



Four new species of *Paratryzia* Tonnoir from the Brazilian Atlantic Forest (Diptera, Mycetophilidae, Sciophilinae)

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Abstract

Paratryzia Tonnoir was originally described for *P. conformis*, from Australia, and since then only four species have been added to the genus, from Chile and Southern Argentina. We add four new species to the genus *Paratryzia*—*P. balbii* sp. nov., *P. alvesi* sp. nov., *P. camargoi* sp. nov., and *P. albidens* sp. nov.—from the southern part of the Brazilian Atlantic Forest. Comments are made about the possible relationships of the Brazilian and other Neotropical species of the genus. An identification key to the Neotropical species of the genus is provided.

Key words: *Paratryzia*, Sciophilinae, Mycetophilidae, Neotropics, Atlantic Forest, Taxonomy

Introduction

Mycetophilidae (Diptera) is the largest and most diversified Bibionomorpha family, with more than 4,100 described species (Evenhuis *et al.* 2007), placed in 135 extant genera. Approximately 1,000 species are known from the Neotropics (Papavero 1978, Amorim *et al.* 2002).

The monophyly of Mycetophilidae has been supported in the literature repeatedly. Phylogenies for the family based both on morphological (Søli 1997, Tozoni 1998) and molecular data (Rindal *et al.* 2009) have demonstrated that the Sciophilinae *s.l.* are paraphyletic in relation to the Mycetophilinae. Hence, taxa earlier accepted as tribes of Sciophilinae have been proposed to be ranked as subfamilies, *i.e.*, Gnoristinae, Mycomyiinae, Leiinae, Manotinae, and Sciophilinae *s.s.* (Tuomikoski 1966, Hennig 1973, Väisänen 1984, Tozoni 1998, Rindal *et al.* 2009).

The Sciophilinae *s.s.* include genera with medial and cubital forks complete, as well as a group of genera with M₂ and/or M₄ weak or missing, sometimes with an unattached vein between the medial and cubital veins. This group includes *Acnemia* Winnertz, *Afrocnemia* Matile, *Azana* Walker, *Cluzobra* Edwards, *Megalopelma* Enderlein, *Monoclona* Mik, *Morganiella* Tonnoir & Edwards, *Neoaphelomera* Miller, *Neotryzia* Tonnoir & Edwards, *Paramorganiella* Tonnoir, *Paratryzia* Tonnoir, *Parvicellula* Marshall, *Sciophila* Meigen, and *Trizygia* Skuse (Amorim & Oliveira 2008; Oliveira & Amorim 2010). A part of this group of genera was referred to by Matile (1998) as the *Azana* group, and was thought to be monophyletic.

Paratryzia Tonnoir has M₁₊₂ as well as CuA unforked, with an additional vein, possibly M₄ unattached either to M₁₊₂ or to CuA. As noted by Matile (1998), the original description of *Paratryzia* has a discrepancy between the text describing the wing features of the type-species (Tonnoir 1929: 605) and the photograph referred to as belonging to that species (Tonnoir 1929, Fig. 14). Actually, the wing of *Paratryzia conformis* Tonnoir must be that of Plate XXIII Figure 15, while that of Figure 14 must be that of *Paramorganiella adventurosa* Tonnoir, mistakenly indicated as Plate XXIII Figure 15. The type of *P. conformis*, however, has unfortunately not been localized (Bugledich 1999).