GREGARIOUS HABIT OF CHRYSALIDS OF *NYMPHALIS ANTIOPA* (NYMPHALIDAE)

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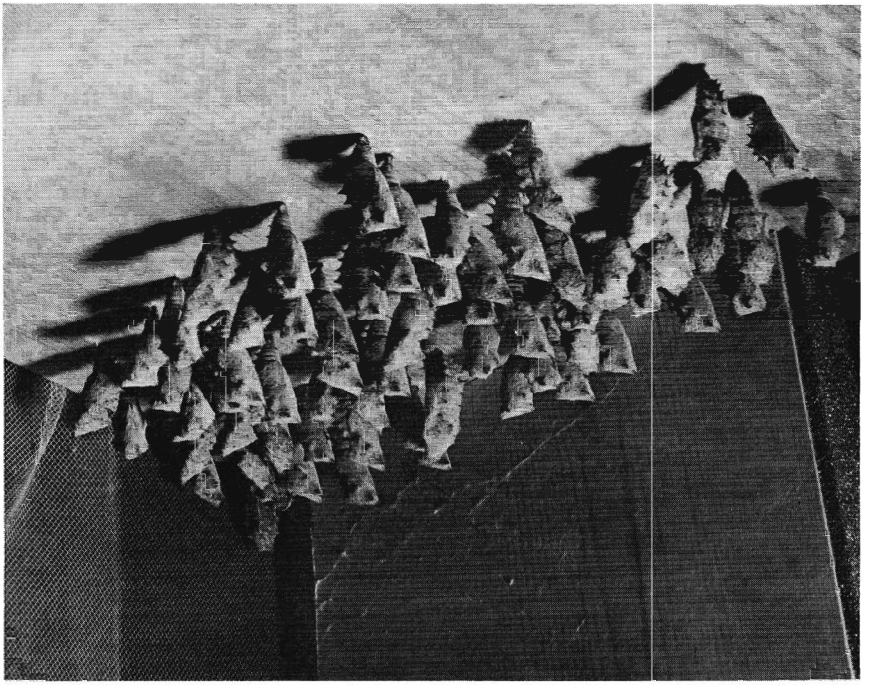
The gregarious habit of the larvae of *Nymphalis antiopa* (L.) has been known for a long time. It is this habit which enabled the writer to collect over eighty larvae at one time which had virtually defoliated a small willow in our Wisconsin back yard. These were collected in what apparently was the second to the last instar, and reared through one molt. The larvae were fed sandbar willow (*Salix interior*) and yellow willow (*S. lutea*), and formation of the chrysalids began on August 8, 1968. The larvae were reared in a cage of wood frame construction, covered with cloth netting. The dimensions of the cage were 12 × 22 inches and 28 inches in height.



EXPLANATION OF FIGURE

Cluster of 66 chrysalids of *Nymphalis antiopa*, showing a gregarious habit in captivity (photo by R. Radunz).

By August 12, all larvae had formed chrysalids, with a gregarious habit persisting through this stage. The accompanying illustration shows over sixty chrysalids occupying a space no larger than six by six inches in the rearing cage. It may be significant that this corner was the one that received the largest amount of sunlight. Struble (1952) has reported a similar situation occurring under natural circumstances with *Nymphalis californica* (Bdv.), with an aggregation of chrysalids found under a hollow piece of driftwood. However, the two situations may not be completely comparable. Larvae of *N. californica* are known to periodically build up in large numbers, so that "aggregations" of pupae of this species might normally be expected, and 1952 was a year of such an outbreak. The present observation on the behavior of *N. antiopa* did not come about as a result of any unusually large population outbreak.

The close spacing of the chrysalids apparently had no ill effect on emergence, for by August 23, all but one had emerged, and all were in perfect condition.

LITERATURE CITED

STRUBLE, G. R., 1952. Unusual Pupation Site for *Nymphalis Californica*. Lepid. News, 6(6–8): 107.

A GYNANDROMORPHIC PHAEOURA MEXICANARIA (GEOMETRIDAE)

On July 16, 1968 at Estes Park, Colorado, I caught, in a light trap, a gynandromorphic specimen of *Phaeoura mexicanaria* (Grote), (fig. 1). The gynandromorphism of the body appears to be perfectly bilateral, but the genitalia (fig. 2), would be perfectly male if it were not for two exceptions: instead of a single uncus there is one half of an uncus and one ovipositor lobe, also the tegumen is asymmetrical.

The length of the forewing is 31 mm on the right side and only 26 mm on the left. The exoskeleton of the abdomen was prepared and the weaker middorsal sclerotization separates plainly the terga in two halves. Here again the dissymmetry is quite obvious: the left half terga of the second, third, fourth and fifth segments measure about 4 mm. The corresponding figure for the right side is only about 3 mm.

Finally, the tergum of the eighth abdominal segment is even more asymmetrical, being small and heavily sclerotized on the female side, larger and very weakly sclerotized on the male side.—ANDRÉ BLANCHARD, *P.O. Box 20304, Houston, Texas.*