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The discovery of a second species of *Mallophthiria* Edwards (Diptera, Bombyliidae, Crocidiinae) from Chile

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Abstract

The Neotropical genus *Mallophthiria* Edwards is restricted to Chile (Concepción and Choapa) and comprises *M. lanata* Edwards, 1930 and *M. elguetai* **sp. nov.** The new species is described and illustrations of the external morphology of adults and male and female terminalia are also included.

Key words: bee flies, new species, Neotropical, taxonomy

Introduction

The Bombyliidae, or bee flies, are among the most species-rich and morphologically diverse families of Diptera, including more than 4,500 species (Evenhuis & Greathead 1999). The Bombyliidae are worldwide in distribution, found nearly everywhere except in the colder areas of the north and south. Despite this great diversity, the Neotropical Region is still poorly studied with only 450 recorded species (Evenhuis & Greathead 2003).

Edwards (1930) described the genus *Mallophthiria*, endemic to the Neotropical Region, to include a single species, *M. lanata* (Concepción, Chile). Edwards indicated the primary diagnostic character was the postpedicel being longer than the scape and pedicel combined, flattened, with a minute sub-terminal stylus, inserted dorsally, and assigned the genus to the Phthiriinae, close to *Phthiria* Meigen.

Hull (1973) gathered all literature on the systematics of the Bombyliidae and presented a monograph revising all genera of the family. Hull included *Mallophthiria* in the tribe Crocidiini of Bombyliinae, together with *Crocidium* Loew, *Desmatomyia* Williston, *Apatomyza* Wiedemann and *Adelogenys* Hesse.

Hall (1976) in his monograph on the Bombyliidae of Chile, placed the genus in Bombyliinae after examination of the type of *M. lanata*, suggesting that Edwards (1930) misinterpreted the position of the stylus in a small depression, as being the same condition as found in *Phthiria*. Painter *et al.* (1978) kept *Mallophthiria* among the Bombyliinae.

Bowden (1985) returned *Mallophthiria* to Phthiriinae, as it was originally placed by Edwards (1930), without justifying this action.

Evenhuis (1990) presented a detailed historical overview of the higher classification of *Mallophthiria*. Evenhuis concluded that "*the confusion of subfamilial placement of this genus is most likely due to the similarities of many of its features with other phthiriine genera, notably wing venation and the shape of third antennal segment (which also has a sulcus)*." After examination of the type, Evenhuis agreed with Hull's (1973) placement of *Mallophthiria* near *Crocidium* and assigned it to the tribe Crocidiini.

Yeates (1994) presented the first phylogenetic hypothesis for Bombyliidae based on a cladistic analysis. Despite *Mallophthiria* not being used as a terminal taxon, Yeates maintained the composition of Hull (1973), but raised Crocidiinae to subfamily status.

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Discussion

Mallophthiria lanata Edwards is known only by its holotype. Despite not having examined it, the descriptions available in the literature were detailed enough to allow the separation of the new species from *M. lanata*. In addition, to ensure the generic position of *M. elguetai* **sp. nov.**, possesses an apical notch in the epandrium, whereas this notch is absent in *Megaphthiria* Hall, the second Crocidiinae genus endemic to Chile.

The two species of *Mallophthiria* can be segregated by the different proportions of the lengths of the scape and pedicel, which in *M. lanata* are similar in length, while in *M. elguetai* **sp. nov.** the scape is 2.5 (males) or three times (females) longer than the pedicel. Additionally, Edwards (1930), in the diagnosis of *M. lanata*, described the proboscis as short and fleshy, not projecting beyond the oral margin. Hull (1973) stated: "*Mallophthiria lanata are sharply distinguished by the curious, very much reduced fleshy, stout proboscis with its odd labellum…"*. *Mallophthiria elguetai* **sp. nov.** possesses a long proboscis, two times longer than head.

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