

HESPEROCHARIS LONGSTAFFI (PIERIDAE) REDISCOVERED IN VENEZUELA

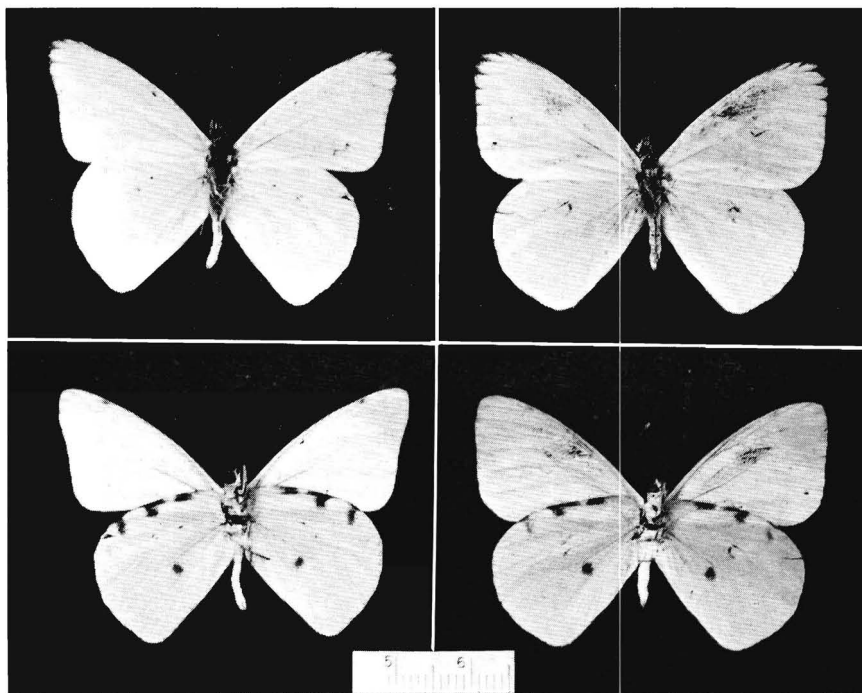
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The type series of *Hesperocharis longstaffi* Dixey (1915) in the Hope Collection, Oxford University, consists of one male and two females collected by Dr. G. B. Longstaff (January 9–11, 1913) at La Guaira, Distrito Federal, Venezuela at 1,000 and 1,300 feet elevation. These have been virtually the only known specimens. In August, 1966, a series of three males and 13 females was collected at flowers in the backyard of the Harold Skinner residence in Los Dos Caminos, Estado Miranda, Venezuela, at the base of El Avila, the highest peak (7,000+ feet) in the Venezuelan coastal range. The high ratio of females to males in this series may indicate that females are less wary and easier to catch, because most of the specimens were taken by hand by a young lad in the Skinner household. Because the type series was collected in January; a watch was kept for a second brood in January 1967 and a single male was captured on January 5. Probably the breeding grounds of *H. longstaffi* are somewhere on El Avila. The summit has been often collected but the steep slopes are not accessible. Perhaps a movement owing to exceptional population density forced some individuals to lower elevations where they could be collected.

Harold Skinner had previously collected a series of *longstaffi* somewhere near Caracas in the late 1950's, but did not record the data. A few years later this series was identified at the Central University of Venezuela at Maracay as *Heliochroma crocea* Bates. Two of these specimens are retained at Maracay under this name and two remain in Skinner's collection. A search of other Venezuelan collections has revealed only one additional specimen, a male from Turin, Estado Portuguesa is in Rudolf Feige's collection in Caracas. A canvass of the large institutional collections in the United States has not revealed any specimens.

Aside from its rarity, *H. longstaffi* is of special interest because it belongs to that group of insects for which Butler proposed the genus *Heliochroma*. The type species for *Heliochroma* is the little known *idiotica* Butler; other species presumably allied with it include *crocea*, *longstaffi* and *jaliscana* Schaus. *Heliochroma* has sometimes been held as a valid genus, and sometimes has been treated as a synonym of *Hesperocharis* Herrich-Schaeffer or *Daptonoura* Butler. Most revisers have been handicapped by the lack of specimens for study. Sexual



EXPLANATION OF FIGURE

Hesperocharis longstaffi Dixey, Los Dos Caminos, Venezuela, August 1966. Top row (uppersides) male left, female right. Bottom row (undersides) male left, female right. Natural scale.

dimorphism seems to be the crux of this generic confusion, as females have a wing shape characteristic of *Hesperocharis*, while the males have tapered apices suggestive of a relationship to *Daptonoura* (see figures). Dr. Alexander B. Klots' (*in litt.*) is of the opinion that Butler's *Heliochroma* was founded solely on females and should be treated as a synonym of *Hesperocharis*. F. Martin Brown has examined a female of *H. longstaffi* from my series and is of the opinion that it belongs to the subgenus *Hesperocharis*. The question is not fully resolved and may be eventually settled by detailed field work and life history studies.

Talbot (1934) retained *longstaffi* as a subspecies of *Hesperocharis crocea*. This may be correct as *crocea* and *longstaffi* are indeed similar, and *crocea* is Central American. *H. crocea* is easily separated from *longstaffi* by having an orange suffusion on the dorsal secondaries.

I am depositing a pair of *H. longstaffi* in the Carnegie Museum at Pittsburgh and two females in the American Museum of Natural History

at New York. Harold Skinner is placing a pair in the collection of the Central University of Venezuela at Maracay. One male and three females are being retained each in my collection and in Harold Skinner's collection in Los Palos Grande.

I am grateful to Richard M. Fox, A. B. Klots and F. M. Brown for their helpful suggestions. I am especially indebted to H. W. Skinner for supplying collection data and specimens for study.

LITERATURE CITED

- DIXEY, F. A., 1915. New species and subspecies of Pierinae. Trans. Ent. Soc. London, 1915: 1-15.
TALBOT, G., 1934. Pieridae II. Lepid. Cat., Pars 60: 326.

WINTER SURVIVAL OF *PIERIS RAPAE* AT THE PAS, MANITOBA

There seem to be no records in the literature as to how far north in North America *Pieris rapae* (L.) can survive the winters.

I was much surprised to have a male *Pieris rapae* emerge in the house on May 3, 1967, from a chrysalid found outdoors one week before. The chrysalid was one of three found attached to the cement foundation of the house. It was attached six inches from the ground, next to a plot of ground in which cabbage had been grown the preceding season. The chrysalid here would have been exposed to seven months of winter, with the temperature regularly dropping to -40 degrees F. for the better part of a month.

One of the chrysalids had dried out and the third, though apparently living, was eaten by a Carabid beetle. The emerged specimen is in the writer's collection labelled "1st recorded winter survivor, The Pas, Manitoba, May 3rd, 1967."

Pieris rapae is common in gardens at The Pas and has been so for the past 30 years. I have always assumed it to arrive freshly from the south each spring, not being able to survive our severe winters. The present record shows that this species is adapted to our climate and can survive the winters in the pupal state.

This species is at present absent from the Lynn Lake area and likely in other northern settlements of Manitoba. I propose to document its rate of spread northward.—WALTER V. KRIVDA, P. O. Box 864, The Pas, Manitoba, Canada.