

Yours sincerely,
E. J. LeRoux,
President,
Entomological Society
of Canada.

tionnés. Nous serons incapables de faire face à ces responsabilités si la situation est telle que nous ne pouvons plus maintenir un programme d'entraînement et de recrutement pour les jeunes entomologistes canadiens les plus prometteurs.

Au cours des cinquante dernières années, les entomologistes canadiens ont fourni une contribution remarquable au développement de l'agriculture et des industries forestières au Canada, de même qu'à l'amélioration de la santé publique de tous les Canadiens. Tous ces points ont été fortement soulignés dans plusieurs rapports soumis, l'an passé, au Comité sénatorial sur la Recherche scientifique. Ils sont prêts à continuer de répondre à ces besoins aussi bien qu'à ceux beaucoup plus vastes de la lutte contre la pollution. Ils sont d'autant mieux préparés à entreprendre des études sur la pollution due aux pesticides que, déjà depuis dix ans, ils ont acquis des connaissances fondamentales sur l'écologie des insectes.

Nous n'avons exposé ici notre problème qu'en termes généraux; mais nous en discuterons les particularités au prochain congrès annuel de notre Société qui se tiendra du 23 au 26 août 1970, à Winnipeg, Manitoba. A cette occasion, nous serions heureux de faire part à nos collègues de tout avis qui vous semblerait propice à la solution de notre problème.

Je puis vous assurer, monsieur le Premier Ministre, que la Société entomologique du Canada est prête à collaborer avec votre gouvernement et à participer à tout programme qui mettra à profit toutes ses ressources.

Au nom de mes collègues de la Société entomologique du Canada, j'ai l'honneur de soumettre à votre attention toutes ces considérations.

Veuillez agréer, monsieur le Premier Ministre, l'expression de mes hommages les plus respectueux.

E. J. LeRoux,
President,
Société entomologique
du Canada.

Mr. E. J. LeRoux,
President,
Entomological Society of Canada,
Dear Mr. LeRoux:

August 5, 1970.

Before leaving Ottawa for a brief tour of Northern and Western Canada, the Prime Minister asked me to thank you for your letter of July 28, on behalf of the members of the Entomological Society of Canada, regarding layoffs of entomologists in the Public Service and matters related thereto.

Please be assured that the views of your Society have been carefully noted. In addition, your letter is being communicated to the Ministers most concerned, for further consideration.

Yours sincerely,
Mrs. Olga Maxwell,
Secretary,
Office of the Prime Minister.

Dr. E. J. LeRoux,
President,
Entomological Society of Canada
Dear Dr. LeRoux:

August 15, 1970

I am sympathetic with regard to the problems facing members of your Society as set forth in your letter of July 28, 1970 to the Prime Minister, and I regret that the economic situation has forced a curtailment in the growth of certain sectors of government activity.

As you know, government expenditures are determined by the available revenue and the policy pertaining to a balanced budget, and within these constraints, allocations are made to programs commensurate with the expectation of success in meeting the needs of Canada. There are many more demands on the public purse than there are funds available, and in such circumstances choices must be made. This necessity can lead to restrictions on expenditure for even the most worthy programs and I can appreciate how such decisions can result in situations of the type you describe.

At the same time, it is the responsibility of government to select those courses of action that will best enhance the quality of life in Canada, and although decisions are not taken to discriminate against a particular segment of society, it does sometimes happen that one group appears to benefit (or suffer) more than another. I am sure you will agree that such decisions must be taken, and I assure you they are taken only after considering the best advice available.

The situation confronting your group is similar to that faced by other highly trained and specialized scientists, and emphasizes the need for manpower planning. I can appreciate the disruptive effects of sudden and extensive alterations in programs, but I am confident that with the full introduction of the Planning, Programming and Budgeting System, changes in programs will be phased in order to avoid the problems to which you have referred.

I have no doubt that entomology will continue to contribute to our national programs and that the difficulties you foresee for your discipline will be overcome. I appreciate that your concern arises out of the awareness of the role to be played by entomology and I am grateful for the interest you have shown in drawing the attention of the federal government to the problem.

Yours sincerely,
C. M. Drury
President of the Treasury Board

August 18, 1970

Dr. E. J. LeRoux,
President,
Entomological Society of Canada,

Dear Dr. LeRoux:

The Prime Minister has referred to me, as well as to other Ministers, your letter of July 28, 1970 regarding the impact of current policies on scientific expenditures as they affect entomology and entomologists in Canada.

You may assure the members of your Society that I shall pay the fullest possible attention to the problems that you brought to the notice of the Prime Minister. I am aware of my special responsibility in this regard since the majority of the entomologists in the Public Service of Canada are employed in this Department.

Most of our entomologists are members of our Research Branch. This Branch recently reviewed its objectives, priorities and programs to meet new challenges and problems in the improvement of our agricultural industry. The process will be a continuing one. It has been recognized that changing priorities and new opportunities for the improvement of the industry, require that some existing programs be terminated or curtailed and that others be initiated or expanded. Such changes will affect the balance and strengths of the various disciplines in our scientific resources. In my Department these adjustments in program have been accomplished without the layoff of any entomologists and I do not foresee that layoffs will be necessary in the future. It will be essential, however, for our entomologists, as well as others of our research staff, to accept a greater flexibility and mobility than in the recent past, to meet the changing needs of our research program. Our entomologists accepted such a challenge in the past to meet the corn borer and northern biting-fly problems and I am certain they will do so in the future.

We have been aware, for sometime, of the uneven age distribution of our entomologists, a point you make in your letter, and this situation applies to most of our scientific staff because of the rapid expansion of the Public Service following the Second World War. The Public Service Commission has this problem under study as does this Department. Universities, which will also be concerned, are undoubtedly not unaware of the problem. We trust that, working together, all concerned will find an answer to this problem of the supply of and demand for scientific manpower.

You may be assured that I am fully aware of the contribution that the members of your Society have made in the development of Canada in the past. I also recognize the need Canada will have for their services to meet even greater challenges in biology that we will face in the future. I shall do my utmost, in concert with all others concerned, to ensure that the resources that they and their successors possess, shall not be wasted or remain unused.

Finally, I appreciate your Society's offer of cooperation and assistance. This is accepted in the knowledge of its increasing participation in national scientific affairs, particularly through the Biological Council of Canada and SCITEC.

Yours truly,
H. A. (Bud) Olson
Minister of Agriculture

Entomological Society of Canada

RULES AND REGULATIONS

26 August 1970

The following rules and regulations for the management and operation of the Society have been prescribed by the Governing Board and, on the dates shown, confirmed by the members in accordance with Bylaw XIX:

1. **Executive Committee**
The Governing Board shall appoint an Executive Committee consisting of the President and two voting members of the Board. (31 October 1957).
2. **Managing Council**
 - 2.1. The Secretary and Treasurer shall each secure bonds of One Thousand Dollars (\$1000.00), the cost to be borne by the Society. (31 October 1957).
 - 2.2. The Treasurer is authorized, without reference to the Board, to pay the costs of printing and distributing *The Canadian Entomologist* and the *Bulletin*, and to purchase the goods and services required for the conduct of the Society's business, each such purchase not to exceed One Hundred and Fifty Dollars (\$150.00). (27 August 1968).
 - 2.3. The expenses incurred by members of the Managing Council in attending meetings of the Board and general meetings of the Society may be paid by the Society when authorized by the Executive Committee. (30 October 1958).
3. **Editorial Board**
 - 3.1. The Editorial Board shall consist of a chairman and four members, two of the members being from Ottawa and two from other regions. The Editor shall be an *ex officio* member. (26 August 1970).
 - 3.2. The terms of office of the chairman and members shall be four years. One member shall be replaced each year. (26 August 1970).
 - 3.3. The Editorial Board shall (i) advise the Editor on publication policy, (ii) advise the Editor, at his request, on the acceptance of difficult papers, (iii) assist the Editor with achieving balance of content of *The Canadian Entomologist*, and (iv) conduct reviews of manuscripts as well as suggesting outside referees. (31 August 1965).
4. **Dues**
 - 4.1. Effective 1 January 1970, annual dues for direct, active membership shall be Eighteen Dollars (\$18.00), while those for active membership through an affiliated society shall be Sixteen Dollars (\$16.00). (28 August 1969).
 - 4.2. Effective 1 January 1970, annual dues for student membership shall be Eight Dollars (\$8.00). (28 August 1969).
 - 4.3. Annual dues for sustaining associates shall be One Hundred Dollars (\$100.00). (31 October 1957).
5. **Publications**
 - 5.1. The annual subscription rate for *The Canadian Entomologist* shall be Thirty Dollars (\$30.00). (28 August 1969).
 - 5.2. The charge for publication in *The Canadian Entomologist* shall be Twenty-Five Dollars (\$25.00) for each page. Members whose research is unsupported, or who claim that the support they receive

under sponsorship is insufficient to pay the page charge for a specific manuscript, may apply through the Editor at the time of submission for a grant equivalent to the charge. (28 August 1989).

- 5.3. Reprints of papers published in *The Canadian Entomologist* shall be sold only in even hundreds and at the following prices for the first 100 copies and each extra 100 copies: 1-4 pages, \$33.00 and \$9.00; 5-8 pages, \$48.50 and \$12.00; 9-12 pages, \$63.00 and \$15.00; 13-16 pages, \$82.50 and \$18.00; 17-20 pages, \$105.00 and \$21.00; 21-24 pages, \$130.50 and \$24.00; 25-28 pages, \$159.00 and \$27.00; 29-32 pages, \$190.50 and \$30.00. Authors discounts of up to 40 percent may be granted to authors who certify, at the time of ordering, that they are buying reprints at personal expense. Authors ordering personal reprints in addition to those ordered by an institution shall be billed at the rate for extra hundreds. (28 August 1989).
- 5.4. Prices of back issues of *The Canadian Entomologist* shall be Ten Dollars (\$10.00) per volume and One Dollar and Fifty Cents (\$1.50) per number for Volumes 1 to 89, and Eighteen Dollars (\$18.00) per volume and Two Dollars (\$2.00) per number for Volume 90 and succeeding volumes. (18 October 1984).
- 5.5. The overhead charge for the publication of *Memoirs* shall be twenty-five percent. (28 August 1989).
- 5.6. The Society shall publish a periodical for the dissemination of news and non-technical articles of interest to the members. (13 September 1986).

6. Achievement Award

The Society shall present from time to time a medal in recognition of an outstanding achievement in entomology in Canada and that the following conditions shall govern such awards:

- (i) Outstanding contributions shall be judged on the basis of (a) superior research accomplishment either as a single contribution or a series of associated endeavours and which may be either in entomology or a related field where the results obtained are of great consequence to entomology; or (b) dedicated and fruitful service in the fields of Society affairs, research administration, or education.
- (ii) 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.
- (iii) Recipients need not be members of the Society providing their contribution is judged to have a major impact on entomology in Canada.
- (iv) The award shall consist of a medal carrying a suitable citation and presented at a banquet or plenary session of the Society at which time a brochure setting forth the terms of the award and the recipient's biography shall be distributed to those in attendance.
- (v) Recipients shall be selected by a special committee appointed by the Board of Directors from nominations presented by the President-Elect at the first meeting of the Board following his election.
- (vi) The Award Committee shall function under the chairmanship of the President-Elect and may receive or solicit advice from Directors

or members of the Society. Its deliberations shall be held in camera and decisions on the granting of medals shall be binding on the Society.

- (vii) The Award Committee shall inform the President or Secretary on or before July 1 of each year as to whether a medal shall be granted and, if so, the name of the recipient. The Committee shall also provide the Secretary with an appropriate citation for the medal and the information for the descriptive brochure for use at the presentation.
- (viii) The medal may be granted on different occasions to the same recipient but for different contributions to entomology in Canada. (18 October 1961).

7. Biological Council of Canada

The Society shall be a full participant in the Biological Council of Canada. (13 September 1968).

8. Financial Support for Meetings

The Society shall provide financial support specifically for the scientific program of the annual meeting in the amounts of:

- (i) Five Hundred Dollars (\$500.00) to assist with arranging the scientific program, such as notices of meeting, printing of programs, rental of conference halls, etc.
- (ii) Up to Seven Hundred and Fifty Dollars (\$750.00) to pay expenses and honoraria for special scientific speakers who in general would be other than Society members.

The Five Hundred Dollars shall be paid as an unaccountable advance to the affiliated society and the remainder paid as requested and shall be accounted for by the affiliated society. (2 September 1965).

9. Bank

The official bank of the Society shall be the Canada Permanent Trust Company, Ottawa, Ontario. (27 August 1968).

CANADIAN ENTOMOLOGIST 100 YEARS AGO

SUBSCRIPTIONS — Members of the Society are reminded that their subscriptions for the year 1970 (\$2) are now due.

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CLUB RATES — In addition to the club rates announced on the second page of the wrapper, we are enabled to offer the following:—

The Children's Hour (\$1.25) and the Canadian Ent. (\$1) for \$1.75.
The Educator (36 cents) and the Canadian Entomologist (\$1) for \$1.05.

G. W. K. STEHR 1915—1970



Canadian entomologists suffered the loss of an esteemed and beloved colleague on April 26, 1970 when Dr. Stehr died suddenly at his home in Sault Ste. Marie. He was born Gotthard Wilhelm Karl in Berlin in 1915, but to all his friends on both sides of the Atlantic he was affectionately known as "Antoine".

Because he was opposed to the Nazi regime, Antoine had to leave Germany in 1934. He spent the following 12 years as a student and assistant in the Zoology Department of the University of Zürich, receiving his Ph.D. in genetics and developmental physiology. He also studied art and later became an authority on painting. In 1946, he returned to Germany, where he did research and editorial work on new textbooks for 2 years at the University of Berlin. This was followed by a brief period at the University of Mainz where the folding of his Department precipitated his coming to Canada in 1949.

Many of his acquaintances may not know that Antoine's first job in Canada was pouring concrete with a wheelbarrow in the construction of an Ottawa school—a building he frequently pointed out with pride in later years! Fortunately this period did not last long; in a few months he joined the Department of Agriculture and subsequently the staff of the Forest Insect Laboratory at Sault Ste. Marie. His main interest became the genetics of the spruce budworm, and he began a unique rearing program that is still in progress. He published several important papers on polymorphism in relation to evolution, and those close to him knew he was on the verge of elucidating some fundamental principles of genetics when his untimely death occurred. A glimpse of what was to come was given by his thought-provoking paper on "Some Concepts in the Population Biology of the Spruce Budworm" delivered at the 1968 meeting of the Entomological Society of Ontario and later published in the Proceedings.

Antoine was a lovable nonconformist to whom the term "generation gap" was meaningless. He and Eva kept open house, especially for young people who enjoyed his understanding and wise counsel. He had an extraordinary rapport with children and though he was thoroughly at home in the intricacies of philosophy, mathematics, history, dog breeding, and art, as well as his chosen field, the smallest child could accept him as an equal.

Writing and speaking for the public was a painful experience for him because of his perfectionism. But in conversations, discussions, and a vast correspondence, he gave freely of himself and his knowledge. Around the world are many people whose work, philosophies and lives are affected by his thoughts and example.

In the language of Antoine Stehr's profession, his ideas and nonconformity constitute one of those mutations essential for the cultural evolution of human society. He is sadly missed by his colleagues but, as we know, "good" mutations live on.

He would have insisted on the quotes.

L. M. Gardiner

HECTOR ALEXANDER URQUHART MONRO 1906 - 1970



Hector Monro was born on April 1, 1906 at Leigh-on-Sea, Essex, England and died in London, Ontario on June 1, 1970 after a lengthy illness. Dr. Monro came to Canada in 1928 and after a short time took up studies in Entomology at MacDonald College of McGill University in St. Anne de Bellevue, Quebec. He graduated with a BSA in 1933, an MSc in 1935 and Ph.D. in 1959. During his undergraduate training he became interested in plant quarantine work and was employed by the Plant Protection Division of the Canada Department of Agriculture to organize and develop research on plant quarantine problems at the Dominion Fumigation Station in Montreal. He was officer-in-charge of this station up to 1950 and during this time he did a great deal

of the pioneering work on plant quarantine problems and ship fumigation.

Dr. Monro's outstanding abilities as an entomologist and plant quarantine specialist were soon recognized and in 1950 he was transferred to the Science Service Laboratory in London, Ontario to devote his full time to research on fumigants and the development of new methods of insect control. In 1952 when foot and mouth disease was accidentally introduced into Western Canada from Europe, Dr. Monro was sent to Europe by the Canadian Government to investigate the occurrence and extent of the disease and to study precautions, methods of prevention and control. He became a world authority on fumigation and the use of fumigants for insect control and in 1958 he was asked by the Food and Agriculture Organization of the United Nations to write a manual on the subject. When this manual was published in 1961, it was enthusiastically received and was soon disseminated across the world where it became a classic reference to those involved in food sanitation and insect control. Dr. Monro served as consultant to both the Canada Department of Agriculture and FAO and was constantly being called on for his opinions and advice on matters pertaining to insect control.

Dr. Monro was a long time member of the Entomological Society of America, he served on the executive of the Canadian Entomological Society for several years and he served as president of both the Entomological Society of Ontario and the McIlwraith Field Naturalists Club. Dr. Monro also made an outstanding contribution to the training of entomologists and plant quarantine specialists both in Canada and the United States. He organized and lectured in many training courses for plant quarantine inspectors and pest control operators in Canada and on several occasions he lectured to similar groups for the U. S. Department of Agriculture. In 1967 he was invited to go to India to take part in the training of pest control specialists from the newly developing countries of Southeast Asia.

Many of Dr. Monro's friends and associates will well remember his famous limericks - of these he had a great repertoire and he not only had the ability to remember and recite a host of them but he was also an expert at composing his own. Dr. Monro was widely read and had a vast store of knowledge that he made readily available to those about him.

Dr. Monro is survived by his wife Alice, two sons, Alexander and Donald, a daughter Elizabeth (Smith) and three grandchildren.

E. J. Bond

RICHARD HAROLD PAINTER 1899 - 1970



Richard Harold Painter, widely known entomologist, was born at Jordan Station, Ontario, on November 18, 1899, and died at Lethbridge, Alberta, on July 10, 1970.

He graduated from the Ontario Agricultural College, Guelph, in 1922 and received the M.Sc. degree from Macdonald College in 1927.

Dick Painter began his entomological career in 1922, working out of Ottawa for the next ten years on European corn borer, the tarnished plant bug, and mushroom insects. In 1932 he moved west to conduct grasshopper research and surveys, first at Treesbank, Manitoba, with the late Norman Criddle, and later at Brandon and Lethbridge. Shortly after his move to Lethbridge he became interested in livestock insects

and during the war was in charge of warble fly control for Canada. In 1947 he was appointed officer-in-charge of the Livestock Insect Laboratory, a unit of the Science Service Laboratories at Lethbridge. He was appointed Livestock Insect Liaison Officer in 1954 to interpret research findings to the livestock industry through provincial departments of agriculture, regional fairs, and livestock associations. After 42 years' service with the Canada Department of Agriculture he retired on November 20, 1964.

Endowed with a personable character and the ability to speak easily and effectively he was in great demand to address groups on insect control. He was a perennial and popular speaker at field days and annual meetings sponsored by Experimental Farms and farmer associations. In addition, he became a proficient announcer at horse shows throughout Western Canada. Honours conferred on him include honorary presidency of the Canadian Hereford Association, election to Agricultural Hall of Fame of the Lethbridge Exhibition, honorary life membership in Lethbridge Chamber of Commerce, honorary citizenship of the City of Brandon, honorary directorship of the Manitoba Winter Fair, honorary membership in Brandon Chamber of Commerce, recognition for service in agriculture by Manitoba Department of Agriculture, honorary life membership in the Manitoba Stock Growers, Saskatchewan Stock Growers, Alberta Hereford Association, and Western Stock Growers Association, honorary membership in the Regina and Portage la Prairie Riding Clubs, and honorary life membership in the Entomological Society of Alberta.

Dick Painter was featured in the September 1964 edition of *Canadian Cattleman* and the following tribute at that time describes the man extremely well: "The amount of money that R. H. Painter has saved and made for cattlemen cannot be estimated. But probably an even greater benefit—and certainly more lasting—is the effect that he, as a man, has had on stockmen and their associations. He demonstrated that technical knowledge need not be dry, stuffy, or pedantic, but in fact lively and intensively interesting."

Mr. Painter is survived by his wife, formerly Hannah Barlow of Brandon. He was predeceased by his first wife, Grace Evelyn.

L. A. Jacobson

INDEX TO BIOGRAPHY IN THE ENTOMOLOGY NEWSLETTER VOL. 41 to 47

The Entomology Newsletter of the Canada Department of Agriculture, Research Branch ended publication with Vol. 47, No. 3, August 1969. It is a rich source of biographical material on entomologists in Canada and, for the Entomological Society of Canada, has much historical value. The last index was published at the end of Vol. 40, 1962; this index completes the last seven volumes.

The style of later issues changed as the Newsletter changed its objectives and confined its coverage more to Research Branch affairs. Biographical notes were given of new recruits and others, as well as the usual detailed biographies of prominent entomologists. It is not possible to draw a line separating those that contain enough detail to be worth including and those that do not, therefore all are indexed here.

Arnason, A. P.	43(2)	Manson, G. F.	45(5)
Arnott, D. A.	46(4)	Marshall, James	42(11)
Begg, J. A.	44(3)	Matsuda, Rynichi	47(1)
Bellamy, R. E.	45(9)	Maxwell, C. W. B.	47(2)
Bird, R. D.	44(8)	McAllan, J. W.	47(3)
Bodnaryk, R. P.	47(1)	McCinnis, A. J.	44(8)
Briand, L. J.	43(10)	McCugan, B. M.	45(3)
Bright, Donald	44(12)	Moore, C. A.	44(6)
Brooks, A. R.	42(2)	Morgan, G. T.	45(1)
Bryce, P. I.	42(4)	Mukeri, M. K.	45(4)
Byers, J. B.	47(1)	Osgood, C. E.	46(3)
Campbell, J. M.	44(12)	Painter, R. H.	41(11), 43(6)
Cartier, J. J.	47(2)	Patterson, N. A.	44(10)
Chartnietzki, W. A.	44(11)	Peck, Oswald	47(3)
Corbet, P. S.	45(7)	Petch, C. E.	42(2)
Curtis, L. C.	47(2)	Pickett, A. D.	44(9)
Downe, A. E. R.	45(5)	Reed, Larry	45(6)
Elliott, W. M.	44(10)	Robert, Adrien	42(10)
Farstad, C. W.	45(2)	Ryan, W. St.	41(8) (12)
Finlayson, L. R.	43(12)	Scott, C. B.	42(3)
Fox, C. J. S.	44(11)	Sheppard, R. W.	41(3)
Fulton, H. G.	46(1)	Singh, Pritam	46(1)
George, John	44(12)	Smallman, B. N.	41(10)
Gerber, G. H.	47(2)	Smith, R. W.	44(4)
Gregory, F. W.	43(5)	Spencer, G. J.	45(2)
Hagley, E. A.	46(4)	van Steenburgh, W. E.	44(5)
Hegdekar, B. M.	45(9)	Steward, C. F.	47(1)
Hikichi, A.	45(6)	Stirrett, C. M.	42(12)
Hinks, C. F.	47(1)	Stultz, H. T.	46(1)
Holland, G. P.	45(8)	Teskey, H. J.	44(11)
Hopping, G. R.	43(1)	Thompson, R. W.	41(7)
Hudson, F. J.	41(11)	Tu, Chin-Ming	45(4)
James, Hedley	47(2)	Tzanakakis, J. M. E.	46(4)
Lapp, W. R.	41(11)	Walley, G. S.	47(3)
Leius, Kaarel	41(1)	Watson, E. B.	42(1)
LeRoux, E. J.	46(4)	Webster, J. M.	44(9)
MacNay, C. G.	44(8)	Williams, I. H.	44(11)
Maltais, J. B.	41(9)		

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 P. S. Corbet, Box 367, Belleville, Ontario 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 31 October 1970.

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.

LABORATORY COLONIES OF MITES, TICKS AND INSECTS IN CANADA

The Governing Board has assumed from the Canada Department of Agriculture, the responsibility of publishing a list of colonies of insects and related arthropods maintained in Canadian laboratories. The list is to be published as an insert in the Bulletin at 2-year intervals.

Cooperators in the last revision of January, 1969, will be contacted directly to update this list. If members know of any laboratory colonies which might not otherwise be included, please contact the undersigned.

Comments, which might make the list more useful, are also solicited.

J. S. Kelleher,
c/o Research Institute, C.D.A.,
P. O. Box 367,
228 Oundas St. East,
Belleville, Ontario.

PERSONALIA

Dr. Philip S. Corbet, C.D.A. Research Institute, Belleville, visited Brazil during May 1970 at the invitation of the Belém Virus Laboratory, to help with the age-determination of mosquitoes involved in the transmission of diseases in forest.

Dr. Sevcı Yazgan joined the staff of the Research Institute, Belleville, as a National Research Council Post-doctorate Fellow on 5 May 1970 to work on the development of an artificial diet for parasitic Hymenoptera. Dr. Yazgan did his graduate work in insect nutrition at the University of Ankara, Turkey, under the supervision of Professor Selabattin Okay.

It was recently announced by R. B. D. Publications Inc. that Dr. Eugene G. Munroe has been appointed to their Board of Editors.

POST GRADUATE DEGREES

Price, Peter. Ph.D. Cornell University, May 1970. Dissertation: Ecological niche relationships of coexisting parasitoids that utilize the same host.

Tostowaryk, Walter. Ph.D. Cornell University, May 1970. Dissertation: The effect of prey defense of *Neodiprion* sawflies on the impact of parasites and a predator, *Podisus modestus* (Dallas) (Hemiptera: Pentatomidae), with notes on the life history and behavior of the pentatomid.

Philogène, Bernard. Ph.D. University of Wisconsin, May 1970. Dissertation: The influence of temperature and photoperiod on the post-embryonic development of the Swaine jack-pine sawfly, *Neodiprion swainei* Middleton (Hymenoptera: Diprionidae).

Drs. Price, Tostowaryk and Philogène will continue their work at the Forest Research Laboratory, Sainte-Foy, Québec.

NOTICE

LIBERATION OF INSECT PARASITES AND PREDATORS IN CANADA

Each year the Research Institute, Belleville, Ontario publishes a *Liberation Bulletin* listing releases of insect parasites and predators: not only those imported by the Institute but also any which are transferred from one area in Canada to another. The cooperation of all Canadian workers in recording and submitting such information annually, before 30 November, is solicited. Forms can be provided and acknowledgments will be made in the *Liberation Bulletin*.

Please contact: Importation Officer, Research Institute, Canada Department of Agriculture, 228 Dundas Street East, P.O. Box 367, Belleville, Ontario.

