



TORONTO ENTOMOLOGISTS' ASSOCIATION

FIRST MEETING OF THE 1976 - 1977 SEASON.

This will be held on SATURDAY October 2 nd, at 2 p.m. in the Lecture Room of the PLANETARIUM. The Agenda will include:-

1. Review of 1976 collecting.
2. Discussion and voting on whether TEA should affiliate with FON (requiring a fee of \$50). If you cannot attend the meeting, please indicate your wishes when sending membership.
3. Other business.
4. Trading session and miscellaneous

If you do not plan on attending the meetings, please send your membership fee (\$5.00 regular and \$3.50 student) to the Treasurer Alan J.Hanks, 34 Seaton Drive, Aurora, Ont., L4G 2K1.

FINANCIAL STATEMENT

Balance at start of 1975/76 season		\$138.68
Total credits (dues)	\$190.00	
Total debits (expenses & summary)	\$116.10	
Present balance		\$212.58



TORONTO ENTOMOLOGISTS' ASSOCIATION

NEWS BULLETIN - OCTOBER 1976

The first meeting of the 1976/77 season was held on October 2nd and was presided over by President Gord Edmund. In attendance were Paul Catling, Doug Scovell, Darryl Stewart, Bill Edmonds, Ken Thorne, Jim Troubridge, John Dickinson, C.M. Ridley, W.J.D. Eberlie, Ralf Steinberg, R.R. Tasker and Quimby Hess.

1. Gord Edmund reviewed the following books:-

Field Guide to the Butterflies of the West Indies by Riley.

Geographic Variation of the Genus Speyeria by Emmel.

Rhopalocera Directory by John R. Beatty (J.B. Indexes).

He also discussed the recent passing of Dr. Richard B. Dominick of the Wedge Plantation, McClellanville, South Carolina (see Lep. Soc. News of Feb. 20/1976)

2. Paul Catling discussed the fact that Toronto has no library with complete material on Lepidoptera, such as issues of the Great Lakes Entomologist, Journal of Research on Lepidoptera and Journal of the Lepidopterists Society. He suggested that the T.E.A. concern itself with rectifying this situation, possibly through the library at the R.O.M.
3. Three subjects then came under discussion, the first being the recent additions to the endangered species list in the U.S.A. Next, a letter from Kent Wilson was mentioned on a proposed list of Entomologists - living and dead. A lengthy discussion then ensued on the pros and cons of joining the F.O.N. and it was decided that the President and Secretary write to the F.O.N. as to what would be involved in the T.E.A. becoming a federated club.
4. The policy of Provincial and National Parks with respect to collecting was discussed and it was noted that most of the Parks staff have little or no interest in insects and tend to concern themselves mainly with birds, plants, mammals and reptiles.
Ken Thorne then raised the question of the importation of live material for the purpose of rearing and noted the difficulty with permits for importation.
5. Paul Catling discussed a new skipper found on Manitoulin Island. The question of availability of killing agents and relaxing methods was mentioned with the use of hypodermic needles and maintaining the relaxing jar temperature at 110 deg/F. for 24 hours being noted.

John Dickinson and Ralf Steinberg were introduced and gave a brief resume of their interests. Doug Scovell presented a slide-talk show on his recent expedition to Costa Rica in Central America, which all present found very interesting.

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The next meeting will be held on SATURDAY, NOVEMBER 6 TH, at 2 P.M. in the LECTURE ROOM of the PLANETARIUM.

The agenda will include:-

1. Progress report on federation with F.O.N.
2. Report by Treasurer on 1976/77 dues.
3. 1976 observations by members (of general interest)
4. Slide/talk on collecting.
5. Other business.

All members are requested to bring along their 1976 summaries on the forms which were supplied and hand them to the Secretary. The contents of the 1976 Summary will be discussed and work will commence on the project as soon as possible. If you cannot bring your summary sheets, please send them to Quimby Hess, or they will not be included.

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NOTICES

Catocala, Pieris occidentalis and Oeneis chryxus strigulosa etc. are available for trade or sale.

Wanted - butterfly net with extendable handle, also collapsible net.
Quimby Hess.

For sale. Field Guide to Butterflies of Africa - Williams.
Field Guide to Butterflies of West Indies - Riley.
Both new - \$5 each.

Alan J. Hanks.

Bulletin prepared by Quimby Hess and Al Hanks.

T O R O N T O
E N T O M O L O G I S T S
A S S O C I A T I O N

URGENT MEETING REMINDER

SATURDAY - NOVEMBER 6 TH - 2 P.M. AT THE PLANETARIUM

The speaker will be Julian Mulock, the well known Natural History Artist, who will give an illustrated lecture on beetles and painting. Mr. Mulock has an exhibition at present in the Royal Ontario Museum, consisting of paintings of Coleoptera, and it is located in the Art Alcove on the third floor for anyone who is interested in viewing it. Let us hope that we have a real good turnout for this occasion. Any other visitors will be most welcome.



TORONTO ENTOMOLOGISTS' ASSOCIATION

#2

NEWS BULLETIN - NOVEMBER 1976

The second meeting of the 1976/77 season was held in the Planetarium lecture room on November 6 th. In attendance were Al Hanks, Gord Edmund, Doug Scovell, Sid Daniels, Quimby Hess, Norm Tremblay, Alan Brown, Ralf Steinberg, John Lake, John Eberlie, Jim Troubridge, Bill Edmonds, Rick Westwood, Bud Ridley, Darryl Stewart, Tosh Yamamoto, Julian Mulock and guests Barbara Hanks and Greg Daniels.

1. Gord Edmund read a proposed letter to the board of directors of the Federation of Ontario Naturalists - Doug Scovell moved and Dr.Eberlie seconded that the letter be approved.
2. Treasurer Al Hanks gave the financial report - balance as of October 7th was \$236.08 and added to this is the balance of the original account in a downtown bank of \$35.54 (recently closed by Q.Hess) giving a total of \$271.62.
NOTE: 1976/77 season dues of \$5.00 per member are now payable - please send to the treasurer or bring to the next meeting.
3. President Gord Edmund gave brief reviews of the following books.
'Biology of Insects' by David J.Horn - published by W.B.Saunders in Toronto - list price, \$14.40.
'Field Guide to the Butterflies of the West Indies' by Norman D. Riley - published by New York Times Book Co.,- list price \$12.50.
4. Secretary Q.Hess requested the handing in of the 1976 Annual Summaries, they have been received already from J.Troubridge, A. Brown, W.J.D.Eberlie, D.Stewart, N.Tremblay, Q.Hess, J.H.Johnson, Would all those wishing to contribute their summaries please mail them as soon as possible to Q.Hess at 11 Esgore Drive, Toronto, Ont., M5M 3P9.

Please note that Q.Hess has been appointed Ontario Co-ordinator of the Lepidopterists Society. Jo Brewer is News Co-ordinator for the Lep.Soc. 1977 summary newsletter. Ontario is now classed as a separate zone.

5. The President asked for volunteers to give reviews at forthcoming meetings of pertinent literature dealing with a genus, family or sub-family of the Lepidoptera. The following volunteers came forward:- Edmund/Scovell - Speyeria; Edmonds/Daniels - Lycaena; Hess/Scovell - Papilio.

6. The main feature of the meeting was the slide show and talk given by Julian Mulock on the drawing and painting of insects for the purposes of scientific illustration, with the main emphasis being placed on beetles, which seemed to be the forte of the lecturer.

The techniques and effects of different media were illustrated in great detail by slides, showing the overall concept and numerous small details and colouring effects by close-ups.

All present found the subject very interesting, and many questions were asked at the conclusion.

7. The next meeting of the T.E.A. will be held on January 22nd, 1977 at 2 p.m. in the lecture room of the Planetarium and it is intended that part of the meeting will be concerned with the executive for the 1976/77 season. If you have any nominations for changes in any office, please send them to the Secretary.

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N O T I C E

Insect pins are now available (in limited supply) in sizes 2 and 3, so if you had ordered any pins, please send your requirements to the Treasurer. The price is \$1.00 per 100 or \$9.50 per 1000.

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Bulletin prepared by Quimby Hess and Al Hanks.

HAPPY CHRISTMAS - EVERYONE.



TORONTO ENTOMOLOGISTS' ASSOCIATION

NEXT MEETING

THE NEXT MEETING WILL BE HELD ON SATURDAY, JANUARY 22 ND, AT 2 P.M.
IN THE LECTURE ROOM OF THE PLANETARIUM

THE AGENDA WILL INCLUDE:

1. SHORT BUSINESS SESSION AND ELECTION OF OFFICERS FOR THE 76/77 SEASON.
2. REVIEWS OF THREE RECENT INSECT BOOKS (AL HANKS)
3. OTHER BUSINESS AND MISCELLANEOUS
4. REVIEW OF GENUS SPEYERIA BY EDMUND/SCOVELL.

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Quimby Hess is interested in obtaining specimens of *Hesperia comma*, *H. leonardus* and *H. sassacus* in trade - bring to the meeting if you have any available.

Pins are still available, also notepaper with TEA crest - contact Treasurer Al Hanks.

Some members have still not paid their dues for this season - a list is attached.

Wanted - the following books;

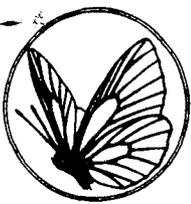
Lepidoptera of Iraq (1957) by Wiltshire.

Checklist of Butterflies of the Ethiopian Region (1952)
by Peters.

Butterflies of Rhodesia (1949) by Pinhey.

Butterflies of S.Africa (1953) by Swanepoel.

Al Hanks - Treasurer.



TORONTO
ENTOMOLOGISTS'
ASSOCIATION

NEWSLETTER

JANUARY 1977

The third meeting of 1976/77 was held at the Planetarium in Toronto on January 22nd. In attendance were Al Hanks, Norm Tremblay, Henry Kowalyk, Quimby Hess, Bud Ridley, Glenn Wiggins, W.J.D. Eberlie, Jim Troubridge, Gord Edmund, Doug Scovell, Rick Westwood, John Lake, Sid Daniels, Bill Edmonds, Tony Holmes, Peter Hallett, Darryl Stewart and Paul Catling.

1. President Gord Edmund called on the Treasurer to present the financial report. An error was reported from last year's closing statement of \$15 for mailing Summaries. Present balance stands at \$247.72.
2. The executive for the next season came under discussion, and the results were as follows:-

President:	Paul Catling
Vice-President:	Doug Scovell
Secretary:	Quimby Hess
Treasurer:	Alan Hanks

A vote of thanks was proposed for past President Gord Edmund for his work on behalf of the Association over the past two years.

3. Al Hanks reviewed the following books:-
 - "Butterflies" by Jo Brewer, published by Abrams Art Books, N.Y. (\$21). Outstanding photos and good material on the general biology of butterflies.
 - "Insect Life" published by Oxford Scientific Films (\$11.50). Good general purpose book with outstanding plates.
 - "Moths of Southern Africa" by Pinhey, published by Tafelberg (\$35). Excellent text with a great deal of Taxonomic information, some plates excellent, some appear washed out.
4. Gord Edmund led a discussion on insect pinning drawers. The carpenter shop of R.O.M. would produce these as per required specifications at a cost to be determined. Members indicated interest in about 50 drawers, and possibly some cabinets. A discussion ensued on the relative merits of the U.S.N.M. and Cornell designs.

Jim Troubridge indicated his willingness to loan his Cornell drawer kit to be used as a pattern. The matter was left with Gord for further investigation.

5. Gord Edmund showed a jeweller's magnifier which can be attached to spectacles and can be obtained for members on request at a reasonable price (about \$8.00).
6. Repellants and killing agents for the common Museum pests were discussed - do not mix paradichlorbenzene and naphtha as the former is a cancer agent, and will vapourize and re-crystallize when mixed with the latter. It will also attack certain styrene plastics.
7. The status of F.O.N. affiliation was discussed - with no reply having been received as yet to our letter. It was pointed out that the F.O.N. is considering higher fees (\$1.00 per year/per member) which may be too much for the T.E.A. to consider.
8. Paul Catling reported on the situation with respect to Pieris virginiensis - Ministry of Natural Resources completed a botanical study of Halton County Forest in 1976 and plans a study of population and community ecology of the area in 1977. We should write letters to the Ministry to offer our assistance, if needed, and to have the Ministry advise as to the Government position on endangered insects and what input T.E.A. can make in 1977. Paul agreed to send the necessary letters after checking with Gord Edmund.
9. Paul Catling advised the meeting re Wagner's work on the Black Axure butterfly, which occurs in Michigan and Ohio. Also Wagner's work on Euchloe olympia rosa. This species occurs in Ontario in sand dune habitats along Lake Huron and on limestone rock barrens at the contact line with the Canadian Shield. Wagner thinks that these may be different sub-species and Doug Scovell suggested we invite Wagner of Michigan to discuss this at a future meeting.

10. Paul Catling also mentioned an excellent paper by L.E.Gilbert and M.C.Singer (1975) on "Butterfly Ecology" in the "Annual Review of Ecology and Systematics" Vol.6: 365-397. Tony Holmes felt that copies of such papers should be available to T.E.A. members. Dr.Wiggins volunteered the services of the Entomology Dept. of the R.O.M. to provide a library service for any publications purchased or obtained by the T.E.A. for the use of members. This was accepted with thanks by the members present.
11. Dr.Wiggins agreed to contact J.C.E.Riotte to obtain a copy of the list of libraries to which T.E.A. publications had been sent in the past. This would enable Al Hanks to send off the 1975 and forthcoming 1976 Occasional Papers of the T.E.A.
12. The 1976 Occasional Paper # 7-77 was reported as completed in draft by Q.Hess and W.Plath Jr. with assistance from S.Daniels. A.Hanks is typing the paper and will produce copies for mailing as soon as possible. This paper will list all butterflies which occur or have been reported for Ontario to date.
13. Gord Edmund and Doug Scovell gave a comprehensive illustrated review of the genus Speyeria in North America, with all it's attendant difficulties, and this was enjoyed by all present.

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The meeting adjourned at 5 P.M. and the next meeting is to be held on MARCH 1, 1977 in the Planetarium Lecture Room at 2 P.M.

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TORONTO
ENTOMOLOGISTS'
ASSOCIATION

NEWSLETTER 4
FEBRUARY 1977

There was a typographical error in the last Newsletter giving the date of the next meeting as MARCH 1st. This, of course, should have been MARCH 5th, in the Planetarium Lecture Room.

Reprints are available of the paper on 'Butterfly Ecology' mentioned in the last Newsletter at \$1.00 each (plus postage), however, the minimum order is 10 reprints, so if any members interested will let me know, and we obtain 10 names, I will order the reprints.

Also, some members have expressed an interest in obtaining copies of previous Occasional Papers published by the TEA. These are available at the following prices:-

- # 2 - 1970 Summary. 27 pages. \$4.25
- # 3 - 1971 Summary. 18 pages. \$3.75
- Article on Eurema lisa (14pp) \$2.80
- # 4 - 1972,73 & 74 Summaries.(26pp) \$5.25
- # 5 - Pieris virginiensis in Ontario. \$7.60
- # 6 - 1975 Summary. 23 pages. \$3.50

There is no definite Agenda for the next meeting apart from the usual reports and some rather interesting correspondence. However, Paul Catling and Gord Edmund have had discussions with biologists in the wildlife branch of the Ontario Ministry of Natural Resources, and the TEA has been invited to participate in, or possibly take full responsibility for, a study of local distribution, abundance and movements of Pieris virginiensis in the Halton County Forest area. Such information will be vital to the management of the area, and some degree of funding may be available. This project will be discussed in detail at the coming meeting (March 5th), so we hope that there will be a large turnout. If you cannot attend, but are interested and available in March and April, please contact the Secretary or Treasurer. This represents an opportunity for the Association to do some very valuable work.

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Some pins are still available, and also paper with the letter head as shown above. Anyone wishing a supply, please contact the Treasurer (paper free at the moment)

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TORONTO
ENTOMOLOGISTS'
ASSOCIATION

NEWSLETTER # 5

MARCH 5th, 1977.

The fourth meeting of 1976/77 was held at the Planetarium in Toronto on March 5th. In attendance were Al Hanks, Gord Edmund, Ken Thorne, Walter Plath, Henry Kowalyk, Jim Troubridge, Ron Tasker, Bill Edmonds, Darryl Stewart, Peter Hallett, Bud Ridley, Doug Scovell, Sid Daniels, W.J.D.E. Eberlie and a visitor, Irene Bowman from the Ministry of Natural Resources.

1. President Paul Catling first discussed the situation with respect to *Pieris virginiensis* - reviewing the history of discovery in the Halton County Forest, the involvement of the T.E.A. over a 10 year period, including publications, and finally the success of the Association's efforts to have the species placed on the endangered list. Miss Bowman was present to hear discussion on the implementation of a plan to document management of the area concerned, with the possibility that a certain amount of funding would be available from the M.N.R. The work required includes a study of the extent of the area involved, population densities and movements (possibly by marking and recapturing specimens), and volunteers were requested to assist in such a project. A show of hands indicated that numerous members were interested and would be able to give some time. A co-ordinator for the whole project was suggested by Miss Bowman, and Walter Plath indicated that he would be willing to undertake this assignment if funding were available. Since the flight period for the insect is very short, and only occurs on very fine days, a concentrated effort is required, and apparently will be available if funds are forthcoming and Walter Plath acts as co-ordinator. If any other members feel that they could contribute any time to this project, would they please contact the Treasurer or Mr. Plath. Paul Catling will arrange a meeting of interested parties once the situation is clarified.
2. Al Hanks discussed some outstanding correspondence, some of which will be investigated further by Walter Plath, and the rest discarded. A letter from Sir Cyril Clarke of the Nuffield Unit of Medical Genetics was discussed in which living material of *P. rutulus* and *P. eurymedon* was requested, also material from *Biston cognataria*. Walter Plath pointed out that *cognataria* is now known to be a subspecies of *B. betularia*. Sir Cyril has since written asking for live pupae of *Papilio glaucus canadensis*, since this species does not as yet exhibit any black forms. If anyone could supply this material during the 1977 collecting season, would they let the Treasurer know.
A problem has arisen with the reproduction of newsletters etc.. with costs in Aurora being very high. Numerous members had suggestions for more economical means of procuring copies, among them Doug Scovell Paul Catling and Darryl Stewart (College Copy). A phone call subsequent to the meeting by Doug Scovell indicates that he will be able to accomplish the copying at minimum cost to the Association.

New members Brian Marshall (of the Museum staff) and Bill Munro of Haliburton were mentioned as having joined. A question was raised as to how many members of the Museum staff would be carried by the Association at no charge and this will be checked with Glenn Wiggins.

Only one name had been received to date for reprints of the article on "Butterfly Ecology" mentioned in the last newsletter, and many of the members present expressed a desire to obtain copies. The requisite number of names is now attained, and the copies will be sent for.

The present balance in the bank stands at \$241.46, with some monies still outstanding.

3. Gord Edmund discussed at considerable length the intention of the R.O.M. to construct a 'Discovery Room' for the use of children who visit the Museum. This would consist of numerous displays and types of 'Discovery Projects' where the participants would be asked to identify various objects, and then compare their answers with the correct identifications. In conjunction with this, numerous displays of Ontario flora and fauna are planned, and a request was made by Gord for members of the T.E.A. to contribute material for this project. A show of hands indicated that numerous people were willing to donate material. A checklist of required material will possibly be circulated at the next meeting.
4. Additional discussion was then held on the various types of insect drawers as discussed at the last meeting. A completed drawer was made available for inspection, together with a kit of parts for the fabrication of same. Further investigation will be carried out as to the cost of the various types of drawer available, as there are a number of types, and various members have already committed themselves to one type or another.
5. Discussion was held on the 1976 Summary, which is at present being typed, and should be available in the near future. Al Hanks asked if the summary sheets distributed last year were of any use. and Darryl Stewart stated that it was useful to the compilers of the summary to have all recorded data in a similar form but that the lists were too cramped to be of practical value. A new list will be circulated this year requesting that contributors to the summary use the arrangement as given on the list. It was agreed that the color of the cover should be changed each year to facilitate identification. Gord Edmund made a suggestion that the publications of the T.E.A. should be edited and refereed before publication, and this was unanimously agreed upon. Also, it was agreed that any life history material assembled by Walter Plath should be published separately. Paul Catling proposed that an Editorial board be formed to deal with the publications, and it was suggested that Al Hanks, Quimby Hess and Sid Daniels form the board. It was also suggested that Dave Barr be approached to suggest a refereeing procedure.
6. Some suggestions were received from Father Riotte concerning the newsletter. Also the use of Carbon disulphide as a killing agent for Museum pests - with only two problems, it smells awful and is also highly explosive.

He also suggested that the idea that there may be two possible subspecies of *Euchloe olympia rosa* is not good, since he feels that separation below the species level is undesirable - a point of view seemingly shared by few workers, but perhaps having a grounding in logic, since separation into subspecies, forms etc.. produces a certain amount of confusion. The list of institutions to which our publications have normally been transmitted was also received from Father Riotte, and this will be reviewed, since it is somewhat out of date.

It was suggested, and unanimously agreed upon that Father Riotte be created the first honorary life member of the Toronto Entomologists Association, in recognition of the tremendous efforts he has put forward in our behalf.

7. The next meeting will be held in the Lecture Room of the Planetarium on Saturday, April 2nd. Some of the items on the agenda are talks by Paul Catling on a visit to Florida, also North American Butterflies, Walter Plath will have some slides illustrating the life histories of some *Speyeria* species, and Darryl Stewart will give a talk on Point Pelee.

A further meeting is planned to take place at Campbellville on May 14th - hopefully during the study of *P.virginiensis* which should be under way at that time.

Many thanks to Ron Tasker for recording the minutes in the absence of Quimby Hess, who is presently on a collecting trip in South America - we all hope that he is having good success.



TORONTO
ENTOMOLOGISTS'
ASSOCIATION

SPECIAL NOTICE

THERE WILL BE A SPECIAL MEETING ON SATURDAY, MARCH 26TH IN THE R.O.M. (ROOM 4 BASEMENT) AT 2 P.M. FOR ALL THOSE INTERESTED IN THE STUDY WHICH WILL HOPEFULLY BE CARRIED OUT THIS YEAR ON PIERIS VIRGINIENSIS. THIS WILL BE IN ORDER TO DISCUSS THE PROJECT AND TO DEVELOP PLANS FOR IMPLEMENTATION, AND ALL THE PRELIMINARY WORK THAT WILL BE REQUIRED. WALTER PLATH WILL BE THE CO-ORDINATOR OF THE PROJECT, AND HOPEFULLY, WILL RECEIVE THE NECESSARY SUPPORT OF THE MEMBERSHIP. SOMEONE FROM THE MINISTRY OF NATURAL RESOURCES WILL PROBABLY BE PRESENT TO DISCUSS THEIR PART IN THE OVERALL STUDY.



**TORONTO
ENTOMOLOGISTS'
ASSOCIATION**

SPECIAL MEETING - PIERIS
VIRGINIENSIS STUDY. R.O.M.
MARCH 26 - 1977.

This meeting was held to discuss plans for the study to be undertaken this year on *Pieris virginiensis*, with funding from the Ministry of Natural Resources. Present were Walter Plath Jr., Al Hanks, Bud Ridley, Quimby Hess, Paul Catling and Ron Tasker. Other support for the study will be provided by Darryl Stewart, Doug Scovell, Bert MacLaren and some members of the Hamilton Nature Study Group, together with any other members of the T.E.A. available.

The study would include the following items:

- A) The size of the area to be considered. This would be investigated in two ways; firstly by means of a large search grid to determine the outer limits of the population and secondly by means of a much smaller search area of fairly well established limits.
- B) The local abundance of the insect. This would be established in the limits of the smaller search area during the flight periods of both males and females.
- C) The distribution of the foodplant. This would be carried out in the same limits used for B) and could be continued on dull days when the insect is not flying.
- D) Movement pattern and lifespan. This would be carried out by visual observation in the case of the females and possibly by marking and recapture in the case of the males, which are more resistant to interference than the females.
- E) Impact on development of the insect by other influences. Some other investigation may be required as to the influence of tree-cutting, power-line paths, snowmobile trails etc..

Walter Plath will be present at the site during late April and early May, and will act as co-ordinator for the project. Maps will be supplied to plot search areas and collate information as to density etc.

A meeting will be held on Thursday, March 31st, in Room 321 of the Botany building, University of Toronto at 3 p.m. with Irene Bowman and Doug Howell of the Ministry of Natural Resources to discuss the above items with them and to suggest that other studies could be made in the area with respect to soil chemistry, botanical ecology etc.. Also to request that the M.N.R. supply any maps, aerial photos or other material required.



TORONTO
ENTOMOLOGISTS'
ASSOCIATION

NEWSLETTER # 6

APRIL 2nd, 1977.

The fifth meeting of 1976/77 was held in Room 4 of the ROM on April 2nd. In attendance were Al Hanks, Gord Edmund, Walter Plath, Ron Tasker, John Lake, Jim Troubridge, Bud Ridley, Darryl Stewart, Doug Scovell, Peter Hallett and Tosh Yamamoto. Also, a new member of the TEA, Winston Rodriguez, and John Dickinson.

1. The minutes of the previous meeting were read, together with a letter from Father Riotte expressing his thanks for making him an honorary life member and good wishes to all members of TEA.
2. The progress of the *Pieris virginienensis* project was discussed. Following meetings on March 26th and 31st, the project is now established, with the necessary assistance forthcoming from the Ministry of Natural Resources. Walter Plath will act as coordinator and will be present in the Halton County Forest for about four weeks, commencing April 20th. Firstly, a search will be made for pupae during this time. Next, a group will be needed on the weekend of May 1st to study distribution, and during the period May 4th - 6th for marking male butterflies. The weekend of May 7th - 8th will continue distribution study by observing marked males. Various other portions of the project will be carried out on a continuing basis as people are available, and members are urged to come out as often as possible to assist. Maps will be provided and anyone coming out should be at the Mohawk Motel near the race-track daily at 9:00 to 9:30, where Walter Plath will meet them and probably detail the day's work.

Letters written by Darryl Stewart on behalf of the TEA to the Minister of Natural Resources and Mr. Keating of the Wildlife Branch were noted.

3. Gord Edmund noted that his notices are being delayed in the mail, and Paul Catling observed that the Post Office are in the process of installing new sorting equipment, and this has caused delays. It was suggested that if this continues, members who normally attend all meetings will be notified by telephone. This will also be applied during the *virginienensis* study, with interested members being contacted by 'phone if the weather forecast is favourable, so they will be sure that work is going on. The 'phone numbers of Paul Catling and Walter Plath may be found at the end of the newsletter, in case any member needs to contact them.
4. There are now 14 names on the list of people wanting the reprint on *Butterfly Ecology*, and the reprints are now on hand. They will be distributed to those on the list when copies of the summary are sent out and payment can be made later.

5. Paul Catling drew attention to a new book 'Insects that feed on Trees and Shrubs' and also the publication 'Great Lakes Entomologist' (formerly 'Michigan Entomologist').
6. Gord Edmund gave the meeting more news on the 'Discovery Room' & noted that it will probably be in Room 4, but reassured the members that our meetings can be held in the Planetarium after this has occurred. He stated that the intention for Insect displays is to use the same system as the British Museum, namely, drawers with plexiglass tops and bottoms so that both dorsal and ventral views may be examined.

Further information on drawers was made available, with the cost estimate at the moment \$15 per drawer (Cornell type) for a run of 60. If more are required, the cost would probably be somewhat lower. A show of hands indicated that the needs would run close to 150 drawers by the members present, so it was suggested that 200 be taken as a reasonable figure. Cabinets will also be required by some members, and the cost of fabricating 5 or 6 will be found.

Gord mentioned that Gray will identify Speyeria material free of charge (Maybe taking a few specimens of long series) and that he has completed studies of the diana and cybele groups. More material or information is required from Ontario. He would prefer specimens papered, with adequate data such as collectors name, locality, date of capture, foodplant etc..

Material was requested for the discovery room and Paul Catling volunteered some Satyrids, Gord Edmund some Fritillaries, Doug Scovell & Gord some Pierids, with the rest of the members to give whatever they could spare.

7. Paul Catling mentioned some items of interest concerning butterflies which are recent additions or may be discovered around Ontario in habitats which are present here; *Euptychia mitchellii* is found in Poison Sumac bogs around Michigan - *Lethe appalachia*, which was confused with *L.eurydice*, and is now known to be a separate species and is recorded from Ontario - *Calephelis muticum*, which was long confused with *C.borealis* and is found in swamps rather than the dry habitat of the latter. *Celastrina ebenina* is noted in Howe - was previously thought to be a melanic aberration of *C.argiolus*, but is now known to be a separate species. *C. muticum* and *C. ebenina* have not, as yet, been found in Ontario.
8. Paul Catling then gave a brief talk on collecting in Florida in the Winter season, with some species to illustrate specimens found. He noted particularly the fact that the larger Pierids are found in gardens and around greenhouses, and are very difficult to catch. Also that collecting is definitely not to be done in parks in the area.
9. Walter Plath then showed a selection of his excellent slides on the life histories of Ontario butterflies, with particular note being made of *Feniseca tarquinius*, the larvae generally being

found hidden under masses of Woolly Aphids, the true colour not being visible unless moulting due to the waxy secretions from the Aphids. It was also noted that Callophrys augustinus, which usually feeds on Bearberry, was reared by accident on Cherry - also that C.polios would only feed on Bearberry.

9. John Dickinson then showed a few interesting slides from his visit to Africa, and talked a little about collecting there. He also had a number of very nice specimens from his collection to show.

The meeting adjourned at about 4:15, with the next meeting being scheduled as an open air meeting at the Church in the Halton Co. Forest during the study on virginensis - hope to see as many members as possible then.

Good hunting during the Summer months.

Telephone #'s;

Paul M.Catling - 978 -- 3542

Walter Plath Jr. - 527-6282 (Hamilton, Area Code 416)

Anyone with a little time available (1 day minimum) willing to help with the study should write or phone Paul Catling, being as specific as possible as to how much time and when. Paul will coordinate with Walter Plath and in this way as many club members as possible will be obtained for our larger census projects which will require a lot of people. Unfortunately, a definite schedule of the events involving a large number of people cannot be made until a few days before because of variability of the insect's flight period and weather. It is with the big census jobs that the club can be most helpful, but anyone with additional time to assist Walter can either phone him directly prior to the day they are planning to go, or otherwise it could be arranged by Paul Catling. Meetings will normally be around 9:00 AM at the Mohawk Inn.

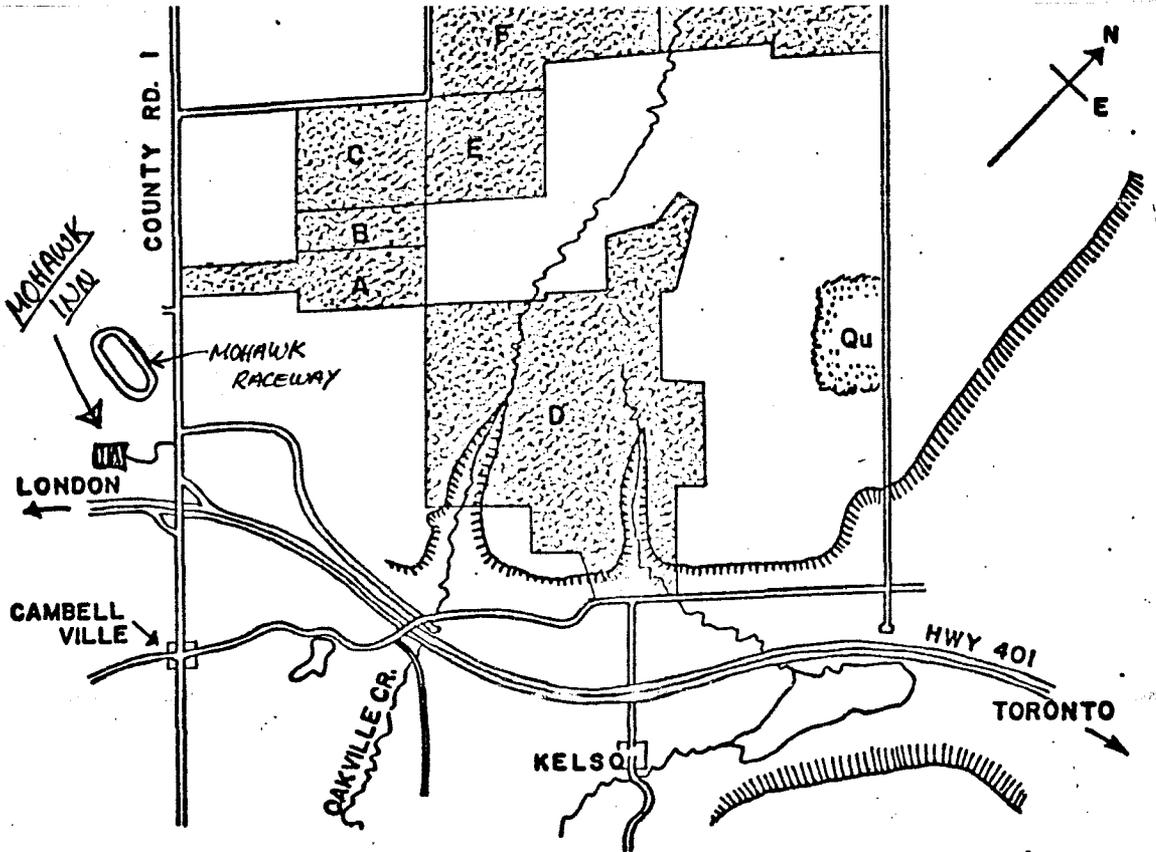
Walter Plath (Hamilton) - 416-527-6282 (evenings). From Toronto dial 1 prior to 7 digits, 1/3 discount after 6:00 PM.

Paul Catling (Toronto) - 416-978-3542 (anytime).

Next May Meeting

The next meeting of the club will be held in the Halton County Forest on Saturday, 14 May, 1977 at 9:00 AM. We will meet at the Mohawk Inn, north of Campbellville, Ontario, (map below) and begin with a cup of coffee at the Inn Restaurant. The agenda will include a field trip to the habitat of the West Virginia White (Pieris virginensis), field studies of this rare butterfly, and a discussion of Point Pelee National Park by Darryl Stewart in the local pub later in the day. If you need a ride call Paul Catling (no. above).

From Toronto proceed west on Hwy 401 for ca. 30 miles to the Campbellville turnoff. Take the Campbellville Road north (not to Campbellville). Proceed north ca. 100 yards and take the first gravel road to the left (west) leading to the Inn which is on the west side of the Campbellville Road, north of Hwy 401 and south of the raceway.



A Biological Survey of the Insects and Related Arthropods
of Canada

This is a notice for all zoologists and students in the Toronto area who might be concerned with or interested in any way in the current pilot study of the Entomological Society of Canada for a Biological Survey of the Insects and related arthropods of Canada -

to advise that a presentation concerning the survey will be given

in Room 432, Ramsay Wright Zoological Laboratories at
10:00 a.m. on Tuesday, May 24, 1977

by Dr. H.V. Danks, Entomologist-in-charge
and Dr. A.P. Nimmo, Associate Entomologist.

This presentation is one of many being given to acquaint Canadian zoologists with the intent of the Survey and to solicit their ideas about the most useful kinds of information and publications that the Survey should be undertaking to provide. The objectives of the Survey are to develop knowledge of the insects and other terrestrial and freshwater arthropods of Canada: identification, systematics, distribution, biological characteristics, ecological significance and interaction with man. Background information about the Biological Survey was published in the Bulletin of the Entomological Society of Canada vol. 6, no. 2, 1974; and an outline of the Pilot Study for the Survey in the same Bulletin, vol. 9, no. 1, 1977.

The interests of ecologists are as much a concern of the Survey as are those of systematists, and the purpose of these presentations in Canadian universities is to solicit views from all zoologists in shaping the operation of the Survey. This is one of the major biological projects ever undertaken in Canada, and this opportunity to learn more about it will not again be available in the Toronto area.

For any additional information, please contact the undersigned at 978-8743.

Glenn B. Wiggins.

Glenn B. Wiggins
Member, Scientific Committee
Biological Survey of the
Insects of Canada



A SPECIAL REMINDER 1977

TORONTO
ENTOMOLOGISTS'
ASSOCIATION

INSECT BOXES - At our March and April meetings there was much discussion of Cornell type insect drawers. As a result several people placed orders with Gord Edmund. The drawers are now on the point of arrival and must be paid for. If you placed an order at the March or April Meeting, please contact Gord Edmund immediately, at 978-3666. The drawers come completely assembled with lift off glass lids and cost about \$16.00 each. Cabinets are unfinished birch, hold 10 drawers and will cost about \$140.00 each. Only 80 drawers and 4 cabinets are now available. More could be ordered if we had immediate orders in writing.

ROM DISCOVERY ROOM - There is no need to remind older members of the kindness with which we have been treated by the ROM and particularly the staff of the Dept. of Entomology. You now have an unusual opportunity to reciprocate by donating a box of nicely mounted and labelled Ontario butterflies to the Discovery Room Project. We can all afford to remove a few specimens from our collections. At two meetings the membership was very much in favour of supporting the ROM in this way, but little has been received to date. Again Gord Edmund is co-ordinating club contributions (telephone number above). Please bring specimens - any Ontario species of butterflies or the more showy moths, to Gord at the ROM or phone if they have to be picked up. Schmitt boxes supplied. The specimens need not be caught in Ontario, but must be species found in Ontario. The need is great and time is growing very short.

U.S. BUTTERFLY STAMPS - Four butterflies will be featured on U.S. stamps that are coming soon.

MAY MEETING - On 14 May 1977 several members met Walter Plath in the Halton Co. Forest. The West Virginia White Butterfly (Pieris virginiensis), an endangered species in the province, was the feature of the trip. Walter is studying these insects in an effort to develop a management plan for the area that will ensure the survival of the colony. The group divided up and covered large areas of the forest looking for individuals that Walter had marked, so as to gather information on distance of movement. The weather was excellent and several hundred butterflies were captured but only one marked individual, suggesting longer distance movement and a greater population than was previously imagined. Spring Azures, Meadow Fritillaries and Morning Cloaks were much in evidence, but flightless Grouse Locusts (Tetrigidae) seen in other years could not be found. Other interesting

observations were: Turkey Vultures, Yellow-throated Vireo, a great abundance of Rose-breasted Grosbeaks, a Northern Water Snake, Spring Peeper, and an area where two plants rather rare in the region were found to be abundant (ie. Polymnia canadensis and Hydrophyllum canadense).

PIERIS VIRGINIENSIS STUDY - Walter Plath would still appreciate some help from mid to late May collecting larvae in the Halton Forest Area. If you can spare a day to give Walter a hand (travelling expenses paid later), please call him (Hamilton) 416-527-6282 - evenings only.

ADDENDA

The cabinets and drawers should be delivered to the Museum around May 24 or 25. Please make cheques out to the T.E.A. and send them to the Treasurer, Alan J. Hanks, 34 Seaton Dr., Aurora, Ont., L4G 2K1.

Copies of the article on "Butterfly Ecology" will be sent out to those who have requested them, and the \$1.00 should be added to next season's membership fees (a notation will be made when the reminders are sent out).