



A new species of *Basilia* Miranda-Ribeiro (Diptera: Nycteribiidae) from Honduras, parasite of *Bauerus dubiaquercus* (Van Gelder) (Chiroptera: Vespertilionidae: Antrozoinae)

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Abstract

Basilia (*Basilia*) *dubiaquercus* sp. nov. (Diptera: Nycteribiidae) is described. The new species was collected from the bat *Bauerus dubiaquercus* (Van Gelder) (Chiroptera: Vespertilionidae) in Honduras. The habitus, abdomen, and male terminalia are figured. Placement of the new species among established species groups of *Basilia* (*Basilia*), as well as the conservation status of the species, is discussed.

Key words: *Basilia*, Bat Fly, *Bauerus*, Endangered, Taxonomy, Vulnerable.

Basilia Miranda-Ribeiro comprises more than 100 valid species and is the richest genus of the dipteran family Nycteribiidae (Graciolli & Dick 2008). The genus is divided into four subgenera: *Basilia sensu stricto*, *Conotibia* Theodor, *Tripselia* Scott, and *Paracyclopoda* Scott (Theodor 1967). Within the subgenus *Basilia* (hereafter “*Basilia*”), species distribution is cosmopolitan, but each of the nine species groups is limited to the Old (*bathybothyra* Speiser, *eileenae* Scott, *nattereri* (Kolenati), and *transversa* Maa) or New (*antrozoi* (Townsend), *ferruginea* Miranda-Ribeiro, *forcipata* Ferris, *juquiensis* Guimarães, and *speiseri* (Miranda-Ribeiro)) World. The described species-level diversity is relatively balanced, with forty-nine species known from the New World. All but two species of New World *Basilia* are obligate parasites of vespertilionid bats: *B. mimoni* Theodor & Peterson and *B. tiptoni* Guimarães parasitize the Neotropical phyllostomid bat *Mimon crenulatum* (E. Geoffroy). Species are distributed as follows in the New World groups (Theodor 1967; Guerrero 1996): *antrozoi* (2 spp.), *ferruginea* (20 spp.), *forcipata* (3 spp.), *juquiensis* (3 spp.), and *speiseri* (18 spp.) (Graciolli & Dick 2008).

The species groups of New World *Basilia* are defined by morphological characters of the females, particularly the abdominal tergites. The *antrozoi* group is defined by having three abdominal tergites; posterior margin of abdominal tergite II rounded or straight, and abdominal tergite III divided into lateral sclerites. The *forcipata* group also possesses three abdominal tergites, but the posterior margin of tergite II terminates in two lobes; tergite III is entire. The *juquiensis* group is defined by having two abdominal tergites; posterior margin of abdominal tergite II rounded; abdominal sternite II very long, extending over sternite III. The *speiseri* group possesses the same characteristics as the *juquiensis* group, except abdominal sternite II, while still longer than wide, never extending over sternite III. The *ferruginea* group also possesses two abdominal tergites, but differs from the *juquiensis* and *speiseri* groups by the posterior margin of tergite II terminating in two lobes.

Distributional patterns of the five species groups of New World *Basilia* can be summarized as follows.