PROCEEDINGS OF THE FOURTH ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF ALBERTA

CALGARY - ALBERTA

NOVEMBER 9TH - 10TH, 1956

Proceedings of the

ENTOMOLOGICAL SOCIETY OF ALBERTA

Vol. 4 December, 1956

C O N T E N T S

The composite picture opposite page 12 was prepared by members of the Lethbridge Lab.

Proceedings of the

ENTOMOLOGICAL SOCIETY OF ALBERTA

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MINUTES OF MEETINGS

Executive meeting May 11, 1956 at the home of G.R. Hopping, Calgary

Present at the meeting were G.R. Hopping, President, W.C. McGuffin, Treasurer, Miss M. Cumming, Editor-Librarian, W.O. Haufe, Director and C.E. Brown, Secretary.

After discussion of the available places at which the Annual Meeting of the Entomological Society of Canada could be held, it was decided to hold it at Lethbridge since the members from that section had indicated that they would be pleased to have it there. Tentative dates of the last week in October or the first week in November were suggested. The secretary was instructed to extend an invitation to the Entomological Society of Canada to hold their 1957 meeting in Alberta, after definite word was received from Lethbridge subsequent to Dr. Haufe's report of the executive meeting. It was suggested that the El Rancho Motel would accommodate much of the convention. More information on accommodation was to be made available later.

The secretary was instructed to write Mr. Wigmore, stating that Dr. Farstad was willing to continue as a delegate representing the Entomological Society of Alberta until the Annual Meeting in 1957, subject to the approval of the Annual Meeting of this Society. It was suggested that the time of office of the Director to the National Society be increased from one year to two years and the secretary was instructed to prepare the necessary notice of motion to be distributed to the membership prior to the Annual Meeting.

The Annual Meeting of the Alberta Entomological Society was discussed and in accordance with a motion passed at the Annual Meeting in 1955 arrangements were to be made to hold it in Calgary on October 26 and 27. Mr. Atkinson, Superintendent of Waterton Lakes National Park, was suggested as guest speaker.

Support for a scholarship in Entomology at the University of Alberta was discussed. The letter which Dr. Hocking had prepared was to be used but revised so that it would appear as a letter from the president of the Society.

The secretary was instructed to keep a list of new members to be reported at the Annual Meeting.

Local collecting trips were discussed but their arrangement left to the local committee members, Dr. McGuffin, Dr. Haufe and Dr. Hocking.

Support for the Tenth International Congress of Entomology was discussed. It was decided to circularize the membership requesting permission to express our approval of the Congress by a small donation.

It was suggested that the Editor-Librarian prepare a short brief on library policy and that the subject be discussed at the 1956 Annual Meeting.

Special meeting, August 24, 1956, Victoria College Residence, Montreal, P.Q. (during meetings of the International Congress of Entomology).

Meeting called by President, Mr. G.R. Hopping. Present were: L. Jacobson, C. Farstad, W.C. McGuffin, W. Haufe, G. Ball, R. Shepherd, and C.E. Brown.

It was suggested that because of the National Meeting being held at Lethbridge in 1957, the 1957 executive of the Entomological Society of Alberta be selected from the Lethbridge group.

A discussion of the soliciting of funds for the National Meeting was held and it was agreed to ask the Provincial Government for a substantial contribution in view of their refusal to support the Tenth International Congress. It was also suggested that Imperial Oil be contacted as they have been active in supporting previous conferences. It was suggested that a program committee be set up very shortly so that a good program would be assured.

Mr. George Tunstell was suggested as a possible speaker at the fall meeting of the Alberta Entomological Society.

The secretary was instructed to write to the president of the Tenth International Congress commending him on the excellence of the scientific and social programs arranged for the Congress.

Executive meeting November 9, 1956, at the Horseshoe Inn, Calgary.

The Executive of the Society met at 9:30 a.m. The meeting

was conducted by the president, Mr. G.R. Hopping. Those present were G.R. Hopping, C.E. Brown, W.C. McGuffin, Miss M. Cumming, W.C. Farstad and B. Hocking.

Mr. Hopping asked W.C. McGuffin, G. Ball and N.D. Holmes to act as nominating committee. Agreed.

The president also asked B. Hocking, R. Stark and W.C. Farstad to act as resolutions committee. Agreed.

The president reported that he had asked L. Jacobson to become chairman of the steering committee for the meeting of the Entomological Society of Canada in 1957. Mr. Jacobson replied that he was prepared to outline the organization of the committees necessary and if it was the pleasure of the general meeting, he would be willing to act as chairman of the steering committee. Meeting adjourned 10:15.

Fourth Annual Meeting, November 9 and 10, 1956, at the Horseshoe Inn, Calgary.

The fourth annual meeting of the Entomological Society of Alberta was called to order by the President, Mr. G.R. Hopping at 10:30 a.m., November 9, 1956. Thirty four members were present.

Mr. Hopping in his presidential address paid tribute to Mr. W.A. LeMaistre, vice president, who passed away while in office. He also spoke with regret of the loss to the Society in the closing of the Entomology section at the Suffield Experimental Station.

Mr. Hopping welcomed six new members to the Society and introduced those present at the meeting. He mentioned that the most noteworthy event of the year was the Tenth International Congress of Entomology held in Montreal and reported on the progress made in establishing a scholarship in Entomology at the University of Alberta. He also reported that three collecting trips had been made and outlined the one made from Calgary.

Mr. Hopping thanked the members for their cooperation during the year. The secretary read the minutes of one special meeting, two executive meetings and the preceeding annual meeting. The minutes were adopted as read.

The treasurer's report was read by Dr. W.C. McGuffin who moved its adoption, seconded by Mr. S. McDonald.

Dr. Ball stated that the Committee on Common Names had nothing to report.

Those responsible for junior activities reported on the year's activities. Dr. G. Hobbs, reporting for the Lethbridge group, stated that for the past three years the number of letters he received has doubled but that response to the collecting competition was very poor. He suggested new blood be added to the committee. Dr. Hocking reported for the Edmonton section; he sent out more pamphlets this year, and had an increased number of enquiries but only two collections were submitted. He stated that several groups of children came to him looking for help. Dr. Hocking felt that many collections were not submitted because the children felt their collections were too poor. He also stated that the supply of equipment was unsatisfactory. Pins were sold in an Edmonton Hobby Shop but at an outragious price. He felt that some new scheme should be tried. Five hundred boxes were ordered by the University and about 100 have been disposed of. Several young people went on their field trip which was very successful. The radio and press were approached requesting that they mention the calling in of the collections. He suspects this information was not given out. Mr. Hopping reporting for the Calgary group stated that they had spent an evening with a group of Cubs interested in collecting and had received many requests for information.

The president requested that Dr. Hocking, Miss M. Cumming, and Dr. G. Hobbs be the judges of the collections which had been brought to the meeting for the purpose.

Mr. Lobay stated that there were several thousand 4H club members in the Province who were asked to make collections of weeds, etc. for their achievement days and suggested that insect collections be suggested as an alternate. He suggested the Society get in touch with the supervisor of Junior Activities in this regard. After some discussion, the president asked Mr. Lobay and Dr. Hocking to contact the superintendent of Junior Activities with this suggestion. There were several suggestions and some discussion on how the collection competition could be made more attractive and how the necessary materials could more easily be made available to those interested. No decision was reached.

The matter of a provincial grant or the use of the Queen's Printer for publishing the proceedings was discussed. The president stated he was not in favour of a grant and that the Society would be more independent without one. Dr. Farstad stated that the Agricultural Institute's publications were wholly supported by the Government and that the Canadian Entomologist was largely subsidized by commercial companies through advertisements and by the government departments through the purchase of reprints. He stated that he was in favour of a grant because if the work being done by the entomologists in Alberta was useful to the Provincial Government then it could be expected to support the society. Mr. L. Jacobson moved and A. Harper seconded a motion that the subject be referred to the new executive for study. Motion passed.

In the minutes of the 1955 Annual Meeting a motion was

placed by Dr. Farstad that the constitution of the Canadian Entomological Society be revised to contain proper sections on aims, officers, membership, elections, expenditures and bylaws. Speaking about this resolution in the 1956 meeting, Dr. Farstad moved that it be cancelled as the constitution adopted by the National Society at the time of its incorporation left nothing to be desired. Mr. P. Blakely seconded the motion which was carried.

Mr. L. Jacobson gave a report on the committees needed for arranging the meeting of the National Society in Lethbridge on October 29, 30, 31, 1957. Following Mr. Jacobson's talk there was a discussion on the type of meeting which should be held. Dr. Farstad stated that one of the reasons why meetings were held in different sections of the country was so that they could be made descriptive of the region. He cited the 1947 meeting held in Winnipeg as the outstanding meeting which he attended. As the representative of the National Society on the program committee he was anxious that the committee become active as soon as possible. He suggested that the theme of the meeting be "Host Plant Resistance". Mr. L. Jacobson was appointed as chairman of the steering committee and asked the meeting for its approval. Granted.

The secretary reported on the letter written to the Provincial Government requesting assistance in the entertainment of guests at the 1957 National Meeting. This request was turned down by the Province. Dr. Broadfoot suggested that we do not accept the letter from the Province as final but that a delegation visit the Minister of Agriculture asking for support. The president asked for volunteers to approach the Minister. Dr. Farstad volunteered and asked that Mr. Lobay, Dr. Hocking and Mr. Wilson, Field Crops Commissioner, prepare the way stating he would be available to go the following week. He requested Dr. Hocking accompany him. Dr. Ball moved and Dr. McGinnis seconded a motion that Dr. Farstad be official representative with power to make his own arrangements.

The business meeting was then adjourned. Papers were presented during the afternoon of the 9th and morning of the 10th. A social evening was held Friday evening, November 9.

The business meeting met again at 10:45 a.m. November 10. It was moved by Mr. S. Smith and seconded by Dr. N. Holmes that Dr. Farstad continue as delegate to the National Society until the Annual Meeting in 1957. Carried.

It was moved by Mr. R. Stark and seconded by Mr. S. McDonald that bylaw 2 be amended to read as follows:

"The Regional Director of the Entomological Society of Canada shall be elected at the annual meeting of the Entomological Society of Alberta and shall be a member of the Executive of the Alberta Society. The term of office of the Regional Director shall be two years." Motion carried.

Speaking about the proposed scholarship in entomology at the University of Alberta, Dr. Hocking stated that after reviewing the replies received from the firms contacted he felt we should go ahead with the very attractive offer proposed by Dr. Cooper of the American Cyanimide Co. which would provide $1,500.00 a year for at least 5 years for investigations in connection with insecticides. It was moved by Mr. A. Harper and seconded by Dr. W.C. McGuffin that the offer be accepted. Passed. The Secretary was instructed to write Dr. Cooper and thank him for the generous offer.

A report on the status and prospects of the society library was read by Miss M. Cumming, Editor-Librarian. After discussion on what should become of the library, Dr. Hocking suggested that a committee be set up to study the feasibility of maintaining a library. He suggested that an amateur be a member of the committee and further that he thought an amateur should be the custodian of the library which he could use as his own while looking after it. Dr. Farstad stated he was in favour of maintaining a library. Mr. Harper suggested that the library be left in the hands of the amateurs in the Society and that a small sum be appropriated for the purchase of books. Mr. R.L. Anderson stated that he felt the need of a library. Dr. Hocking moved and Mr. L. Jacobson seconded a motion that a library committee be set up by the new Executive. Mr. J. Shemanchuk moved the adoption of the report of the Editor-Librarian, seconded by Dr. Ball. Carried.

Dr. Hocking introduced the subject of private collections made by members of Science Service and requested information on the policy of the Divisions of Entomology and Forest Biology on the making and disposition of these collections. Mr. Hopping stated that as far as he knew private collections were not allowed and if made became the property of the Division. Dr. Ball stated that he believed that people working for the Government should not only be allowed to have private collections but should be encouraged to do so. It was moved by Dr. Hocking and seconded by Mr. A. Harper that the Alberta Society request the national body to place the question of policy regarding private collections of individuals working for Science Service on the adgenda of the National Meeting in 1957.

In reply to a request for the address of the Society, Mr. L. Jacobson suggested that the permanent address of the Society be "c/o Entomology Department, University of Alberta, Edmonton, Alta." and that the members of that Department forward any mail received to the secretary. This suggestion met with the favour of the meeting.

Members of the Lethbridge group displayed souvenirs, western type neckties, which they proposed to distribute to those attending the National Meeting in Lethbridge in 1957. The membership agreed that these would be very suitable and asked that the Lethbridge group go ahead with their preparation.

The report of the Nomination Committee was presented by

Dr. W.C. McGuffin. Dr. Broadfoot moved that nominations close, seconded by S. McDonald. The new executive is as follows:

President	C.W. Farstad
Vice President	B. Hocking
Past-President	G.R. Hopping
Secretary	D.S. Smith
Treasurer	C.E. Lilly
Editor-Librarian	J. Weintraub
Directors	J. Shemanchuk
	Miss M.E.P. Cumming
	J.H. Brown

The report of the Resolutions Committee was presented by Dr. Hocking who moved its adoption seconded by Mr. R. Stark. The resolutions were as follows:

Be it resolved that:

1. Mr. Jack Edmunds be requested to write an obituary for Mr. W.G. LeMaistre for publication in the Division of Entomology News Letter and in our Proceedings.

2. The secretary be requested to write a letter of appreciation to Mr. J.H. Atkinson for his kindness in being with us at the annual banquet and giving us an excellent illustrated address on his work with the National Parks.

3. The regional representatives be thanked for their efforts in stimulating an interest in entomology among young people and that in view of the small number of entries in the Insect Collection Competition this year that their colleagues be requested to give them more assistance in this work.

4. The outgoing executive, and in particular those responsible for organizing the 4th Annual Meeting now ending, be thanked for their efforts on behalf of the Society, and that the secretary be requested to write to the management and staff of the Horseshoe Inn thanking them for their congenial and courteous service.

Dr. Farstad spoke about the desirability of the Society having a number of honorary patrons. He believed that these patrons were very useful in promoting the work of the Society and making it better known to the public. He asked that the membership consider the desirability of having honorary patrons.

Mr. L. Jacobson moved and Mr. G. Swailes seconded a motion to hold a spring business meeting to talk over the arrangements made to hold the National Meeting in Lethbridge.

Dr. Ball moved a vote of thanks to the president and the executive for the way in which the meetings were conducted. The meeting adjourned at 12:15 p.m.

FINANCIAL STATEMENT - FOURTH ANNUAL MEETING

Receipts		Disbursements		
Registration	$ 112.00	License, punch and beer	(1)	$ 29.55
Refund on beer	2.35	Groceries	(2)	5.22
" " " bottles	1.20	Banquet	(3)	91.00
		Tips		8.00
		Rental of Epidiascope	(4)	11.25
		Hotel bill		
		Guest speaker	(13)	8.50
		Exchange on	(13)	.15
	$ 115.55			$ 153.67

Deficit on meeting - $38.12

Certified Correct - W.R. Hanson

ANNUAL FINANCIAL STATEMENT FOR YEAR ENDING DECEMBER 31, 1956.

Receipts

Balance from 1955			$ 148.25
Membership fees:			
Ent. Soc. of Alberta	1955	6.00)	
	1956	50.50)	
	1957	33.00)	
Ent. Soc. of Canada	1955	8.00)	89.50
	1956	72.00)	
	1957	28.00)	108.00
Outstanding Cheque #13			8.65
			$ 354.40

Disbursements

Membership fees:			
Ent. Soc. of Canada	1955	8.00)	
	1956	72.00)	
	1957	24.00)	$ 104.00
Exchange on 6 cheques Ent. Soc. Can.			.90
University of Alberta prize			50.15
Book prizes for collections			34.41
Covers - Proceedings			22.75
Donations to 10th Int. Congress			25.15
Flowers			5.15
Postage			12.00
Telegram			.50
Exchange on Cheque			.15
Bank Service Charges			.30
Deficit on Annual Meeting			38.12
Bank Balance			54.26
Cash on hand			6.56
			$ 354.40

Audited January 17, 1957

Certified Correct: W.R. Hanson
J. Marshall

INSECT COLLECTION COMPETITION, 1956

B. Hocking

This was not a good year for the competition. Only four entries were received, two from the Edmonton area and two from the Lethbridge area, in spite of an encouraging number of requests for information earlier in the year. It is planned to remedy this next year by maintaining records of enquiries and sending out follow up cards about two weeks before the closing date.

The entries which were received were of a somewhat higher average standard than last year. Judging was done by Miss Margaret Cumming, Dr. G.A. Hobbs, and Dr. B. Hocking at the Annual Meeting and prize winners were announced at the banquet as follows:

Senior Group

1st Prize: Doug Salt, Lethbridge
2nd Prize: Ronald Popik, Calmar

Junior Group

1st Prize: Kenneth Beswick, Spring Coulee
2nd Prize: Bruce Martin, Edmonton

Kenneth Beswick was the only prize winner who entered last year when he tied for second place. Prizes of books and equipment were sent out on November 27, 1956. The commonest weaknesses were: insufficient variety of specimens, labels too large, and specimens set too low on the pins.

ENTOMOLOGICAL SOCIETY LIBRARY

The library of the Entomological Society of Alberta is a collection of miscellaneous publications of proceedings of other Societies, miscellaneous reprints on Alberta insects and other reprints. A list of the publications is given below.

Before the library becomes too large there are certain decisions of policy that should be made by the Society. The following outline is designed to point out the problems involved.

Should the library consist of: 1. Only our own publications. 2. Our own publications and exchange copies from other societies. 3. Our own publications, exchange copies and reprints of papers on Alberta insects?

There will soon be so many books that it will be impractical to move the library every time the position of Editor-Librarian changes. The library should be housed in one location.

In order that the library be made use of, the books should be formally listed and possibly card indexed.

If we are to exchange publications, a decision should be made about the extent of the exchanges, i.e. do we want only British Columbia's and Manitoba's proceedings or do we want all Canadian Society proceedings. Whatever the decision, a policy should be laid down and the collection made as complete as possible, at least from the time our Society formed and possibly before that time, if copies are available.

If the library is to include reprints of papers on entomology in Alberta, a decision as to the scope of the papers should be made, i.e. do we want only papers on Systematics or do we want to branch out into such fields as Ecology. If it is to include a wide field, possibly a committee should keep in mind the topics and submit file index cards to the Editor-Librarian on papers to be included.

There is some doubt that an extensive library would serve a new and useful purpose since each establishment where Entomologists are at work in the Province has its own library and facilities for borrowing from large libraries. The amateurs of the Society have access to public libraries; possibly arrangements could be made for them to obtain books from the Entomological Libraries or the Universities. If a decision is made to have an extensive library a card index file system will certainly be needed, and a catalogue so that the library may be made use of. The effort required to make the library a complete one is in large part duplication. If a library is to be kept however, it should be done in a systematic manner.

If an extensive library is not to be kept there may be a useful purpose served by a list of publications of Alberta insects in the Society Journal. The scope of such a list should be decided upon. Members could submit cards of their own publications and a committee could watch for publications.

If there is to be no library the present holdings should be given to another library.

PUBLICATIONS IN THE LIBRARY, ENTOMOLOGICAL SOCIETY OF ALBERTA OCTOBER, 1956

Periodicals and Annual Reports

Entomological Society of British Columbia - Proceedings
1914 No. 4; 1915 No. 6; 1915 No. 7; 1916 No. 8; 1919 No. 14; 1923 No. 17 and 19; 1924 No. 21; 1925 No. 22.

Entomological Society of Manitoba - Proceedings
1952 Vol. 8; 1953 Vol. 9; 1954 Vol. 10; 1955 Vol. 11

Entomological Society of Nova Scotia - Proceedings
1915 No. 1; 1917 No. 3

Entomological Society of Ontario
73rd Annual Report 1942; 74th Annual Report 1943; 75th Annual Report 1944; 76th Annual Report 1945; 77th Annual Report 1946; 78th Annual Report 1947; 79th Annual Report 1948; 80th Annual Report 1949; 81st Annual Report 1950; 82nd Annual Report 1951.

North Central States Entomologists - Proceedings
18th Annual Meeting 1939; 22nd Annual Meeting 1943; 23rd Annual Meeting 1944.

Quebec Society for the Protection of Plants
28th Report 1936 - 1943; 29th Report 1943 - 1944; 30th Report 1945 - 1946 and 1947; 31st Report 1948 - 1949; 32nd and 33rd Reports 1950 and 1951; 34th Report 1952.

Miscellaneous Publications and Reprints

The Canadian Entomologist, Vol. 27, No. 4, April, 1895.

On Professor Smith's Treatment of the Forms of Graphiphora (Taeniocampa) allied to Hibisci, Guenee. Harrison G. Dyar, Washington, D.C. Canadian Entomologist, 1910.

Notes on Life History of Anisota Skinneri, Bied. Canadian Entomologist, 1910. William Barnes and J. McDunnough.

Melitaea Alma Strecker and its Synonymy. Canadian Entomologist, 1910. Karl R. Coolidge.

Further Notes on Alberta Lepidoptera. Canadian Entomologist July 1911 - September 1913. F.H. Wooley Dod.

Methods of Studying Economic Insects. President's Address. Quebec Society for the Protection of Plants. 1918 - 19. Prof. W. Lochhead.

Dragonflies (Odonata) of Alberta. Alberta Natural History Society, Red Deer. 1918. F.C. Whitehouse (2)

An Annotated List of the Coleoptera of Northern Alberta. Alberta Natural History Society, Red Deer. 1920. F.S. Carr (3)

Annotated Checklist of the Macrolepidoptera of Alberta. Alberta Natural History Society, Red Deer. 1919. Kenneth Bowman (2)

Compendium of Entomological Methods. Ward's Natural Science Establishment, Inc., 1940. Jay R. Traver.

Guide de Protection des Plantes Ornamentales, Bulletin No. 165. Ministere de l'Agriculture de la province de Quebec 1947. (2)

Destruction mauvaises Herbes par les Herbicides. Ministere de L'Agriculture, Quebec 1950. (2)

Protection Guide for Cereals. Plant Protection Service, Dept. of Agriculture Quebec 1951. (2)

An Annotated List of the Lepidoptera of Alberta. Canadian Journal of Zoology 1951. Kenneth Bowman.

Guide de Protection des Legumes. Quebec Society for the Protection of Plants 1952. (2)

Guide de Protection des Pommes De Terre. Quebec Society for the Protection of Plants. 1952 (2)

Guide de Protection des Pommiers. Quebec Society for the Protection of Plants 1952.

Spray Guide for Apple Trees. Plant Protection Service, Dept. of Agriculture 1952.

Official List of the French Names of Insects of Economic Importance in Canada (Second Edition). Dept. of Agriculture, Quebec. 1952.

List of Publications in the Entomological Society of Ontario Library. Quelph, Ontario. June, 1952.

Stages of apple bud development. Plant Protection Service, Dept. of Agriculture, Quebec.

Orchard Spray Manual. Plant Protection Service, Dept. of Agriculture, Quebec. (2)

Miscellaneous Mimeographed Articles

The Control of Cutworms in Gardens in Saskatchewan by K.M. King, June 1938. F.C.I.I. No. 158. Saskatoon Leaflet No. 53.

Supplementary Tables to the paper "The Monarch Butterfly, Danaus Archippus Fab. I. General Observations in Southern Ontario" by Geoffrey Beall. F.C.I.I. No. 291, Chatham, No. 9.

Arachnidism or Black Widow Spider Poisoning by Cornelius B. Philip, Sta. Circular No. 6, Hamilton, Montana.

The Control of the Wheat Stem Sawfly (Cephus Cinctus Nort.) by H.L. Seamans, C.W. Farstad, P.J.G. Rock and C.L. Neilson, Lethbridge. F.C.I.I. No. 262, Lethbridge Laboratory No. 6.

Some suggestions for preparing and erecting an entomological exhibit by C.B. Hutchings.

Society Publications

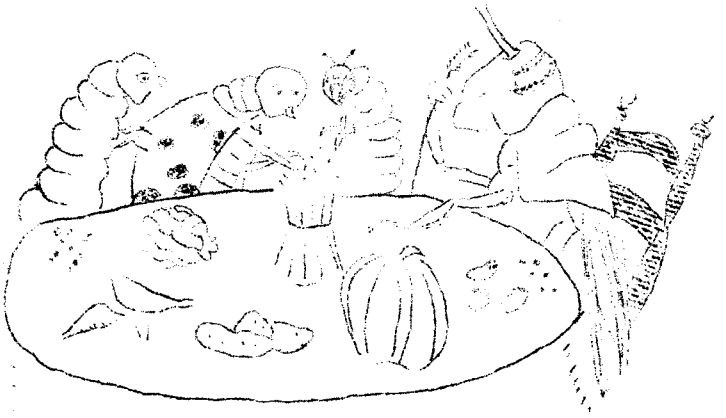
Insect Collector's Guide. McMullen. 150 copies

Entomological Society of Alberta - Proceedings
1953 - 18 copies with covers, 23 without covers; 1954 - 14 copies with covers, 17 without covers; 1955 - 15 copies with covers, 8 without covers.

SOCIAL EVENING

The social evening began at 7:00 p.m. on Friday evening with coctails and dinner. Following the dinner Mr. J.H. Atkinson, superintendent of Waterton National Parks, showed coloured slides and gave a talk about the National Parks of Canada. His facile manner of speaking and wealth of anecdotes made his talk very interesting and enjoyable.

Further refreshments were served during the evening while the members visited and were shown two excellent coloured movies. The first was produced by the Biographic Unit and was about Dr. G.A. Hobbs' work at the Field Crop Insect Laboratory at Lethbridge on polenation of alfalfa. The second was taken by Mr. J.K. Robins, of the Forest Biology Laboratory, Calgary, during a trip made for the Forest Insect and Disease Survey down the Mackenzie River in the North-west Territories.



ALBERTA APIARIST, LeMAISTRE DIES

William G. leMaistre, 53, of 10625 Saskatchewan Drive, who served 17 years as Alberta's Provincial Apiarist died on June 13, 1956.

Born in England, Mr. leMaistre came to Canada in 1922 and enrolled in the Ontario Agricultural College. After graduating in 1926 he farmed in Saskatchewan and worked briefly in Ottawa before returning to the College staff. In 1939 he moved to Edmonton to take the post of Provincial Apiarist.

Mr. leMaistre took an active part in beekeepers' organizations both national and provincial, serving as vice-president of the Canadian Beekeepers' Council and as secretary-treasurer of the Alberta Beekeepers' Association.

Mr. leMaistre is survived by two sons Philip and Richard and two daughters, Audrey and Joyce, all of Edmonton.

J. Edmunds.

SUMMARIES OF PAPERS PRESENTED

Highlights of Insect Occurrence and Abundance in Alberta - were discussed by Dr. B. Hocking, L. Lobay, C.E. Brown and A.M. Harper.

The Biting Fly Problem in Relation to Irrigation Developments in Alberta

J.A. Shemanchuk
Livestock Insects, Lethbridge

In spite of well recognized benefits from irrigation, the biting fly problem poses an ill effect through which economic losses might be suffered by lowering beef and milk production, by reducing the efficiency of agricultural and industrial workers, by interfering with recreational enterprises and by lessening value of real estate. Biting flies in irrigated areas of Alberta can be of economic significance as vectors of diseases.

Biting flies in the Alberta irrigated areas are represented by four families (1) Culicidae, (2) Simuliidae, (3) Tabanidae, (4) Ceratopogonidae. All these biting flies require water for breeding. Therefore, irrigation, especially when not properly handled, provides for prolific breeding of these pests.

Some possible measures of control were discussed.

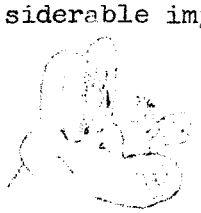
The Appearance of European Corn Borer in Alberta

A.M. Harper
Field Crop Insects, Lethbridge

In September 1956 a light infestation of European corn borer, Pyrausta nubilalis (Hbn.), was found in one field at Medicine Hat, Alta. This is the first record of the corn borer being present in a corn field in Alberta.

Because this insect overwinters as a larva in corn stalks, the Provincial Government Pest Control Division has encouraged farmers in the Medicine Hat area to plough down, burn, or chop corn stalks for feed, as a means of reducing populations.

In southern Alberta irrigated areas, corn is an important cash crop, thus the presence of the corn borer appears to be of considerable importance.



Observations on the eggs of Hylemya brassicae (Bouché)

G.E. Swailes
Field Crop Insects, Lethbridge

The incubation time and the per cent hatch of H. brassicae eggs has been determined for five constant temperatures. The shortest average time of hatch was 65.9 hours at 25° C. and the shortest time recorded for one individual was 56.5 hours at 30° C. At 5° C. there was no hatch. The longest incubation period for one individual was 325.5 hours at 10° C. Optimum temperature for incubation was 20° C. where 93.6 per cent of the eggs hatched.

Exposure for short periods of time to higher temperatures showed 36° C. for two hours and 37° C. for one hour killed the eggs. Eggs were not adversely affected by 5 hour exposure to 32° C. However, exposures to 33, 34, and 35° C. reduced hatch with the longer exposure times.

Eggs which were collected every second day and hatched in the laboratory during the second generation in 1955 gave 84 per cent hatch. Similarly eggs that were collected over the 1st and 2nd generations in 1956 gave 90 and 92 per cent hatch respectively.

Poplar-Gall-Forming Aphids in Southern Alberta

A.M. Harper
Field Crop Insects, Lethbridge

There are eight species of gall-forming aphids infesting poplars in southern Alberta. These are Pemphigus betae Doane, P. populi-globuli Fitch, P. populi-caulis Fitch, P. populi-ramulorum Riley, P. populi-transversus Riley, P. nortonii Maxson, Thecabius populi-monilis (Riley), and Mordvilkoja vagabunda (Walsh).

P. betae Doane, the sugar-beet root aphid, is of considerable economic importance in Alberta on its secondary host, the sugar beet. P. populi-transversus is a pest of cabbage and turnips in Texas but at present is of no economic importance in Alberta.

Information on migration and reproductive capacity of these aphids has been obtained. P. betae and P. populi-globuli migrate mainly in late June and July. M. vagabunda migrates mainly from mid-July to mid-August. The other species tend to migrate from early July until early October. In 1956 the reproductive capacity of these aphids varied from an average of 173 in P. betae to an average of 1,021 in M. vagabunda. No information was obtained on reproductive capacity or migration of T. populi-monilis.

An Unusual Occurrence of a Cutworm

L. A. Jacobson
Field Crop Insects, Lethbridge

A larva of Euxoa tristicula Morr., commonly known as the early cutworm, was found in a loaf of wrapped, sliced bread that was brought in from a small country store during November 1955. The almost fully grown cutworm was found between two slices about midway of the loaf, tightly curled in one of the spaces. This insect overwinters as a larva and must have found its way into the store with mud or straw and then gained access to the loaf of bread.

A study of variation in the morphological characters used to define species in the genus Euryderus Le Conte, 1948. (Coleoptera:Carabidae: Harpalini). G.E. Ball. University of Alberta, Edmonton. Title only.

A portable drying cabinet for Lepidoptera. R.L. Anderson, Calgary. Demonstration.

Bees Knees

B. Hocking
University of Alberta, Edmonton

A report on the use of larvae and pupae of the honey-bee as human food was presented. Data from Mr. J. Edmunds, Provincial Apiarist, indicate that 10 to 20 tons of these go to waste each fall in Alberta. References were made to earlier reports on the use of bee larvae as food in various parts of the world. Methods of cooking were described and the reports of some 25 tasters were summarized. Initial prejudice proved surprisingly easy to overcome; most reports were favourable and many were eulogistic.

Photography of Live Insects in Their Natural Habitat

E. T. Gushul
Science Service, Lethbridge

Special Problems

When ordinary subjects are photographed, regular equipment and procedures are used. This is a special phase of photography requiring special equipment and techniques. The entomologist and photographer should work as a team in order that the subject can be photographed doing something natural in a natural surrounding.

Light

The illumination is very important. Its source, type, direction, and intensity must all be considered. Sunlight, bright or dull, is our most important source. Shadows that are cast by sunlight generally must be modified or eliminated, as the situation demands.

Flood lamps are not practical. Standard flash bulbs can be used very effectively, but electronic flash with a special ring illuminator for shadowless illumination is more suitable. The very short duration of this flash is helpful to stop subject movement. The electronic flash does not throw any appreciable amount of heat to disturb the insect and the color temperature of the light is correct for daylight color films.

The Camera and Technique

The camera should be designed or adapted for the job on hand, and so must the technique for handling it, in either daylight conditions or with electronic flashlights. The single-lens reflex camera has many good features. With it, it is possible to see the image of the subject on the ground glass screen, composed according to your requirements, before the exposure is made. When the diaphragm is wide open, the image on the ground glass is quite bright, but darkens considerably when the diaphragm is closed down manually to the smaller taking aperture. This makes it harder to re-focus the image, as well as to check the composition. To overcome this, many of the newer model cameras have automatic diaphragms, which close down to the pre-selected stop when the shutter release is pressed. Conventional amateur cameras can be adapted to insect photography by fitting them with wire frame finders, and supplementary lenses for close distances. One should become thoroughly familiar with his camera and lighting equipment. A systematic series of tests should be made on a mounted specimen. The results should be studied very carefully and notes made of the settings that produced the best transparency or negative. When you have to photograph a similar subject under similar conditions, you will set your camera and lights according to these proven settings, and then concentrate on getting the insect the way the entomologist wants it. Eventually you will be able to pre-set your equipment for a great variety of situations.

Film

Modern films are available in a variety of emulsions. In black and white, there are the slow speed panchromatic with fine grain emulsion permitting large photographic prints to be made from small negatives. The very fast emulsions are useful for rapid sequence work with special cameras made for this phase of photography. These films permit the use of fast shutter speeds which are needed to stop motion, and small apertures to build up depth of field. Actual laboratory and field tests will determine the best exposure settings. In color film, we have our daylight and artificial light films; both are available in slow and fast emulsions.

Limitations

Anyone starting out in insect photography will soon realize the limitations of equipment, materials, and physical laws.

Supplementary lenses used for close-up photography require considerable "stopping down" of the camera lens to get sharpness. Many view finders are not corrected for parallax at close distances. Single lens reflex cameras do not present this problem. When wire finders are used, they are often bent and either get into the picture area, or cause the subject to be missed.

Ring-illuminators create a strong circular reflection when photographing flat and shiny surfaces at right angles to the camera.

Twin lens reflex cameras have parallax problems at close distances.

Subject or camera movement is to be considered very seriously. The camera should be held very steadily, preferably on a good tripod, and the photograph taken when action is at its minimum.

Image Size and Exposure

With single lens reflex cameras, when the image is magnified by extension tubes and bellows extension, the exposure must be increased to compensate for it. It is possible to measure the increase in the focal length of the lens and determine the amount of increase in exposure that is necessary. These problems are not encountered with supplementary close-up lenses.

Depth of Field

Optical laws state that as the diaphragm is made smaller, the zone of sharpness increases. However, after a certain point is passed, the definition falls off. This means that one must work near this point in order to get both optimum depth of field and sharpness. Very often, the subject matter is of such a depth, that it is physically impossible to get all of it in sharp focus.

However, in spite of all this it is possible to get good photos of insects. Pre-setting your equipment and patience will reward you with good results.

Nutrition of the Wheat Stem Sawfly, Cephus Cinctus Nort.: 1. Observations of larval development on artifical media

A. J. McGinnis and R. Kasting
Field Crops Insects, Lethbridge

Field-collected wheat stem sawfly larvae, nearing maturity, were placed on four diets enclosed in drinking straws. Three of these diets contained casein, yeast extract, and salts; the fourth was composed of cellulose powder and distilled water. The larvae ingested and moved through all four media and appreciable increases in weight were noted on two of the casein diets indicating that the physical environment was satisfactory. None of the diets tested was nutritionally adequate for rearing the sawfly.

Observations of Unusual Behaviour By Two Species of Click Beetles

C. E. Lilly
Field Crop Insects, Lethbridge

The adults of a non-economic species of wireworm, Agriotes ferrugineipennis Lec., were found in galls of the aphids Pemphigus betae Doane and P. populi-globuli Fitch. They were probably seeking protection from high temperatures, or seeking food and moisture in the form of honey-dew.

Adults of one of our smaller, economic wireworm species, Hypolithus nocturnus Esch., were found in association with damaged sugar beets in the Turin area. Observations and the results obtained from the application of an insecticide indicated that plant damage was probably caused by high winds and a crusted soil surface. It seemed evident that the beetles were merely secondary factors, having been attracted to the sugary exudate from the plant wounds.

Injection of Sheep with Hormones, and Their Effects on Keds

W. A. Nelson
Livestock Insects, Lethbridge

Data were presented showing the effects on ked populations of injecting daily doses of adrenocorticotropic hormone (ACTH) and 9a-fluorohydrocortisone into 3-year-old ewes over the period July 19 to October 10, 1956. Two control groups, one untreated and the other receiving injections of physiological saline or peanut oil, were included in the experiment. The variability of ked response was high,

some animals showing no significant ked increase over control groups. In general, ked susceptibility was related to the response of blood eosinophil granulocytes to the injections. Response to ACTH during mid-summer was poor, compared to that towards the end of the experiment. The possible relationship of this information to the world distribution of the insect was postulated. Sheep keds are not found in the tropics, except at higher altitudes.

The data were interpreted in the light of the theory of the "general adaptation syndrome" (GAS) of Hans Selye. It is felt that cold temperature acts as a non-specific stress on the sheep; in response to this stress the adrenal cortex is activated via the hypothalamus and pituitary, and cortical secretion is increased. Decline in ked populations in mid-winter is then due to adaptation in the sense of Selye.

Field Crickets as Predators of Grasshopper Eggs

D. S. Smith
Field Crop Insects, Lethbridge

During grasshopper egg survey in the last three years it was found that there were fewer eggs in certain roadside locations than would have been expected from the number of grasshoppers present. These locations were bare or very sparsely weeded slopes of graded ditches, which, in those years when oviposition occurs late in the season, are preferred sites for laying by Melanoplus bivittatus Say. Many holes were visible on these slopes, each approximately the diameter of an egg pod. There were no signs to indicate that birds or rodents were responsible for the holes. Crickets were very numerous along these ditchbanks, some of them even resting in the holes. An examination of the crop contents of 22 of the crickets revealed grasshopper egg chorions in 11 of them, none in 6, while the crops in the remaining 5 were empty. No crickets were observed actually digging for the the eggs, and it seems more likely that loose soil was blown off exposing the froth plug and that the crickets worked in from this. A rough estimate of the amount of destruction to grasshopper eggs in any one such location would be from 50 to 75 per cent.

The crickets were identified by A.R. Brooks (Field Crop Insect Laboratory, Saskatoon) as Acheta assimilis luctuosus Serville.

A Light Trap. N. W. Van Veen and R.L. Anderson, Calgary. Demonstration - See photograph.

Some Effects of Lindane Seed Dressings on Sugar Beets

S. McDonald
Field Crop Insects, Lethbridge

Lindane, applied to sugar-beet seed at rates varying from 0.02 to 2 ozs. of actual chemical per pound of seed, was tested at Lethbridge, Alta., in 1956 to determine whether or not such a seed dressing would protect sugar-beet seedlings from damage by adult flea beetles, Phyllotreta spp.

A significant reduction in damage, caused by flea beetle adult feeding, occurred at rates of 0.16 ozs. of actual lindane or higher, but these rates also significantly reduced the germination, plant stand, and yield.

A malformed, multi-tap root condition was evident in sugar-beet roots at the 0.08 ozs. treatment rate and occurred in all roots of the higher treatment rates. Seed at 0.08 ozs. per pound, which is twice the rate recommended for wireworm control, also significantly reduced the yield.

Sugar beets were found to be very sensitive to lindane as a seed dressing. The heavy rates required for flea beetle control caused severe root damage and reduced yields. Unless uniform methods of treating the seed coat are used, there is danger even at rates which are recommended for wireworm control that reduced yields and root damage may occur.

A Fungus Disease of Root Aphids in Alberta

A. M. Harper
Field Crop Insects, Lethbridge

In September of this year a fungus disease, Empusa aphidis, was found to be attacking the sugar-beet root aphid, Pemphigus betae Doane, in sugar-beet fields in an area between Lethbridge and Monarch, Alta. Normally, these aphids live and feed on beet roots below ground. However, those aphids infected with the disease were found in large numbers on the soil surface and on sugar-beet leaves. The aphids tended to crawl up the leaves of the plants and remained clinging to the leaves even after they had died from the disease.

The importance of this disease as a control of P. betae has not been evaluated. It is quite likely that it is normally not important in Alberta since this is the first time it has been observed.

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