

## FIELD NOTE

## EUREMA NICIPPE (PIERIDÆ) BREEDING IN CONNECTICUT

Prior to 1955 the sole report of capture or observation of *Eurema nicippe* Cramer in Connecticut that has come to my attention was my own single male taken 24 September 1941 in Sharon Township, along the Housatonic River bank. Near noon, 3 September 1955, while visiting the magnificent wildflower gardens of a friend in Woodbury, Connecticut, I approached a small patch of Senna hardly a minute or two after the sun had very suddenly appeared, bright and warm. It was its first emergence of the day and its heat was immediately noticeable. Two days of heavy storm clouds were breaking up rapidly. I became aware of sudden activity before me, an awakening quite unexpected. Upon collecting my wits this resolved itself into five fluttering *E. nicippe* which, after demonstrating momentary interest in each other, promptly dispersed. A net was hastily procured and a single male ultimately captured a short distance away.

Two days later the locality was revisited. There was no activity on the Senna patch, but one butterfly was observed apparently ovipositing below the tops of the sparse but tall meadow grasses nearby. Examination showed that the field had been mowed some time earlier. Senna plants growing there had not regained stature as had the grasses. For reasons shortly to become apparent, I hesitate to speculate on the sex of this individual. Nevertheless, several eggs were recovered from the very points where the observation had indicated they would be found. The butterfly was lost from direct view from time to time on such occasions. Capture was then made for the purpose of inducing further oviposition in confinement. A short time later a male was taken. No eggs were subsequently obtained from the confined specimen.

A week later the locality was again visited. Another male was taken and several eggs and small larvæ procured from the plants. Between 27 September and 8 October six emergences took place from this material (a seventh died in pupa). These were all males. The specimen I had confined has subsequently been determined by C. L. REMINGTON as a male. Had I been more alert I would have realized this by its border markings. Some time during this interval I had taken Dr. REMINGTON to the spot, where he took two nearly full-grown larvæ. One of these yielded a parasite and the other — you've guessed it — a male.

Several somewhat more extensive patches of Senna had been located with much difficulty along the Housatonic River in northwestern Connecticut where the plant is reputed to be "not uncommon". In fact, the entire of one warm sunny day was spent searching this area. No evidence of *E. nicippe* could be found. No other patches of Senna were located in Woodbury.

In summary, a total of four flying males were taken, not including the one in 1941; eight more males were bred to maturity (including C. L. R.'s). Waiving consideration for the moment of those taken on the wing in the belief that the habits of the respective sexes or dates of emergence could be a consideration, there yet remains a significant mathematical ratio to be explained. Granted 8 equal opportunities for either sex, the chances of obtaining all males is 1 in 256, or all of one sex, 1 in 128. Besides, it is not entirely reasonable to neglect consideration of the flying individuals because they were taken at the larval food plant, not hilltops or mud puddles, and except perhaps for the first, after eggs were to be found on the plants. The genitalia of all specimens have been examined to be certain that an unusual female with broad, complete dark margins was not included.

There was no sign of the species in 1956, here or at the other stations for Senna that had been found. Apparently, the species did not survive the winter here.

I trust that I will not seriously be suspected of believing in a unisexual "race" of butterflies in Connecticut (12 males are involved, 8 collected in pre-imago stages) but nevertheless would like very much to hear from other members of the Society who might have observed noteworthy disproportion of the sexes in bred Lepidoptera.

SIDNEY A. HESSEL, Nettleton Hollow, Washington, Conn., U. S. A.