The Great Lakes Entomologist

Volume 1 Number 4 -- April 1967 Number 4 -- April 1967

Article 7

April 1967

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Recommended Citation

Wilkinson, Ronald S. 1967. "January Collecting in Central Michigan," The Great Lakes Entomologist, vol 1

DOI: https://doi.org/10.22543/0090-0222.1048

Available at: https://scholar.valpo.edu/tgle/vol1/iss4/7

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JANUARY COLLECTING IN CENTRAL MICHIGAN

Ronald S. Wilkinson

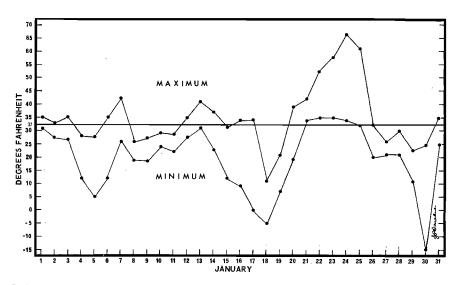
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To the uninitiated reader, searching for adult insects in mid-winter might seem a fruitless task at best. Yet as the List of Michigan Insects and Related Arthropods takes shape, "off-season" collecting records are urgently needed by the compilers. Many species of insects thrive when we might wish to stay indoors; the Collembola are good examples, as are the species of Chionea (Diptera: Tipulidae), a genus of wingless crane-flies. We should like to know much more about the distribution of many hardy winter insects, and only increased collecting will enable this.

Winter thaws have been turned to good use by several Michigan entomologists. An interesting paper by Newman (1945) shows what lepidopterists can do. 'Sugaring' trees and collecting at 'blacklight' are useful measures when winter temperatures rise; a recent example will illustrate the productivity of these methods.

Abnormally high temperatures during the fourth week of January, 1967, caused a marked increase in insect activity. On the 23rd the thermometer soared to 58° F. in East Lansing, and two lepidopterists, Julian P. Donahue and the author, decided to try the results of light and sugar. By evening the mercury had dropped to 48° , but Noctuidae (Lepidoptera) were seen in flight as we approached our collecting site near Rose Lake, Shiawassee County (T5N, R1E, Sec. 20). Bait was applied and 12 noctuids were taken. These proved to be Eupsilia morrisoni (Grote), 12, and Eupsilia vinulenta (Grote), 60° and 522. The BLB tube was not as productive, as it attracted only two noctuids, a of Pyreferra hesperidago (Guenée) and a2E. vinulenta. Except for two Microlepidoptera, neither of which were captured, no other insects of any order were observed. Activity dropped sharply about an hour and a half after nightfall, and when the temperature reached 40° we ceased our efforts. Several noctuids were seen on the wing as we left the area.

On 24 January the temperature increased steadily during the day, and had reached the middle fifties at dusk, when we applied our bait at the same locality. Noctuidae were found to be more numerous than on the previous night. Species taken at bait were: Eupsilia sidus (Guenée), 10; Eupsilia trisignata (Grote), 399; Eupsilia vinulenta (Grote), 700 and 799. Eupsilia morrisoni was extremely common at bait, and several were captured on twigs far from the sugar. 1100 and 1499 were taken to increase our series, and others were purposely startled to observe their reaction. Invariably they dropped directly from the bait into the dead leaves and litter beneath, where their color harmonized perfectly. These moths made no further attempt to escape, and could be bottled easily or even picked up with the fingers. One Lithophane bethunei Grote & Robin-



Daily temperatures for January 1967, recorded by U.S. Weather Bureau, Lansing, Michigan, 12 miles WSW of collecting site.

son was taken on a twig, an undetermined immature phalangid was found on a tree, and two undetermined spiders were taken in similar situations.

Light was also more productive on 24 January, although it did not compare with bait. A BLB tube was used again, and it attracted a of E. vinulenta and a of E. sidus, as well as an unexpected surprise. About 9:00 P.M., despite a stiff cool 15-20mph breeze, the noctuid Homoglaea hircina Morrison began to fly, and four of were captured at light in quick succession. An undetermined trichocerid (Diptera) and an olethreutid (Lepidoptera) were also taken at the BLB tube.

Collecting in the same locality, Mogens C. Nielsen had similar success. His unsexed Lepidoptera included 12 E. morrisoni, 2 E. trisignata and 3 E. vinulenta, all at bait; he also benefited from the flight of H. hircina, taking 6 at BL after 9:00 P.M. No one took H. hircina at sugar, although a late survey of the baited trees was made. The temperature had risen slightly and had passed 60° when we all ended our efforts at 10:00 P.M.

The results are at least indicative of what can be done if the collector can overcome the queer sensation of searching for moths on trees surrounded by drifted snow, or waiting at a light-sheet while Sirius shines high over the foggy forest path.

LITERATURE CITED

Newman, John H. 1945. Midwinter collecting of Lepidoptera in Michigan. Entomol. News 56: 7-9.