



NEWSLETTER of the Wisconsin Entomological Society

Volume 9 Number 1

Dean B. Faber, Editor

June, 1981

CONTENTS:

Observations on the Buck Moth in Wisconsin by Leslie A. Ferge	2
1980 Treasurer's Report	5
Notice	5
News of Members	5
WES Kettle Moraine Field Trip Announcement	6
Featured Photograph by Charles Behnke	7

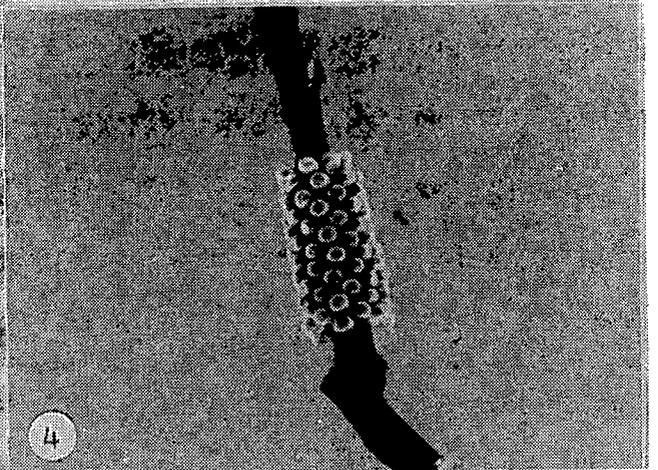
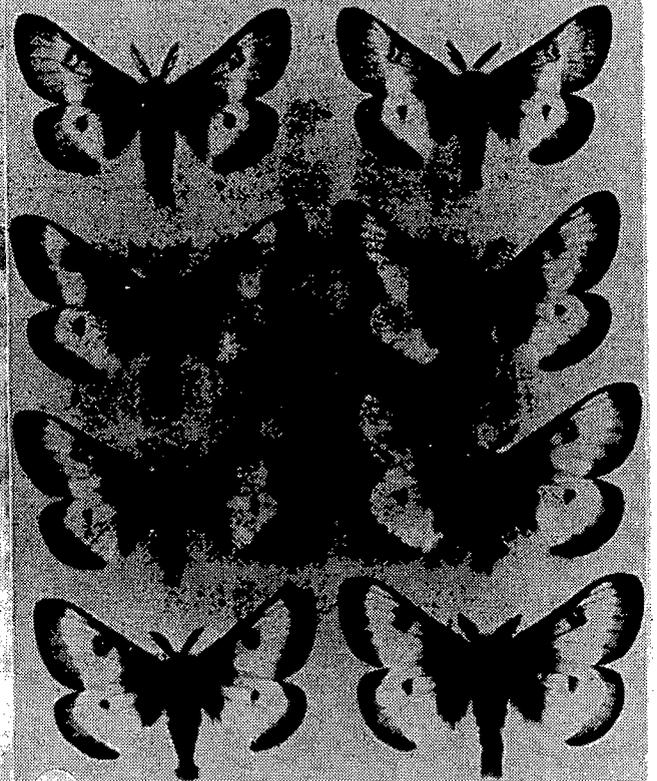
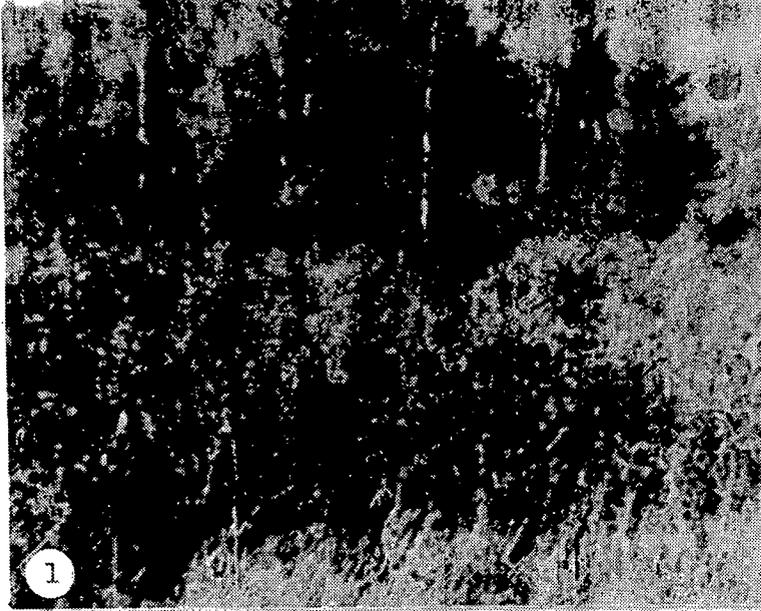
EDITOR'S NOTES:

As you peruse this issue of the NEWSLETTER you'll note that it has something of a "new look" (photographs). This is a result of suggestions by several members over the past year or so that photographs would greatly enhance the NEWSLETTER. I hope you all agree. As one member pointed out to me it didn't seem fair that the society as a whole should bear the cost of having photographs included in the NEWSLETTER. Therefore, starting with and including this edition of the NEWSLETTER, the cost of screening photographs which are submitted to the NEWSLETTER is borne by those who submit them.

I must confess disappointment that there were no submissions for the NEWS OF MEMBERS section of this edition of the NEWSLETTER. The NEWSLETTER is only what YOU the membership make it. I sincerely believe that the NEWS OF MEMBERS section can perform a valuable service in keeping the membership informed of what their fellow members are doing.

Please note that there will be a field trip to Kettle Moraine State Forest on Saturday July 11, 1981. This is a geologically unique area offering a large variety of interesting habitats (prairies, woodlands, fens, marshes, streams, and lakes) within a circumscribed area. The collecting should be excellent. More details and a map are on page 6.

The NEWSLETTER of the Wisconsin Entomological Society is published several times yearly at irregular intervals. Please send all news, notices, and contributions to: Editor, Wisconsin Entomological Society NEWSLETTER, c/o Dept. of Entomology, 237 Russell Labs, University of Wisconsin-Madison, Madison, Wisconsin 53706



Figures 1-4. 1) Shrubby marsh habitat in Marathon County, Wis. 2) "Brush Prairie" in Douglas County, Wis. 3) Buck Moths, collected in Douglas County. Upper left specimen is marked like typical Hemileuca maia, lower specimens like H. nevadensis. 4) Buck Moth egg ring around twig.

OBSERVATIONS ON THE BUCK MOTH IN WISCONSIN

by Leslie A. Ferge

One of the most intriguing Saturniid moths in Wisconsin is the Buck Moth. It belongs to the genus Hemileuca, species of which are most numerous in the southwestern United States. Hemileuca maia (Drury) is one of the most widespread species, found in many states east of the Mississippi. A closely similar insect, Hemileuca nevadensis Stretch, occurs in the west. Taxonomists have traditionally treated these as distinct species, but recognize this separation may be unwarranted.

Both moths share the same general appearance. The vestiture of the body is black, set off by a red tuft at the end of the abdomen. The wings are thinly scaled, with the basal area and distal border being black. Each wing has a white median band, containing a black discal spot. The extent of the white band is the primary character used to distinguish maia and nevadensis. This band is quite narrow in maia, being about one-sixth the expanse of the forewing. It occupies over half the width of the forewing in nevadensis. Ferguson (1971) points out that genitalic dissections have not provided any characters to distinguish the forms. The larvae of maia are extremely variable in color, ranging from black to a light yellowish-brown type, which is very close to that reported for nevadensis. The larval foodplant preferences, however, are quite distinct. The easternmost populations of maia are closely associated with scrub oak on dry, upland barrens, while willow and poplar are most often utilized by nevadensis.

Buck Moths collected in Wisconsin are of particular interest because the state lies in the area where the ranges of the two forms come together. What appears to be a zone of intergradation was reported in Wisconsin by Ferguson (1971), based on a series of specimens taken at Madison. These specimens are most likely in the United States National Museum, and are quite variable, ranging in appearance from typical maia to nevadensis, with a number of intermediates. To further complicate the situation, a form that looks like maia but feeds on willow has been reported from Illinois.

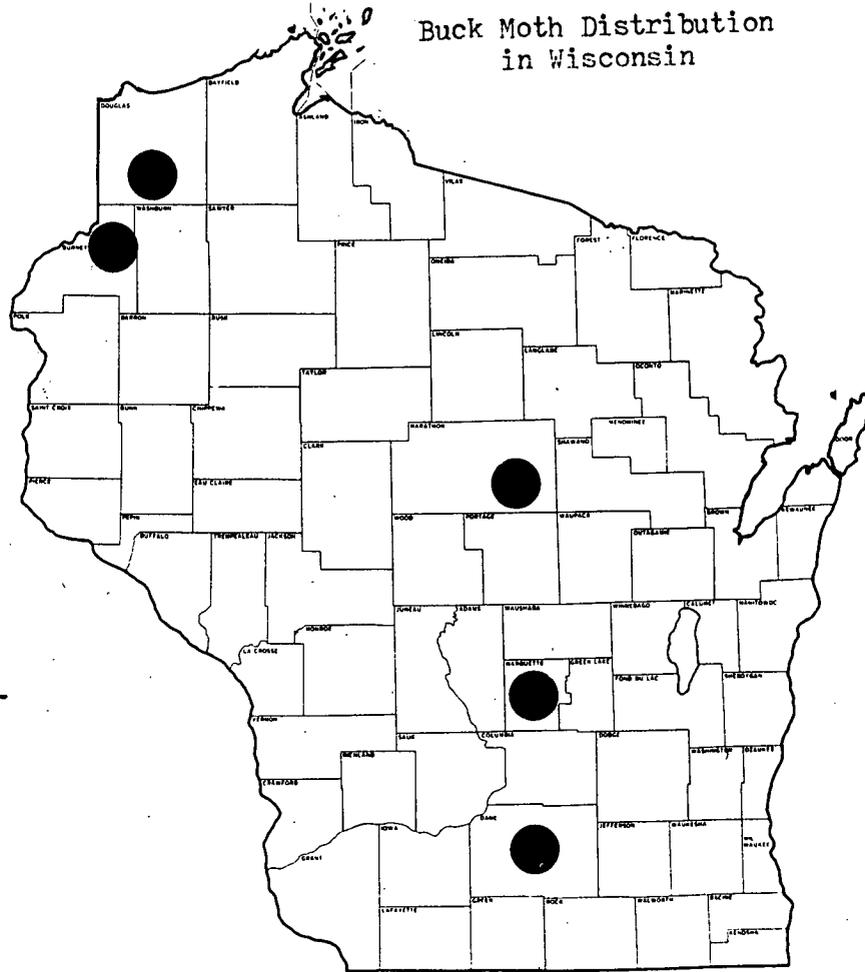
Further field work has recently added a bit more distributional data, as well as provided more evidence for the zone of intergradation. In late September, 1974, a population of Buck Moths was discovered in southeastern Marathon County. These moths tend to look like normal maia, except for a tendency toward a slightly wider median white area. The habitat (fig. 1) is a swampy area which is becoming overgrown with willow and alder. Although no conclusive observations were made, willow is suspected to be the larval food plant. In 1975 another population was found in a "brush prairie" habitat (fig. 2) in the vicinity of Solon Springs, Douglas County. The area contains scrub oak, poplar and prairie willow (Salix humulis), making it difficult to speculate what the larval food plant may be. Specimens from this population exhibit the maia and

nevadensis extremes of variation as well as numbers of intermediates. Another population was recently discovered in a similar area near Danbury, Burnett County. Ely (1954) reported maia from the vicinity of Endeavor, Marquette County. The distribution of these records is indicated on the map appearing on the right. Clearly, more field work is needed, particularly in eastern Wisconsin, to further document this interesting pattern of variation.

Buck Moths are single-brooded, with the peak adult emergence occurring in the last week of September in Wisconsin. Holland (1903) relates that the common name "Buck Moth" was likely given to them because of this autumn flight period, roughly coinciding with the deer hunting season. Exact dates of collection

range from 25 September through 10 October. The adults are diurnal, with peak activity observed around noon on warm, sunny days. Flight may begin as early as 10:30 AM (CDT), and by 1:30 PM, few moths are seen on the wing. The flight is rapid and fluttering, undulating between 5 and 12 feet in height. The males seldom alight, and are capable of covering large areas in search of females. If alarmed, these moths can easily out-distance even the most agile collector. Females are not active early in the day, but are observed most frequently in the afternoon, a few as late as 3:30 PM.

On 27 September 1980, observations were made on the mating behavior of the population at the Douglas County locality. The morning was quite cool, and consequently the first males were not seen until 11:30, when the temperature finally passed 50° F. They were all flying from south to north, against the prevailing breeze, apparently searching for resting females. At 12:15 PM a freshly emerged female was found. This moth was confined in a net bag, where it promptly exposed the pheromone gland at the end of the abdomen, releasing the male attractant. Within ten minutes, three males had arrived, and were circling the female. One male was placed inside



the net bag with the female. Mating began within minutes, and lasted about one-half hour. Two egg rings (fig. 4), totaling about 175 eggs, were deposited on some twigs within the net bag sometime that same afternoon. The eggs overwinter, hatching in early spring. This reproductive activity is much more rapid than that of other Wisconsin Saturniidae, and is most likely an adaptation to the unpredictable and often unfavorable weather at that time of year.

LITERATURE CITED

- Ely, Rachael. (1954). Concerning Hemileuca maia in Wisconsin. Lepidopterists' News 8: 29.
- Ferguson, D. C. in Dominick, R. B. et al., (1971), The Moths of America North of Mexico, fasc. 20.2, Bombycoidea (Saturniidae).
- Holland, W. J. (1903). The Moth Book. Doubleday, Page & Co., New York.

1980 Treasurer's Report

Balance in account 27 Dec. 1979	\$389.74
Total disbursements (for 2 newsletters, meeting notices, postage)	\$342.97
Total receipts (membership dues)	\$167.00
Balance in account 31 Dec. 1980	\$213.77

The Society spent \$175.97 more than was received in membership dues. Consequently, the dues had to be raised to \$4.00 per year for regular membership in order to continue publishing two newsletters per year, and because of the anticipated increase in postal rates.

NOTICE

Research Request: WANTED - Collecting data for butterflies from Pennsylvania. This information will be incorporated with Harry Clench's Pa. data for future state list. Reply to : John Prescott, 369 East Gore Road, Erie, Pa. 16509.

NEWS OF MEMBERS

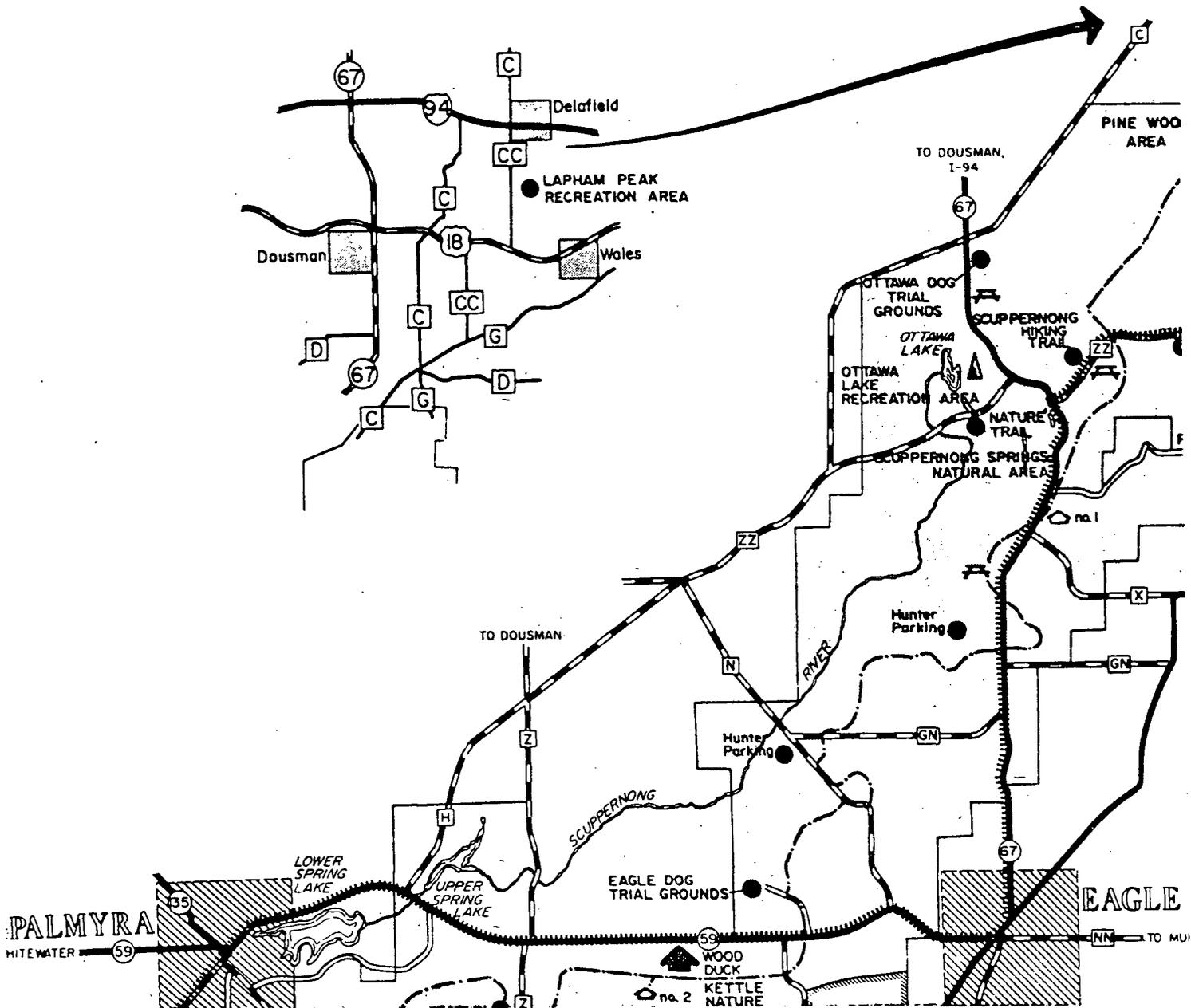
(there were no contributions for this section of the NEWSLETTER. -editor)

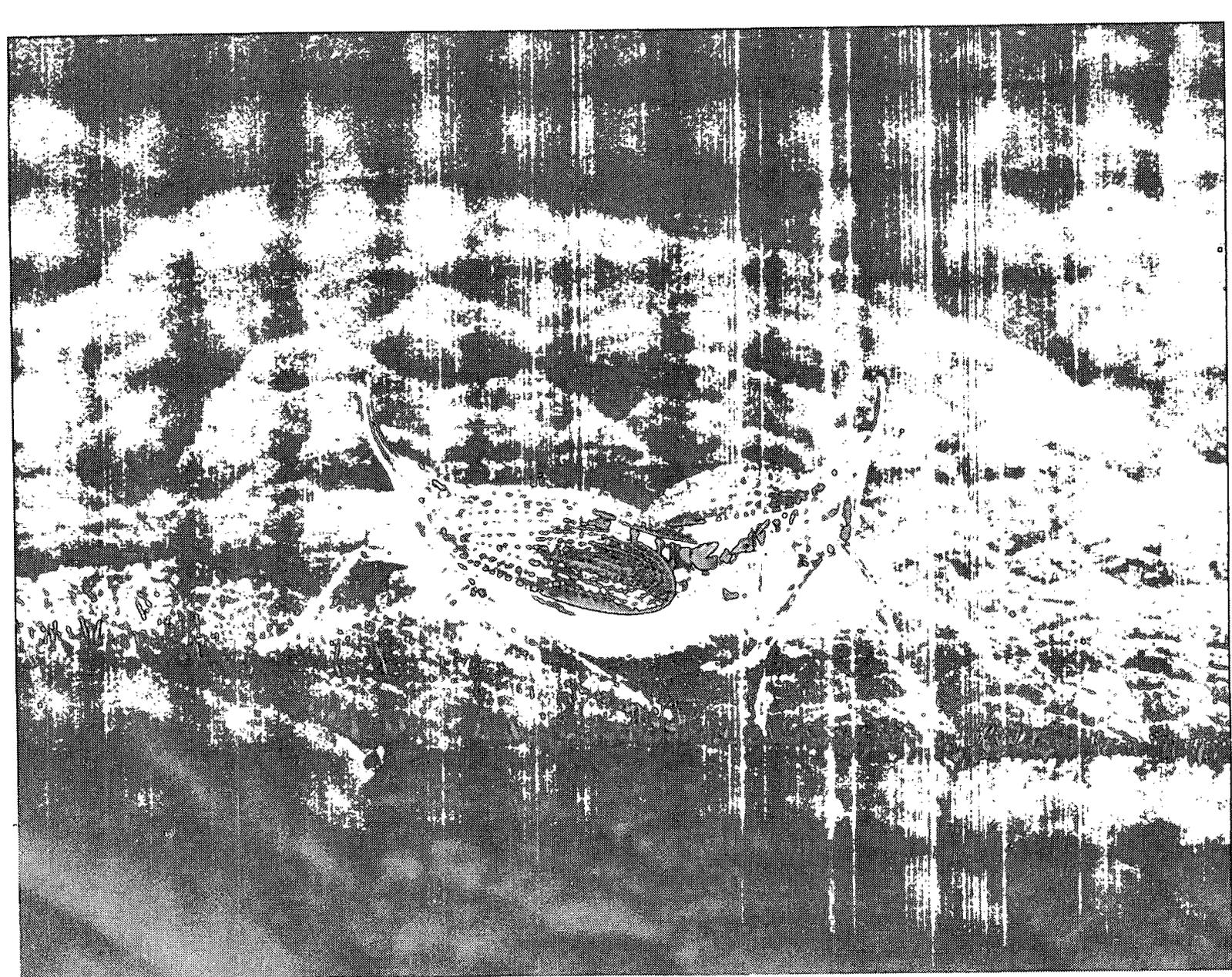
WISCONSIN ENTOMOLOGICAL SOCIETY
FIELD TRIP ANNOUNCEMENT

A field trip to the southern unit of Kettle Moraine State Forest will be held on Saturday July 11, 1981. The meeting place for the trip will be at the Forest Headquarters and Visitor Center, located 2 miles West of Eagle on the south side of state highway 59.

The group will meet at 10:00 A.M. at the Forest Headquarters; there is a \$2. admission charge for the use of the forest for a day. Then we'll disperse to collect, and reassemble at 2:00 P.M. for lunch at the picnic area north of county road ZZ near state route 67. Bring your own lunch materials. Cold liquid refreshment will be provided courtesy of WES.

The easiest way to get to the forest from the Madison or Milwaukee areas is to take interstate 94 to the Dousman exit (state route 67). From there go south on state route 67 to Eagle, and then west 2 miles on state route 59 to the Forest Headquarters. See you there!





copyright Charles Behnke

This mating pair of planthoppers (probably *Scolops* sp.) exhibit the horn-like protuberance common in members of this family (Homoptera: Dictyopharidae). Because these insects are rather small (shown here at 7.5X linear magnification) they often go unseen in the field. However, they are distributed throughout North America and are common in Wisconsin. These specimens were photographed in Clyde township, Iowa county in early August.

WISCONSIN ENTOMOLOGICAL SOCIETY

MEMBERSHIP APPLICATION

Please Print:

_____ Last Name First Name

Address: _____
Street City State Zip

_____ Organization represented (if any)

_____ Title or Occupation Phone: (include area code)

- _____ Individual membership (\$2.00 per year)
_____ Organization membership (\$10.00 per year)
_____ Sustaining membership (\$5.00 per year)
_____ Patron membership (\$25.00 or more per year)

General Interest Area

- _____ Aquatic Insects _____ Collecting and/or Taxonomy
_____ 4-H or Scout Member _____ Insect Photography
_____ Extension Worker _____ Physiology
_____ Life History, Biology, & Behavior _____ Apiculture
_____ Other _____ Pest Control
Specify _____

Specific Interests (Order, Family, Genus) _____

If you are an authority for certain insect taxa, would you be willing to identify Wisconsin specimens for members? Yes _____ No _____

Make checks payable to Wisconsin Entomological Society and mail to the Treasurer, Wis. Entomol. Soc., Dept. of Entomology, 237 Russell Labs., U. Wisc., Madison, Wisc. 53706 .