

THE CORRECT PLACEMENT OF *EVERES* 'HERRII'

Since its description in 1901, the taxonomic placement of *herrii* (Grinnell) has been in question. After being variously designated as a subspecies of *Everes comyntas* (Gardner) and *Everes amyntula* (Boisduval), what are believed to be the type specimens have now been examined genitally and *herrii*'s alignment with *amyntula* is finally decided.

Grinnell (1901, Can. Entomol. 33:192) described *Lycaena amyntula* var. *herrii* from "two males and two females" which were collected by Poling in July 1899 and September 1900. The original description of the male states that it differs from typical *amyntula* "... in having a black margin about 1 mm wide; whereas, there is none in typical *amyntula*, or, if any, a very slight trace. On the underside the markings are much more heavy. The male of this variety is also much smaller than the male of typical *amyntula*" And the description of the female states, "... differs from typical *amyntula* by the replacement of the dark area of the primaries by a narrow black band about 1 mm wide, and on the secondaries by only two red crescents instead of five as in typical *amyntula*."

Then, Bethune-Baker (1913, Ent. News XXIV:97), while not questioning the placement of *herrii* within the genus, argued that the differences between *amyntula* and *herrii* were flimsy and that if Grinnell "... had had the advantage of having the type of *amyntula* before him that he would not have described the form."

The actual *comyntas/amyntula* debate was begun by Barnes and McDunnough (1916, Cont. Nat. Hist. N.A. III:109), who subsequently state that after examining a large series of *Everes* from southeastern Arizona, "... we should be inclined to refer *herrii* Grinnell to *comyntas* rather than *amyntula*" They state that this decision is based in part on the original description, which mentions the "... broader black border on the upper side and the better defined and larger spots on the under side ..."; in part on the presence of "... red lunules near the anal angle on the secondaries above ..." in many of the specimens, a feature closely associated with *comyntas*; and their decision is also based in part on the fact that the dates of capture point to a distinct double-broodedness. This multiple- versus single-brooded aspect had been suggested by Bethune-Baker (op. cit.), who, however, alluded to a partial second brood in *amyntula* in the southern end of its range.

Aside from the opinions of these early researchers as to the placement of *herrii*, another issue complicated matters. Were, in fact, *amyntula* and *comyntas* actually distinct? Because, if not, the *herrii* point was moot. Various writers, including Holland, Klotz, Brown et al., dos Passos, and Howe, follow the separation of American *Everes* into the two taxa, while a smaller number, including Ehrlich, have lumped the two under *comyntas*. So, in several ways, the placement of *herrii* has been questionable.

However, what was not known until recently was the fact that both a *comyntas* and an *amyntula* "type" occur in southeastern Arizona, specifically, in Cochise County and environs. So, when Downey and Christenson (1970, Proc. No. Cen. Branch—E.S.A. 25(2):89) reexamined the male genitalia of the American *Everes* and reaffirmed the fact that there are indeed "... 2 discrete morphological types (species) ...," the genitalic identity of the "types" of *herrii* needed to be disclosed.

At this point Julian Donahue of the County Museum in Los Angeles (LACM) proved to be most helpful. He located the four specimens which seemed to match the four mentioned by Grinnell (op. cit.), "... with notes by Comstock that they are probably the true types." Oddly, these four specimens were found to be all males. Donahue then dissected the two specimens taken in July 1899. The other two were sent to me. (The lower label on these two specimens reads "Lyc. amyntula v. herrii," while the upper label says "So. Ariz. Sept 1900. Poling.") All four were found to be *amyntula*. The smaller of the two males taken September 1900 is hereby designated as the lectotype.

Bethune-Baker (op. cit.) stated that the original four specimens were taken in Cochise County. To get more specific than that requires some conjecture. All known males of *Everes* from the Chiricahua and Peloncillo mountains have proven to be *comyntas*. A

female in the LACM collection taken by V. W. Owen in the Chiricahua Mtns., 9 May 1910, has considerable blue dorsal scaling and does appear to be an *amyntula*. Barnes and McDunnough (op. cit.) based their work on a large series from the "... Huachuca Mtns. and other mountain chains of S.E. Ariz." Since the publication of their work some 65 years ago, only a handful of *Everes* has been taken in the Huachuca Mtns., all of which have been *amyntula*. Also, *amyntula* has been confirmed from the Patagonia Mtns., just west of the Huachucas, but in Santa Cruz County. In light of the apparent absence of *comyntas* from the Huachuca Mtns., the mention of Barnes and McDunnough (op. cit.) of their 'large' series from that area, and the confirmed occurrence of *amyntula* in that area, it is here suggested that the Huachuca Mtns. are the probable type locality of *herrii*.

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