GENERAL NOTES

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DIMORPHISM IN THE FEMALE OF *BATTUS ZETIDES* (PAPILIONIDAE) ON HISPANIOLA

Additional key words: endemism, Antilles, systematics, variation.

N. D. Riley (1975) recorded *Battus zetides* Munroe (Papilionidae) as poorly known; in fact, based on the few specimens then extant, he incorrectly illustrated the species as lacking tails. Subsequent reports indicate that *B. zetides* can be found in isolated enclaves of upland mesic broadleaf deciduous forest, occurring on both the north and south paleoislands of Hispaniola (Gali & Schwartz 1983, Schwartz 1989, Johnson & Matusik 1988). Both Riley (1975) and Schwartz (1989) report the sexes of *B. zetides* as alike on both wing surfaces, as typical of most *Battus* species (D'Abrera 1981).

In 1988, we detailed location and habitat of the remote "Las Abejas" forest, Parque Nacional Sierra de Bahoruco [sic] (Pedernales Province, Dominican Republic) (Johnson & Matusik 1988). This upland forest, visited by us each year from 1981–1991, harbored a prolific population of *B. zetides* (Gali & Schwartz 1983) but is now suffering severe deforestation (Johnson & Matusik 1988, Johnson 1989).

The purpose of this note is to document a striking dimorphic female form of *B. zetides* occurring at Las Abejas. Contrasting the "ochre-yellow" or "yellows and oranges" generally attributed to wingbands of *B. zetides* (Riley 1975, Schwartz 1989; Fig. 1A), bands in this new form are mostly white, occasionally mottled pale yellow in distal areas of cells M_3 to 1A + 2A (Fig. 1B). This whitened condition, extending the silverlike appearance of the ventral hindwings (Fig. 1B, right), creates an identification problem in the field because such individuals resemble no other papilionid species known from the neotropics. To our knowledge, striking dimorphism in females of *Battus* has not been previously reported.

Ten specimens of the whitened female form have been collected at Las Abejas since 1986 (Specimen Data below) but, because our collections of *B. zetides* have been widely disseminated in public and private collections since 1981, it is difficult to quantify frequency of occurrence. Although females of *B. zetides* are generally less vagile than males and seldom venture from the forest canopy, females are probably more readily collected at Las Abejas than at other Hispaniolan locales since, as reported before (Johnson & Matusik 1988), steep ravine edges surrounding "Lower Abejas" allow for fortuitous collecting of the bottomland canopy. No doubt this unique collecting situation accounts for discovery of the form, which probably occurs in all populations of the species. A reconstructed estimate of frequency, based simply on recollection of collecting conditions for *B. zetides* at Las Abejas on a "day to day" basis, suggests females (usually immediately released) constituted about 5% of our catch. With this in mind, the ten known specimens of the whitened female probably represented about 1% of the females taken by us at the site.

It is important to note the striking appearance of this female form in the field. Field sightings have figured importantly in the historical documentation of certain rare, or seldom-collected, Antillean butterflies (Schwartz 1989, Brown & Heineman 1972). Schwartz (1989) has noted the soaring flight of *B. zetides* and that the butterfly is seen much more often than collected. The peculiar whitened female form of *B. zetides* should be anticipated by collectors and not misconstrued in flight as possibly representing an unknown neotropical swallowtail.

Specimen data (numbers parenthetical). All "Las Abejas forest" [detailed above], D. Matusik collector: 1–9 August 1991 (6) David Matusik Collection (DMC), 30 July 1990 (1) American Museum of Natural History (AMNH) (Fig. 1B), 29 June 1989 (2) (DMC), 5 July 1986 (1) (DMC).

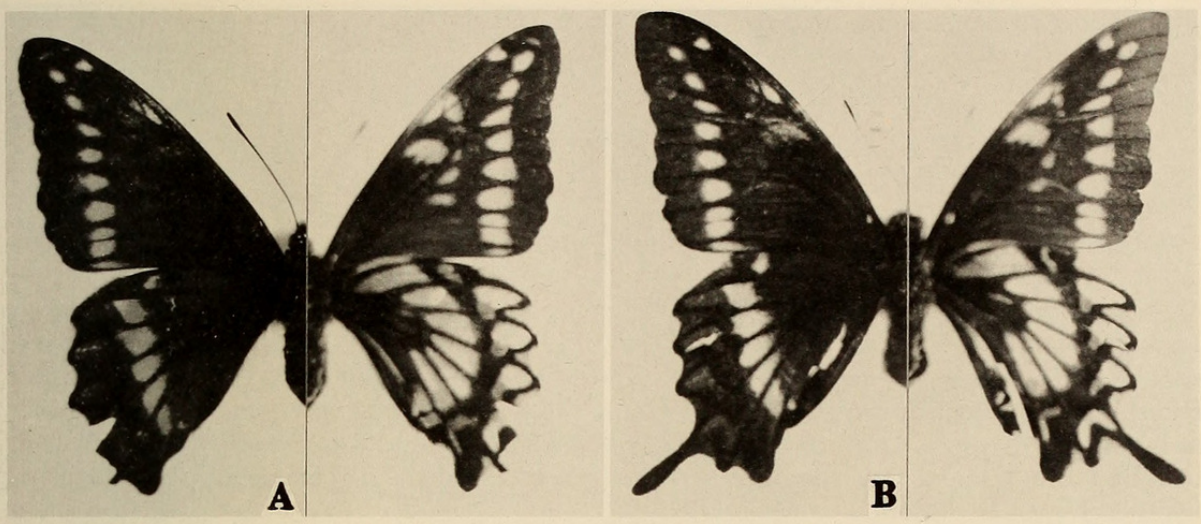

FIG. 1. *Battus zetides*. **A,** Typical female ("Lower Abejas," *sensu* Johnson & Matusik [1988], 31 July 1990, AMNH) upper surface left, under surface right. **B,** Whitened female form (same data, except 30 July 1990, AMNH) same views.

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