

# CONFIRMATION OF AN AIZOACEAE HOSTPLANT RECORD FOR *NATHALIS IOLE* (LEPIDOPTERA: PIERIDAE)

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**ABSTRACT.**— *Mollugo verticillata* (Aizoaceae) is reported as a new larval host for the dainty sulphur, *Nathalis iole*, in Florida.

**KEY WORDS:** Asteraceae, biology, Caryophyllaceae, Florida, Geraniaceae, *Nathalis*, Nearctic, oviposition, Rubiaceae.

The dainty sulphur, *Nathalis iole* (Boisduval), is a common resident pierid species throughout most of tropical America including the southernmost regions of the United States, from California to Florida. Hostplant records for the larval stages of *Nathalis iole* are almost exclusively restricted to a number of weedy herbaceous plants in the family Asteraceae and include the genera *Bidens*, *Helenium*, *Dyssodia*, *Palafoxia*, *Tagetes*, and *Thelesperma* (Emmel and Emmel, 1973; Howe, 1975; Kendall, 1959). Outside of the Asteraceae, only a small number of isolated reports of hosts exist, with the most widespread being *Stellaria media* (Caryophyllaceae) (Klots, 1951). Scott (1986) also lists reports of *Erodium cicutarium* (Geraniaceae), *Mollugo verticillata* (Aizoaceae) (oviposition only) and *Galium* (Rubiaceae), but considered such divergent accounts "unusual and probably represent oviposition errors."

On 12 Jul 1998, a number of female *N. iole* were observed ovipositing on *Mollugo verticillata* in a large vacant agricultural field in Gainesville, northern Florida. Upon further inspection of several small plants, 4 larvae at various stages of development were found, clearly indicating that these did not represent ovipositional mistakes. Continuing observation of the colony over the next two days revealed that females almost exclusively chose to oviposit on the young plants of *Mollugo verticillata* even though both *Bidens pilosa* and *Stellaria media* were abundant in the field. Similar results were obtained in captivity. Twelve female *N. iole* were confined in a 3 X 3 X 3 foot screened cage placed over similar sized plants of *Bidens pilosa* and *Mollugo verticillata*. By more than a 3:1 ratio (117 eggs to 32 eggs), females chose to oviposit on *Mollugo verticillata* over the commonly used *Bidens pilosa*. These observations clearly confirm the *Mollugo* larval hostplant record, and a new plant family utilization record for *N. iole*.

*Mollugo verticillata* is a widespread annual weed of open disturbed sites and represents yet another in a series of common larval hosts available to an already remarkable colonizing butterfly species.

## ACKNOWLEDGMENTS

Thanks to Dr. Thomas C. Emmel for reviewing this manuscript.

## LITERATURE CITED

- Emmel, T. C., and J. F. Emmel**  
1973. *The Butterflies of Southern California*. Los Angeles: Natural History Museum of Los Angeles Co. 148pp.
- Howe, W. H.**  
1975. *The Butterflies of North America*. Garden City: Doubleday. 633pp, 97 pl.
- Kendall, R. O.**  
1959. More larval foodplants from Texas. *J. Lepid. Soc.* (Los Angeles), 13: 221-228.
- Klots, A. B.**  
1951. *A Field Guide to the Butterflies of North America, East of the Great Plains*. Boston: Houghton-Mifflin. 349pp, 40 pl.
- Scott, J. A.**  
1986. *The Butterflies of North America: a Natural History and Field Guide*. Stanford: Stanford Univ. Pr. 583pp, 64 pl.