



Review of the genus *Paramanota* Tuomikoski (Diptera, Mycetophilidae), with the description of new fossil and recent species

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Abstract

The genus *Paramanota* includes the following species: *P. awanensis* Hippa, Jaschhof & Vilkamaa (Peninsular Malaysia), *P. bifalx* sp. n. (Thailand), *P. furcillata* sp. n. (Thailand), *P. grandaeva* sp. n. (Baltic amber), *P. orientalis* Tuomikoski (Burma and Thailand), *P. paxillosa* sp. n. (Thailand), *P. peninsulae* Hippa, Jaschhof & Vilkamaa (Peninsular Malaysia), *P. schachtii* Papp, and *P. sumatrana* Hippa, Jaschhof & Vilkamaa (Sumatra). *P. orientalis* is redescribed. A key to the species is given. Generic characters of *Paramanota* are discussed.

Key words: Diptera, Mycetophilidae, Manotinae, *Paramanota*, new species, Thailand, fossils

Introduction

Paramanota Tuomikoski (type species *P. orientalis* Tuomikoski) is usually placed within the Mycetophilidae subfamily Manotinae together with the three extant genera *Eumanota* Edwards (*E. leucura* Edwards), *Manota* Williston (*M. defecta* Williston) and *Promanota* Tuomikoski (*P. malaisei* Tuomikoski), and the Cretaceous genus *Alavamanota* Blagoderov & Arillo (*A. hispanica* Blagoderov & Arillo) (for further discussion, see Hippa *et al.*, 2004). The phylogenetic analysis by Hippa *et al.* (2004) places *Paramanota* as the sister group of *Eumanota*+*Promanota*.

Tuomikoski (1966) described *Paramanota* as monotypic and the type species *P. orientalis* Tuomikoski from Burma remained for a long time the only known species. Papp (2004) added *P. schachtii* from Taiwan and Hippa *et al.* (2004) added *P. awanensis* and *P. peninsulae* from Peninsular Malaysia and *P. sumatrana* from Sumatra. No new records of any of the species since their descriptions have been published.

Recently I have studied an extensive amount of material of Sciaroidea collected in the Thailand National Parks by the Thailand Inventory Group for Entomological Research (TIGER) (www.sharkeylab.org). In the thousands of checked Malaise trap samples only seven specimens of *Paramanota* were recorded, including the incompletely known type species and three undescribed ones. The aim of the present work is to describe and name the three new species, redescribe *P. orientalis*, discuss the other species and give a key to the species of *Paramanota*. I have recently studied the first fossil *Paramanota* and will use this opportunity to describe it in context with the extant species.

Material and methods

The material was preserved in ethanol. Abdomens were detached from specimens and macerated in warm concentrated potassium hydroxide (KOH). The hypopygium was also detached beyond segment 8. After washing in water and stepwise dehydration in alcohol, the parts of the abdomen were placed for a few seconds in clove oil (eugenol), after which they were mounted in “Euparal” between two pieces of cover glass, enabling the specimen to be studied from both sides under a compound microscope. These preparations are attached to regular glass slides by a couple of strips of adhesive tape across their edges and thus easily detachable when needed. Other parts of the body were not treated with potassium hydroxide, but after dehydration mounted as they were in “Euparal”.