

OVIPOSITION OF THE MULTI-BROODED RACE OF *PHYCIODES COCYTA* IN NORTHERN NEW YORK (LEPIDOPTERA: NYMPHALIDAE)

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ABSTRACT.— Oviposition behavior under natural circumstances is described for *Phyciodes cocyta* (Cramer). Eggs laid on *Aster lateriflorus* (Compositae) in New York were reared to adults.

KEYWORDS: behavior, Compositae, hostplants, larvae, Nearctic, North America, USA.

Phyciodes cocyta (Cramer) has only recently been treated as a separate species (Scott, 1994). Within the *P. cocyta* species concept, there appear to be sympatric races, including a relatively large single-brooded race in wetlands which flies mostly in mid-June, and a smaller multi-brooded race in drier habitats, which flies in mid-June, mid-July and mid-August.

Oviposition by a female associated with males of the multi-brooded race was observed in a relatively dry, scrubby, abandoned pasture 8 miles east of Massena (44°56' N, 74°44' W), St. Lawrence Co., New York. On 13 Aug 1995, on a warm (78°F [26°C]) sunny afternoon, a female landed on the flowers of a goldenrod about 1.5ft above ground, opened and closed wings 5 times, and then flew down to lower vegetation among grasses about 2ft away. After occasional opening and closing of wings for 5 minutes, it moved through the grasses and relatively thick herb cover about 2 inches above ground for a distance of about 8 inches, then came out, flew 3ft and again dropped into thick grass and herb cover. After 4 minutes, with occasional opening and closing of wings, it walked through the grasses again 1-2 inches above ground for a distance of about 1ft, then emerged and flew another 4ft and repeated the process. The fourth time

it flew down and walked over the leaves of a basal rosette of *Aster lateriflorus* (L.) Britton var. *lateriflorus* (Compositae) 5 times with periodic pauses and wing openings and closings over a period of 10 minutes, then stopped on top of a leaf with wings opening and closing, but only opening to a 45° angle instead of the horizontal (90°) characteristic of regular pauses. The abdomen was bent under the leaf and 108 pale green eggs were laid in a mass, 1-3 eggs in thickness.

The eggs hatched on 20 Aug 1995, and the gregarious larvae fed on the leaf undersurface, leaving the upper epidermis which soon turned from translucent to brownish. Most of the time the larvae were kept outside in screened cages. Some of the larvae pupated on 1 and 2 Oct, and adults emerged on 12 Oct 1995.

Voucher specimens of adults and foodplants were deposited in the collections of Agriculture Canada, Ottawa.

LITERATURE CITED

Scott, J. A.

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