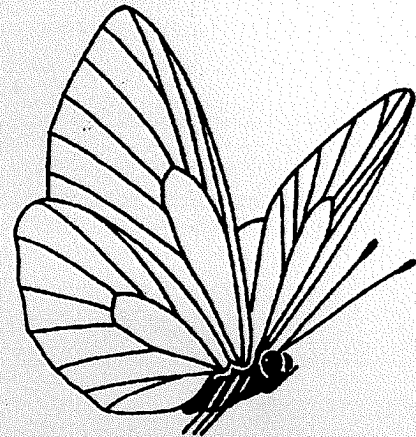


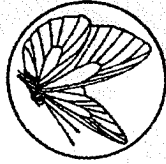
Ontario Insects



THE NEWSLETTER/JOURNAL OF
THE TORONTO ENTOMOLOGISTS' ASSOCIATION

VOLUME 0, NUMBER 1

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TORONTO
ENTOMOLOGISTS'
ASSOCIATION

Alan J. Hanks, Treasurer
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Ontario Insects is published three times annually (Sept., Jan. and May) by the Toronto Entomologists' Association (T.E.A.). It is the official journal and newsletter of the T.E.A. and is provided to all members in good standing. Research papers, articles, book reviews, artwork or other information you feel would be of interest to the members should be submitted to a member of the current Executive (see below) at least 4 weeks prior to publication dates. Please see the "Notice to Contributors" on the inside back cover.

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Announcement

You are holding (and hopefully are reading) an advance copy of the premier issue of the Toronto Entomologists' Association's Newsletter and Journal. Please note that this issue is Vol. 0, No. 1, meaning that this is a preliminary look at what *your* journal and newsletter can be. Its appearance, contents, publication schedule and more importantly its success or failure is entirely up to you, the members.

The schedule of the T.E.A. (meetings in Sept., Oct., Nov. and Jan. through Apr. with a summer field season hiatus) lends itself most easily to a triannual rather than quarterly publication schedule, although this is subject to change. Issues could be published for September (to cover field trip reports and upcoming programs for Sept. - Nov. meetings), January (meeting reports for Sept. - Nov. and upcoming programs for Jan. - Apr.), and May (Jan. - Apr. meeting reports and upcoming field trips) in order to best balance the need to inform members of upcoming events with the need to provide a record of meetings while minimising both the production and mailing costs. Volume 1 will begin production this coming summer for a formal introduction in September of 1995.

Alan Hanks has produced the minutes of T.E.A. meetings in the past and has graciously offered to continue to provide his skill (and time) as co-editor of this newsletter. Since Alan and I use similar computer programs, are reasonably close to each other, and (most recently) have been able to successfully transmit files back and forth over telephone lines, I have agreed to help with the initial set-up and production of Ontario Insects. As you can see a number of contributors have made this pre-issue chock full of good reading. Many thanks are due to all of the authors for being able and willing to prepare pieces on relatively short notice.

I fervently hope that this is the beginning of great things for the Toronto Entomologists' Association. You can and should be a part of it.

Phil Schappert

Ps. Your comments on this pre-issue are solicited and welcome.

Executive Notes

President's Message

A triannual newsletter in a format similar to what you're holding now could publish anything from entertainment articles and observation notes to "real" research papers which could be peer-reviewed. It will definitely provide a record of meetings (although probably not in the way that you're used to) and be a vehicle to keep members advised of upcoming events. It could include members advertising as well as commercial (i.e. somebody pays for them) ads. But this is not the type of endeavour that can be done wholly by two people (no matter how talented we are...). The participation of other T.E.A. members will be actively needed. Writing, artwork, computer help, and ideas are only some of the tasks that we'll need help with. We need your comments on this pre-issue to help refine the focus and scope of this project. Should we concentrate on Insects in Ontario? Any ideas for an alternate title? How about writing an article or two? Research contributions are welcomed! We need your observation data and notes. Opinions? Members Advertisements? Jokes, cartoons, poetry? Review a book you enjoyed. Share your garden lore. Anything... And please let me know what you think...

From the Treasurer's Desk...

As of September sales of The Ontario Butterfly Atlas have accumulated \$7358 in the bank account with approximately 440 copies remaining. The regular membership account stood at \$975 with 50 members paid as of the September meeting. By October almost 70% of the membership had now paid their dues and the regular membership account stood at \$1234. If you have not sent in your dues yet then please do so as soon as possible.

Submissions for the annual summary should also be sent in as soon as possible, together with any photographs which may be of interest...

Upcoming Programs

The Toronto Entomologists' Association will meet on Nov. 26, 1994 and Jan. 28, Feb. 25, Mar. 25, and Apr. 22 in 1995. All meetings are held in the McLaughlin Planetarium starting at 1 p.m.

NOVEMBER

Saturday, November 26, 1994

DARRYL GWYNNE
(University of Toronto, Erindale)

THE WETAS OF NEW ZEALAND

Dr. Gwynne is an Orthoptera specialist who has given very enjoyable talks to the T.E.A. before (some of you may remember the "beer-bottle" loving cockroaches of Australia). Novembers talk will be on the Giant Crickets of New Zealand. Don't miss this one!

JANUARY

Saturday, January 28, 1995

DAVID GIBO
(University of Toronto, Erindale)

FLYING HIGH OR FLYING LOW

What does it cost butterflies to evade their enemies during migration? Dr. Gibo will try to answer this question by revealing the flight strategies used by migrating Monarchs and other butterflies on the move. Dr. Gibo has been known to follow migrating Monarchs using ultralight aircraft so this should be very revealing!

FEBRUARY

Saturday, February 25, 1995

STEVEN PRICE
(World Wildlife Fund, Canada)

INSECT CONSERVATION PRIORITIES

Steven will discuss insect conservation priorities from the viewpoint of the WWF. Along the way he'll cover status reports, atlasing projects, habitat conservation priorities and the role of the International Red Data Book. This is the one you asked for.

MARCH

Saturday, March 25, 1995

PAUL SYME
(Canadian Forest Service, retired)

BENEFICIAL FOREST INSECTS

We were fortunate to have long-time member Dr. Syme visit us recently and present a talk at U. of T. With the help of U. of T.'s John McKerron we were able to video tape Paul's presentation so that all of the members would have a chance to see his excellent talk. As you'll learn there are some beneficial forest insects!

APRIL

Saturday, April 22, 1995

GRADUATE SYMPOSIUM

Graduate Research at Southern Ontario Universities

A special day for the T.E.A. This symposium will give many of you your first taste of what it's like to attend a professional symposium. Come and find out the extent and variety of research on entomological subjects that is being undertaken by Graduate Students at local Universities. I have a feeling you'll be pleasantly surprised at what you'll learn...

Research Notes

T.E.A. Butterfly Counts - 1992-1994: a summary

For the past three years, the T.E.A. has conducted butterfly counts under the direction of Tom Mason of the Metro Toronto Zoo. The surveys have included six sites within two larger areas, the Rouge River and Don River valleys. The following tables (1 - 6) provide a summary of each years count results and allow for some contrastis and comparisons to be made between years.

In 1992 the weather on the count day was lightly overcast to dull and the year as a whole was extremely cool and damp. This lead to a delayed season, low numbers and fewer species than normal. In 1993, count day weather was more agreeable: the count day was sunny and quite warm. In 1994, the count day's weather was perfect: sunny, warm, and not too hot. After a very long, very cold winter, the season was fairly warm with a dry spell in late May/early June, but with adequate rain in the week preceding the count.

Of the past three years in which a count has been held, 1994 was the best year as a whole. We encountered a new species in the Rouge Valley (Juvenal's Duskywing) and the American Copper was very abundant at the Zoo. However, it was a poorer year for the Don Valley - this is the first year the Silver Bordered Fritillary hasn't been seen (although it had been seen the day before).

Summary Table				
Year	Total number of species	Total seen only in Rouge	Total seen only in the Don	Notable sightings
1992	23	3*	10	
1993	35	8	7	Harvester at the Zoo
1994	38	16	3	Juvenal's Duskywing at Twyn Rivers; American Copper at Zoo

* Note: only Twyn Rivers surveyed in the Rouge Valley in 1992

There were, as usual, large numbers of European skippers but not as many sulphurs as one would have expected. Look for an announcement of the 1995 count and come out to join us!

T. Mason, M. van der Poorten & N. van der Poorten

Table 1: Kingston Road (Rouge River Valley)

Common Name	Species Name	1992*	1993	1994
European skippers	Thymelicus lineola		15+	20+
Tawny Edge skipper	Polites themistodes		6	
Long dash skipper	Polites mystic		3	
Hobomok skipper	Poanes hobomok		2	1
Cabbage White	Pieris rapae		3	
Orange Sulphur	Colias eurytheme		2	
Pearl Crescent	Phycoides tharos		1	
Question mark	Polygonia interrogationis			1
Red Spotted Purple	Basilarchia arthemis		1	
Northern Pearly Eye	Enodia anhedon			1
Little Wood Satyr	Megisto cymela		3	5
Inornate Ringlet	Coenonympha inornata		2	1
Monarchs	Danaus plexippus		1	

* Not surveyed in 1992

Table 2: Twyn Rivers Drive (Rouge River Valley)

Common Name	Species Name	1992	1993	1994
Silver Spotted Skipper	Epargyreus clarus	1		4
Northern Cloudy Wing	Thorybes pylades	1		
Juvenal's Duskywing	Erynnis juvenalis			1
European skippers	Thymelicus lineola	100+	25+	100+
Peck's skipper	Polites peckius			2
Tawny Edge skipper	Polites themistodes	16	15+	40+
Long dash skippers	Polites mystic	12	10	40
Northern Broken Dash	Wallengrenia egeremet			3
Little Glassy Wing	Pompeius verna			3
Hobomok skipper	Poanes hobomok	3	1	5
Dun skipper	Euphyes vestris		1	1
Cabbage White	Pieris rapae	1	5	
Orange Sulphur	Colias eurytheme		2	1

Bronze Copper	<i>Hylolycaena hyllus</i>			1
Coral Hairstreak	<i>Harkendenus titus</i>			1
Banded Hairstreak	<i>Satyrium calanus</i>			1
Eastern Tailed Blue	<i>Everes comyntas</i>			3
Spring Azure	<i>Celastrina ladon</i>			1
Great Spang. Fritillary	<i>Speyeria cybele</i>	1	6	5
Pearl Crescent	<i>Phycoides tharos</i>	5	12	50+
Orange Crescent spot	<i>Phycoides morpheus</i>	14	4	
Question mark	<i>Polygonia interrogatinnis</i>			4
Comma	<i>Polygonia comma</i>			1
Mourning Cloak	<i>Nymphalis antiopa</i>			4
Amer. Painted Lady	<i>Vanessa virginiensis</i>			1
Red Admiral	<i>Vanessa atalanta</i>			3
Red Spotted Purple	<i>Basilarchia arthemis</i>	4	1	10
Viceroy	<i>Basilarchia archippus</i>			2
Northern Pearly Eye	<i>Enodia anhedon</i>			1
Little Wood Satyr	<i>Megisto cymela</i>	8	3	11
Inornate Ringlet	<i>Coenonympha inornata</i>	7	9	17
Wood Nymphs	<i>Cercyonis pegala</i>			4
Monarchs	<i>Danaus plexippus</i>		2	13

Table 3: Metro Toronto Zoo - West Rouge (Rouge River Valley)

Common Name	Species Name	1992*	1993	1994
Silver Spotted Skipper	<i>Epargyreus dorus</i>			1
Northern Cloudy Wing	<i>Thorybes pylades</i>		1	
Least skipper	<i>Ancyloxypha numitor</i>		1	
European skippers	<i>Thymelicus lineola</i>		15	100+
Peck's skipper	<i>Polites peckius</i>		2	9
Tawny Edge skipper	<i>Polites themistodes</i>		5	15
Crossline Skippers	<i>Polites origenes</i>		1	2
Long dash skippers	<i>Polites mystic</i>		8	7
Northern Broken Dash	<i>Wallengrenia egeremet</i>		1	
Little Glassy Wing	<i>Pompeius verna</i>		2	1
Hobomok skipper	<i>Poanes hobomok</i>		6	4
Dun skipper	<i>Euphyes vestris</i>			1
Tiger Swallowtail	<i>Pterourus glaucus</i>		2	1

Cabbage White	<i>Pieris rapae</i>		12	4
Orange Sulphur	<i>Colias eurytheme</i>		4	
The Harvester	<i>Feniseca tarquinius</i>		1	
American Copper	<i>Lycaena phlaeas</i>			1
Bronze Copper	<i>Hylolycaena hyllus</i>			3
Acadian Hairstreak	<i>Satyrium acadicum</i>		1	1
Spring Azure	<i>Celastrina ladon</i>		2	
Great Spang. Fritillary	<i>Speyeria cybele</i>		3	5
Meadow Fritillary	<i>Clossiana bellona</i>		1	
Pearl Crescent	<i>Phycoides tharos</i>		15+	20
Question mark	<i>Polygonia interrogatinnis</i>		1	4
Comma	<i>Polygonia comma</i>		3	1
Mourning Cloak	<i>Nymphalis antiopa</i>			2
Amer. Painted Lady	<i>Vanessa virginiensis</i>			1
Red Admiral	<i>Vanessa atalanta</i>		1	3
Red Spotted Purple	<i>Basilarchia arthemis</i>		3	2
Viceroy	<i>Basilarchia archippus</i>			5
Northern Pearly Eye	<i>Enodia anhedon</i>			1
Little Wood Satyr	<i>Megisto cymela</i>		5	9
Inornate Ringlet	<i>Coenonympha inornata</i>		6	10
Wood Nymphs	<i>Cercyonis pegala</i>		4	2
Monarchs	<i>Danaus plexippus</i>		1	5

* Not surveyed in 1992

Table 4: East Don at Leslie and Sheppard (Don Valley)

Common Name	Species Name	1992	1993	1994
European skippers	<i>Thymelicus lineola</i>	95+	20+	100+
Tawny Edge skipper	<i>Polites themistodes</i>			1
Long dash skippers	<i>Polites mystic</i>	2		9
Hobomok skipper	<i>Poanes hobomok</i>		1	3
Tiger Swallowtail	<i>Pterourus glaucus</i>		1	
Cabbage White	<i>Pieris rapae</i>	3	6	14
Common Sulphur	<i>Colias philodice</i>		1	1
Orange Sulphur	<i>Colias eurytheme</i>		2	
Spring Azure	<i>Celastrina ladon</i>	1	4	

Orange Crescent spot	<i>Phycoides morpheus</i>	3		
Question mark	<i>Polygonia interrogationis</i>			1
Comma	<i>Polygonia comma</i>		1	
Mourning Cloak	<i>Nymphalis antiopa</i>			1
Painted Lady	<i>Vanessa cardui</i>	6		
Red Admiral	<i>Vanessa atalanta</i>	2		3
Eyed Brown	<i>Satyrodes eurydice</i>	18	15+	25
Little Wood Satyr	<i>Megisto cymela</i>	12	10+	6
Monarchs	<i>Danaus plexippus</i>	1	1	2

Table 5: Charles Sauriol Conservation Reserve (Don Valley)

Common Name	Species Name	1992	1993	1994
European skippers	<i>Thymelicus lineola</i>	33	8	100+
Peck's skipper	<i>Polites peckius</i>		1	
Tawny Edge skipper	<i>Polites themistodes</i>	25	6	10
Long dash skippers	<i>Polites mystic</i>	9	2	3
Hobomok skipper	<i>Poanes hobomok</i>	4	2	3
Dun skipper	<i>Euphyes vestris</i>	1		
Tiger Swallowtail	<i>Pierourus glaucus</i>		1	1
Cabbage White	<i>Pieris rapae</i>	2	1	1
Orange Sulphur	<i>Colias eurytheme</i>		6	
Striped Hairstreak	<i>Satyrrium liparops</i>		1	
Coral Hairstreak	<i>Harkendenus titus</i>		3	
Acadian Hairstreak	<i>Satyrrium acadicum</i>			1
Spring Azure	<i>Celastrina ladon</i>	1	2	
Pearl Crescent	<i>Phycoides tharos</i>	3	3	4
Orange Crescent spot	<i>Phycoides morpheus</i>	5		
Baltimore	<i>Euphydryas phaeton</i>	2	8	3
Question mark	<i>Polygonia interrogationis</i>			1
Comma	<i>Polygonia comma</i>	1		3
Red Admiral	<i>Vanessa atalanta</i>	3	1	1
Red Spotted Purple	<i>Basilarchia arthemis</i>	10	3	5
Eyed Brown	<i>Satyrodes eurydice</i>			2
Little Wood Satyr	<i>Megisto cymela</i>	30	4	10
Inornate Ringlet	<i>Coenonympha inornata</i>		1	2
Monarchs	<i>Danaus plexippus</i>		1	1

Table 6: Taylor Creek Park (Don Valley)

Common Name	Species Name	1992	1993	1994
Silver Spotted Skipper	<i>Epargyreus clarus</i>	2		
Northern Cloudy Wing	<i>Thorybes pylades</i>	6	3	7
European skippers	<i>Thymelicus lineola</i>	43	15+	100+
Tawny Edge skipper	<i>Polites themistodes</i>	2	4	2
Long dash skippers	<i>Polites mystic</i>	4	2	3
Little Glassy Wing	<i>Pompeius verna</i>		1	
Hobomok skipper	<i>Poanes hobomok</i>	12	15+	33
Dun skipper	<i>Euphyes vestris</i>		1	2
Tiger Swallowtail	<i>Pterourus glaucus</i>		1	
Cabbage White	<i>Pieris rapae</i>	12	15+	18
Common Sulphur	<i>Colias philodice</i>		1	
Orange Sulphur	<i>Colias eurytheme</i>		9	
Coral Hairstreak	<i>Harkendenus titus</i>	4	1	
Banded Hairstreak	<i>Satyrrium calanus</i>		1	
Spring Azure	<i>Celastrina ladon</i>	1	6	
Silvery Crescent Spot	<i>Charidryas nycteis</i>	11	1	
Pearl Crescent	<i>Phycoides tharos</i>		3	12
Orange Crescent spot	<i>Phycoides morpheus</i>	3	1	
Baltimore	<i>Euphydryas phaeton</i>	9	2	
Question mark	<i>Polygonia interrogationis</i>			3
Comma	<i>Polygonia comma</i>			3
Mourning Cloak	<i>Nymphalis antiopa</i>			2
Amer. Painted Lady	<i>Vanessa virginiensis</i>			1
Painted Lady	<i>Vanessa cardui</i>	8		
Red Admiral	<i>Vanessa atalanta</i>		1	1
Red Spotted Purple	<i>Basilarchia arthemis</i>		1	
Eyed Brown	<i>Satyrodes eurydice</i>	12	1	6
Little Wood Satyr	<i>Megisto cymela</i>	25	9	11
Monarchs	<i>Danaus plexippus</i>	2	1	7

T. Mason, M. van der Poorten & N. van der Poorten



Meeting & Field Trip Reports

Field Trip Report: Peterborough, June 19, 1994

What a marvellous day! The last day of a week-long hot, humid, breezeless and generally uncomfortable week dawned with the breeze that had been missing. Even some scattered cloud provided some relief from the unforgiving sun. Fifteen intrepid souls met at Peterborough to see if we could find some butterflies "in-between times". T.E.A. members present included Chris Rickard, Michael and Nancy van der Poorten, Doug Scovell and his wife Barb., and Jim Spottiswood accompanied by the formerly lost John Prideaux. The Peterborough Field Naturalists' were represented by Al Blewett, Bill Brooks and June Hitchcox. Other "Peterpatch" people included Don Sutherland, a zoologist with the Natural Heritage Information Centre, Rob Tuckerman and Sandy Berg (both of "no acknowledged affiliation!"). All were introduced to my Dad (it being Father's Day...).

First stop...the Cavan Bog area. On the east side road we encountered Pearl Crescents (*Phyciodes tharos*), a Silvery Checkerspot (*Chlosyne nycteis*), Viceroy (*Limenitis archippus*), White Admirals (*Limenitis arthemis*), Ringlets (*Ceponympha inornata*), and a slew of skippers including the Arctic (*Carterocephalus palaemon*), Hobomoks (*Poanes hobomok*) including a *pocahontas* form female, Long Dash (*Polites mystic*), Tawny-edged (*P. themistocles*), and Least (*Ancyloxypha numitor*). Moving to the south road we added Red Admiral (*Vanessa atalanta*), Mourning Cloak (*Nymphalis antiopa*), Tiger Swallowtail (presumably *Papilio canadensis*) and a late Spring Azure (*Celastrina argiolus*). Disappointedly we were a tad early for the Fritillaries and other early July species.

Moving to the campus of Trent University (specifically the area between the canal and the road on which the nature sanctuary is located) the trip leader was pleased to find that at least one of his promises could be kept! Many, many Northern Cloudy Wings (*Thorybes pylades*) were out and about. At least two separate groups were lucky to observe courtship behaviour with unsuccessful copulation attempts. In addition to the species

seen earlier we added a female Common (Clouded?) Sulphur (*Colias philodice*) ovipositing on clover, Cabbage Whites (*Pieris rapae*), Little Wood Satyrs (*Megisto cymela*), a Monarch or two (*Danaus plexippus*) and an early European Skipper (*Thymelicus lineola*). Between the canal and the river we found good numbers of Silvery Blues (*Glaucopsyche lygdamus*) and a Juvenal's Duskywing (*Erynnis juvenalis*).

Not a bad day considering the timing in between broods, a total of 22 species. The hoped for (anticipated) but missed species would have considerably increased that number (by at least 15 or 16 species!). Oh, well. Still, what a marvellous day...

Phil Schappert

Field Trip Report: Branchton, July 16, 1994

There was some doubt as to what the weather would be like for the planned day, but it ended up being perfect weather for the butterflies and for the participants - lots of sun but not too hot. There were 8 of us - Nancy and myself, Paul McGaw and Caroline King, Bill and Irene McIlveen, Jim Spottiswood, and John Prideaux. We thought upon first arriving that there wasn't much about, but we ended up seeing 44 species between 9 am and 2 pm. Branchton is an old railway line. The ties were removed some years ago, and the pathway left goes through some different habitats, though not much forest. There are a few patches of boggy area that are home to many species, including the sedge skippers. Even over our picnic lunch we managed to see a few more species. The following is a list of what we saw:

Common sulphur (2)	Alfalfa Sulphur (10)
Cabbage Whites (4)	Mustard White (3)
Pearl Crescent (10)	Meadow Fritillary (1)
Great Spangled Fritillary (3 males)	Question Mark (2)
Bronze Copper (2)	Acadian Hair Streak (5)
Coral Hair Streak (3)	Edward's Hair Streak (1)
Banded Hair Streak (3)	Striped Hair Streak (1)
Broadwing Skipper (15)	Mulberry Skipper (8)
Black Dash (3 males)	Long Dash (2 old)
Northern Broken Dash (8 males, 1 female)	
Tawny Edged Skipper (3 relatively old)	
Crossline Skipper (2)	Silver Spotted Skipper
Peck's Skipper (1)	Least Skipper (1)
Dun Skipper (6)	Delaware Skipper (4)

Little Glassy Wing (4)	Europeans Skipper (4)
Dion Skipper (2)	Northern Pearly Eye (6)
Little Wood Satyr (6)	Wood Nymph (6)
Eyed Brown (4 old ones)	Spring Azure (1)
Eastern Tailed Blue (3)	Tiger Swallowtail (1)
Eastern Black Swallowtail (larva)	Red Admiral
Red Spotted Purple (2 old specimens)	Mourning Cloak (2)
Baltimore (3 old, 1 fairly fresh)	Viceroy (2 old ones)
American Painted Lady (1 specimen)	Monarch (2)

Michael van der Poorten

SEPTEMBER

Members' Meeting

The first meeting of the 1994/95 season was held Sept. 24th in the Planetarium Multi-Room. There were 27 members and guests in attendance. Phil Schappert advised that member Paul Syme from Sault Ste. Marie would be giving a presentation, co-presented by the T.E.A., U. of T. Department of Forestry and the R.O.M., on 'Beneficial Forest Insects' on Thursday, Nov. 3rd. Alan Hanks reported that the application of Bt to the Pottageville Swamp to control mosquitoes has been postponed for another year.

Various items of new correspondence dealt with the space assigned to the T.E.A. in the Planetarium; the Global Releaf tree planting fund; the Quetico Newsletter for Spring 1994; updates are available from the F.O.N. for the Ontario Mammal Atlas project for \$10. One of our members, George Bryant, is now running Natural History Tours around the Province and a listing is available; Ron Tasker has been communicating with the King Township Clerk re: milkweeds on the noxious weed list and a good deal of information on the Monarch was received from Don Davis.

New books available include "Karner Blue Butterfly: a symbol of a vanishing landscape" edited by David A. Andow, Richard J. Baker and Cynthia P. Lane, Misc. Publication 84-1994 from the Minnesota Agriculture Experiment Station at the University of Minnesota. This worthwhile volume is the result of the 1992 Zanesville, Ohio symposium on the Karner Blue. It is available for \$17 U.S. (postage included) from D.A. Andow, Dept. of Entomology, University of Minnesota, 219 Hodson Hall, 1980 Folwell Ave., St. Paul, MN 55108-6125. Also newly available is "Butterflies of the

West Indies and South Florida" by David Spencer Smith, Lee D. Miller and Jacqueline Y. Miller, with superb illustrations (available from E.W. Classey in the U.K. at £90). See the book review section for short reviews of both of these volumes.

John Eberlie noted that a Lycaenid butterfly presumed extinct in California had been re-discovered. The Hackberry Butterfly was found this year near Belleville and Alan Wormington reports the first record for the Long-Tailed Skipper in Canada at Point Pelee.

The balance of the meeting was taken up with slides from a number of members on the interesting work they had been engaged in during the summer months. Especially welcome was the return of John Eberlie after being laid up for awhile, his life history slides were (as per usual) wonderful. Duncan Robertson showed us slides of some of the interesting moths he'd encountered over the summer while Phil Schappert showed some slides of the interesting people and butterflies (most of both caught in compromising positions) he'd met over the summer.

OCTOBER

DAVID MALLOCH
University of Toronto

Insects And Fungi

The second meeting of the season, on October 22nd, had 29 members and guests in the same location - the multi-room. The speaker for the meeting was David Malloch of the University of Toronto Botany Department. David's chief interests are fungi and moulds. Recently his research has him working for Agriculture Canada looking into sick-building syndrome (buildings that have poor air quality which may affect the health of the occupants). His presentation, however, revolved around the relationships between fungi and insects.

There are many species of minute fungi for which the life histories are unknown. Many of these have an affiliation in some way with insects. David used slides to illustrate such things as the Stinkhorn, which develops a spore mass on top of the cap with an awful odour which attracts flies. The flies eat the spores and thereby disperse them. Even more bizarre are the relationships in

which some fungi, in particular those found on moose dung, rely on mites to carry the spores on to flies that are blood feeders on the moose. When the moose defecates, the flies swarm down to lay eggs on the dung, thereby depositing the mites, who feed on the dung, and indirectly, the fungal spores, which create a new body of fungus.

Other species of mites, with attendant fungal complexes, attach themselves to dung or wood feeding beetles and some mites infest seaweed. Some fungi are parasitic on scale insects - the fungal growth covering the colony of scales, with occasional (1 in 5) scales being invaded by the fungus, which then grows a "shoot" with spores at the end to be broadcast. Some insects have a fungal growth that intrudes into the body cavity by means of a 'haustorium', but the insect is not harmed. Others, such as beetle larvae, may be killed by the fungus, which goes into a cell-splitting mode and eventually sends out a growth with spores at the end which can be borne away by air or other insects. Cluster flies are often invaded by this type of fungus, and the spore dispersal pattern may be observed if the fly dies on a window pane! A number of questions followed Dr. Malloch's marvellous presentation.

After a short break, the meeting continued with various reports. There was some discussion on the use of the multi-room, which is not very comfortable, while the lecture room downstairs remains empty during our meetings! Don Davis noted that there were still Monarchs flying in the general area of Toronto. Carolyn King had advised us of a symposium/workshop on the Weed Control Act being held at the University of Guelph Arboretum on November 3rd. Quimby Hess will attend on behalf of the T.E.A., member (and new program co-ordinator volunteer) Paul McGaw will be there representing the Canadian Wildflower Society and Carolyn King will try her best to represent both! The latest volume of the d'Abrera series (Neotropical Riodinidae) has been issued and Carolyn brought a new book titled "Butterflies Through Binoculars" by N.A.B.A. president Jeffery Glassberg.

Alan Hanks requested that submissions for the annual summary be sent in as soon as possible, together with any photographs which may be of interest. It's possible there may be funds for a colour page this year, so send your interesting colour photos.



Feature Articles

Some Interesting Northern Ontario Highways

Highway 599 is a paved road that runs 292 km north from Ignace. Most maps show it going to Pickle Lake, but actually it goes to Central Patricia, an old mining community, with Pickle Lake a few km west of the highway at this point. At Central Patricia there are several stores and service stations, essential if you intend going further north. Scenery is varied, though I saw only one bog, 45 km north of Savant Lake.

Just beyond Central Patricia the pavement ends, but the road continues as a wide, very well maintained gravel road which goes on for another 238 km to Windigo Lake, where it ends at the Northern Native Fisherman's Co-operative, on the north shore of the lake. This is at 52.37°N, 91.28°W, the most northerly point to which you can drive in Ontario. The 1:25 000 topographic map 52-0 identifies this road as Hwy. 808, but I saw no signs showing this on the road itself. The scenery is much less varied, almost all sandy and/or gravelly moraines, with practically no flowery roadside areas. There were about eight small bogs between km 147 and 221. Near Windigo Lake, the road crosses the Sheawunegum Portage, which appears to be a winter road heading towards Weagamow Lake Indian Reserve. It is about 50 yards wide, through a damp, almost boggy area, and would probably provide some collecting in a good year.

Highway 105 is a paved road that runs 173 km north from Vermilion Bay through Ear Falls to Red Lake, Balmertown and Cochenour. This is a very attractive road with varied scenery, though only two bogs, 27 and 34 km NW of Ear Falls. Beyond Red Lake, the road continues north towards Berens Lake and Pikangicum Lake. This section is called the Nungesser Road. It branches off from the main highway between Balmertown and Cochenour, with no services beyond Balmertown. The first 35 km is paved, but rough, and beyond that it is an unmaintained gravel road, with very deep loose gravel, not at all pleasant to drive.

There were no bogs and nothing notable about the scenery. At km 83 there is a non-signposted junction left to Pikangicum Lake. I continued right, past a campsite on Berens Lake at km 94 and came very abruptly to a stop at about km 101. Here, a bridge over a wide muddy creek is out, seemingly deliberately destroyed, but there is no warning at all. The road passes through a wide cleared area before dipping down steeply to the creek. This is at 51.44°N, 93.40°W. The creek may be crossed by climbing over the remains of the bridge and the road continues beyond it.

Highway 527 is a good, paved road that runs north 242 km from Hwy. 17 to Armstrong. Scenery is varied and attractive, but again no bogs. Beyond Armstrong, there is a dirt road heading NW to Caribou Lake, and a whole network of small roads heading north and east along the railway, across the north end of Lake Nipigon, never collected by anyone, and I had no time to do this! It was very noticeable from the condition of the commonest roadside flowers, daisy, orange hawkweed and dandelion, that the season at Armstrong was 7 to 10 days delayed by comparison with Windigo Lake or Berens Lake, despite the fact that Armstrong is much further south. There were not enough butterflies to see any differences with them. Returning south, I left Hwy. 527 about 90 km south of Armstrong, taking a road which goes past Black Sturgeon Lake to Hurkett, on Hwy. 17. I do not recommend this road: there are many junctions not shown on any map, so that one has to keep guessing which way to go. Also, much of the road is very rough, with long stretches of the very worst washboard that I have ever seen.

Highway 672 is a small paved road between Hwy. 101 and 66, just west of the Quebec border. It goes through very dry, sandy terrain, not at all interesting or attractive, but it has one very beautiful bog, right beside the road, 23 km south of Hwy. 101. On June 27, there were absolutely no butterflies to be seen.

Highway 652/Detour Lake Road, north-east of Cochrane, has changed in the last decade. Today, the highway runs 33 km due east from Cochrane, then turns due north for another 122 km to a bridge over the Kattawagami River. There are km posts over most of the road, but they refer to the point where the road turns north as km 0. Beyond the river, the Detour Lake Road continues for another 34 km to Detour Lake Mine, almost at the Quebec border. There is a large "Private, No Trespassing" sign just beyond the bridge, but I saw this ignored by several groups of fishermen, and I ignored it too. There is another such sign, and a large gate, 28

km further on (at 51.01°N, 79.50°W) and I stopped there. Until a few years ago, Hwy. 652 ended 33 km east of Cochrane, and everything else was called Detour Lake Road: the TEA Summaries about 10 years ago had some records from Detour Lake Road which seem to refer to the first few km of the second stretch of what is now called Hwy. 652. Scenery is varied and interesting, with several clay areas which give very rich flowery roadsides, and at the north end, several rich areas of Shrubby Cinquefoil, the foodplant of *E. dorcas*. Only two bogs were seen: a large one right where the road turns north and a fringing bog around a small lake at km 82.3, almost hidden from view because the road at that point is on a high esker.

The point 33 km east of Cochrane, where Hwy 652 turns north is the starting point of two other potentially interesting and uncollected roads. The Translimit Road goes due east, and according to the roadmaps, passes north of Lake Abitibi all the way to the Quebec border. It appears to connect with the area I collected last year, which I reached via Val-Paradis, Quebec. From the same point, the Northwest Industrial Road heads due south to Iroquois Falls. Maps show this as a private road, however, there is no restriction at all at the north end, but it comes out in Iroquois Falls by passing right through the gigantic Abitibi-Price yard: it might be difficult to access it from this end.

Ross Layberry

Monarch Notes: Monarchs on the Move - 1994

The 1994 Monarch season in Ontario began while there was still snow on the ground! It was most interesting to receive periodic reports via FAX from the Minnesota "Journey North" program, designed to help elementary school students study the spring migration of the monarch butterfly using reports of first sightings via electronic mail, and to contribute data on the first sightings throughout Ontario. The first sighting at Presqu'île Provincial Park was on May 20th, other first sightings included June 3rd at Sarnia, June 7th at St. Lawrence Islands National Park, June 14th at Bon Echo Provincial Park, June 15th at Sault Ste. Marie, and so on. More importantly, this project confirmed Dr. Fred Urquhart's proposal that the spring Monarchs gradually re-populate the continent (as opposed to the theory that suggests that most of the first generation of Monarchs lay their eggs and die in the southern U.S. and the next generation continues the journey). Monarchs arriving in Rochester, N.Y. in late April, for

example, would not have had time to have emerged from a second generation.

At the March 1994 meeting of the T.E.A., Jurgen Hoth of Mexico, a doctoral candidate at the University of Waterloo, spoke about "Rural Development and the Protection of the Monarch Butterfly: a necessary conflict". Some of Jurgen's research findings suggest that Monarchs prefer to overwinter in forests where there has been a history of moderate disturbance. He further stressed that for any conservation effort to be effective, the local communities must be actively involved. It is not known how the recently implemented "Productive Ecology" program will be affected by the assassination of the Minister responsible for the initiative, Luis Colosio. An article on Jurgen's research appeared in the Fall 1994 issue of the University of Waterloo Alumni Magazine. Research reports continue to be published on a wide variety of topics related to the monarch butterfly and milkweeds. One recent report has shown that monarch pupae can be sexed by the presence or absence of a line dissecting the eighth abdominal sternite of the female pupa.

Fifty-seven years after the first alar tag was placed on the wing of a monarch butterfly, Dr. Fred Urquhart and his wife, Norah, have disbanded their Insect Migration Association. Limited tagging will continue in specific areas along the Atlantic coast, the Gulf of Mexico, the Caribbean islands, the Yucatan peninsula, and Florida. The association had grown from the original 12 volunteers who had responded to Dr. Urquhart's request for assistance in a 1952 Natural History article to involve more than 4000 individuals and organisations. Many, including myself, remained loyal to the project for over 25 years! One of the original 12 volunteers is still tagging monarchs. Dr. Urquhart will celebrate his 83rd birthday in December.

The general consensus is that there were many more monarch butterflies seen this summer in Ontario than last year. I began tagging at Presqu'ile in mid-August and managed to tag 3800 individuals by mid-September. During the migration period I managed to locate a number of abandoned, golden-rod filled, farm fields along the shoreline of Lake Ontario near Presqu'ile. From these vantage points one could observe the deliberate westward movement of thousands of Monarchs which eventually congregated, later in the migration, on the Presqu'ile peninsula. Of the 3800 tags noted above, 500 were tagged using a new method advocated by Dr. Orley Taylor (Univ. of Kansas). Although

somewhat slower than the traditional method it is hoped that by gluing the tags to the rear wing tagged Monarchs can be spotted in the overwintering clusters using a spotting scope or binoculars. I should note that advance preparation, including the creation of report forms using a computer program, contributed to the greater number of tags this year.

Although a few days in September were cooler than usual, the end of the month warmed considerably, allowing for rapid development of adults and assisting the migration. October was very sunny which again aided the south-westward movement of the butterflies. The migration has continued to date, with stragglers still heading southward. On October 15th scores of Monarchs were reported at Lake Ontario at Port Hope while four were seen during the Cranberry Festival at Bala. On October 31st at least 10 Monarchs were sighted at Presqu'ile, more were seen there on November 1st. Early recapture reports include ones found at New Wales, Ithaca, and Sodus (New York) and at Lenhartsville, Pennsylvania.

Advertising campaigns continue to utilise the monarch butterfly as do the postal authorities in a variety of countries. Over 35 countries have issued postage stamps bearing the Monarch. There is a computer program called "Monarch" and the butterfly has recently appeared in a "ExLax" Lite commercial! The Monarca Travelling Exhibit will spend a number of months in the Children's Museum in Mexico City. A recent communication from the Canadian Embassy in Mexico informed me that the Embassy was able to encourage local businesses to cover the \$25,000 deposit required for the exhibit.

My interest in the range of the monarch butterfly continues. Recently established colonies in Spain have suffered but remain. In Canada, Monarchs were again seen this year at Riding Mountain National Park in Manitoba. This large wilderness area on the Manitoba escarpment is surrounded by prairie. Monarchs were also seen again this year in Newfoundland despite not being native to the island and that no milkweed grows there.

This spring I intend to re-evaluate my work with the Monarch. It appears that tagging of large numbers of monarch butterflies at Presqu'ile is not providing any new information. Perhaps some new strategy or project might be useful. I will, however, continue to write articles on the status of the monarch butterfly in Ontario for "The Monarch Newsletter" and other nature magazines, and

will continue to speak to Field Naturalists, junior field naturalist and school groups. I recently addressed the McIlwraith Field Naturalists club in London and have fielded many telephone calls this year from all over Canada and the United States. There is a great deal of satisfaction in sharing information concerning the Monarch and it remains an effective means of bring the loss of wildlife habitat and the deterioration of ecosystems in Ontario to the attention of the general public

Don Davis

Call for Papers

The Toronto Entomologists' Association will host a symposium on Saturday, April 22nd., 1995. The purpose of the symposium is to provide a local venue for southern Ontario and Great Lakes region Graduate Students to report on their research interests and studies to the members of the T. E. A., other attending students and professional entomologists. We're looking for at least six to eight students to present a typical "contributed paper" type talk on their research projects. The format of the presentations will be 15 or 20 minutes depending on the number of participants. If you (or your students) would be interested in presenting a paper on this date please contact Phil Schappert (York University, Department of Biology, 4700 Keele St., North York, Ont., M3J 1P3, 416-736-2100 ext. 33492, e-mail: philjs@yorku.ca) as soon as possible.

Abstracts of papers will be required by Mar. 1st, 1995 for distribution to attendees. Presenters will have the opportunity to have their paper published in Ontario Insects, Vol. 1, No.1 (membership fees for contributed symposium papers will be waived). All submissions will be reviewed by two of the other participants and one faculty member on the supervisory committee of a participant. Vol. 1, No. 1 of Ontario Insects will be given the widest possible distribution.

We hope that you and your students will choose to participate in this symposium. We look forward to hearing from you.

Notes & Short Communications

Insects on the I-Way: entomo-stuff on the Internet

There are a number of resources available for bug people on what is often called, inappropriately I might add, the "Information Superhighway" (more like a cart track at this point in time - yes, you can get from point to point quite speedily but there are still a lot of bumps). For those of you who are adventurous enough to "surf the 'net" I offer the following pointers to interesting places and discussion groups. I'll start with the basics and work towards the more adventurous.

If you have an e-mail address you can subscribe to a mail-list administered by Peter Kevan at the University of Guelph (pkevan@uoguelph.ca). Called "ENTOMO-L", this list offers general discussion about a wide variety of insects. There are many knowledgeable specialists and academics willing to answer questions, offer advice or information, or simply discuss any entomological topic you could care to name. To subscribe send an e-mail message to: listserv@uoguelph.ca and include the following (without the brackets) in the body of the message: Subscribe ENTOMO-L (your first name) (your last name). Obviously you should use your real first and last name!!

For those who are especially interested in Lepidoptera there is a mail-list called LEPS. To subscribe send an e-mail message to: listserv@kaiwan.com and include this message: add (your e-mail address) LEPS. Please note that this list will be shut down within the next couple of months because a new usenet newsgroup has been formed to replace it. The new group is called sci.bio.entomology.lepidoptera and will soon be brought online. For more info. about this newsgroup contact Chris Majka (nextug@ac.dal.ca). If you're of a taxonomic bent then the mail-list TAXACOM will be more your cup of tea. To subscribe send e-mail to your favourite listserver (I use listserv@harvard.harvard.edu but the list originates out of Berkeley) and include the message: Subscribe TAXACOM (firstname) (lastname). To find out more about the "Journey North" program mentioned in Don Davis's article send e-mail to Elizabeth Donnelly (ehd@jriver.jriver.com).

For those of you who have usenet newsgroup access I have found the following groups deal with a variety of subjects and insects pop-up every now and then: sci.bio.ecology; sci.bio.ethology; bionet.biology.tropical; and bionet.plants. A growing number of organizations are going "online". For example, Rudi Mattoni, the editor of The Journal of Research on the Lepidoptera (Lepidoptera Research Foundation) can be contacted at mattoni@uclaue.mbi.ucla.edu. You can add Ontario Insects to this elite little group since you can contact one of the co-editors (me!) at butrfly@cml.com. See you online...

Phil Schappert

Ontario Weed Control Act Workshop - Nov. 1994

On Nov. 3rd a workshop was held at the Arboretum, University of Guelph to consider the need for, purpose of, and cost/benefit of the Weed Control Act (Revised Statutes of Ontario, 1990, Chapter W.5 and Regulation 1096). The idea was to evaluate all aspects of the Act and its enforcement and make recommendations for change.

The workshop was hosted by the Arboretum and the Ontario Parks Association with financial support from the participants and from "Restoring Nature's Place".

The Weed Control Act and the way it is enforced impacts on every landowner in Ontario and particularly on landowners in southern Ontario. Here the agricultural, horticultural and urban interests compete for space, but nature and natural areas are of a low priority. However, as the population urbanises the need for protecting nature and natural areas increases in priority.

The participants in the Workshop included a broad spectrum of interest groups as follows: representatives of municipalities and some Weed Inspectors (Huron County Weed Inspector John Gibson for example), government ministries (Agriculture, Food and Rural Development, Natural Resources, Environment, Transportation and Communications) and the Canadian Forestry Service, Universities, Conservation Authorities, Ontario Parks Association, Ontario Federation of Agriculture, Chief Inspector (Weed Control Act), Federation of Ontario Naturalists, Canadian Wildflower Society, Toronto Entomologists' Association (represented by the writer), Royal Botanical Gardens, Wildlands League, Field

Naturalists clubs, Landscape Ontario, Ontario Association of Landscape Architects, Ontario Corn Producers Association, Ontario Beekeepers Association, Uniroyal Chemical Ltd., Dufferin Aggregates, Ontario Soybean Growers Marketing Board, Niagara Parks Commission, and the Ontario Soil and Crop Improvement Association.

The Workshop participants totalled over 100 and were organised into round-table groups of 9 persons each. As the writer sat with the other participants and listened to the opening statements by the facilitator, Prof. Alan Watson, and Andy Wickens of the Ontario Parks Association, Howard Lang, Chief Inspector for the Weed Control Act, and Violet Vingilis, Counsel, O.M.A.F.R.D. Legal Services review the history of the Weed Control Act and its aims and its impacts my mind flashed back to 1984 and my experience as a small landowner in Huron County.

As Ontario urbanises and citizens who own under 10 acres multiply and want natural areas to have priority up there with those in the agri-industry the need to either withdraw the Weed Control Act or revise it drastically becomes more and more urgent.

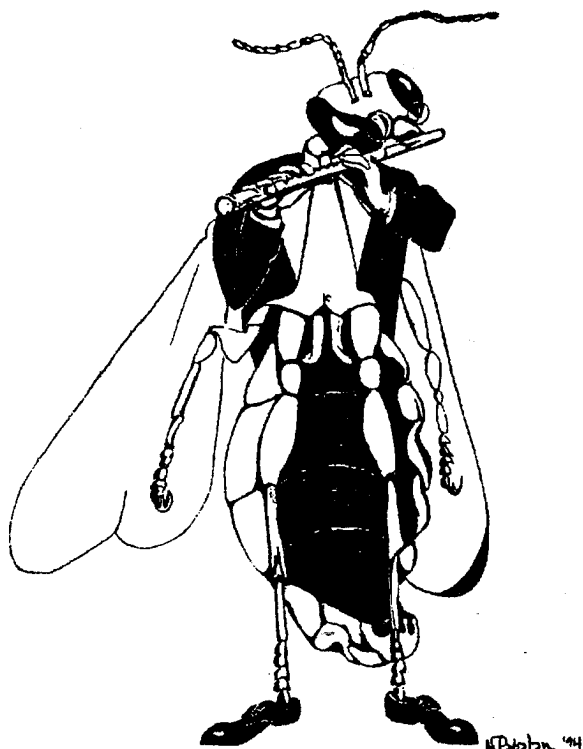
One of the urgent matters brainstormed by the participants was the list of so-called noxious weeds under Regulation 1096. A major question which is of great importance is who gets to designate a plant as a noxious weed? In fact what is the definition of noxious? According to Webster, noxious means harmful, pernicious, deadly. In respect of the Regulation 1096 the designators are thinking harmful or deadly, that is harmful or deadly to crops. But people who own the land are raising many kinds of crops, that is agriculture or food crops, horticulture crops, and quality of life crops such as flowers, butterflies, birds, vistas and so forth. Each of the crops have their own needs and so we have controversy. Regulation 1096 addresses, so we are told by agribusiness, harm to farm crops. The list does not recognise other values at stake some of which are equal in importance but difficult to quantify in terms of costs and benefits.

Referring to the list of "noxious" weeds we see that all species of Milkweeds (*Asclepias*) are included, yet with the possible exception of the Common Milkweed (*A. syriaca*), the other several species such as the beautiful Orange Milkweed or Butterfly-weed (*A. tuberosa*) or the Swamp Milkweed (*A. incarnata*) are of little or no concern to agri-crops. Milkweeds are the sole

foodplant in southern Ontario of the well-known and popular Monarch butterfly (*Danaus plexippus*). Milkweeds are also nectar sources for many beneficial insects. Other examples include the Black Swallowtail (*Papilio polyxenes*), Wild Carrot or Queen Anne's Lace (*Daucus carota*) and the Painted Lady (*Vanessa cardui*)/ Thistle (*Cirsium vulgare*) association and so on.

Therefore, it was not surprising that the question of designation of plants as "noxious" received a lot of attention. In conclusion, the Workshop was a great educational experience. It remains to be seen what the Ontario government will do with our recommendations.

Quimby F. Hess



Original Art by member Noel Pabalan. Noel's detailed and colourful entomological and musical creations can be found on note cards and t-shirts. Contact Noel at 416-667-8897 for information.

Book Reviews & Notices

The Butterflies of the West Indies and South Florida

by D.S. Smith, L.D. Miller and J.Y. Miller (264 pp., 31 colour plates, Oxford U. Press, Oxford, U.K., 1994, ISBN 0 19 857199 2), avail. from Classey, P.O. Box 93, Faringdon, Oxon SN7 7DR, England. (approx. £90 Sterling)

This is a wonderful book, carrying on the work started by Norman Riley with his 1975 Field Guide, but including the peninsula of South Florida due to its biogeographic similarity to the islands of the Caribbean. With 255 pages and 32 colour plates of paintings, the book includes notes on biogeography, ranges, history and a taxonomic checklist. The majority of the work is in the butterfly descriptions which are very comprehensive and thorough. All-in-all an excellent publication, despite the high cost.

Alan J. Hanks

Karner Blue Butterfly: a symbol of a vanishing landscape

edited by D.A. Andow, R.J. Baker, and C.P. Lane (222 pp, 1 colour plate, U. of Minnesota Misc. Publ. 84-1994, St. Paul, Minn., 1994), Available for \$17 U.S. (postage included) from D.A. Andow, Dept. of Entomology, University of Minnesota, 219 Hodson Hall, 1980 Folwell Ave., St. Paul, MN 55108-6125.

The proceedings of the '92 Zanesville, Ohio symposium (the proceedings of the population and habitat viability assessment workshop "are forthcoming"). Contains 23 papers by a number of authors, organized into sections covering biology and ecology (9 chapters), current status (9 chapters), recovery (4 chapters) and a final chapter on future directions by the volume editors. Papers cover taxonomy, history, ant associations, demography/population biology, habitat preferences, distribution, disturbance, Lupine ecology and status of the Karner Blue throughout its range. Of special interest to T.E.A. members is *The Extirpation of the Karner Blue Butterfly from Ontario* by member Laurence Packer of York University. This is a very worthwhile volume for everyone with an interest in the Lycaenidae. Highly recommended (and cheap too!)

Phil Schappert

7.E.A. Membership List

This list is published for the personal use of members of the Toronto Entomologists' Association. Use of this list for commercial purposes is strictly prohibited. Listing is current as of September 1994.

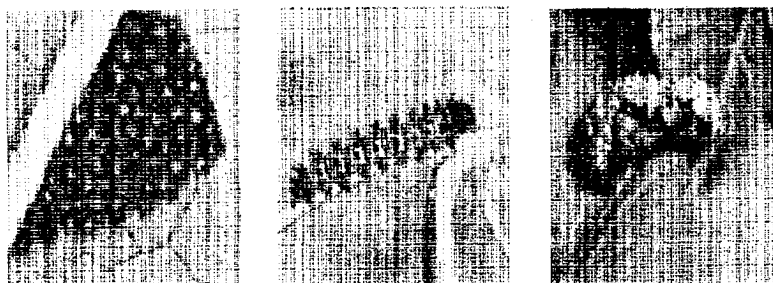
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Eggs, Larva and Pupa of the Baltimore butterfly (*Euphydryas phaeton*)
Photos by W. J. D. Eberlie

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