New species and new records of *Manota* Williston (Diptera: Mycetophilidae) in the Neotropical region

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Abstract


**Key words:** Diptera, Mycetophilidae, *Manota*, new species, Neotropical region, Argentina, Ecuador, French Guyana, Nicaragua

Introduction


Concerning the Neotropical region, most of the species are known from Central America (Williston 1896, Jaschhof & Hippa 2005) and only two from South America (Enderlein 1911, Lane 1948). None have been reported since their original description except for *M. ibanezi* Hippa & Huerta, which extends between Central America and the Nearctic region (Jaschhof et al. 2011). The male terminalia has been described for all Neotropical species except *Manota coxata* (Enderlein) from Brazil.

We have studied a small collection of Neotropical *Manota* (for habitus and general outline of male terminalia, see Fig. 1), which contains a number of undescribed species and extends the range of many already described ones. The aim of this paper is to publish this new information.

Material and methods

All the material studied was sorted from Malaise trap samples preserved in ethanol. The material from French Guyana was collected in the Kew Mountains (for details see Kurina 2008). The material from Ecuador was collected from the Yasuni NP and Otonga Nature Reserve (for latter details see Ševčík 2012). Additional single specimens were studied from Nicaragua, Argentina and Peru.

A percentage of the specimens were identified without any special mounting under a stereomicroscope in alcohol, within which they are still preserved. In most cases the abdomen or only the apical part of it was detached from specimen and macerated in warm concentrated potassium hydroxide (KOH). In most cases the hypopygium was also detached beyond segment 8. After washing in water and dehydration in stages of increasing concentrations of alcohol, these parts of the abdomen were placed for a few seconds in clove oil (eugenol). These were then mounted in “Euparal” between two pieces of coverslip, which allowed the specimens to be studied from both sides under a compound microscope. These preparations are now attached to normal microscope slides by two strips of adhesive tape across their edges and are easily detached when needed. Other parts of the body were not macerated, but after dehydration were mounted in “Euparal” so that they are lying on their side. The verbal descriptions of the hypopygium should only be taken as rough guidelines to interpret the drawings. The morphological terminology follows mainly Søli et al. (2000). The terminology of hypopygium follows Hippa and Papp (2007) except for the tegmen, which is here called aedeagus. The latter terminology is also explained in Figs.