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New species and new records of Afrotropical *Manota* Williston (Diptera, Mycetophilidae), with a key to the species

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Abstract

The following 24 new species of *Manota* are described: *M. abakiga* (Uganda), *M. aculifera* (Ghana, Uganda), *M. afra* (Uganda), *M. bracteata* (Uganda), *M. clurina* (Uganda), *M. comata* (Ghana, Uganda), *M. dissidens* (Ghana), *M. foliolata* (Uganda), *M. freerki* (Uganda), *M. ghanaensis* (Ghana), *M. katusabei* (Ghana, Uganda), *M. kibaleensis* (Uganda), *M. pedicellata* (Uganda), *M. petiolata* (Uganda), *M. pilosa* (Uganda), *M. pinnata* (Uganda), *M. pinnulata* (Uganda), *M. redunca* (Uganda), *M. relicina* (Uganda), *M. senticosa* (Uganda), *M. simina* (Uganda), *M. toomasi* (Uganda), *M. toroensis* (Uganda), and *M. usubi* (Uganda). New records for the following species are given: *M. lachaisei* Matile (Uganda), *M. mabokeensis* Matile (Uganda), *M. mazumbaiensis* Søli (Ghana, Uganda), *M. teocchii* Matile (Uganda) and *M. whiteleyi* Jaschhof & Mostovski (Uganda). Redescriptions of *M. lachaisei* and *M. teocchii* as well as drawings of the hypopygium of *M. mazumbaiensis* are given. Altogether 51 species of *Manota* are presently known from the Afrotropical region.

Key words: Diptera, Mycetophilidae, *Manota*, new species, key, Afrotropical region, Uganda, Ghana

Introduction

Manota Williston (type-species *M. defecta* Williston, 1896) is still the only genus of the mycetophilid subfamily Manotinae found in the Afrotropical region. Due to their peculiar wing venation and specific habitus (see Fig. 1), *Manota* specimens are easily recognisable among Mycetophilidae samples from the region. They are small with extremely similar external morphology while most of the specific characters appear in the male hypopygium only. Altogether 27 species of *Manota* are hitherto known in the Afrotropical region. The first one (as *Aphanizophleps*) was described by Enderlein (1910) from the Seychelles. Matile (1972) added eight species from the Central African Republic and Cameroon, and later (Matile 1978) two species from the Comoros. Later on, Søli (1993) described eight species from Tanzania, Jaschhof & Mostovski (2006) two from the Republic of South Africa and finally Hippa (2008) five species from Madagascar, one from Mauritius and one from Uganda. None of the species has been found outside the Afrotropical region. All are known from their type material only, except for three species: *M. mabokeensis* Matile, described from the Central African Republic has also been reported from Uganda, *M. natalensis* Jaschhof & Mostovski described from the Republic of South Africa has been reported from additional South African localities and *M. whiteleyi* Jaschhof & Mostovski also described from the South African Republic has been reported from the Ivory Coast (Hippa 2008).

The present paper was prompted by the discovery of no less than 27 *Manota* species, of these 22 undescribed, in Malaise trap samples recently collected in one locality in the Kibale National Park in Uganda. We also use the opportunity and add material from Ghana, which was left to us for publication. This material includes two undescribed species. The two localities increase the total number of the Afrotropical *Manota* species from 27 to 51.

Material and methods

All the material studied was sorted from Malaise trap samples preserved in ethanol. For details concerning the material in the Kibale National Park, Uganda, close to Kanyawara Biological Station, see Kurina (2012). 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. A few specimens were mounted in the latter way without any dissection, usually in a thick layer of “Euparal” so that they were kept undamaged and can be easily remounted.

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