



NEWSLETTER of the Wisconsin Entomological Society

Volume 14, Number 3

Les Ferge, Editor

October 1987

ANNUAL MEETING TO BE HELD NOVEMBER 14 IN MADISON

The Wisconsin Entomological Society Annual Meeting will begin at 2:30 PM, Saturday, November 14, in room 150 Russell Labs, on the University of Wisconsin-Madison campus. Russell Labs is located at the corner of Babcock and Linden Drives. Parking is available in the lot behind the building, which is entered from Observatory Drive (one block north of Linden).

Bob Jeanne will begin the program with a presentation entitled "A Sampler of North Queensland, Australia." The remainder of the program will be devoted to our annual Photo Salon. Any members having standard 2" x 2" slides of entomological subjects are encouraged to participate. Each entrant may submit up to five slides, and may present a brief explanation of each slide. The slides will be judged by the audience, whose votes will be compiled to select the winning entry. Those interested in submitting slides are asked to arrive a bit early, in order to get the slides set up before the meeting begins.

Following the meeting, those who wish to will adjourn to a nearby restaurant, to enjoy food and fellowship.

1988 DUES NOTICE

Enclosed in this Newsletter is your dues envelope for 1988. Your prompt payment will be most appreciated. Please note that dues are to be sent directly to the Treasurer, Bob Borth, 6926 N. Belmont Lane, Fox Point, WI 53217. This will simplify our dues collecting procedure considerably, and should avoid excessive delay in depositing checks.

ELECTION OF OFFICERS

The following slate of candidates has been proposed by the Executive Council: Phil Pellitteri (President), Jim Parkinson (Vice-President), Glenn Esenther (Secretary), and Bob Borth (Treasurer). Please mark your ballot, also enclosed, and return with your dues payment.

The Newsletter of the Wisconsin Entomological Society is published three times a year, at irregular intervals. It is provided to encourage and facilitate the exchange of information by the membership, and to keep the members informed of the activities of the organization. Members are strongly encouraged to contribute items for inclusion in the Newsletter. Please send all news items, notes, new or interesting insect records, season summaries, research requests etc. to the editor: Les Ferge, 7119 Hubbard Avenue, Middleton, WI 53562.

Milwaukee Public Museum
800 West Wells Street
Milwaukee, WI 53233

Dear Les:


As Head Curator of the Invertebrate Zoology Section at the Milwaukee Public Museum, I am writing to express my sincere appreciation, and that of the other curators in the section, for the excellent on-going assistance several members of the Wisconsin Entomological Society have given the museum through their donations of specimens for the insect collections.

Susan Borkin, Gary Noonan, and myself view the collections as a major educational and research resource for interested scholars, collectors, and general insect enthusiasts throughout this state and beyond. In recent years, we have particularly appreciated the donations given to the museum by these members of the Society: George Balogh (Lepidoptera), Les Ferge (Lepidoptera), Drew Hildebrandt & Maria Plonczynski (Insects), Jim Parkinson (Lepidoptera & other insects), Tom Pleyte (Lepidoptera), and Leon Zukrow (Odonata). As a pivotal part of this most important collaborative process between our museum and the Society, we are also very appreciative of William E. Sieker's donation of his outstanding collection of moths to this museum.

We want to continue to encourage all members of the Society, and interested others, to keep us in mind for donations of their duplicate specimens with good locality/collecting data. We accept both mounted and unmounted material. We welcome your continued collaboration, as it builds strength to the insect collections. In this way, we can continue to make representative species of the Wisconsin insect fauna (and ring states) accessible to all interested students of entomology. Your data becomes an integral part of the collective process that makes the Milwaukee Public Museum's insect collections a viable resource and bank of knowledge for researchers studying the natural world.

Thank you, Wisconsin Entomological Society, for this assistance with the growth of our insect collections.

Sincerely yours,


Allen M. Young
Curator and Head
Invertebrate Zoology
Section

P.S. Individuals interested in contributing specimens to the museum's collections can feel free to contact any of the curators:

Lepidoptera & Odonata: Susan Borkin and Allen Young
Insects (other than Lep./Odon.): Gary Noonan
Non-insect invertebrates, especially Crustacea, Arachnida,
Mollusca: Joan Jass

5 June 1987

Dear Les,

I enjoy receiving the Newsletter and want to compliment you and the members for publishing an excellent paper. It keeps us who have strayed from Wisconsin up to date on your doings.

Now about the Benjamins and their recent escapades. We have just returned from the People's Republic of China, where I presented a lecture series on Forest Entomology at the Central-South Forestry University at Zhuzhou-Hunan, and also at the Ministry of Forestry - Forestry Research Institute in Beijing. These invitations were a follow-up on the visits of Chinese Academy of Science Entomologists in 1979 and 1981, and our original visit in 1980. In Beijing, we were housed in a delightful and secluded guest compound near the Summer Palace. The food was excellent and we visited a beautiful lake and gardens. Also, we were taken to the Great Wall, Ming Tombs, and an evening performance of the famous Beijing acrobats. Professor and Mrs. Xiao invited us to their home for a 16 course banquet that was truly fabulous. They send best wishes to their Madison friends.

At Zhuzhou is one of the major Forestry Universities, with major departments of Silviculture, Hydrology, Forest Engineering, Teaching, and Entomology. I was honored to be the first Entomologist visiting at this six-year old University, and we were overwhelmed with kindness. Forest officers from the surrounding provinces were invited, and after each lecture there followed an hour of discussions and questions.

We were taken by automobile 350 miles northwest of Zhuzhou to a forest area in spectacular mountains. Enroute we drove through deep valleys, over towering peaks, switchbacks, and among multi-miles of paddy rice. Our driver we named "One Long Honk" because each day he started the engine, blasted several times on the horn, and never ceased honking, passing on hills, curves and switchbacks the entire day. By some miracle we survived the trip and back to Zhuzhou. On a sheer probability basis, "O.L.H." will meet a truck on a curve-hill within the next six weeks!

After leaving Zhuzhou, we stopped briefly in Guangzhou, Hong Kong, and Taipei to visit the Forestry Research Institute. Then home to Santa Maria. It was a wonderful visit, and we were most impressed with the changes we saw since 1980. Progress in building, the people were happier, small businesses were everywhere evident, and China seemed on the move.

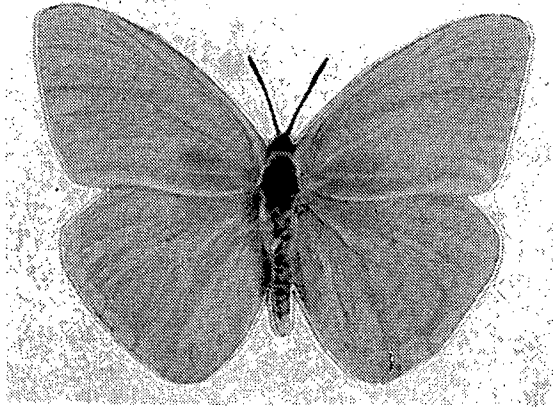
Best regards,

Dan and Lillian Benjamin

RESEARCH REQUEST

1987 Wisconsin Lepidoptera records are wanted for inclusion in the season summary planned for the February Newsletter. Things to report include rare or unusual species occurring in your area, migrants, unusually early/late occurrences, rearing/larval host data, flowers visited by adults, and so on. Please indicate locality and date of capture/observation, and if specimens were retained. Please reply before 15 January to: Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562.

This season proved to be remarkably similar overall to last year. In particular, an even greater number of "visitors from the south" were recorded. Observations on two of the more unusual occurrences of migrant species are presented here, plus observations on an apparent population "explosion" of a rare resident skipper. Details on all the other migrants observed will appear in the Lepidoptera season summary to be featured in the February Newsletter.



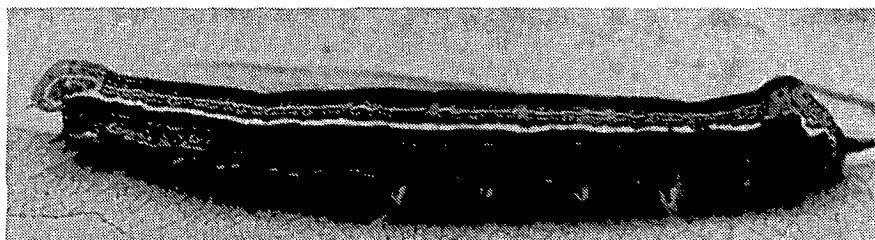
Although strongly migratory northward from its main breeding range in the southern states, Phoebis sennae (Cloudless Sulphur) has been regarded as a rare late-summer stray in northern areas. Because of the small number of verified occurrences in Wisconsin, collectors here regard the finding of even a single stray as a very notable event. However, a group of Lepidopterists (George & Terri Balogh, Bob Borth, Les & Carol Ferge and Jim Parkinson) shared the unexpected sight of numerous sennae on the wing near Cassville, Grant County on 27-28 June. There appeared to be a mainly northward movement of sennae in the

"corridor" defined by the highway and railroad rights-of-way, which parallel the Mississippi River here and in several counties to the north. The Cloudless Sulphur is certainly one of the fastest-flying butterflies to be found in Wisconsin, cruising effortlessly at a speed near or exceeding a person's top speed running. Their large size and distinctive lemon-yellow color made them highly visible, but capturing specimens was another matter, since they rarely stopped to rest, and being essentially subtropical, thrived on the 90° heat. Two were found to occasionally stop to "tank up" on Bouncing Bet nectar, where they could be more easily captured.

About a month later (2 August) several sennae were observed north of Ferryville, Crawford County, by Les and Carol Ferge. These were rapidly moving northward in a "corridor" similar to that described previously, and could not be captured. Later that day, several more were observed near Prairie du Chien and one was finally caught, verifying the record new to Crawford County. The locality consisted of a weedy disturbed area along the railroad right-of-way, featuring an abundance of Partridge pea (Cassia fasciculata), known to be one of the larval hosts of sennae. Return visits to this area on 22 August and 5 September yielded more specimens. Unlike the previous occurrences, the sennae seemed to be more sedentary, wandering around the area. They were much less tolerant of cloudy conditions than the common resident sulphurs, quickly coming to rest in the vegetation whenever a dark cloud covered the sun. No evidence could be found indicating that sennae actually was breeding here, but it seemed possible considering the good condition of the 2 August specimens. No sennae were seen on 27 September, causing speculation regarding a return migration to favorable overwintering areas, as observed in the southeastern states. Interestingly, good numbers of two other migratory sulphurs, Eurema lisa (Little Sulphur) and Nathalis iole (Dainty Sulphur), also present since August, still remained that day. However, they may not have been able to escape or survive the cold weather and frosts that occurred in the first part of October.

The Noctuid moth Magusa orbifera is another noted traveler of sub-tropical affinity. In the U.S. it is believed to breed mainly in the Gulf States, where it is common, migrating northward in late summer and fall. It is probably unable to survive our northern winters. Previous experience in Wisconsin indicates that orbifera is an occasional stray, and may not appear every season. Most specimens have been collected in September and October in favorable years.

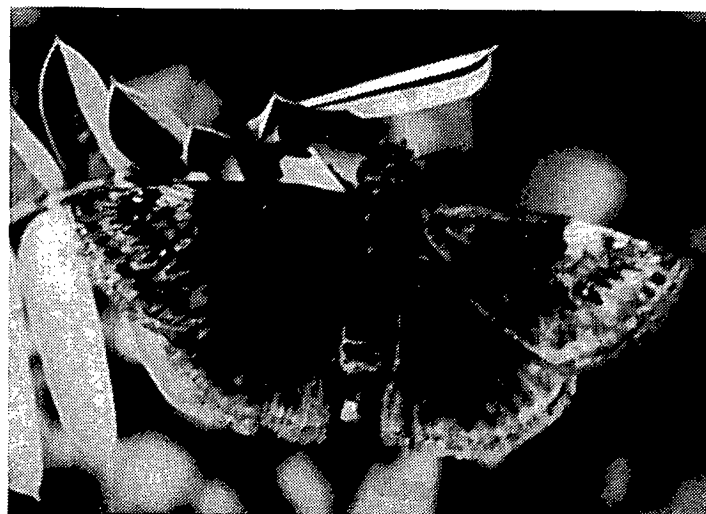
In August 1986, numerous larvae proving to be orbifera were found at a Waterloo, Wisconsin nursery, defoliating Buckthorn trees (L. Lovett & P. Pellitteri). This was probably the first recorded evidence that orbifera could breed in the north, and confirmed its use of Buckthorn as a larval host. Buckthorn is not native to Wisconsin, but is commonly planted in hedges and as ornamental trees.



The early onset of mild conditions this spring apparently favored the spread of orbifera, since the first appearances of migrant adults were recorded 12 June at the Cedarburg Bog, and 28 June at Cassville,

the earliest dates on record for Wisconsin. Numerous nearly mature larvae were found defoliating Buckthorn near Black River Falls, Jackson County, in early July (D. Hall & P. Pellitteri). Adult moths reared from these larvae emerged 29 July.

The mature larva (shown above at 3x life size) is quite striking in appearance, being basically black marked with a white lateral stripe and greenish reticulated bands. The head, prolegs and terminal bump are orange. The adult moths (Shown above 1.6x life size) are variable in size, with wingspans of 35-45mm, and exhibit considerable variation in forewing color and pattern, ranging from shades of brown to olive green.



Erynnis baptisiae (Indigo Dusky Wing Skipper) is not a migrant, but a rare and poorly-known species in Wisconsin. Very little information is available to make meaningful conclusions, but it is possible that baptisiae was once more common and widespread, closely associated with its larval foodplants, species of Wild Indigo (Baptisia), now rarely found in prairie habitats.

On 22 August, a population of baptisiae estimated to be at least a hundred was discovered near Genoa in Vernon County. The population was concentrated in a space of a few hundred feet on both sides of a paved road (illustrated). Many individuals lined the edges of the road, basking in the late afternoon sun. There were more road kills than specimens previously known from Wisconsin. The roadside embankments were blanketed with Crown Vetch (Coronilla varia), on which several females were observed busily laying eggs. Crown Vetch is a non-native introduced species, becoming widely utilized as a ground-cover plant, valuable in stabilizing steep road cuts and rocky embankments. The plant was introduced to North America from Europe after 1890, but its utilization by baptisiae was noted quite recently by Shapiro (1979, J. Lepid. Soc. 33:258). This late-season flight possibly represents an unusual third brood, occurring as a consequence of the advanced season. Normally, baptisiae is believed to be double-brooded. Further monitoring of stands of Crown Vetch is needed to document the increase and spread of baptisiae, now that it is apparently thriving on its new host.



CHIGGERS

Phil Pellitteri

The chigger is a tiny parasitic mite, scarcely visible to the human eye. Also known as "jiggers", "red bugs" or "harvest mites", these parasites attach themselves to tender skin areas, causing intense itching and red welts that may last for days. Chiggers attack people, birds, most pets, reptiles and other animals. Chiggers in the United States are not known to transmit disease.

Chiggers prefer mild climates and are more common in the warmer areas of the United States. In southern Florida and southern Texas chiggers may be present throughout the year. In other states they are active from May until late September or the first frost.

The five common species of chigger mites belong to the family Trombiculidae and are related to ticks and spiders by possessing eight legs in the adult stage and undergoing four main stages of development. All chiggers hatch from eggs laid by the adult mites. The newly-hatched chiggers (which are called larvae) are 1/150 inch in diameter, and are orange-yellow to light red in color. They crawl about the vegetation waiting for an animal or person to feed on. Chiggers are active from spring to late fall, but are most numerous in summer when weeds, grass and undergrowth are most lush. Larval chiggers tend to concentrate in shaded spots near the tips of grass, leaves and twigs that are in close contact with the ground. They are more common in tall grass and weeds, cut-over brushy sites, bramble patches, margins of brushy and forested areas, and in rotten logs and stumps. When a person or animal approaches, the larvae become agitated and actively seek out their host.

The tiny red larva can scarcely be seen as it scurries along the skin surface seeking a feeding site. When it finds a suitable location, such as a skin pore or at the base of a hair follicle, the larva attaches its mouthparts and starts feeding. Chiggers do not burrow into the skin as commonly believed, but feed on the skin surface. Each mite injects digestive fluid that breaks down adjacent tissue. Affected tissue becomes reddened and swollen, and may completely surround the feeding chigger. Chiggers will feed until they are engorged, which takes from one to four days, then drop to the ground to develop into a non-parasitic form of mite.

The red welts appear within 24 hours of the start of feeding, and normally appear where clothing fits tightly against the body: the ankle (or sock line), the waist line and the arm pits. For most people, the welts last from 3-10 days. The feeding site itches intensely, and may continue to itch several days after the chigger has dropped off. Symptoms appear in the summer after working in the garden, picking berries, walking in the woods [and collecting insects in dry, grassy habitats]. People differ in sensitivity to chigger attack, with some people seeming to be immune to chigger bites.

To protect against chigger attack, commercially available repellents can be used. These products are often sold as mosquito repellents and come in aerosol sprays, ointments, lotions and creams. The repellents should be applied to clothing, but do not saturate the cloth. If a garment is moist with repellent along all openings, inside and out, it has been adequately treated. Concentrate treatments along cuffs, waistband and neck area. Exposed skin should also be treated. Common dusting sulfur, although messy and somewhat smelly, is an effective repellent when dusted liberally on socks and trousers and around the ankles and waist. Wearing loose-fitting clothing and avoiding sitting or reclining on the ground helps to prevent bites.

If you have been exposed to chigger-infested areas, take a hot, soapy bath or shower as soon as possible, to kill and remove unattached larvae. Clothing should be washed before being used again. Soaps and detergents will kill any mites present. Applying an antiseptic solution to any welts will kill the chigger and prevent infection, but does not completely stop the itching. To get temporary relief of itching, a local anaesthetic may be used. Your local pharmacist can suggest an appropriate product for your needs. If any fever or infection are associated with chigger bites, consult a physician.

Controlling chiggers in large areas such as parks, campgrounds or recreation areas is often impractical. Chiggers sometimes become a problem in home lawns, particularly those containing Bermudagrass. Several effective insecticides can be used against chiggers in lawns; sold at nurseries, garden supply stores and retail outlets. Read and follow all label directions carefully and observe all precautions. Children and pets should be kept off treated areas until they have thoroughly dried following application. Before applying an insecticide, have a clear idea where the chiggers are. They may be concentrated in a few spots, and treating only these trouble spots is quicker and less expensive. To check for chiggers, place a piece of black cardboard edgewise on the ground. If chiggers are present, the little red larvae will climb to the top edge and congregate there.

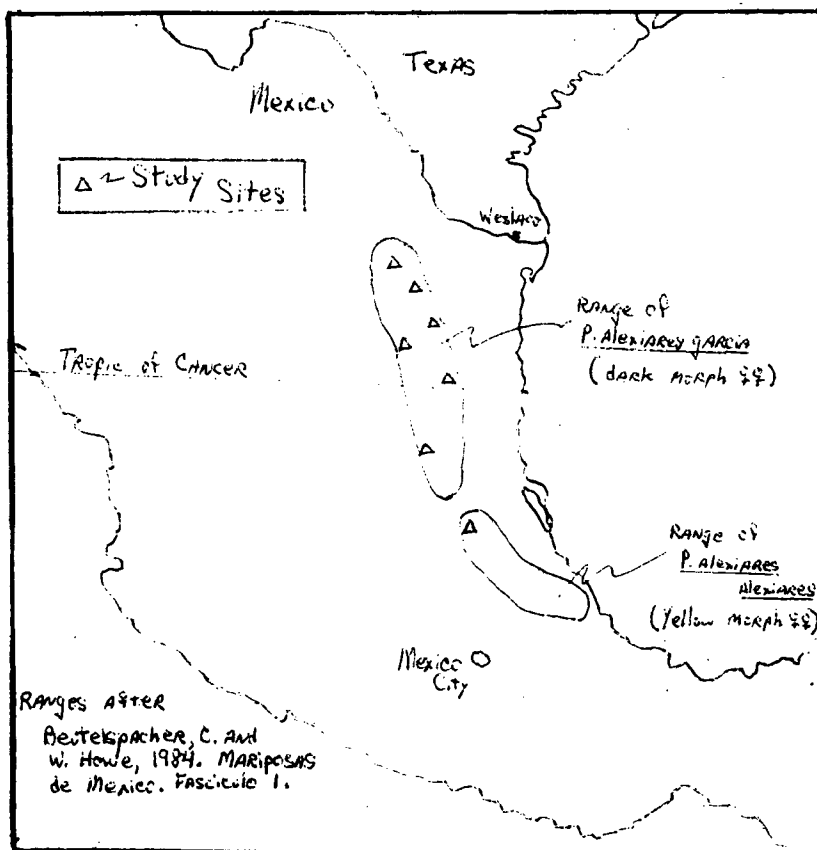
I was very fortunate to get to Mexico for my second and third times during the summer of 1986 on the "track" of the Mexican Tiger Swallowtail butterfly. Both trips (in April and August) were very successful and a number of objectives were met, helping us to learn much about the biology of this rare and poorly-known member of the Eastern Tiger Swallowtail species complex.

We (in the lab of J. M. Scriber) have been doing lab and field research for several years on the ecology, genetics, and evolution of North American Swallowtail butterflies and their larval host plants, to determine genetic mechanisms controlling herbivore detoxification abilities of plant allelochemicals (plant-produced toxins affecting the growth of other plants or animals). In particular, we have been interested in the Papilio glaucus group because it has some species which are relatively host-specific, and others with rather generalized larval feeding abilities. The complex is believed to have evolved from a Magnoliaceae-using ancestor. It has been suggested that Papilio alexiaries in Mexico may be close to the ancestral line of this complex even though its larval host(s) have been unknown. Also, this species is believed to have two subspecies, one of which has only yellow-morph females, while the other has only dark-morph females (indicated on map). The only other species of the five-member North American species complex to have dark-morph females is P. glaucus.

Dave Robacker and I were able to collect a few adult P. alexiaries in the spring of 1984, and were able to rear the first alexiaries larvae and make the first crosses with glaucus. Collecting more alexiaries adults would permit more feeding and hybridization experiments. With the primary objectives being to collect adults and search for potential larval hosts of both alexiaries subspecies, I planned research trips with the help of Dave Robacker and Bill Warfield. For each trip, I drove to Weslaco, Texas, and had them accompany me in a second car to some of our planned research sites in the Eastern Sierra Madre. Within three days they would return to the U.S. Then, within a week, Dave and Bill or Dave and his wife Karen would return to Mexico to spend a few more days with me before our return together to Texas.

On both trips we were very successful in collecting adults for breeding and oviposition in the lab. In addition, by searching the leaves of possible host trees at different altitudes in canyons where adults had been seen, I was able to find over fifty eggs and larvae. These represented the first wild immatures of this species ever collected. Several of the eggs produced Telenomus sp. parasites (a genus of wasps).

In addition to collecting alexiaries and other Papilionidae, I did general collecting in the day time, used a malaise trap where possible, and blacklighted every night. I was able to trap

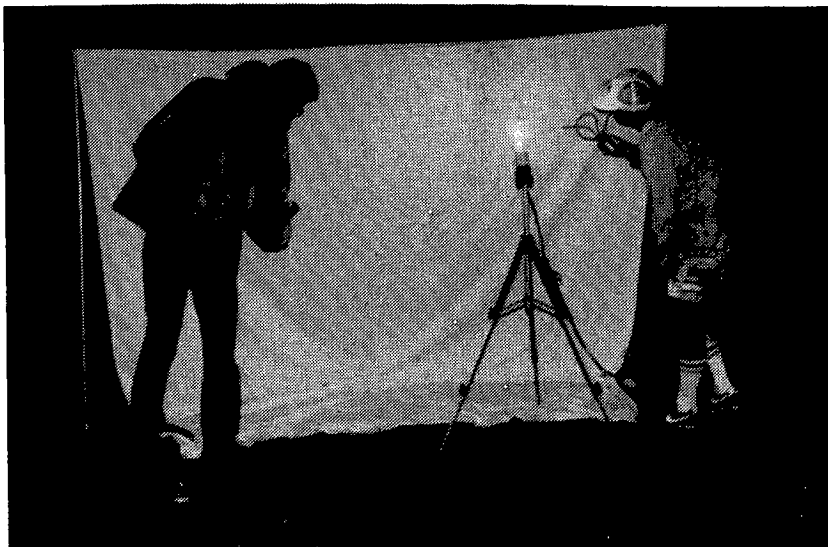


or collect an estimated 18,000 invertebrate specimens. Also, I collected over 250 plant specimens, which have been deposited in the University of Wisconsin Herbarium in Madison.

The trips were very exciting for me. Mexico has such diverse and often rugged terrain and can take your breath away with its beauty and its history. Yet its poverty and the threatened condition of its flora and fauna are obvious almost everywhere, creating a sense of urgency to tell others of the beauty and the need.

NEWS AND NOTES

Both W.E.S. field trips were quite successful this year. Ideal weather conditions prevailed for each, a welcome change from our usual poor luck, particularly the last few times at Cedarburg. Blacklighting was quite productive at both places, with several rare moth species being found. Bob Borth's mercury vapor light set-up (illustrated) proved to be very profitable at Cedarburg. Bob (left) is shown latching onto a moth while Rick Ness aspirates small insects.



Sue Borkin sends word that the 1990 meeting of the Lepidopterists' Society is to be hosted by the Milwaukee Public Museum. The date is not final as yet, but the meeting will likely take place in early to mid-June.

Back issues of the W.E.S. Newsletter are being offered as sets of available issues, dating from 1973 through 1985. Among the contents is a series of articles on the history of Wisconsin entomology, articles on interesting Wisconsin insects, collecting equipment and techniques, and much more. These Newsletters may be obtained by mail for \$5.00 per set, postpaid, from Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562. Please make checks payable to the Wisconsin Entomological Society.

NEW MEMBERS (membership dues received for 1988)

MARTIN J. BLASCZYK, 6310 W. Lisbon Ave, Milwaukee, WI 53210; Spiders, especially Araneae, Salticidae, Salticus. Will identify specimens.

CATHY A. BLESER, 2254 Branch Rd. Sun Prairie, WI 53590; Lepidoptera.

SYLVIO CODELLA, Dept. of Entomology, University of Wisconsin, Madison, WI 53706; Lepidoptera: Papilionidae and Hymenoptera: Diprionidae.

RANDY HOFFMAN, 305 5th Street, Waunakee, WI 53597; effects of habitat management practices on insects, particularly rare and habitat-limited species.

BRAD SCHWARTZ, 18400 Honey Creek Dr., Brookfield, WI 53005; Lepidoptera (Wis.)

ANN SWENGEL, 315 Fourth Ave, Baraboo, WI 53913; Butterflies.

JOHN H. WILTERDING, 1529 Clark St, Algoma, WI 54201; Lepidoptera, esp. Noctuidae.

WISCONSIN ENTOMOLOGICAL SOCIETY

MEMBERSHIP APPLICATION

Last Name First Name

Street address City State Zip

_____ Individual Membership (\$4.00/year)

_____ Sustaining Membership (\$10.00/year)

_____ Patron Membership (\$25.00/year)

GENERAL AREAS OF INTEREST

_____ Aquatic Insects _____ Collecting/Taxonomy

_____ 4-H or Scouts _____ Photography

_____ Extension work _____ Physiology

_____ Life History _____ Apiculture
Biology, Behavior

_____ Other _____

SPECIFIC INTEREST (Order, Family, Genus)

If you are familiar with certain insect taxa,
would you be willing to identify specimens for
members? _____ Yes _____ No

Wisconsin Entomological Society
Les Ferge, Editor
7119 Hubbard Avenue
Middleton, WI 53562