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On the taxonomic status of *Phlebotomus breviductus* Barretto, 1950 (Diptera: Psychodidae: Phlebotominae)

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Abstract

The taxonomic status of *Phlebotomus breviductus* Barretto, 1950 was evaluated based on the morphological and morphometric analysis of the male holotype described from Fazenda Jerusalém, located in the municipality of Alegre, Espírito Santo state, Brazil. After measuring, drawing and photographing the holotype, we concluded that the head and wing of this specimen belong to *Trichopygomyia* sp., but that the thorax and abdomen belong to a different species, *Nyssomyia umbratilis*, with an anomalous gonostylus having five spines. The holotype slide consists of parts of specimens representing two different species, thus *P. breviductus* is not a valid species.

Key words: Brazil, sand flies, *Trichopygomyia*, *Nyssomyia umbratilis*, taxonomy

Introduction

A total of 267 species of phlebotomine sand flies have been recorded in Brazil and the number continues to increase (Andrade, pers. obs.). Dr. Mauro Pereira Barretto (1912–1996) is among the prominent researchers who have contributed to the taxonomy of Neotropical sand flies. He described 13 subgenera and 26 species during the 1940s, 50s and 60s (Barretto 1962), of which 21 species are still considered as valid. *Phlebotomus breviductus* was described by Barretto (1950) based on one male from the type-locality of Fazenda Jerusalém, Espírito Santo state, Brazil. It was reported that this male specimen was donated by Dr. Joseph Zikan (1881–1949), an entomologist who undertook field expeditions to collect insects in the states of Minas Gerais, Espírito Santo, Rio de Janeiro and Amazonas. Dr. Zikan collected the specimen many years prior to donation, but no further information on the dates, collection method, etc. was provided (Barretto 1950).

Phlebotomus breviductus was described as an aberrant species or at least as insufficiently known by Barretto (1961), and it was not included in his latter classification of American sand flies published in 1962. Theodor (1965) placed this species in the cayennensis group of genus *Lutzomyia* França, 1924. Forattini (1971, 1973) placed it in the subgenus *Trichopygomyia* Barretto, 1962 and Martins *et al.* (1978) in the oswaldoi series of the subgenus *Helcocyrtomyia* Barretto, 1962. In their taxonomic revision of subgenus *Helcocyrtomyia*, Dias *et al.* (1991) followed the proposal of Martins *et al.* (1978) and considered *P. breviductus* as a “*species inquerenda*”. More recently, Young and Duncan (1994) included it in the oswaldoi group, while Galati (2003) placed it in the genus *Micropygomyia* Barretto, 1962 as “*incertae sedis*”. *Micropygomyia*, *sensu* Galati (2003), includes species of both the cayennensis group and the oswaldoi series.

Apart from the type-locality of Fazenda Jerusalém which Martins *et al.* (1978) believed to be in the municipality currently known as Alegre, in the state of Espírito Santo, *P. breviductus* has only been recorded in the municipality of Além Paraíba, in the state of Minas Gerais (Rangel *et al.* 1985). However, the identification as *P. breviductus* of the specimens in the latter location is dubious, as will be discussed below. Here, we discuss the validity of *P. breviductus*, known only on the basis of its morphological characters from the male holotype.

brevi ductus was never described. Unsuccessful attempts to collect additional specimens of *P. breviductus* in Espírito Santo state, including the type-locality, were undertaken by A. Falqueto (pers. comm.). The absence of new findings of *P. breviductus* and the morphological and morphometric evidences showing that the holotype includes parts of two specimens of distinct genera led us to conclude that this taxon is not valid.

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