



## New species and new records of *Manota* Williston (Diptera, Mycetophilidae) from Thailand

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## Abstract

The following 10 new species are described: *Manota avita*, *M. chelapex*, *M. chi*, *M. epigrata*, *M. obtecta*, *M. prisca*, *M. seducta*, *M. subferrata*, *M. tetrachaeta*, and *M. vesicaria*. New records of the following species are given: *Manota aconcinna* Hippa, *M. acutangula* Hippa, *M. ancylochaeta* Hippa, *M. clavulosa* Hippa, *M. collina* Hippa, *M. cristata* Hippa, *M. globigera* Hippa, *M. inflata* Hippa, *M. oblonga* Hippa, *M. oligochaeta* Hippa, *M. ovata* Hippa, *M. pectinata* Hippa, *M. pelli* Hippa, *M. perlobata* Hippa, *M. perpusilla* Hippa, *M. planilobata* Hippa, *M. procera* Hippa, *M. roslii* Hippa, and *M. simplex* Hippa. The taxonomy of *M. perpusilla*, *M. planilobata* and *M. procera* is discussed and new descriptions of the hypopygia of the two former species are given.

**Key words:** Diptera, Mycetophilidae, *Manota*, new species, Oriental region, Thailand

## Introduction

For many years the fungus gnat genus *Manota* was represented in the Oriental region by a single species, from Sri Lanka (Senior-White 1922). In recent years, the number of Oriental species has increased to 58, which is almost one half of the world fauna, which currently comprises some 140 species. The additions have been mostly from the northern part of the region, Malaysia and Thailand (Hippa 2006, 2008a, Hippa and Papp 2007), with only one from Maluku Utara, Indonesia (Hippa 2007). Many new species have also been described recently from the eastern parts of the Palaearctic region: mainland China (Ševčík 2002), Korea (Papp 2004), Japan (Hippa and Kjærandsen 2009) and Taiwan (Papp 2004), but no species common to these two regions have yet been found.

So far as the fauna of Thailand is concerned, the first study of *Manota* was made by Hippa and Papp (2007). They discovered 9 species, of which one was previously described from Malaysia (Hippa 2006), one described from New Guinea (Hippa 2007) and seven new species. Later, Hippa (2008a) studied part of the material collected by the “Thailand Inventory Group for Entomological Research (TIGER)” in the Thailand national parks (see [www.sharkeylab.org](http://www.sharkeylab.org)), and found 12 additional new species and another 3 species which were previously known from Malaysia. As a result of these studies, the total number of *Manota* species recorded from Thailand reached 32.

During the past year, I have had the opportunity of studying additional samples of Sciaroidea collected by the “TIGER” project. In the material there are 289 specimens of *Manota*, 257 males and 32 females. The number of species represented by males is 29. Of these, 10 are new species, whilst all the others had been found earlier in Thailand. Most of the females are still unidentified, but two could be associated with named males. The aim of this paper is to describe and name the new species, to present new taxonomic data on some of the previously described species and to give the new records for all the species found in the material.

## Material and methods

The material was preserved in ethanol. Some specimens which I could identify under a stereomicroscope are still in alcohol. In most cases I have detached the abdomen from specimens, or only the apical part of the abdomen, and macerated the detached part in warm concentrated potassium hydroxide (KOH). I have further detached the hypopygium beyond segment 8. After washing in water and step-wise dehydration in alcohol, I have placed the parts of the abdomen for a few seconds in clove oil (eugenol), after which I have mounted them in “Euparal” between two pieces of cover glass, which enables the specimen to be studied from both sides under a compound microscope. Such preparations are now attached to glass slides by a couple of strips of adhesive tape across their edges and are easily detached when needed. Other parts of the body were not treated with potassium hydroxide, but after dehydration I mounted them as they were in “Euparal”.

The morphological terminology follows Hippa and Papp (2007) except for the tegmen which is here