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

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Table of contents

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Abstract

The following 17 new species are described: *Manota anfracta* (Ecuador), *M. appendiculata* (Ecuador, French Guyana), *M. aristata* (Ecuador), *M. bisulca* (Ecuador), *M. depilis* (Ecuador), *M. inermis* (Ecuador), *M. iota* (Ecuador, French Guyana), *M. micula* (Ecuador), *M. panda* (Argentina), *M. papillosa* (Ecuador), *M. patula* (French Guyana), *M. paula* (Ecuador), *M. pisinna* (French Guyana), *M. quantilla* (Ecuador), *M. quantula* (Ecuador), *M. senta* (Nicaragua), *M. virgata* (Ecuador). New records of the following species are given: *Manota acuminata* Jaschhof and Hippa (Ecuador), *M. acutistylus* Jaschhof and Hippa (Ecuador, French Guyana), *M. diversiseta* Jaschhof and Hippa (Ecuador, French Guyana), *M. ibanezi* Hippa and Huerta (Ecuador, French Guyana, Peru), *M. inornata* Jaschhof & Hippa (French Guyana), *M. multisetosa* Jaschhof and Hippa (Ecuador), *M. parva* Jaschhof and Hippa (Ecuador), *M. rotundistylus* Jaschhof and Hippa (Ecuador), and *M. squamulata* Jaschhof and Hippa (Ecuador).

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

Introduction

In recent years special attention has been paid to the species diversity of *Manota* Williston (type species *M. defecta* Williston). Within a decade the species number has raised from 28 (Bechev 2000) to ca. 200, divided between the main biogeographical regions as follows: Afrotropical 51, (Enderlein 1910, Matile 1972, 1978, Søli 1993, Jaschhof & Mostovski 2006, Hippa 2008b, Hippa & Kurina 2012), Oceanian/Australian 24 (Tonnoir & Edwards 1927, Edwards 1928, Colless 1966, Matile 1993, Hippa 2007, Jaschhof & Jaschhof 2010), Nearctic 1 (Jaschhof *et al.* 2011), Neotropical 34 (Williston 1896, Enderlein 1911, Lane 1948, Jaschhof & Hippa 2005, Hippa & Huerta 2009), Oriental 88 (Senior-White 1922, Hippa & Papp 2007, Hippa 2006, 2008a, 2009, 2011, Hippa & Ševčík 2009) and Palaearctic 14 (Lundström 1913, Ševčík 2002, Hippa & Kjærandsen 2010, Hippa *et al.* 2011).

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.