The Great Lakes Entomologist

Volume 28 Number 1 - Spring 1995 *Number 1 - Spring 1995*

Article 7

April 1995

New Larval Host Plant and Behavior of *Chlosyne Gorgone* (Lepidoptera: Nymphalidae)

Andrew H. Williams University of Wisconsin

Follow this and additional works at: https://scholar.valpo.edu/tgle

Part of the Entomology Commons

Recommended Citation

Williams, Andrew H. 1995. "New Larval Host Plant and Behavior of *Chlosyne Gorgone* (Lepidoptera: Nymphalidae)," *The Great Lakes Entomologist*, vol 28 (1) DOI: https://doi.org/10.22543/0090-0222.1873 Available at: https://scholar.valpo.edu/tgle/vol28/iss1/7

This Peer-Review Article is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in The Great Lakes Entomologist by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu. 1995

THE GREAT LAKES ENTOMOLOGIST

93

NEW LARVAL HOST PLANT AND BEHAVIOR OF CHLOSYNE GORGONE (LEPIDOPTERA: NYMPHALIDAE)

Andrew H. Williams¹

On 31 July 1994, at 1600 hr, an aggregation of eight larvae of Chlosyne gorgone (Hübner) was found at Bush Clover Prairie, in Grant Co., Wisconsin. The larvae were feeding on the upper surface of a leaf of Echinacea pallida (Asteraceae), eating away the top tissue and leaving the translucent lower epidermis in place in an area about 1 cm wide and 4 cm long, oriented lengthwise along the lanceolate leaf. The larvae were taken to rear out in the lab, where leaves of *E. pallida* were positioned vertically, as they normally grow, and all feeding was as described above. Two of the larvae molted twice, pupated, and reached adulthood on 18 August 1994. Because of the rarity of *C. gorgone* in Wisconsin and the small size of the prairie on which these were found, these adults were photographed and released where they had been collected on the following day, at which time other adults of *C. gorgone* were present. The other six larvae failed to molt and are preserved in the Insect Research Collection of the Entomology Department of the University of Wisconsin – Madison as the author's specimen #1671.

Many such feeding holes were subsequently noticed in the leaves of E. *pallida* at this site. Over time, the lower epidermis exposed by larval feeding dried to a dark brown and then disintegrated, leaving holes through the leaf of characteristic shape, about 1 cm wide and up to 7 cm long, always oriented lengthwise along the leaf.

This is the first report of C. gorgone larvae feeding on the leaves of E. pallida. Reported larval host plants include Helianthus spp., including H. laetiflorus, Aster spp., Ambrosia trifida, Iva xanthifolia, Viguiera multiflora, Silphium sp. and Rudbeckia sp., all in the Asteraceae, and Lysimachia sp., crosswort, in the Primulaceae (Ebner 1970, Tietz 1972, Ferris & Brown 1981, Opler & Krizek 1984, Sedman & Hess 1985, Scott 1986, Heitzman & Heitzman 1987, Royer 1988, Acorn 1993). Tietz (1972) lists Eriogonum sp., in the Polygonaceae, but more recent authors fail to mention this. Neither C. gorgone larvae nor evidence of their feeding was found on the single clone of H. laetiflorus present at Bush Clover Prairie. Other potential host plants present include Helianthus occidentalis, Aster azureus, A. ericoides, A. laevis, A. novae-angliae, A. pilosus, Ambrosia trifida, Silphium laciniatum, and Rudbeckia hirta. Though neither C. gorgone larvae nor evidence of their feeding was nor evidence of their feeding was seen on these other plants, their larger populations precluded sufficiently close observation to rule out their use by these larvae at this site.

This is the first report of *C. gorgone* larvae feeding on the upper surfaces of leaves. Young larvae have been reported to feed gregariously (Heitzman & Heitzman 1987), and to do so on the underside of leaves (Scott 1986).

¹Department of Entomology, University of Wisconsin, Madison, WI, 53706.

94

THE GREAT LAKES ENTOMOLOGIST

ACKNOWLEDGMENTS

This paper results from the Prairie Insect and Spider Inventory of The Prairie Enthusiasts-Southwest Chapter, basic biotic research being conducted at Bush Clover Prairie with support from The Prairie Enthusiasts-Southwest Chapter, the Citizens Natural Resources Association of Wisconsin, the Natural History Museums Council of UW-Madison, and several private donors, support for which I am most grateful. I am also grateful to D. Young and S. Krauth of the Entomology Dept. of UW-Madison and to A. Swengel for their interest in this research, and to J. Sime for his photography.

LITERATURE CITED

- Acorn, J. H. 1993. Butterflies of Alberta. Lone Pine Publishing. Edmonton & Vancouver. 143 pp.
- Ebner, J. A. 1970. The Butterflies of Wisconsin. Milwaukee Public Museum. Popular Science Handbook No. 12. Milwaukee. 205 pp.
- Ferris, C. D. and F. M. Brown. 1981. Butterflies of the Rocky Mountain States. University of Oklahoma Press. Norman. 442 pp.
- Heitzman, R. J. and J. E. Heitzman. 1987. Butterflies and Moths of Missouri. Missouri Department of Conservation. Jefferson City. 385 pp.
- Opler, P. A. and G. O. Krizek. 1984. Butterflies East of the Great Plains, an Illustrated Natural History. Johns Hopkins University Press. Baltimore. 294 pp.
- Royer, R. A. 1988. Butterflies of North Dakota, an Atlas and Guide. Minot State University. Science Monograph No. 1. Minot. 192 pp.
- Scott, J. A. 1986. The Butterflies of North America. Stanford University Press. Stanford. 583 pp.
- Sedman, Y. and D. F. Hess. 1985. The Butterflies of West Central Illinois. Western Illinois University. Series in the Biological Sciences No. 11. Macomb. 120pp.
- Tietz, H. M. 1972. An Index to the Described Life Histories, Early Stages and Hosts of the Macrolepidoptera of the Continental United States and Canada. Vol. 1. Allyn Museum of Entomology. Sarasota. 536 pp.