

MY HIGHEST CATCH OF BUTTERFLY SPECIES IN A SINGLE DAY
(4th JUNE 1957) AT MUSSOORIE, INDIA

Since India is known as the butterfly collector's paradise, it will not be surprising to readers of *The Lepidopterists' News* to read the following account of a day's catch in the Himalaya mountains of northwest India. Mussoorie is a favorite hill station for summer vacationers and offers several of the best places in all India for collecting of butterflies.

At 7:30 A.M. on June 4, 1957, Mr. GLENN CAMPBELL, several children (LINDA, JIMMY, and DANNY SHULL; PHILIP CAMPBELL; ROBERT MCDOWELL; TEDDY FLORY; LYNN BLICKENSTAFF) and I began our hike from Prospect Point (alt. 7500 ft.) to the Aglar Valley (alt. 2000 to 3000 ft.). En route to the Valley we caught only a few butterflies. After arriving at this mountain stream at 10:00 o'clock, we had a very good catching period until 2:30 P.M. Clouds overcast the sky for about twenty minutes at noon and the rain began at 2:45 in the afternoon continuing until 6:00 o'clock. Only one new species was added to our list after the rain came. That was a pair of *Colias electo* found at 6:30 resting in the grassy hillside of Prospect Point. The great majority of the species were caught in the Aglar Valley.

I, myself, caught fifty-seven species, and an additional eleven species were collected by the other members of our party. In all, sixty-eight species were caught on this day. Eight more species — *Zetides cloanthus*, *Zetides sarpedon*, *Rapala selira*, *Danaus limniace*, *Pararge schakra*, *Aulocera padma*, *Telchinia violæ*, and *Papilio polytes* — were seen by me but they escaped our nets.

I paid particular attention to the Satyrids, Lycænids and Hesperiidæ because these groups are often overlooked. It was unusual to find so few Papilios, as India is famous for her large variety of swallowtails.

In June 1956 I caught fifty-three species of butterflies in one day in Mussoorie. This included the area from Lal Tiba (alt. 7527 ft.), the Municipal Gardens (alt. 6535 ft.), and the Pumping Station (alt. 5335 ft.). Some collectors consider this area to be one of the best collecting places in India, and perhaps it is one of the best in the world. On June 7, 1957, I caught forty-two species in this area. As a party, we caught fifty-one species on this day. Several species caught last year were missing this year. Spring weather was late in coming to Mussoorie this year. This may partially account for the decrease in species at the famous Pumping Station of Mussoorie. I have never spent a fall season in Mussoorie so I cannot compare spring and fall data.

The following is a list of the sixty-eight species collected on June 4, 1957, in Mussoorie:

DANAIDÆ. — *Danaus aglea*, *D. melissa*, *D. chrysippus* (3 species).

SATYRIDÆ. — *Mycalesis lepcha*, *Lethe europa*, *L. confusa*, *L. verma*, *Erebia nirmala*, *E. scanda*, *E. hybrida*, *E. annada*, *Ypthima nareda*, *Y. asterope*, *Melanitis leda* (11 species).

NYMPHALIDÆ. — *Sephis dichroa*, *Stibochiona nicea*, *Pantoporia opalina*, *P. asura*, *Neptis hylas*, *N. mahendra*, *N. sankara*, *N. ananta*, *Cyrestis thyodamas*, *Pseuder-golis wedab*, *Kallima inachus*, *Precis hierta*, *P. orithyia*, *P. iphita*, *Vanessa cardui*, *V. indica*, *V. canace*, *V. cashmiriensis*, *Symbrenthia hippoclus*, *Argynnis hyperbius*, *A. childreni*, *A. lathonia*, *Atella phalantha* (23 species).

ERYCINIDÆ. — *Libythea lepita*, *Dodona durga*, *D. dipœa* (3 species).

LYCÆNIDÆ. — *Lycænopsis puspā*, *L. vardhana*, *L. buegelii*, *Zizeeria trochilus*, *Z. maha*, *Z. otis*, *Chilades laius*, *Lampides boeticus*, *Lycæna pavana*, *L. phleas*, *Helio-phorus sena*, *H. oda*, *Amblypodia ganesa*, *A. rama* (14 species).

PAPILIONIDÆ. — *Papilio protenor*, *P. polycor* (2 species).

PIERIDÆ. — *Aporia leucodyce*, *A. agathon capbusa*, *Pieris canida*, *P. brassicæ*, *Gonepteryx rhamni*, *Colias electo* (6 species).

HESPERIIDÆ. — *Celænorrhinus leucocera*, *Pelopidas mathias*, *P. sinensis*, *Taractro-cera danna*, *Oriens gola*, *Ochlodes brahma* (6 species).

I am indebted to Dr. C. L. REMINGTON, Mr. FRANCIS HEMMING, and Mr. E. P. WILTSHIRE (writers in *The Lepidopterists' News*) for stimulating my interest in the above subject. *Butterflies of the Indian Region* by M. A. WYNTER-BLYTH (1957) was used for classification of the species recorded in this article.

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A SHIPPING CONTAINER FOR PAPERED LEPIDOPTERA

I have designed, manufactured, and put in use a light weight, sturdy container which will withstand rough handling by the U. S. Postal Service. The container is made of corrugated paper and comes in three pieces before assembly. The components are: (1) topless box, $6\frac{1}{4} \times 6\frac{1}{4} \times 3\frac{1}{4}$ inches; (2) a partition which folds into a triangle and fits snugly into the box to receive triangular envelopes above and below, folds over to form the lid; (3) a sleeve which slips over two of these boxes. The sleeve may be cut in half for one-box shipments. It will accommodate with equal facility several sizes of triangular envelope.

Although this container was designed primarily for shipping purposes, it also makes an excellent storage box for extra specimens. Being of paper construction it is easily impregnated with residual insecticides for the protection of specimens in storage.

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STORING SMALL SERIES OF DUPLICATE SPECIMENS

Collectors in the United States who use glassine envelopes for duplicate specimens may be interested in a convenient storage method. All too frequently many species are taken in such small numbers that storing them handily presents a problem. Often the collector winds up with several cigar boxes of miscellaneous specimens which suffer a high percentage of breakage from sorting through them for a particular species. One of the most satisfactory sizes for transparent envelopes is $1\frac{3}{4}$ inches by $2\frac{3}{4}$ inches. This size fits very readily into the "flip top" cardboard box so popular now for several brands of long size cigarettes. Ten of these cigarette boxes fit snugly into an empty nickel Almond Hershey chocolate bar cardboard box $6\frac{3}{4}$ inches by $4\frac{3}{4}$ inches by $2\frac{1}{4}$ inches. Boxes of this size are easy to store or shelve, and are easy to find at the corner grocery store. While neither container is tight enough to protect specimens against museum pests during prolonged storage, they can be charged with a few crystals of paradichlorobenzene and sealed shut with tape if necessary. By using this method small series of specimens can be kept separate, yet grouped together by genus, check list numbers, or whatever method is handiest.

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