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A new genus and species of micro bee flies from Brazil (Diptera: Mythicomyiidae: Psiloderoidinae)

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Abstract

A new genus of Mythicomyiidae, *Amydrostylus triadicophallus* **gen. nov. et sp. nov.**, is described from the Chaco of Mato Grosso do Sul, Brazil. The type-series was collected by Malaise traps during the development of the SISBIOTA–Brasil project. *Amydrostylus* is closely related to the genus *Acridophagus* Evenhuis in the subfamily Psiloderoidinae, but it is distinguished by the minute apical stylus and the same length of br and bm cells. The species is described and illustrated in detail, including the male terminalia and female spermathecae. This is the first record of the subfamily Psiloderoidinae in South America.

Key words: Chaco, *Amydrostylus*, biodiversity, Neotropical Region, taxonomy

Introduction

Mythicomyiidae, or micro bee flies, are tiny flies (0.5–5.0 mm) that are found throughout most parts of the world except the highest altitudes and latitudes (Greathead & Evenhuis 2001). Including all extinct and extant taxa, the Mythicomyiidae are currently comprised of more than 380 valid taxonomic species distributed among 30 genera with dozens more new taxa awaiting description.

We here describe a new genus of the subfamily Psiloderoidinae, *Amydrostylus* **gen. nov.** (the first record of the subfamily in the Neotropical Region), based on specimens from the Brazilian Chaco, in Porto Murinho, State of Mato Grosso do Sul (Figs 1–5), sampled with Malaise traps during the expeditions of the SISBIOTA–Brasil project. The new genus is easily separated from the other members of the subfamily by the antenna which has a minute apical stylus and also by the wing venation (Figs 6–7). Psiloderoidinae are characterized by the short R_{2+3} , much shorter than R_{4+5} and ending free in the costa. The Jurassic fossil *Palaeoplatypygus* Kovalev and the Cretaceous fossil genera *Borrisovia* Evenhuis and *Procyrtosia* Zaitzev make the Psiloderoidinae the oldest lineage in the family (Greathead & Evenhuis 2001). Other fossil genera of the subfamily (known only from the Tertiary) include *Carmenelectra* Evenhuis and *Proplatypygus* Hennig. Three extant genera with a total of 11 living species are known in the subfamily: two from the Afrotropical Region (*Onchopelma* Hesse - seven species; *Psiloderoides* Hesse - two species) and one from the Australasian Region (*Acridophagus* Evenhuis - two species). The only known host records of the subfamily Psiloderoidinae are related to Acrididae egg pods (Kirk-Spriggs & Evenhuis 2008). Interestingly, the fossil taxa of Psiloderoidinae are all found north of the Equator, while all the extant taxa are known only from south of the Equator.