



## A new apterous species of *Platypalpus* Macquart (Diptera: Hybotidae, Tachydromiinae) from Ecuador

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### Abstract

*Platypalpus* is the most speciose genus of Tachydromiinae with approximately 550 described species, occurring preferentially in colder and temperate climates of the world. The genus is notably diverse in the Palaearctic, where almost 300 species are known, but it is much less diverse in tropical climates, a fact frequently attributed to the competition with species of *Elaphropeza* found in warmer regions. Despite the great variation of morphological features known, no apterous species of *Platypalpus* have been described. We describe *Platypalpus apterus* **sp. nov.**, a very curious new wingless species of *Platypalpus*, which is the first record of a wingless species in the genus. We provide detailed illustrations of the male and female genital segments. This species appears to belong in the *Platypalpus brevicornis* species-group, which until now has only been recorded from the Oriental and Palaearctic regions. Twenty-three species of *Platypalpus* are now known from the Neotropical Region.

**Key words:** Empidoidea, Hybotidae, Tachydromiini, *Platypalpus*, apterous, wingless, predaceous flies, Neotropical region

### Introduction

Tachydromiinae is a very diverse subfamily of Hybotidae that comprises quite small predaceous flies. It is clearly monophyletic and its species are distinguished from other subfamilies by the apomorphic loss of vein  $M_2$  and cell dm, neither pterostigma nor pseudotracheae, phallus with the apex not articulated and ejaculatory apodeme not fused to the base of phallus (Sinclair & Cumming 2006).

*Platypalpus* Macquart belongs to the tribe Tachydromiini and it is defined by the following characters: eyes bare, separated in both sexes, postpronotal lobe differentiated, scutum longer than broad (except in *P. brevicornis* species-group), mid leg raptorial, mid femur thickened and armed with rows of spine-like ventral setae, mid tibia usually with a somewhat prominent apical projection, wing with veins  $A_1$  and  $CuA_2$  present (cell cup present) (Grootaert & Shamshev 2012).

The genus is the most diverse of those in the Tachydromiinae, with approximately 550 species found almost worldwide, but preferentially inhabiting cold and temperate regions in the Nearctic and Palaearctic; it is particularly diverse in the latter region with 295 described species, whereas only 22 species are known from the Neotropics (Yang *et al.* 2007). In the tropics it is more diverse at higher altitudes and in cold regions, with few species known at lower altitudes and in tropical areas, where they likely compete with species of *Elaphropeza* Macquart that occupy similar habits and niches (Grootaert & Shamshev 2012). This apparent competitive exclusion is the probable reason the genus is not very diverse in tropical regions (*op. cit.*).

This paper describes a very curious new wingless species of *Platypalpus* from the Parque Nacional Cajas, Ecuador. It is the first wingless species described in the genus and is the 23rd species known from the Neotropical Region.