

34 Seaton Drive,
Aurora, Ontario,
Canada, L4G 2K1

Greetings to all T.E.A. members:

Our new season of meetings will be starting in September as usual and the accomodations have been booked for the following dates:

1993	Saturday	September 18th
	Saturday	October 16th
	Saturday	November 20th
1994	Saturday	January 22nd
	Saturday	February 26th
	Saturday	March 26th
	Saturday	April 23rd
	Saturday	May 21st (tentative)

The Planetarium Lecture Room is booked from 1:00 - 4:00 p.m., however, the meetings will start at 1 p.m. promptly.

If you have any queries, please call Alan Hanks at 727-6993.

Mr. S. Ajwani of 11 Whittaker Crescent, Willowdale, Ontario M2K 1K7 is interested in contacting anyone who has an interest in collecting beetles in Canada and the U.S.

Reports on the summer field trips will follow at a later date.



**TORONTO
ENTOMOLOGISTS'
ASSOCIATION**

Renewal of or Application for Membership in the Toronto Entomologists' Association for the
1993/94 Season

NAME _____ PHONE _____

ADDRESS _____

_____ CODE _____

FEE - \$20 (\$10 for Students) ENCLOSED _____

Publications Purchased _____

Cheque or Money Order _____ Total _____

Please return the whole form to:

A.J. Hanks, 34 Seaton Drive, Aurora, Ontario, Canada L4G 2K1

If you know anyone else who may be interested in the Association, please have them contact any
member of the Executive.

PRESIDENT:	Phil Schappert	(832-6206)
VICE-PRESIDENT:	Duncan Robertson	(613 - 542-6142)
TREASURER	Alan J. Hanks	(727-6993)



**TORONTO
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TREASURER: Alan J. Hanks (905) 727-6993
SECRETARY: Nancy van der Poorten (416) 466-9013

Meeting No. 1 - 93/94 Season

The first meeting of the 93/94 season was held on September 18th in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Michael & Nancy van der Poorten, Bill Edmonds, Steve Donald, Alan Hanks, Don Davis, Richard Tanner, Barry Harrison, Helen Juhola, Siglinde MacKay, Carol Sellers and Michael Gurr.

President Phil Schappert welcomed the members back after a summer of varied activities.

1. There being no omissions or corrections to last meeting minutes, they were accepted.
2. Treasurers report:
 - a) The closing balance from last season was \$19.48.
 - b) Current balance \$513 - membership fees are coming in.
 - c) The Atlas account is at \$6600 and sales have slowed. There are 516 copies left. A bookstore in Huntsville has expressed an interest in carrying copies of the Atlas.
3. Correspondence:
 - a) The FON have just sent out a notice of the next Council meeting. Phil Schappert is unable to continue acting as FON rep. so Quimby Hess volunteered to carry this on - thank you Quimby!
 - b) The Durham Region Naturalists are looking for speakers for their meetings. Some of our members are capable of delivering fine presentations (as we well know). If you would like further info. re this item, contact Phil.
 - c) An article on natural recovery of city parks appeared in the Toronto Star for July 17, 1993. It discussed the Weed Control Act and oak savannah in the Toronto area. See also Peter Goddard's column "I was a teenage weed cop" on the same date.
 - d) A new listing for the common names of butterflies has appeared in a recent publication titled "American Butterflies", a new quarterly issued by the North American Butterfly Association (NABA). Subscription/membership rates are \$20 US + \$5 postage. Send to Ann Swengel, NABA Treasurer, 909 Birch St., Baraboo, Wisconsin 53913, U.S.A. There are many differences when comparing the names listed with those in use in the TEA Atlas.
 - e) A letter from the Metro Toronto & Region Conservation Authority asked for information on butterflies in the Toronto area (specifically Wards & Algonquin Islands). Information from two of the TEA Summaries was sent. Bill Edmonds also had input into this.
 - f) Much correspondence from Don Davis on the Monarch. Also a note that Michael Gurr had found two species new to Presqu'ile Park this summer, the Aphrodite and the American Copper.
 - g) A short "special edition" catalog of equipment & supplies (e.g. nets, mounts etc..) for entomologists is available from Bioquip Products, 17803 LaSalle Avenue, Gardena, CA 90248-3602. Also ask for the May 1993 "Lepidoptera Book Catalog".

4. Publications:

Phil Schappert brought in several new books: (1) "The Lepidoptera; form, function & diversity" by M.J. Scoble, 1992, Oxford U. Press; (2) "The Ecology of Butterflies in Britain" edited by R.L.H. Dennis, 1992, Oxford U. Press; (3) "Caterpillars; ecological & evolutionary constraints on foraging" edited by N.E. Stamp & T.M. Casey, 1993, Chapman & Hall; (4) "Keeping and Breeding Butterflies and other Exotica" by J.L.S. Stone, 1992, Blandford, London, U.K. All but # (2) available from Bioquip. There were also a number of short reports and articles available. Reviews follow:

(1) 404 pp. Anatomy and family level taxonomy of all Leps., many B & W line drawings and 135 B & W photos illustrating at least one species from every family. No key, but still a very useful text as it gives characters (and shows you what the character is anatomically) which delineate Lep. families (\$78 US).

(2) 354 pp. Eleven papers by five authors (Dennis, Shreeve, Porter, Warren & Brakefield). A good general ecology of temperate zone butterflies using the British fauna as examples (\$86 US).

(3) 587 pp. Seventeen papers by as many authors/researchers. The state of present knowledge of the growth & development stage of Leps. (\$75 US).

(4) 192 pp. A very readable account of rearing methods for temperate butterflies (almost 50% of the book, again using British species for examples) and specific info. on breeding some temperate and tropical species. Other "exotica" include praying mantis, scorpions, stick insects, leaf insects, locusts, large spiders and leaf-cutting ants. (\$25 US - 16 colour plates).

5. Business arising:

a) Questionnaires. Phil indicated that 24 had been returned (about 2/3 of which were from members who do not normally attend meetings). This is not a bad return from a membership of 100! These questionnaires will be summarized and results published as soon as possible.

6. New Business:

a) Phil Schappert attended a Karner Blue Recovery Workshop at Pinery on August 18 and 19. Some other TEA members and Dr. Dale Schweitzer were also in attendance. Phil stated that the meeting was a success and that a Provincial recovery team has been set up. Two groups will be working out of Lambton and Haldimand/Norfolk. One of the first priorities is to re-establish the Oak Savannah habitat in both areas (and possibly in High Park, Toronto). Problems with overgrazing by deer of prescribed burn sites, thus depleting the soil seed bank, may hinder efforts at Pinery P.P. But the K.B. Sanctuary at Port Franks & some spots at St. Williams are on the road to recovery.

b) St. Williams trip. The trip led by Quimby Hess in May had 7 participants and visited areas where the Karner Blue had last been seen. No Karner Blue or Frosted Elfin butterflies were seen. However, there were a number of Duskywings seen, one of which Quimby thought might be *E. persius*. On close examination by Quimby and Sid Daniels under magnification, it was found to be *icelus*.

c) The two trips in the Toronto area (Rouge Valley, Metro Zoo), which included blacklighting and sugaring for moths, were very successful.

d) Al Hanks requested early submissions for the summary - see notes below.

7. Programme:

The programme consisted firstly of slides shown by Duncan Robertson of some insects and many moths which he had photographed over the summer in Huntsville and Kingston. There were a number of unusual species found. Secondly, John Eberlie showed slides of some of his butterfly rearing activities from late 1992 into 1993. It was very interesting to have a chance to see the ova, larvae and pupae of species that one would not otherwise come across. These slides will form a valuable record.

FUTURE PROGRAMME

Saturday, October 16th. We were unable to arrange a speaker for this date. It appears that all the entomologists in the area are attending a conference. If members could bring some item of interest or special significance from their collections - either specimens, slides, books - and give a very short description of the item. Also, if anyone has problem specimens (identification), bring them in and let some of the members try their skill!

Saturday, November 20th. The speaker will be John Taylor from York University. His topic will be "Sweat Bees, Mountains and the Ice Age: genetic variation in *Lasioglossum (Erylaeus) boreale*"

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Notes on submissions for the Annual Summary:

1. Please remember to send your butterfly records to Alan Hanks (34 Seaton Drive, Aurora, Ontario, L4G 2K1) and moth records to Duncan Robertson (52 Florence Street, Kingston, Ontario K7M 1Y6).
2. Please submit your records in the same order as that found in previous summaries. Compilation of the data is simplified if this procedure is adhered to.
3. Please be very specific about unusual areas, i.e. a place which may be too small to appear on a map, or which may be difficult to locate. A couple of examples from the last summary are Grantley and Larkwhistle Gardens.
4. For commoner species, where many records may have been observed, a blanket description such as; "common in xxxxxx area between date and date. This will economise to some extent in space.
5. If you have any questions regarding submissions, please call Al Hanks at (905) 727-6993.
6. Bob Bowles has a query on how one differentiates between *P. glaucus* and *P. canadensis*. It is a fact that the former is generally larger and more "yellow" than the latter, but does anyone have any other diagnostic methods? Please let Al Hanks or Bob Bowles know.
7. Please submit black and white copies of photographs if at all possible. Colour prints are okay, but do not reproduce quite as well in the screen process used. Photographs should have all data on the back, i.e. species, location, date and photographer. Also, if the specimen is ex pupa or reared.

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Meeting No. 2 - 93/94 Season

The second meeting of the 93/94 season was held on October 16th in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Michael & Nancy van der Poorten, Steve Donald, Alan Hanks, Jim Spottiswood, Nick and Neb Lecic, Carol Sellers, John Eberlie, David Gaskin and visitors Rob Nolan, Tina Adam, Catherine Ukas and Jeremy Kerr. President Phil Schappert welcomed the members and visitors to the meeting.

The main speaker for the meeting was Professor David Gaskin of the University of Guelph, who gave a talk on matters pertaining to the ecology and conservation of butterflies. He had recently attended a symposium in the U.K. at which these concerns were discussed. Various innovations in the area of conservation were discussed as were such ridiculous actions as placing blanket protection on all butterflies, such as has been attempted in Germany and Greece. In Great Britain, the Nature Conservancy, Butterfly Conservation Society, National Trust and Government are working together. There are now over 900 managed sites, with over 1,000,000 Ha of protected areas and some butterfly management. Subjects discussed in detail by Dr. Gaskin included:

a) Large Blues (*Maculinea* spp.): after the 3rd instar, the larvae of these species have an association with various ant species, which appear to need short turf grass for survival. The larvae of the butterflies are fed by the ants or feed on ant larvae. If there are too many of them in the ant nest, they can wipe the ant colony out. This is probably what happened to *M. arion* in England. With careful management, a come-back of this species is under way.

b) *Parnassius mnemosyne*: the larvae of this butterfly feed on *Corydalis* sp., the young larvae occurring on one species and the older larvae on another. The two species must grow close to one another to afford the larvae an opportunity to move between them. The butterfly likes to oviposit on plants which are in the sun more than 4 hours a day, but *Corydalis* is a shade loving plant, so a delicate balance is in effect in order for the butterfly to flourish.

c) High Brown Fritillary (*Argynnis cydippe*): this butterfly was plentiful in England, being found in woodland with lime-stone outcrops, where the larvae and adults liked to bask on violets or bare rock. This butterfly suddenly started to disappear from usual haunts and is now only located west of a line drawn roughly down the centre of England. New management strategies are being used in an attempt to halt this disappearance.

d) *Papilio machaon*: this is a well-known case of a butterfly being protected and doing well in one area - in this case Wicken Fen. However, insufficient care was taken with drainage and water table, which retreated and caused the butterfly to disappear again. It has been re-established in Norfolk, but the sites are under pressure from power boating. An attempt is being made to regulate this.

e) Grassland: this is not a simple matter, as sometimes attempts at protection result in the generation of scrub vegetation unsuitable for resident invertebrates. Also, it has been found that asphalt roads are often not crossed by some species of butterfly, resulting in fragmentation and decline of their colonies.

In conclusion, David talked about our situation here in Canada, and particularly Ontario, wondering

why we seemed unable to generate the success he outlined in his talk. It left the assembled members with much food for thought, and there were numerous questions.

After a short break, the meeting resumed, John Eberlie gave a slide quiz on identifying Ontario Hairstreaks from photos of the hind wing and tails. We did not do very well! Alan Hanks then gave a short talk on some 'insect' covers and cards from his philatelic collections.

There were a couple of errors in the last minutes: in 3(g) it should have been mounts and not moounts! In 6(b) it should have been *lucilius* and not *icelus*. In Nov. 20 programme, it should be *Evylaeus*, not *Erylaeus*. The minutes of the last meeting were then accepted.

1. Treasurers report:

- a) The membership stands at 104 listed with 43 unpaid to date.
- b) Current balance \$941 - membership fees are still coming in.

2. Correspondence:

- a) The newest issue of 'Tropical Lepidoptera' was on display and there are plans to have a journal in the same format on 'Holarctic Lepidoptera'. Subscriptions will be \$35 with one journal and \$55 with both. Membership alone is \$5 - all amounts are \$US.
- b) The newest issue of 'Seasons' was available and Nancy van der Poorten has volunteered to write a short article on the TEA for the new 'Around Ontario' newsletter sent out with 'Seasons' by F.O.N.
- c) A letter from Ross Layberry details some of his travels around northern Ontario in the summer of 1993. It will be used in a TEA Newsletter, when one is produced, see below (hopefully soon!).
- d) Info was available from the WWF regarding 'Endangered Spaces'.

6. New Business:

- a) Phil Schappert reported on the Questionnaire results. The highlights are as follows:
 - 1. A quarterly (14/24) or triannual (4/24) Newsletter (total 75% of respondents) was preferred by the membership (many of which are unable to attend meetings regularly) over monthly minutes. Since the avowed goal in asking this question was to cut postage costs to manageable levels, we (as a club) should begin production of a quarterly (or better still a triannual) newsletter ASAP. Volunteers?!?! Please call Phil if you have access to a computer and are willing to help out.
 - 2. Most preferred the summary binding currently employed or had no preference (80%).
 - 3. A membership list with the members interests/specialties should be published annually.
 - 4. Many members were willing to donate slides for duplication for a TEA slide collection. Some agreed to sit on a selection committee. This process should be gotten underway ASAP also.
 - 5. There were a number of suggestions for field trips, including the possibility of a winter trip to the Montreal Insectarium (Dr. Eberlie suggested that this could be combined with a visit to the collection at McDonald College at Ste. Anne de Bellevue, McGill University).
- b) John Eberlie suggested a series of botanical/entomological field trips in 1994 to the Ganaraska Forest north of Bowmanville on the Oak Ridges Moraine. A survey in this area could be interesting.
- c) A memo on hand from Paul Prevett (interim Chairman - Karner Blue Recovery Team) outlined preliminary plans. There is a London meeting - Oct. 28th, which Phil Schappert will attend.
- d) Quimby Hess suggested writing to the WWF with regard to them not having any invertebrates on their list of Endangered Species. Al Hanks pointed out that this had already in effect been done earlier in the year. It was decided that we ask Stephen Price of the WWF to come and give us a talk on their Endangered Species policies and maybe have David Gaskin present to add to the discussion.

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UPCOMING PROGRAMME

Saturday, November 20th. The speaker will be John Taylor from York University. His topic will be "Sweat Bees, Mountains and the Ice Age: genetic variation in *Lasioglossum (Evyllaesus) boreale*".

Saturday, January 22nd. This meeting will be a round-table on insect photography. Be prepared to bring your rig, some slides (good and bad!), and a good argument about your favourite film and why it's the only one anybody should use...(sound familiar?)

* * * * *

A future meeting (tentatively Saturday, April 23rd) will feature a mini-symposium of five or six current graduate students giving "contributed paper" type talks on their entomological research interests. Hopefully we can get grad. students from as many Southern Ontario universities as possible and use the theme "Current Entomological Research at Ontario Universities" to tie the symposium together. If anyone has suggestions for speakers or ideas on topics, please call Phil Schappert (Home: 905-832-6206 or the Lab: 416-736-2100 ext. 33492) as soon as possible.

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Notes on submissions for the Annual Summary:

1. Please remember to send your butterfly records to Alan Hanks (34 Seaton Drive, Aurora, Ontario, L4G 2K1) and moth records to Duncan Robertson (52 Florence Street, Kingston, Ontario K7M 1Y6).
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3. Please be very specific about unusual areas, i.e. a place which may be too small to appear on a map, or which may be difficult to locate. A couple of examples from the last summary are Grantley and Larkwhistle Gardens.
4. For commoner species, where many records may have been observed, a blanket description such as; "common in xxxxxx area between date and date. This will economise to some extent in space.
5. If you have any questions regarding submissions, please call Al Hanks at (905) 727-6993.
6. Please submit black and white copies of photographs if at all possible. Colour prints are okay, but do not reproduce quite as well in the screen process used. Photographs should have all data on the back, i.e. species, location, date and photographer. Also, if the specimen is ex pupa or reared.

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In keeping with the results of our questionnaire we will be issuing a complete, updated membership list with a future mailing to members. To update our records we need some input on your interests and specialities, as well as any changes or additions to mailing addresses, phone numbers, etc., etc. Please drop a note to any of the executive as soon as you can.

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Meeting No. 3 - 93/94 Season

The third meeting of the 93/94 season was held on November 20th in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Michael & Nancy van der Poorten, Alan Hanks, Chris Rickard, Vesna and Neb Lecic, Carol Sellers, Carolyn King, Paul McGaw, Richard Tanner, Miriam Webster, W.D. McIlveen, Helen Juhola, Bill Edmonds, Michael Gurr, Tony Holmes, Jeremy Kerr and Sid Daniels. Visitors were Catherine Ukas, Shiraz & Mohamed Ajwani, R. Ubadillah, Perry Brown, Helen Johnson, Heidi Taylor, Noel Pabalan, and Valerie & Bill Taylor. Also present were Chris Darling from the R.O.M., Laurence Packer and our speaker John Taylor, both from York University. President Phil Schappert welcomed the members and visitors to the meeting, commenting on the excellent attendance, and since our speaker was not quite ready, the meeting opened with some business.

1. The minutes of the last meeting were accepted [although we should note that we forgot to thank Quimby Hess for bringing in some of his specimens of butterflies collected in the Grand Bend area in the mid-1930's (almost 60 years ago!) to the September meeting].
2. Treasurers report:
 - a) The membership stands at 103 listed with 30 unpaid to date.
 - b) Current balance \$1100 - membership fees are still coming in.
3. Correspondence:
 - a) Phil Schappert brought in another new book - "The Ecology of Insect Overwintering" by S.R. Leather, K.F.A. Walters, and J.S. Bale (Cambridge University Press, UK, 255 pp.). The book uses mostly European examples (including some Canadian research) but is very relevant to Canadian entomologists.
 - b) Don Davis sent in several reports culled from various newspapers: report on Paul Klassen in the Winnipeg Free Press; report on fall migrant birds (& butterflies) at Leslie St. Spit (TFN News); "where have the butterflies gone?" (Montreal Gazette); the Presqu'ile Park hunting issue (Brighton Independent); "The Montreal Insectarium" (Canadian Geographic).
 - c) Sheets of advertising for "Bonne Belle" products using the Karner Blue as advertising hype - in support of the WWF (which did not list the Karner Blue on its 1992 Endangered Species list for Canada! It's still not listed on the 1993 version!). More on this issue in the last minutes and coming in the future. Watch for it!
 - d) A copy of "Impact", a federal government publication from the Natural Sciences and Engineering Research Council (NSERC), was on hand. It included a short article on "Furthering Forensic Entomology", detailing a co-operative effort between 10 Canadian universities, 12 "industrial partners" (there's that politically-correct language hiding the real facts again!) and 3 government laboratories.

4. Business Arising:

- a) Phil read the Secretary's submission regarding a short article for the F.O.N.'s "Around Ontario" newsletter. It met with a favourable response and will be submitted shortly. Thanks Nancy!
- b) Please remember to submit your butterfly and moth records for last season to Alan Hanks and to Duncan Robertson respectively. Do it now!! See last months minutes for further details.
- c) Please send any revisions, and any further input on interests and specialties, for the upcoming membership list to Alan Hanks as soon as possible.

5. New Business:

- a) Phil Schappert reported on the Karner Blue Recovery Team meeting held on October 28th, 1993 at the London M.N.R. offices.
 1. The T.E.A. is a member of this committee and the question was raised "what will we do?".
 2. The Recovery Team has focused on two regional "working" groups - the Lambton/Pinery group and the Haldimand/Norfolk group. This meeting saw the inclusion/formation of a third working group, the Toronto area group, partly to facilitate communications amongst Steering Committee members from the Toronto region [eg. Tom Mason (Metro Zoo), Dr. Packer (York University), and the T.E.A.] but also to not exclude the chance that Karner Blues could be re-introduced to areas of High Park which are presently being rehabilitated. More will follow.
 3. Surveys are now being planned for the period March through November 1994 in previous Karner Blue habitat areas to identify other insect species that could be at risk with planned habitat rehabilitation. This is where members of the T.E.A. can and should participate. Further details will be forthcoming later when plans have been firmed up but volunteers are needed to participate in surveys in both the Haldimand/Norfolk and Lambton/Pinery regions.
- b) An article on the Weed Control Act appeared in May of this year in the S.Huron/N. Lambton 'Lakeshore Advance' and is on page 4 of these minutes. Incongruously, it was placed on a page next to a notice to property owners to destroy weeds according to the Weed Control Act. How about that for some editorial control!!!

UPCOMING PROGRAMMES

Saturday, January 22nd. This meeting will be a round-table on insect photography. Be prepared to bring your rig, some slides (good and bad!), a good argument about your favourite film and why it's the only one anybody should use...(sound familiar?), and any knowledge/advice you feel like sharing with other members, for instance, how to deal with field problems with equipment or problems specific to habitats or customs regulations in foreign countries or any of the thousand-and-one things that only experience teaches!!

A future meeting (tentatively Saturday, April 23rd) will feature a mini-symposium of five or six current graduate students giving "contributed paper" type talks on current entomological research at S. Ontario Universities. The format will consist of a 12 minute presentation followed by a 3 minute discussion. If anyone has suggestions for speakers or ideas on topics, please call Phil Schappert (Home: 905-832-6206 or the Lab: 416-736-2100 ext. 33492) as soon as possible.

Our speaker for the meeting was John Taylor from York University, whose topic was "Sweat Bees, Mountains & the Ice Age". John's talk dealt primarily with the study of biogeography (the study of the geographic distribution of organisms) and the genetic relatedness of organisms. Examples of this type of study include the flightless birds which are found on different continents, but appear to be very similar. If they had a common ancestor, their present distribution may be explained by the movement of

the continents. Similarly, studies made on North American Chickadees, genetically comparing the same species found in different areas (and also related species) show that, while the Black-capped & Carolina Chickadees hybridise where they meet, the Black-capped Chickadee is actually more closely related to an allied species found in the S.W. United States! Although there are five morphological sub-species of Black-capped Chickadees found across the northern half of this continent genetically they are very similar. This overall genetic similarity supports the suggestion that relatively 'recent' migration and movement of the birds colonized all of the northern part to the continent as the glaciers receded.

A particular species of sweat bee, *Lasioglossum (Evyllaesus) boreale*, was collected by John and/or Laurence Packer from various areas of North America, including Inuvik (Northwest Territories), Kananaskas (Alberta), Schefferville (Quebec), Mount Washington (New Hampshire) and two mountain tops in Arizona and Utah (Graham & Uinta Mts.). These widely separate locations all have an arctic/alpine type of habitat in common, with flowers (often Fireweed) that are attractive to the bees. Sweat bees - members of the Halictidae - are small bees, often brightly coloured or just black, usually with a wide range and distribution. The particular species John has been studying is a small black bee that looks an awful lot like other small black bees so genitalic dissection was required to positively identify the separate species. The genetic studies were carried out by collecting bees from the various sites, identifying them, storing them in liquid nitrogen and then later grinding them up for starch gel electrophoresis studies. As John explained, particular enzymes and proteins have an electric polarity (that is they carry an overall positive or a negative electric charge). Once the enzymes are suspended in a starch gel an electric current applied to one end of the gel will cause the enzymes to migrate towards one or the other pole. The relative difference in the distance moved by the enzymes in the starch is indicative of genetic differences between the individuals because the differences in the polarity of the enzymes are genetic.

John found electrophoretic differences during his studies which indicated that the northern populations of *L. boreale* share similar characteristics, while the southern populations are genetically isolated. The northern populations have likely originated from the southern populations after the retreat of the glaciers, and the decreased variation John found in the northern populations supports the suggestion of more recent colonization. The presentation was supplemented by John and Laurences "vacation" slides of the various sites visited and collected in and was followed by an interesting question period. Phil thanked John and presented him with a copy of "The Ontario Butterfly Atlas". The meeting ended at about 3 p.m.

The Executive would like to take this opportunity to wish the members a happy holiday season and good wishes for a super season in 1994.

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Meeting No. 4 - 93/94 Season

The fourth meeting of the 93/94 season was held on January 22nd in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil Schappert, Duncan Robertson, Merne Powers, Alan Hanks, Carolyn King, Paul McGaw, Richard Tanner, W.D. McIlveen, Bill Edmonds, Tony Holmes, John Eberlie, Steve Donald, Jim Spottiswood, and Jim Hunter. Visitors were Myrna Burton and Ron Dengler. President Phil Schappert welcomed the members and visitors to the meeting.

1. The minutes of the last meeting were accepted (but note that New Business item 5b should have referred to a "letter to the editor" not an "article" on the Weed Control Act which was reprinted on page 4 of the last minutes).
2. Treasurers report:
 - a) The membership stands at 104 listed with 17 unpaid to date after two reminders. No further minutes will be sent to these members, but their names will be retained on a separate list.
 - b) Current balance \$1310.
3. Correspondence:
 - a) A letter was received from the ROM Entomology Dept. regarding a request from Walter Krivda of The Pas, Manitoba, for TEA publications. A copy of the 92 Summary was sent to Mr. Krivda.
 - b) Don Davis sent in some reports on insect photography culled from library computer lists. Also a copy of the Monarch Newsletter with a report on an infection of the butterfly life cycle by spores of a protozoan. Also the latest copy of "American Butterflies" with some interesting articles.
 - c) A resignation letter from one member - too many activities given as the reason.
 - d) Further "advertising" from NSERC was on hand, Vol. 2 No. 4 of "Impact" re: a Nobel prized chemist from UBC and "Research Profile" Vol. 2 No. 3.
 - e) A notice re: a California "wildlife preservation" stamp for 1993 featuring the "Kern Primrose Sphinx Moth" (*Euproserpinus euterpe* Edwards) was received. Anyone interested, call Phil.
 - f) a "pre-publication" (read as "No, it's still not printed") review of the perpetually forthcoming Swallowtail Butterflies of the Americas by Tyler, Brown and Wilson (1994!) was received by Phil.
 - g) Algonquin Provincial Park is seeking applicants for seasonal positions as park interpreters. If you're interested, call Phil.
 - h) two members brought newspaper cuttings re: the Cindy Halliday murder case & the involvement of Dael Morris and forensic entomology in determining the date of death of the Barrie teenager. See Toronto Sun, Jan. 7/94 and a more extensive "expose" on "the bug detective" on page 28 of the Sat., Jan. 22/94 Toronto Sun.
4. Business Arising:
 - a) Phil reported that the Secretary's short blurb re: the club had been submitted for publication to the FON's "Around Ontario" newsletter and to the ROM's members newsletter. Some date confusion by your often confused President was corrected at the meeting.

- b) The next meeting of the Karner Blue Recovery Team will be held Feb. 8/94 at the London MNR offices. Phil will attend on behalf of the TEA. Other attendees from the Toronto area are expected to include Laurence Packer (York U.), Tom Mason (Metro Zoo), & Ken Stead (Lambton Wildlife).
- c) Summary - the 1993 Summary is in pretty good shape except for some missing input. A call to Al Wormington will hopefully rectify this.

5. New Business:

- a) Phil read a letter he had written to the Head Librarian at the ROM library regarding the housing and disposition of the TEA library, including future members donations, at the ROM. No reply has been received so far.

6. Program:

The main subject of the meeting was "Photography of Insects" and a number of members had brought equipment or slides or both. Some details are as follows:

- a) John Eberlie brought his complete set-up for photographing life cycles at home. It consisted of an SLR camera equipped with bellows and appropriate lenses. A ring flash is often used for lighting. John showed some of his excellent slides and commented about the problem of extreme close-up (macro) photography in that lights brought too close to subjects, i.e. eggs and small larvae, often overheat them.
- b) Al Hanks showed his simple set-up of an SLR with 100 mm macro lens and said that he normally uses whatever light is available during the day and has not experimented as yet with flash techniques.
- c) Duncan Robertson explained how he uses a bracing technique for the camera against surfaces where moths alight, i.e. house wall, and the necessity to shoot at an angle sometimes to obtain the best shots. Duncan uses an SLR and 105 mm macro lens with a flash attached to a bracket which holds the flash near the front of the lens.
- d) Paul McGaw brought his camera and showed some of his slides of various moths and butterflies, together with several other insects. Some of the slides were taken at Butterfly World in Florida, a butterfly photographer's paradise!
- e) Richard Tanner showed his flash unit consisting of a battery pack which clips to his belt and has an adapter to power a normal flash unit. The battery pack is re-charged at night and provides plenty of power for an all-day shoot with the added benefit of extremely fast recycle times. Richard showed slides taken in Costa Rica and stated that he uses flash almost exclusively, particularly as the areas where most of the butterflies are found are in fairly deep shade.
- f) Quimby Hess showed a variety of slides and placed special emphasis on the necessity for keeping the camera absolutely still and being as careful about backgrounds as to the subjects. He also stressed the need to take photos of habitat as well as of the insects themselves.
- g) Phil Schappert took us on a quick trip through his camera bag emphasizing such little remembered necessities as a watchmakers screwdriver kit, a Swiss army knife and electrical tape (for emergency camera repairs), a compass, a deck of playing cards (you will get lost and it will rain!), a small first aid kit, a clear plastic bag large enough to hold your camera, with elastic bands to hold it on, so when it rains while out hiking or if you're shooting in light spray/showers the camera is protected, and last but not least a good pocket-size reference book. Phil stressed that telephoto lenses can also be very useful (he showed his 300mm F2.8), as can a motor winder or drive, and showed slides which illustrated the benefit of taking safety shots (a slide with a small subject is better than no slide at all). He also stressed the real importance of taking more film than you can possibly imagine shooting - the cost of film is a fraction of the cost of another trip or the "cost" of those missed shots because you ran out of film!

The concensus of the photographers was that a SLR camera equipped with a 100 or 105 mm macro lens capable of at least 1/2 life size or 1:2 exposures (think of it this way: a negative or slide measures 24 x 36mm (approx. 1 x 1½ inches) so a photo of an area 24 x 36mm is "life-size" or 1:1, a photo of an area 48 x 72 mm (about 2" x 3") is 1/2 life size, a photo of an area 96 x 144mm (about 4" x 6") is 1/4 life size or 1:4, etc., etc.) was the most suitable equipment for general insect photography. The costs and benefits of using close-up rings, extension tubes, and 1.4x and 2x teleconvertors were also touched on by most of the exhibitors. However, a macro lens can be good for photography down to about a 1:1 ratio and specialized equipment may be required for extreme close-ups or other for circumstances such as photography in the jungle. All in all, it was an extremely useful session.

UPCOMING PROGRAMMES

Feb. 26: T.B.A. (but don't miss it!! You'll be sorry if you do!)

Mar 26: Jurgen Hoth, an official with Monarca A.C. and a doctoral candidate at the University of Waterloo (Faculty of Environmental Studies), will speak on "Rural Development and the Protection of the Monarch Butterfly in Mexico: a necessary conflict?" (thanks to Don Davis for suggesting this speaker)

Apr. 23: Doug Curry (R.O.M., University of Toronto) will speak about the evolution of blackflies (just in time for the field season!).

A future meeting (now likely October or November 1994) will feature a mini-symposium of current graduate students giving "contributed paper" type talks on current entomological research at S. Ontario Universities. The format will consist of a 12 minute presentation followed by a 3 minute discussion. If anyone has suggestions for speakers or ideas on topics, please call Phil Schappert (Home: 905-832-6206 or the Lab: 416-736-2100 ext. 33492) as soon as possible. Anyone wishing to assist in (finally) getting this off of the ground would be greatly appreciated.

NOTICE

The paper on the Mottled Duskywing (*Erynnis martialis*) presented in the 1992 Summary by Bill Lamond stressed the lack of sightings in recent years and demonstrated a need to re-evaluate the status of this species. The Karner Blue committee feels that this species may well be the next candidate for extirpation from Ontario. The habitat restoration for the oak savannahs at the Pinery, St. Williams and Karner Blue Sanctuary provide suitable sites for the Mottled Duskywing.

Using a HOTLINE system, we should like to be contacted by all interested parties. Areas of current or historic sighting of the Mottled Duskywing, or areas of its hostplant, New Jersey Tea (*Ceanothus* sp.) should be checked in both flight periods. When the first sighting is called in, all participants will be notified, and reports will be called in to the hot-line. If there is a need to re-introduce the Mottled Duskywing, this will give the committee valuable experience in evaluating the procedures used, and monitor their results.

The hot-line 'phone number is 1-519-756-9546 and is an answering machine at the home of Bill Lamond. Please leave your name and 'phone number and areas that could be surveyed.

*Meeting No. 5
93/94 Season*

PRESIDENT: Phil Schappert	(905) 832-6206	VICE-PRESIDENT: Duncan Robertson	(613) 542-6142
TREASURER: Alan J. Hanks	(905) 727-6993	SECRETARY: Nancy van der Poorten	(416) 466-9013

The fifth meeting of the 93/94 season was held on February 26th in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Alan Hanks, Carolyn King, Paul McGaw, David Gaskin, W.D. McIlveen, Bill Edmonds, Tony Holmes, Nancy & Michael Van der Poorten, Chris Rickard, Catherine Ukas, Miriam Webster, Sid Daniels, Bob Curry, George Bryant, Neb Lecic, and Jim Hunter. The only visitor was Nick Lecic (Neb's PTS, that is personal transport service or taxi for short). President Phil Schappert welcomed the members and the visitor to the meeting.

1. The minutes of the last meeting were accepted (but see item 3a below).
2. Treasurers report:
 - a) The membership stands at 104 listed with 16 unpaid to date after two reminders.
 - b) The current balance, down slightly due to stationery expenditures, stands at \$1169.
3. Correspondence:
 - a) A letter, which was received and noted at the January meeting, was unfortunately overlooked when the last minutes were prepared. Member Doug Scovell wrote about changes in provincial government policy re: the lands held by Ontario's Conservation Authorities. An information sheet, prepared by the Nottawasaga C.A. is appended, along with the text of a standardized letter which all interested members are invited to send out.
 - b) A letter was received from Boreal Labs. (a Canadian Biological/Educational Supplies company) re: obtaining common species of butterflies and other insects for educational purposes. Some info. was passed along by Alan Hanks. Anyone else interested in this item should call Alan.
 - c) A copy of the Monarch Newsletter (Vol. IV, No. 4, Jan. 1994) was passed along to us via the usual channels (aka Don Davis). Inside, a report of "One Wayward Monarch" about a Monarch tagged by Don at Presqu'ile P.P on Sept. 14 which was recovered, deceased (unfortunately), inside Fred's Showcase Inc. - a furniture store in Fort Walton Beach, Florida!!
 - d) A new issue of Tropical Lepidoptera (Vol. 4, No. 2, Nov. 1993) was on hand. Anyone interested in subscription info. for this or the "forthcoming" companion journal Holarctic Lepidoptera should call Phil Schappert. Some discussion of the poor publication record of the Assoc. for Tropical Lepidoptera on "forthcoming" publications ensued.
 - e) Phil brought in a U.S Fish & Wildlife publication (No. SD-ES-93-05) re: Management for butterflies in the northern Great Plains: a literature review and guidebook for land managers (obtained from Peter Carson at the last Karner Blue meeting).

4. Business Arising:

- a) Summary - the 1993 Summary is in good shape and proceeding apace.
- b) Phil Schappert reported on the Karner Blue Steering Comm. meeting that took place on Feb. 8th. Phil, Dr. Laurence Packer, Jeremy Kerr, Ken Stead and Tom Mason attended from Toronto. The most important news was that this coming season is going to be a major survey and inventory period and it is hoped that T.E.A. members will be able to assist in this effort. More will follow as details become available.

5. New Business:

- a) Quimby Hess brought in a publication from the Canadian Nature Federation and brought to our attention the efforts of the CNF to coax the COSEWIC committee to list threatened and endangered insects and other invertebrates, specifically some endangered butterflies in Eastern Canada. Does this sound familiar?

6. Program:

Phil Schappert apologized for not being able to arrange a formal speaker for this meeting. However, a suggestion from Duncan Robertson prompted some quick phone calls and two of our members jumped into the fore, as it were, and graciously consented to quickly assemble short programs and lead us into a discussion of "Butterfly Gardening".

- a) Bill Edmonds, fresh from being dyed, showed slides of the plants in his Toronto garden which have been particularly successful in attracting butterflies. These include: Dames's Rocket, Pearly Everlasting (the larval host of the American Painted Lady), Wild Bergamot, Purple Coneflower, Swamp Milkweed, Knapweed, Boneset, Spreading Dogbane, Lavender, Gallardia, Joe Pye-weed, and (of course) Buddleia. Other flowering plants which are good for bees and other insects in general include: Veronica, Red Valerian, Showy Stonecrop and Ironweed. Bill regaled us with tales which kept us chuckling lightly and also brought along a number of books and articles on the subject of Butterfly Gardening. Articles which members may want to see include an article on Bernard Jackson of Memorial Univ., in St. John's Nfld., in the Summer 1987 issue of Nature Canada, articles in the June 1989 issue of Horticulture and the May/June 1992 issue of Fine Gardening, as well as the Spring 1993 issue of TLC...for plants. Bill also brought along slides and comparison photos of a hybrid White Admiral found some years ago.
- b) Paul McGaw expanded on Bill's program with slides of his "work in progress" garden. Other plants of interest mentioned by Paul include: Nettles (the hostplant of a variety of Nymphalids), Honeysuckle (which has attracted early spring overwinterers when the sap is running), Mountain Mint, Indian Hemp, Wild Carrot or Queen Anne's Lace, White Clover, two species of Turtlehead (one of which is the larval host of the Baltimore), Asters, Butterfly Milkweed, Orange Hawkweed, Goldenrod, Black-Eyed Susan, Tansy Ragwort, Prairie Coneflower, and of course, Thistles. Paul noted that some of these useful plants in the butterfly garden are considered weeds and in fact some are listed as "noxious" weeds in the Ontario Weed Control Act! Paul also brought in a few copies of the Winter 1994 issue of Wildflower (Vol. 10, No. 1), the 10th Anniversary issue of the publication of the Canadian Wildflower Society for the taking of interested members. Paul specifically mentioned the seed exchange program of the C.W.S. as a great way to get wildflowers for your butterfly garden (a list of available seed along with instructions about how to obtain it (before the end of May) is in the

magazine). Toronto area members can attend the C.W.S.'s Annual Spring Native Plant Sale, to be held this year on May 14, from 10 A.M. at the Civic Garden Center in North York. Paul also brought along a number of available books.

It's interesting to note that there was no duplication of the books brought by Bill and Paul which attests to the variety of materials that are available out there. Books on hand included: The Butterfly Garden by Jerry Sedenko, a Xerces Soc. book on Butterfly Gardening, Robert Pyle's excellent Audubon Society Handbook for Butterfly Watchers (which is now available in paperback), and easily found books on creating and maintaining a butterfly garden from HP and Ortho Books. A short question period followed the presentation. One of the items that came up was how to attract moths to your garden - an offered suggestion was to include Night Scented Stock or the white, fragrant form of Nicotiana in your garden. A delightful program, many thanks to both Bill and Paul.

UPCOMING PROGRAMMES

Mar 26: Jurgen Hoth, an official with Monarca A.C. and a doctoral candidate at the University of Waterloo (Faculty of Environmental Studies), will speak on "Rural Development and the Protection of the Monarch Butterfly in Mexico: a necessary conflict?" (thanks to Don Davis for suggesting this speaker)

Apr. 23: Doug Curry (R.O.M., University of Toronto) will speak about the evolution of blackflies (just in time for the field season!).

NOTICE

Remember to register for the Mottled Duskywing (*Erynnis martialis*) hot-line. See the last minutes of meeting. The hot-line 'phone number is 1-519-756-9546 and is an answering machine at the home of Bill Lamond. Please leave your name and 'phone number and areas that could be surveyed.

The following is the text of the letter mentioned in item 3a:

The Honourable Howard Hampton, Minister of Natural Resources, 99 Wellesley St. W., Whitney Block, Queen's Park, Toronto, Ont., M7A 1W3.

Dear Sir:

As a citizen of Ontario, I am very concerned about your lack of support for natural areas protection in this Province. In addition, I am very concerned with what seems to be your Ministry's attempts to destroy the grass roots conservation of our natural resources as capably delivered for almost 50 years, by local watershed residents through their Conservation Authorities.

Your government must recognize the value of Conservation Authorities and do everything possible to assist them in continuing to protect Ontario's irreplaceable natural landscapes.

Please fully reinstate our conservation land tax rebate program for Conservation lands, and enhance conservation delivery capabilities through full support for their programs and services. My children and grand-children thank you for your support.

Yours sincerely,

(your name)

Note:

As you've likely guessed this came from a Conservation Authority (no!). If it's a little strong for you, and I personally think that it is overly self-serving, then feel free to modify it as you see fit. The important thing is to WRITE A LETTER. See the information sheet for further info., it IS a worthy cause, especially for entomologists - habitat loss is our greatest enemy.

Phil

=====

I Get High on Butterflies
by Joe Roseblatt

I get high on butterflies;
the way they loom in the air
and land on air-dromes
of petals

and with nervous wings
shake off their colours
of orange, green and blue...

I get high on butterflies;
their very names:
Tiger swallowtail
Zebra
Pygmy Blue
Arctic skipper
Spring azure
Common wood nymph.

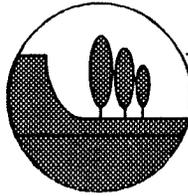
Caught in the net of my mind
they whirl around
and around...

(submitted by Neb Lecic, from a book he found in the library)

+++++

I thought that you might enjoy the piece that appeared in the Sunday Sun, on Sunday, Feb. 27th. so I've put it on the back of the C.A. information sheet (although the copy isn't very good) Phil

Diane Lessels, Chair
Bill MacKenzie, Vice-Chair
Wayne Wilson, Chief Administrative Officer



R.R. 1
ANGUS, ONTARIO
LOM 1B0
Telephone: (705) 424-1479
Fax: (705) 424-2115

"33 Years in Conservation 1960-1993"

NOTTAWASAGA VALLEY CONSERVATION AUTHORITY

CONSERVATION IN QUESTION

If Ontario's 38 Conservation Authorities are to continue to exist, we need your support.

For half a century, Ontario's community-based Conservation Authorities have worked on your behalf to protect the residents of Ontario from natural disasters and to conserve the province's natural heritage.

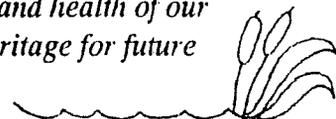
But Conservation Authorities and the work they do are at risk!

On April 23, 1993, the provincial government cut its funding to Conservation Authorities by 22%. In addition, the Conservation Land Tax Rebate Program for public lands owned by Conservation Authorities was eliminated, without warning or discussion. Conservation Authorities were suddenly required to pay some extra \$3.6 million in taxes on wetlands, forests and other environmentally significant lands they own and manage in trust for the residents of Ontario.

Thanks to the support of thousands of Ontario residents and many organizations throughout the province, the Minister of Natural Resources recently announced that Conservation Authorities could, for 1993 alone, use money earmarked for other projects to help pay some of the 1993 taxes owing. While we are pleased with the one-year reprieve, conservation lands are still at risk.

While showing some flexibility regarding 1993 land taxes, the Minister also announced further funding cuts for 1994 and beyond of up to 31% for other important conservation services - tree planting, erosion control agreements, forest management, and minor dam maintenance.

We need your support, if Ontario Conservation Authorities are to continue their half century of success in protecting Ontario residents and our natural heritage. We urge you to register your concern by signing and sending the attached card to The Hon. Howard Hampton, Ontario Minister of Natural Resources. Please show you care about the future of our province, the sustained safety and health of our residents and the continued conservation of our natural heritage for future generations.



Member of the Association of Conservation Authorities of Ontario



FROM SUNDAY SUN, FEB. 27/04



VERMILIONS!

It sounds like an outline for a horror movie. Instead it's a tiny Brazilian monster which has already claimed five lives.

In Sao Paulo, a venomous, hairy species of caterpillar whose sting causes burns and internal bleeding and can kill humans has claimed its fifth victim in Brazil. Araci Duarte, 57, from the town of Venancio Aires, died last month, 12 days after touching a caterpillar.

A doctor at Alegre Hospital said, "Death was caused by contact with a stinging caterpillar."

Dr. Joao Batista Torres said the

woman was taken to hospital after touching one of the caterpillars 12

It can grow to eight centimetres, is green and covered with fine hairs.

days ago. She was the fifth person to be killed by the venomous species.

in three years in Rio Grande do Sul, Brazil's southern state, Torres said. The caterpillar, *Lonomia obliqua*, is known locally as the "fire caterpillar."

It can grow to a length of eight centimetres, and is green and covered with fine hairs.

"The hairs act like hypodermic syringes," Dr. Torres said. "The venom injected interferes with the coagulation of blood."

The result is internal bleeding and related complications that can cause death.

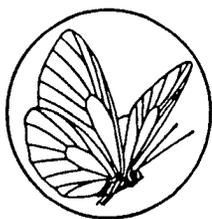
There is no known single antidote, but doctors treat cases with drugs

that restore the blood coagulant factor.

Torres said the hospital's toxicology centre treats up to 30 sting victims each year, especially during the summer, when the species develops into its caterpillar stage.

Scientists in Rio Grande do Sul said rapid deforestation over the past few years and the disappearance of predators, such as wasps and flies, appears to have led to an increased presence of the stinging caterpillars near towns and cities.

— *Sun wire services*



**TORONTO
ENTOMOLOGISTS'
ASSOCIATION**

*Meeting No. 6
93/94 Season*

PRESIDENT: Phil Schappert	(905) 832-6206	VICE-PRESIDENT: Duncan Robertson	(613) 542-6142
TREASURER: Alan J. Hanks	(905) 727-6993	SECRETARY: Nancy van der Poorten	(416) 466-9013

The sixth meeting of the 93/94 season was held on March 26th in the Planetarium Lecture Room, starting at 1:15 p.m. Members present included Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Carolyn King, Paul McGaw, W.D. McIlveen, Bill Edmonds, Tony Holmes, Chris Rickard, Catherine Ukas, Neb Lecic, Jim Hunter, Jim Spottiswood, Don Davis, Helen Juhola, John Eberlie, and Sid Daniels. Visitors included Nick Lecic, Allan M. Vatcher, Stanley Chan, Heather Stanworth, Lucia Mency, Stan Mazur, Mary Machutt, Ruben Flores, Modika Perera, Doug Currie (ROM), Hilary Craig, Karen Jaworski (Island Nat. Sci. School), David Heap, Dianna Flemming (Toronto Bd. Ed.), Paul Schtomer, Helena Bowkun (RCM), Sergio Aguilera (Mexican Consulate), Eva Aguilera, Flor Aguilera (Mex. student), John Bedford, and the speaker, Jurgen Hoth. In all, there were 43 members and visitors present (and if you can believe the sign-in book, Jean Chretien, an "out-of-town visitor", too), this may be some sort of record!!! The majority of the visitors knew or knew of the speaker, or saw the advertisement in NOW magazine. President Phil Schappert introduced himself and the Vice-President, noting that the Treasurer and the Secretary sent their regrets that they would be unable to attend, and welcomed the members and the visitors to the meeting. Phil would like to thank his wife, Pat, for consenting to record the minutes.

1. Program:

Don Davis, instrumental in inviting this speaker, graciously agreed to perform the introduction. The speaker, Jurgen Hoth, as we found out, is well-travelled, having worked on/with mountain rabbits in Mexico, Pacas, a large (and in Jurgen's opinion delicious) rodent, in Central America, sheep in Britain, reindeer in Scandanavia, and now the Monarch. The theme of conservation was apparent. He did his masters at Guelph and is currently a doctoral candidate at the University of Waterloo.

Jurgen broke his talk into four parts. First, a short introduction to the major features of the biology of the Monarch with an emphasis on its migration (he worked out an equivalency, so that we might put the migration in perspective, that suggests that the distance we would have to travel, given the disparity in weight, to equal the Monarch's feat would be about 340 million miles, or 3 1/2 times the distance from the Earth to the Sun, and that if you made the round trip, the next generation to undertake this journey would be your great, great grandchildren, and of course none of the intervening generations will visit the site!!), the discovery of the Mexican overwintering sites and past efforts, woefully ill-conceived, at conservation. This was followed by Jurgen's socioeconomic survey and analysis of the factors influencing tree-cutting at the sites. Not surprisingly, the poorest people were having the largest impact on the sites. Addressing this issue directly will go a long way to ensuring that the sites are not degraded further.

The third part of Jurgen's presentation, and the part he considered most controversial, was his belief that some disturbance of the sites has occurred historically and is likely a necessary condition of the Monarch's choice of sites. To support this he provided evidence that Monarch overwintering sites are all in intermediate areas where a gradient of conditions occur. For instance, Monarch sites are located where light penetration into the forest is not too low or too high (in other words, where the forest is not too dense or too open). An additional benefit of moderate to low levels of disturbance includes keeping the shrub layer (essential for butterflies to climb up out of the snow) healthy. Jurgen suggested that some disturbance of the sites will be a necessary part of any management plan. In the last part of his presentation, Jurgen discussed current and future conservation efforts and reported on his recent trip to Mexico (he just got back mid-March).

One of the questions that arose during the question period that followed was about the reported 70% die-off in 1992 (it was widely reported around the world that 70% of all of the Monarchs in Mexico had died as a result of an extended period of bad weather). Jurgen suggested that while this was a case of over-statement resulting from a single sample of one site it had the far-reaching effect of encouraging the Mexican government to hold public meetings about Monarch conservation efforts for the first time. And as we had just learned, there is little doubt that the involvement of the local people will be a necessary part of a successful conservation strategy. President Phil Schappert thanked the speaker and presented him with a copy of the Ontario Butterfly Atlas. This was followed by a short break before the business meeting began. Twenty-one persons stayed for the meeting.

2. The minutes of the last meeting were accepted.
3. Treasurers report: (omitted, due to absence of Treasurer)
4. Correspondence:
 - a) Secretary Nancy van der Poorten had forwarded information regarding the first annual meeting of the North American Butterfly Association (NABA) in Pomona, NJ, May 6-8, 1994. Interested persons should contact Nancy or Phil for further info.
 - b) Other NABA news included a report on the 1993 Butterfly Counts (see page 4) and a notice or reminder of the forthcoming 1994 count period. More will follow on this item (see also Field Trips, item 6a below).
 - c) Long Point Bird Observatory is looking for participants in a Red-Shouldered Hawk Survey. If you want further info. contact Phil.
 - d) Two items were received from the Hamilton Naturalist's Club who are hosting this years FON conference at McMaster University, May 27-29, 1994. The first was a reminder, including the agenda for the meeting, and noted that this is the HNG's 75th anniversary. The second was an invitation to set-up a display, exhibit or product. As we have all three of these, a table would be worthwhile, not to mention that we really should represent the always-under-represented insects. Who else will? Volunteers are needed to "person" the tables. Call Phil or Alan ASAP.
 - e) A brochure from Chapman & Hall Publishers, courtesy of Classey, included some new titles of interest to members: Insect Conservation Biology by M.J. Samways; Host-Plant Selection by Phytophagous Insects by E.A. Bernays and R.F. Chapman; Monitoring Butterflies for Ecology and Conservation by E. Pollard and T. Yates; The Planthoppers ed. by R.F. Denno and T.J. Perfect; Scuttle Flies: The Phoridae by H. Disney; Medical Insects and Arachnids by R.P. Lane and R.W. Crosskey; and Insect Natural Enemies ed. by M. Jervis and N. Kidd. Whew, there goes another two or three hundred dollars!

f) the Vankleek Hill & District Nature Society is holding a birdathon to raise funds to help save the Alfred Bog, home of the Bog Elfin, between Ottawa and Montreal. Anyone interested in participating, or in "buying" an acre of bog (you'll receive an Honorary Deed and a tax receipt for a \$50 donation), please contact Phil.

g) John Eberlie brought along a copy of the Newsletter of the Biological Survey of Canada (Vol. 13, #1, Spring 1994) and mentioned that Steve Marshall (Guelph, Env. Biol.) is investigating the possibility of a book/workshop/symposium on identifying rare and potentially endangered insects.

h) Don Davis brought in, amongst other things, his Monarch newsletter, a copy of the section on the Monarch from the new book "Butterfly Conservation" by T.R. New (Oxford Univ. Press, 1991), a beetle specimen from Borneo, and a pillow containing 30% milkweed fluff.

5. Business Arising:

a) Quimby Hess brought in a newspaper published by WWF (Canada) called "Working for Wildlife". Interestingly, an article on page 3 concerns the same Maritime Ringlet butterfly which was the focus of a CNF article (that tries to pressure COSEWIC into listing it as an endangered species) which we reported in the last minutes! The caption of the accompanying photo. says it all: "Whether it's bears or butterflies, WWF is working to ensure the survival of Canada's wildlife". But, of course, there are no endangered insects in Canada (I find myself getting more and more sarcastic as I get older, is this normal? - Phil).

6. New Business:

a) Field Trips: It's that time of year again folks. Bring your suggestions to the April meeting, a few to think about include: butterfly counts for the Canada Day weekend, the Ganaraska Forest Area (Northumberland Co.), possibly mid-June through July (John Eberlie points out that the local Conservation Authority is undertaking flora and fauna surveys this year and our input on insects of the area would be appreciated), tag along with Michigan Entomol. Soc. trips, Peterborough Co. (possibly Cavan Bog and Trent University), a fall trip (around the Thanksgiving Day weekend?) to the Montreal Insectarium. It is very likely that the Karner Blue Working Groups in Haldimand/Norfolk and Lambton/Pinery will have survey work ongoing, it would be beneficial to aid these groups on one or two field trips. Suggestions? Volunteers!?

b) John Eberlie extends an open invitation to anyone attending the FON's May trip for butterflies to the Oak Ridges Moraine area south of Rice Lake to stop by and join him for dinner. Contact John at 905-372-8673.

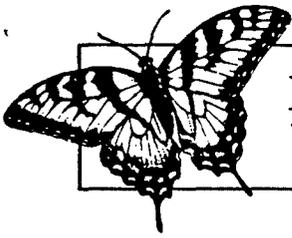
UPCOMING PROGRAM

Apr. 23: Doug Curry (R.O.M., University of Toronto) will speak about the evolution and the general biology of blackflies with his focus on Ontario species (just in time for the field season!). Don't miss this one!

* * * * *

REMINDER

Remember to register for the Mottled Duskywing (*Erynnis martialis*) hot-line. The hot-line 'phone number is 1-519-756-9546 and is an answering machine at the home of Bill Lamond. Please leave your name and 'phone number and areas that you could survey.



NORTH AMERICAN BUTTERFLY ASSOCIATION

The NABA-Xerces Fourth of July Butterfly Count, 1993

The 19th annual NABA-Xerces 4th of July Butterfly Count was held in the summer of 1993, administered by the North American Butterfly Association (NABA). Volunteer participants conducted a one-day census of all butterflies observed at sites within their 15-mile diameter count circle. Most counts were held in late June and July.

The 211 4th of July Butterfly Counts held in 1993 represent a considerable increase (12%) from the 189 counts in 1992 -- since 1990 the program has grown 70%. The 1993 counts occurred in 40 states (39 in 1992) and 4 Canadian provinces (same as in 1992), as well as one state of Mexico (same as in 1992) and, for the first time, 1 European country (Bavaria, Germany). Wisconsin was the state with the most counts (15, same as in 1992), followed by New York (14 1993 counts; 10 in 1992). Four counts (Berkeley, California; Gilpin County, Colorado; High Line Canal, Colorado; Lower Pearl River, Louisiana/Mississippi) have been held for all 19 years of the count program. The sum of people participating in each count was 1,653, although some people are tallied more than once, since they participated in two or more counts. This is a 27% increase from the 2,197 participants in 1992.

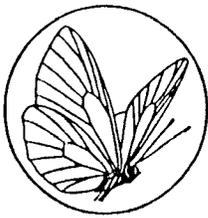
Two counts tied for the highest species diversity, with 98 species found in 1993 on both the Patagonia and Ramsey Canyon, Arizona counts. The highest diversity ever recorded on the counts north of Mexico occurred in 1992: 102 on the Patagonia, Arizona count followed by 101 on the Gilpin County, Colorado count. By counting 7,023 individuals, the Cumberland, NJ count tallied the most adult butterfly individuals on a single count in 1993.

TO GET THE 1993 COUNT REPORT...

The 1993 count report costs \$4 (U.S.) for members of NABA and \$6 (U.S.) for non-members. Please mail your order (please specify year of report) with check or money order payable (in U.S. dollars) to NABA to:

NABA International Count Co-editor
909 Birch Street
Baraboo, Wisconsin 53913, USA

Attention Xerces Society members: Because the administration of the count program was transferred from Xerces to NABA last year, you will no longer receive the count report as a membership benefit from Xerces. To receive the count report, you must now order it from NABA.



**TORONTO
ENTOMOLOGISTS'
ASSOCIATION**

M E M O R A N D U M

TO: All Members of the T.E.A. Board of Directors
FROM: Constitution Sub-committee (PJS, DR, AJH)
RE: Draft (March 1994) for your comments
DATE: April 8, 1994

Enclosed you will find (some of you were handed copies at the last TEA meeting) a draft of the TEA Constitution, prepared by Duncan after consideration of a draft prepared by myself. I do not feel it would be productive, especially given the rapidly approaching field season, to call a meeting to discuss the draft at this stage, however, it is imperative that we complete this task before the first meeting of the next season, ie. September. To accomplish this I am proposing the following sequence of events: (i) all members of the BOD will submit their comments, in writing, to either Duncan or myself (addresses below) by May 31, 1994 (if your comments are not received by then we will assume you are in agreement with the draft), (ii) Duncan, Alan, and I will meet sometime in June/July to hammer out a final draft, (iii) we will call a meeting of the full Board for mid to late August to complete the BOD approval process. This will be necessary if we are to get written copies of the new and old constitutions out to all members together with a ballot form to enable out-of-town members to vote on the adoption of the changes recommended by the BOD, as per the existing constitution. A formal member vote is planned for the September meeting.

With specific regard to the by-laws, costs of publications, to both members and non-members, would be formalized as per previous discussions (eg. photocopy, production and postage, shipping and handling costs for Occasional Publication back-issues, set fee and postage, shipping and handling costs for current stock-on-hand stuff, AJH to advise) and the collecting code will, I presume, be as per pp. 1-2 in Occasional Publication #22-90 (1989 summary). The incorporation of by-laws as part of the constitution will allow the BOD (and a general member vote at a regular TEA meeting?) to revise the dues or costs of publications as required without resorting to a complete mail ballot for a minor revision to the constitution.

All comments are welcome. What have we missed? What should we anticipate? How formal do we have to be? Please give some thought to future needs of the TEA also.

Send comments to:
Phil Schappert, 18 Railway St., Maple, Ont., L6A 1P7 or to:
Duncan Robertson, 52 Florence St., Kingston, Ont., K7M 1Y6

Phil

PRESIDENT: Phil Schappert (905) 832-6206
VICE-PRES: Duncan Robertson (613) 542-6142
TREASURER: Alan J. Hanks (905) 727-6993
SECRETARY: Nancy van der Poorten (416) 466-9013

Meeting No. 7 - 93/94 Season

The seventh meeting of the 93/94 season was held on April 23rd in the Planetarium Lecture Room, starting at 1 p.m. Members present were Quimby Hess, Phil & Pat Schappert, Duncan Robertson, Merne Powers, Alan Hanks, Carolyn King, Paul McGaw, W.D. McIlveen, Bill Edmonds, Jim Spottiswood, Don Davis, Michael & Nancy van der Poorten, Chris Rickard, Doug Scovell, Tom Toyomi Ikeda, Miriam Webster, Catherine Ukas & Neb Lecic. Visitors were Modika Perera, Steve Perlman, Frank Adare, Jackie Ritzen, Nancy Smith, Nick Lecic, L. Guile, Eric and Robert Dunbar, John and Nick van Nostrand, Don White and our speaker - Doug Curry. Phil Schappert welcomed the members and visitors to the meeting. There were 34 people in attendance for the speakers presentation, 21 of whom remained for the business meeting.

1. Phil introduced our speaker. Dr. Doug Curry obtained his Doctorate at Alberta, carried out post-doctorate studies at U.B.C., worked at the CNC in Ottawa and currently works at the R.O.M. and U. of T. The subject of his presentation was "The Natural History of Blackflies in Ontario".

Blackflies have a world-wide distribution, occurring wherever there is a source of clean flowing water, except Antarctica and some islands (Hawaii, for example). There are some 1500 species extant, many of which remain undescribed. There are 260 species found in North America, about 70 of these occur in Ontario. The females have large mouthparts and small eyes while the males are the reverse of this. The females use their mouthparts to obtain a blood-meal, which contains the necessary protein for the development of the eggs. These are laid in clean, clear running water, with lake outflows being preferred as they are warmer and have an abundance of nutrients. The larvae hatch in about a week, attach themselves in groups to a substrate and are positioned so that water can flow through them (i.e. filter feeding). There are several larval instars and a cocoon is spun for pupation. The adults hatch in about 2 weeks, float to the surface and fly away. Most species overwinter as eggs but some are known to spend the winter as larvae.

Blackflies are attracted by movement, colour (especially darker shades and blue jeans!), CO₂ and heat. The mouthparts are saw-like and cut through the capillary bed, releasing blood to be sucked up. Most mammals and birds act as hosts for the insects, which do not appear to prey on exothermic animals such as reptiles and amphibians (or other insects!). Most species of blackflies are surprisingly specific in their choice of a blood-meal host and species can be roughly categorized by the type of host that they use (for example, those that specialize on birds are "ornithophilic"). Females will also take flower nectar and males subsist totally on this source. Most, in fact the vast majority of, species do not bite humans at all. "MuskolTM" is generally as effective as any repellent for keeping them away.

Treatment for the effects of blackfly bites often includes antihistamines, as some people will swell up from the bites. The itch that occurs after you've been bitten comes from the saliva, which has an anaesthetic as well as an anti-coagulant. Luckily, Ontario blackflies do not carry any human

diseases, but in Africa they certainly do. Following the presentation, there were many questions from the audience, who all enjoyed this extremely interesting talk on the insects we probably dislike the most! Many thanks to Doug for taking the time to speak to us.

After a short break, the minutes of the last meeting were accepted.

2. Treasurers report:

- a) The membership stands at 104 listed with 17 unpaid to date after two reminders. No further minutes will be sent to these members, but their names will be retained on a separate list.
- b) Current balance \$1238. Balance in the Atlas account stands at \$6991

3. Correspondence:

- a) A letter was received from Paul Syme, our member in Sault Ste. Marie (recently retired from the Canadian Forestry Service, Department of Environment, Canada), who will be in the Toronto region in October or November and may be able to give a presentation at one of the meetings or a special lecture in conjunction with the ROM, York and U. of T. More will follow on this item.
- b) A listing of butterfly records from Dingman Creek in Middlesex County was received from Jane Bowles of Thorndale. Mary Gartshore and Michael Oldham also contributed records to this study.
- c) A letter from Boyce Drummond, Book Review Editor for the Lepidopterists Society, regarding the Ontario Butterfly Atlas, which was reviewed in the February 1994 Journal. Copies of the review were available for members who do not receive the journal.
- d) A letter from David Iftner of Sparta, New Jersey, regarding the publication "Papillons et Chenilles du Quebec et de l'est Canada". David was able to obtain a copy of the book from the Champlain Bookshop in Toronto.
- e) A letter from a U of T graduate regarding insect supply materials.
- f) The usual various and sundry interesting materials from Don Davis including the Feb. 94 issue (Vol. 2, No.1) of American Butterflies (see this issue for Part 1 of a series on identifying Eastern duskywings by J. Glassberg), a title page photocopy for "Checklist of Beetles of Canada and Alaska" edited by Y. Blousquet of the Biosystematics Research Centre, Ottawa (available from Research Branch of Ag. Canada, publication #1861/E, 1991), a copy of an article, "Incredible Journey" by Downs Mathews, published in the magazine of the Discovery Channel, "Destination: Discovery", about the monarch migration (mentioning Don's "Guinness" record), and stuff from the OMNR and from Pres'quille Park.
- g) Material regarding the FON Conference in Hamilton (McMaster University) on May 27-29. The aforementioned Don Davis has agreed to represent us at the conference. If you're there (why aren't you?), drop by and say Hi! Many thanks to Don for offering/agreeing to rep.
- h) a letter from Prince Edward Point Cottages re: available accommodations in the Prince Edward Point National Wildlife Area. For more info. call 613-476-3764.
- i) advertisements from Australia re: available and upcoming publications including announcement of the forthcoming "Carcasson's African Butterflies" by P.R. Ackery, C.R. Smith, and R.I. Vane-Wright (editors) from the London Natural History Museum. This one looks very worthwhile from the description given!! For more info. call Phil.

4. Business Arising:

- a) New information was on hand from the Karner Blue Recovery Team including Minutes of Feb. 8 Meeting, final draft of the Recovery Plan, first draft of the 5 year plan for Lambton Wildlife's KB Sanctuary, and a copy of Ann Swengel's report on the status of the KB in Wisconsin. Anyone with an interest in this material should contact Phil. Phil also reported that Tom Mason was meeting with researchers and US Fish & Wildlife people at the Toledo Zoo re: their ongoing efforts at rearing of

the Melissa Blue. Tom plans to continue rearing Eastern Tailed Blues this summer as an "experience building" pilot project.

b) Various suggestions for field trips were discussed (see item 6 below for further details):

- 1) Butterfly Counts: Tom Mason will run counts again this year, likely July 1st. Phil will check with Jim Kamstra regarding Durham Region count this year.
- 2) Peterborough County in late June (Phil Schappert).
- 3) Branchton area (Michael van der Poorten).
- 4) The Hamilton area (search for the Giant Swallowtail) but no volunteers to lead this.
- 5) Monarch tagging at Presqu'île with Don Davis in September (details to follow).
- 6) Visit to the Montreal Insectarium in the fall (before the snow flies but after the field season, say around mid-October). Volunteers?!?

5. New Business

- 1) Quimby Hess is offering a "moth collecting UV & black light" for sale. This deluxe unit comes with a wood carrying case and is ready for the field, price is \$35.00. Contact Quimby at 416-482-1637 for further info.
- 2) A letter has been written on behalf of the TEA to protest a planned spray of B.t. at the Pottageville Swamp Conservation Area in York Region to "control?" mosquitoes. Alan plans to attend a public meeting to further protest this. For more info., call Alan.

6. Field Trips (in chronological order)

The following field trip/ surveys/ butterfly counts are in the offering:

- 1) The respective working groups of the Karner Blue Recovery Team do not have specific events planned, however, they would appreciate your reports if you're out-and-about in the area. Please call before you visit the sites (you might get some company) and remember to report after your visit. If you're going to be in the Port Franks/Ipperwash/Pinery area of Lambton County call Ken Stead at 519-759-1145 (June/September) or 519-243-3306 (July/August). Ken tells us that he counts Lupines in June and LWI are planning some small-scale brush "clean-up" burns in September (hint, hint). If you're going to be in the vicinity of St. Williams/Turkey Pt. in Norfolk Co. call Peter Carson at 519-586-3985. Jeremy Kerr, a TEA member and grad. student at York, would also appreciate your reports of any and all insects encountered in Oak Savanna type habitats. Call Jeremy at 736-2100 ext. 22663.
- 2) Phil will lead a "simply-for-the-fun-of-it" excursion to old haunts in Peterborough County on Father's Day, Sunday, June 19th. Expect to meet Phil's Dad!! Specific points of interest will include the edges of the Cavan Swamp and the environs around Trent University (especially the Nature Sanctuary and edges of the Canal). This will be a joint excursion with the Peterborough Field Naturalists. We'll meet at 9:00 am for breakfast at the MacDonalds at the corner of the Queensway and Lansdowne St. W. (take Hwy 35/115 to Peterborough, exit at the Queensway, you can't miss it). Bring a lunch, remember the Muskol and the sunblock, who knows where we'll end up!! Some intrepid souls may want to extend their trip to take in the Twin Lakes area for *Colias interior* (the Pink-edged Sulphur) and/or *Hemaris diffinis* (the Snowberry Clearwing Hummingbird moth), both of which are reasonably common in mid- to late-June...
- 3) Jim Kamstra and the Durham Region Field Naturalists are conducting a butterfly count again this year in the area from Oshawa north to Lake Scugog and would welcome any TEA members who wish to participate. This count will take place on Sunday, June 26th (with a post-count pot-luck afterwards), call Jim at 905-985-4497 for further info.
- 4) Tom Mason has agreed to (once again) lead the TEA counts of the North Don Valley and the Rouge Valley. Details are exactly the same as last year (meet for the morning count at 8:30 am

at the Traylor Park in the Rouge Valley on Old Kingston Rd. (Hwy. 2) just east of Port Union Road and the MacDonalds and for the afternoon count at 1:00 pm in the parking lot at the north-west corner of Leslie and Sheppard, but check the lunch crowd at the MacDonalds on the south side of Sheppard, west of Leslie, for wandering lepidopterists). The count will take place on Friday, July 1st. (what else are you going to do on a Statutory holiday? - you can't shop!!). Please note also that our Secretary, Nancy van der Poorten, has agreed to organize the count results and submit them to NABA for inclusion in their yearly report. A charge of \$2 is required of count participants who would like their names listed as part of the official count team, similar to the Christmas Bird Count set-up. Please call Tom (Zoo: 416-392-5972, Home: 905-839-6764) to confirm your attendance/participation in the count.

5) Michael and Nancy van der Poorten are leading a trip to Branchton, a productive area near to Cambridge, on Saturday, July 16th. Call Michael at 416-466-9013 for further info. and to arrange a meeting time and place.

Remember to REGISTER (to date, *no-one* has!!) for the Mottled Duskywing (*Erynnis martialis*) hot-line. Call Bill Lamond at 519-756-9546. Call NOW!!

I spoke to Past-President John Eberlie today (May 19th). For those of you who were not aware, John had a rather severe "lower aortic aneurism" which required hospitalization, first locally in Cobourg, then at Toronto General. He credits TGH for keeping him going. He's now facing a long convalescence period which will severely curtail his hopes to rear *Mitoura grynea* (the Olive Hairstreak) this summer. A blow to "WJDE" is a blow to the TEA. Our heartfelt hopes of a swift and complete recovery go out to John. He was confident enough to tell me he would see us at the September meeting. Now that I can look forward to.

34 Seaton Drive,
Aurora, Ontario,
Canada, L4G 2K1.

Greetings to all T.E.A. members:

Our new season of meetings will be starting in September as usual and the accomodations have been booked for the following dates:

1994	Saturday	September 24th
	Saturday	October 22nd
	Saturday	November 26th
1995	Saturday	January 28th
	Saturday	February 25th
	Saturday	March 25th
	Saturday	April 22nd

Please Note: our meetings will now be held in the Multi-Room on the main floor of the Planetarium - starting at 1:00 p.m. promptly.

If you have any queries, please call Alan Hanks at (905) 727-6993.



**TORONTO
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Renewal of/Application for Membership in the Toronto Entomologists' Association for the 94/95 Season

NAME _____ PHONE _____

ADDRESS _____

_____ CODE _____

FEE - \$20 (\$10 for Students) ENCLOSED _____

Publications Purchased _____

Cheque or Money Order _____ Total _____

Please return the **whole form** to:

A.J. Hanks, 34 Seaton Drive, Aurora, Ontario, Canada L4G 2K1

If you know anyone else who may be interested in the Association, please have them contact any member of the Executive.

PRESIDENT:	Phil Schappert	(905 - 832-6206)
VICE-PRESIDENT:	Duncan Robertson	(613 - 542-6142)
TREASURER	Alan J. Hanks	(905 - 727-6993)
