

ESPECIALLY FOR FIELD COLLECTORS

(Under the supervision of JAMES R. MERRITT)

HOW MANY BUTTERFLY SPECIES IN ONE DAY?

Local checklists have been published of the Lepidoptera of very small regions of the world, and from these we can compare the number of species of butterflies of all Lepidoptera which live in various places. There is, on the other hand, very little to be found on the maximum number of species flying in a small area at the same time. In the vicinity of New Haven my collector-friends and I have made a point of choosing the one day most likely to have the maximum number of butterfly species on the wing and going out for the record on that date.

We have kept detailed notes on the flight periods of Connecticut butterflies for six years, and these have been summarized in the annual Season summaries published in the *News*. We scanned our records and found that July 14th is the one day when we are likely to get the largest number of species. This is a time when many late spring species are battered but have not yet disappeared, and the early summer ones are just emerging.

The first record was taken when my father, P. S. REMINGTON, was visiting us in North Haven at the magic date, and we were, modestly, certain that two Remington nets would give a good accounting of the butterfly fauna. The evening of the 13th we made up lists of species to be expected at our several favorite localities around New Haven. These pocket lists reminded us to make a special point of scouring the respective spots for inconspicuous species we might normally pass by. Starting at 9:00 A.M., we successively visited fields around home in North Haven, then to a wooded hilltop known as West Rock, a pondside marsh and an old alfalfa field in Woodbridge, roadsides and field near the Ansonia flying field, the vicinity of the Osborn Laboratory at Yale, and finally after supper back to West Rock in the evening for the day-end nymphalids. The day was sunny and hot, and we had some success. The 38 species found were, in approximate order:

Phyciodes tharos
Thorybes bathyllus
Megisto eurytus
Cercyonis alope
Strymon acadica
Everes comyntas
Papilio glaucus
Epargyreus clarus
Vanessa virginiensis
Limenitis astyanax
Asterocampa clyton
Strymon falacer
Strymon edwardsii
Strymon titus

Strymon liparops
Papilio troilus
Danaus plexippus
Pieris rapæ
Vanessa atalanta
Mitoura gryneus
Strymon melinus
Pholisora catullus
Erynnis boratius
Lethe eurydice
Speyeria cybele
Speyeria idalia
Boloria toddi
Lycæna hypophleas

Limenitis archippus
Colias philodice
Poanes massasoit
Polites verna
Atrytone logan

Atrytone ruricola
Atrytone conspicua
Colias eurytheme
Ancyloxipha numitor
Vanessa cardui

In addition, we took larvæ of *Papilio polyxenes*, *Asterocampa celtis*, *Melitæa harrisii*, and *Erynnis baptisiæ*. Our luck was frustrating in some cases, in which we failed to find normally expected species. For example, our next visit to West Rock, on 19 July, produced *A. celtis*, *P. polyxenes*, *Nymphalis antiopa*, *Polites manataaquæ*, *Achalarus lyciades*, and *Erynnis lucilius*, all of which were probably present there on the 14th.

Two years later, again on 14 July 1954, S. A. HESSEL, R. W. PEASE, JR., and I made the first attempt to beat the record. We visited the same localities, except that a sphagnum bog in Bethany was substituted for the Osborn Lab. vicinity. We had another fine day and with the help in North Haven from my 6-year-old son ERIC, we three found 45 species flying. There were 30 of the 1952 species, 15 new ones, and 8 1952 species did not appear (*T. bathyllus*, *E. horatius*, *P. catullus*, *A. logan*, *P. massasoit*, *V. cardui*, *A. clyton*, and *M. gryneus*). The new records were:

Achalarus lyciades
Thorybes pylades
Polites manataaquæ
Polites themistocles
Polites verna
Eurema lisa
Speyeria aphrodite
Boloria selene

Euphydryas phæton
Phyciodes nysteis
Polygonia interrogationis
Nymphalis antiopa
Asterocampa celtis
Lycæna epixanthe
Lycænopsis pseudargiolus

Probably four other species were seen, but not closely enough for certainty: *T. bathyllus*, *A. clyton*, *Polygonia comma*, and *Feniseca tarquinius*. We took larvæ of *P. catullus*, *E. baptisiæ*, *M. harrisii*, *A. clyton*, and *F. tarquinius*.

Here, then, is our record. In a state not generally considered "rich" in Lepidoptera, on two attempts on 14 July we found 53 different species of butterflies flying, plus larvæ of 4 more. If everything went perfectly, we could expect a maximum of 65 species on one day. The two most distant localities are less than 12 miles apart, by airline. We challenge collectors in any part of the world to beat our records, confident, of course, that many will succeed and in making the attempt will produce useful information on the relative richness of different regions. Similar comparisons of moth groups would be equally interesting.

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[This will be a regular section of the *News*. Collectors are urged to send notes and suggestions to J. R. Merritt, School of Law, Univ. of Louisville, Louisville 8, Ky., U.S.A.]