



NEWSLETTER of the Wisconsin Entomological Society

Volume 11, Number 3

Editor: Mark H. Evans

December, 1983

Editor's Notes:

Winter certainly seems to be close at hand. I'm sure most of the insects in Wisconsin are ready by this point though, or at least, they had better be. I hope all of you WES members had a very enjoyable and productive summer, at least entomologically speaking, and hopefully, in many other ways as well. Write a paragraph or two on what you've been up to or on what you would like others to be on the watch for, and send along a note for inclusion in the Notes and News of Members section in the next newsletter.

Regarding this issue, I would like to first thank all of the folks who have continued to contribute notes or ideas as well as thank people who have sent in their 1983 dues. Dues payments provide the refreshments at meetings, as well as cover the cost of meeting notices and newsletters and postage. It adds up, but it is crucial to the communication of events and interests within our society. If, however, we do not continue to receive dues payments, we will be financially limited to only one or two newsletters in 1984 rather than the three that we have sent out this year. To further encourage the payment of 1983 dues where necessary, as well as encourage payment for the coming year, we have included with this issue three different kinds of notices along with a stamped and addressed envelope. If we have received no dues from you since 1982 or before, we will drop you from our mailing list in the new year. Please don't let that happen. Your membership and interests are things that we all wish to share and benefit from.

Also, please note our December meeting. We will have our annual meeting, 3 or 4 brief talks by members, election of new officers, and Christmas party on Saturday December 10 at 3:30 P.M. If you would be interested in running for an office, or you would like to nominate someone else, contact Bob Jeanne (Entomology Dept., Russell Labs., UW-Madison) before or at the beginning of December's meeting. We'll see you there!

Mark H. Evans
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Madison, Wisc. 53706

MEETING ANNOUNCEMENTS:

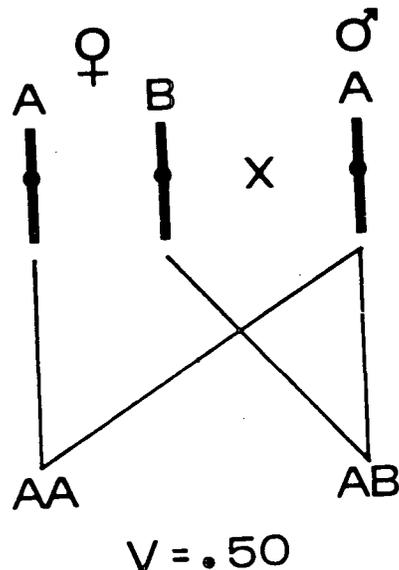
December.....Annual meeting, election of new officers, and Christmas Party. To be held in RM 150 Russell Labs, at 3:30 P.M., on Saturday, December 10. Short talks, each about 20 minutes in length, will be given by Les Ferge (who will bring some of the specimens collected at the Cedarburg Bog), Wendell Burkholder (who will discuss "stored products, insect behavior, and pheromone studies: keys to successful monitoring and trapping"), Phil Pellitteri (who will talk about "some insect curiosities"), and Mark Evans (who will show some methods used to rapidly sort large amounts of non-lep material taken in black-light traps).

PAST MEETINGS:

At the September meeting Mark Evans and Bill Warfield showed slides and 8mm movies taken in Costa Rica on their trip last March. They also played part of a tape recording that they made of bird calls. They talked about some of their experiences on the east and west sides of the Continental Divide and brought along 20 drawers of insect specimens that they have pinned up so far to show people what some of the butterflies, moths, and beetles look like down there.

The October meeting was our first annual William Sieker Memorial Photo Salon. Among the people showing pictures and slides were Charlie Behnke, Mark Evans, Bob Jeanne, Bill Ladanye, Greg Lintereur, Ken Racke, and Alan Young. Charlie Behnke won our contest with a photograph of an future winners, now resides in the Entomology Dept. conference room on the second floor of Russell Labs. Photos qualifying as runners-up included pierid butterflies feeding on a dead snake taken by Ken, and a nymphalid butterfly on a flower taken by Greg. -----Keep next year's contest in mind during the coming year!

At the November meeting, Rob Page, a project associate working at the USDA Bee Lab here in Madison, discussed honey bee reproduction. However, instead of putting the conventional emphasis on swarming behavior, he discussed drone production and the egg laying activities of worker honey bees. He also introduced the audience to some basic elements of sex determination and some of the more interesting reproductive anomalies, such as worker honey bees that are half male (or are they drones that are half worker!?) In conclusion, it seems apparent that swarming behavior is only one small aspect of honey bee reproduction.



An illustration to emphasize that in bees the females are diploid while the drones are haploid.

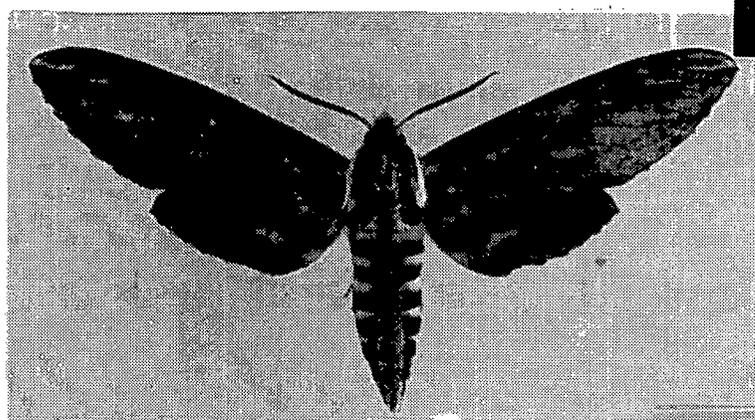
SUMMER FIELDTRIP:

Our WES Summer Overnight Fieldtrip to the UW-Milwaukee Field Station at the Cedarburg Bog (on the weekend of 15 July) was attended by seven members: George Balough, Sue Borkin, Mark Evans, Les Ferge, Bob Jeanne, Jim Parkinson, and Maria Plonczynski. Although the attendance was low, I think that those who came enjoyed themselves. The old field, prairie, forest, and bog habitats provided lots of opportunity for picture taking, insect collecting, and walking. George, Les, and Jim concentrated on black light trapping and Les provided the following pictures and summary of Lepidoptera taken. In addition, I collected over 300 Tabanidae (primarily *Crysops* spp.) plus I kept all of the non-leps from Les' black light trap from the boardwalk over the bog. This non-lep material consists mainly of Trichoptera, Diptera, and Coleoptera which has been preserved in alcohol. Together with Dan Young, we have begun cleaning and sorting this material (which consists of literally thousands of specimens) and we plan to provide a more detailed summary of the taxa represented in the next newsletter. Look for it. It should be quite entertaining.



Bog habitat: sedges, low shrubs, scattered tamarack in distance. (photo taken from boardwalk, looking south toward Mud Lake)

Boardwalk crossing creek: in the background is one of the "islands" of higher ground in the bog, supporting a hardwood forest of beech, maple and birch. (light trap operated at end of boardwalk)



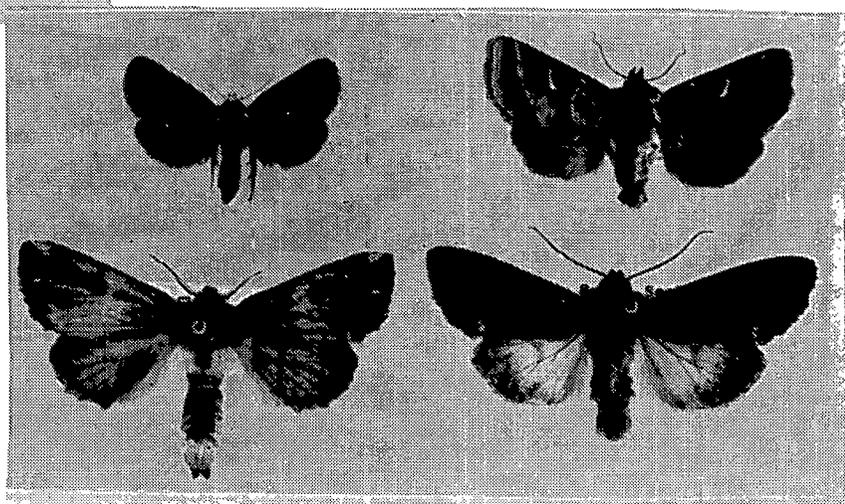
Sphinx canadensis (Boisduval): "the Canadian sphinx": local and uncommon in northern Wisc., Cedarburg Bog is the southernmost Wisc. locality for this moth, ranges from Wisc. and Mich. east to Maine and Newfoundland, with a disjunct population remaining in the Ozarks in Missouri and Arkansas... a remnant population persisting in a cool mountain microclimate since the retreat of the glaciers. larval host reported to be ash, moth grey, streaked with black. (photo natural size)

UPPER LEFT: Euxoa colandiana Grote (pitcher plant moth). larva feeds on the leaves of pitcher plants, reported to pupate inside the pitcher, forewing deep purple-brown with yellow patch, hindwing gray.

UPPER RIGHT: Epitana littera (Guenee). larva reported on marsh fern, very rare and sporadic, probably the best catch of the trip. adult is purplish-pink marked with contrasting lines and a white, reniform spot.

LOWER LEFT: Schizura badia (Packard). collected at the field station by George Balough. wings are a variable grey-brown, marked with black, rarely found in Wisconsin.

LOWER RIGHT: Melanchra assimilis (Morrism). found previously only much farther north in Wisconsin, restricted to acid bog and



List of Moths Collected in the Cedarburg Bog, Ozaukee Co. Wisconsin - at UV light
Wisconsin Entomological Society Field Trip - 15 July 1983 - L. A. Ferge, Coll.

The nomenclature and arrangement of this list conforms with the
new Checklist of the Lepidoptera of America North of Mexico, edited
by R. W. Hodges et al. (1983).

APATELODIDAE

Olceclostera angelica (Grote)

LASIOCAMPIDAE

Phyllodesma americana (Harris)
Malacosoma americanum (Fabricius)

SATURNIIDAE

Antheraea polyphemus (Cramer)

SPHINGIDAE

Ceratomia amyntor (Geyer)
Ceratomia undulosa (Walker)
Sphinx canadensis (Biosduval)
Smerinthus jamaicensis (Drury)
Paonias excaecatus (J. E. Smith)
Pachysphinx modesta (Harris)

NOTODONTIDAE

Clostera apicalis (Walker)
Datana ministra (Drury)
Peridea basitriens (Walker)
Peridea angulosa (J. E. Smith)
Peridea ferruginea (Packard)
Pheosia rimosa Packard
Gluphisia septentrionis Walker
Lochmaeus manteo Doubleday
Schizura ipomoeae Doubleday
Schizura badia (Packard)
Schizura leptinoides (Grote)

ARCTIIDAE

Hypoprepia fucosa Hubner
Haploa lecontei (Guerin-Meneville)
Pyrrharctia isabella (J. E. Smith)
Spilosoma virginica (Fabricius)
Apantesis anna (Grote)
Halysidota tessellaris (J. E. Smith)
Ctenucha virginica (Esper)
Cisseps fulvicollis (Hubner)

NOCTUIDAE

Diachrysa aeroides (Grote)
Plusia venusta Walker
Baileya doubledayi (Guenee)
Exyra rolandiana Grote
Lithacodia carneola (Guenee)
Acronicta americana (Harris)
Acronicta dactylina Grote
Acronicta innotata Guenee
Harrisimemna trisignata (Walker)
Eudryas unio (Hubner)
Eudryas grata (Fabricius)
Apamea lignicolora (Guenee)
Apamea amputatrix (Fitch)
Agroperina lateritia (Hufnagel)
Amphipoea velata (Walker)
Chytonix palliatricula (Guenee)
Trachea delicata (Grote)
Fagitana littera (Guenee)
Amphipyra tragopoginis (Clerck)
Callopietria mollissima (Guenee)
Cucullia postera Guenee
Cucullia asteroides Guenee
Melanchra assimilis (Morrison)
Leucania pseudargyria Guenee
Cryptocala acadensis (Bethune)
Schinia obscurata Strecker

BENEFICIAL SOCIAL WASPS? AN EXPERIMENT IN HONDURAS

Dr. Keith Andrews, an entomologist with the Escuela Agricultura Panamericana in Tegucigalpa, Honduras, is trying to develop low-cost measures of pest control using methods and materials accessible to small farmers in Honduras. One of the more serious crop pests there is the fall armyworm, Spodoptera frugiperda, a consumer of maize and sorghum. Andrews noticed foragers of Polybia occidentalis, a small, common Central and South American social wasp, taking the early instars of armyworms in large numbers, so he has been attempting to move colonies of the wasp into experimental plots of maize to increase their rate of predation on this pest. The approach works fine except for a high rate of nest desertion by the wasps after their colonies are moved into the fields. In October I visited his project to see if I could help him solve this problem. The most likely responsible factors seemed to me to be lack of adequate nesting sites in the maize plots, so one of the things Andrews will try is erecting small thatch shelters of a variety of designs to see if these will induce more colonies to stay in the area.

This isn't the first effort to manipulate social wasp colonies to control pest populations. There have been numerous efforts, both in the U.S. and elsewhere, to use Polistes, the common paper wasp, to control lepidopterous pests on cotton, tobacco, cabbage, and cassava, among other crops. In some cases, pest populations are significantly reduced. The main blocks to implementing the technique widely are that the wasps, of course sting, making them rather unpleasant colleagues to work with. Also, building up and maintaining the wasp populations in the desired area is a laborious task. This is the reason, no doubt, that it is only in China, where agriculture is labor-intensive, that the technique is being put to use. If Andrews' efforts are successful, it ought to be ideal for Central American agriculture, much of which is small scale and labor intensive. His is the first attempt to use a wasp other than Polistes, and Polybia foragers are certainly eager allies in the field. One colony I monitored brought in an estimated 950 prey loads per day, 71% of which were Lepidoptera larvae.



Robert L. Jeanne

A new member to our Society, Waldemar Kmentt, recently sent along this letter, which I'm including to invite feedback:

COLLECTION MAINTAINANCE:

Our house is located in what seems to be a soggy spot in the local environment. Most of our friends run humidifiers all winter; we keep a dehumidifier going in the basement all year and a second one on the main floor during the summer months.

Drooping wings on Lepidoptera have turned out to be much less of a problem than one might expect, though a few specimens have been so affected. However, I have run into another problem---mold. I found a few specimens of butterflies growing an extra coat of fur while the moths remained unaffected, at least, to the present time.

What to do? Because one red admiral (Vanessa atalanta) and a painted lady (V. cardui), both easily replacable, were the worst cases, I decided to experiment on them. Isolating the two, I dampened them thoroughly by spaying them with ordinary household Lysol spray disinfectant which is advertised to kill mold and mildew. It worked! in the open, both dried within a few hours with absolutely no discernible damage or loss of color.

Thus emboldened, I spayed the entire care from which they were taken, letting it stand open for well over a full day before replacing the cover. Happily, all the mold is gone and all of the specimens are as bright and well positioned as before.

In trying to deduce the cause of the mold, my fumigant was not above suspicion, although I have no conclusive evidence that it was the culprit. Because, of necessity, my collection must be kept in my home, I would much prefer to avoid the use of vapona or PDB, a choice reached before by several articles appearing in recent issues of the Newsletter of the Lepidopterists' Society. Therefore, I was using carbon disulphide, a volatile fluid, saturating cotton balls stuffed into 5 dram vials, two per box, with renewal at six month intervals. My late uncle had used CS2 very effectively all his life; and a cousin, in his seventies, still uses it. I recall no complaints of mold.

Mold spores are ubiquitous, but they require moisture to flourish. It would seem that CS2 is not effective as a fungicide although it does a good job of contolling other pests. It would also seem improbable that CS2 vapor could sustain mold, substituting, as it were, for water vapor.

Since the bout with the mold, I have temporarily switched to PDB crystals. However, I am deeply interested in finding an effective fumigant which is not, like vapona and PDB, a form of chlorinated hydrocarbon. I would greatly appreciate any information pertaining to this matter.

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NEW MEMBERS:

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Kenneth Racke
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TREASURER'S REPORT:

Balance in account: 15 May 1983.....\$476.13
Total disbursements (postage and printing)..... 211.61
Total receipts (dues payments)..... 44.44

1983 Sustaining memberships (donations of \$10.00):
David Radke

Balance in account: 8 November 1983.....\$308.96

(cut along dotted line):

Dues Notice:

Enclosed are dues payment(s) for:

1983 - regular membership	\$4.00	_____
- sustaining "	10.00	_____
1984 - regular membership	\$4.00	_____
- sustaining "	10.00	_____

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