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GENERAL NOTES

DISTINCTIVENESS OF *MEGISTO C. CYMELA* AND *M. C. VIOLA* (SATYRIDAE)

Megisto cymela Cramer is remarkable for its lack of geographic variation over a range that extends from Manitoba and Quebec to the Gulf Coast. The subspecies *M. c. viola* Maynard, described from Florida, is highly distinctive, differing chiefly by its larger size and rich coloration on the ventral hindwing. Most references (e.g., A. B. Klots, 1951, A Field Guide to the Butterflies, Houghton Mifflin, Boston, 349 pp.; W. H. Howe, 1975, Butterflies of North America, Doubleday, New York, 633 pp.) consider that the name *viola* refers to all peninsular Florida populations and that *M. c. cymela* and *M. c. viola* blend phenotypically in southern Georgia and northern Florida.

An examination by me of series in The Florida State Collection of Arthropods, Gainesville, Florida, indicates that this is not the case. There is no sign of a phenotypic "blend zone," and populations of both typical *M. c. cymela* and *M. c. viola* exist in northern and central Florida. In addition, on the basis of data labels in The Florida State Collection, *M. c. viola* exists apparently sympatrically with *M. c. cymela* in southern Louisiana (Weyanoke, West Feliciana Parish) and Arkansas (Little Rock, Pulaski Co.). Moreover, in Florida *M. c. viola* appears strictly univoltine with a flight from late March to May. In the same general area *M. c. cymela* may have up to four broods with flights in April (Shalimar, Okaloosa Co.; Alachua Co.), July (Alachua Co.), October (Gainesvilla, Alachua Co.), and December (Sebring, Highlands Co.). The two entities thus may well be separate species.

Larvae of Pennsylvania *M. c. cymela* and Florida *M. c. viola* differ in life history in the laboratory. Although the pattern of larval markings is similar, larvae of *M. c. cymela* are a much darker shade of brown than *M. c. viola*. Broods of *M. c. cymela* derived from univoltine populations in Allegheny and Fayette Cos., Pennsylvania, develop without diapause and emerge as adults in 90 to 100 days when reared under conditions of 27°C days, 24°C nights and 16 hr light/24 hr. This correlates well with the three to four months between flights of *M. c. cymela* in Florida. Under the same conditions, however, growth of *M. c. viola* larvae from a Gainesville population differs greatly. Larvae hatched from eggs in early April 1979 grew at a very slow but steady rate and pupated and eclosed as adults in late February and early March 1980. This also correlates well with the flight time of *M. c. viola* in Florida if the cooler winter temperatures in nature are taken into consideration.

Larvae of both entities were reared on potted *Poa pratensis* L., a grass native to the northern U.S. This could be a natural foodplant of *M. c. cymela*, but *M. c. viola* occurs south of its natural range. Nevertheless, *M. c. viola* larvae fed freely and produced adults of a size comparable to wild material. I consider it highly unlikely that differences in development time were related to foodplant suitability.

Collectors in the Gulf Coast states should watch for localities where *M. c. cymela* and *M. c. viola* are sympatric and attempt to gather data on possible ecological differences.

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