Melastrongygaster, a new genus of the tribe Strongygastrini (Diptera: Tachinidae), with five new species from Asia

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Abstract

A new genus with five new species of the Tachinidae is described: Melastrongygaster gen. nov., M. atrata sp. nov. (type species) from Japan and South Korea, M. chaoi sp. nov. from China, M. fuscata sp. nov. from China, M. kambaitiana sp. nov. from Myanmar and M. orbitalis sp. nov. from Vietnam. Melastrongygaster belongs to the tribe Strongygastrini and the subfamilial position of the tribe is discussed.

Key words: taxonomy, Strongygaster, Arcona, subfamily, Phasiinae

Introduction

The tribe Strongygastrini is a small group comprising only two genera with some ten species from the Palearctic, Nearctic and Neotropical regions. Known members of this tribe appear to be homogeneous, similar to each other in external features including the male and female terminalia, though their hosts are variable and subfamilial position of the tribe is still under discussion.

Herting (1957) considered the Strongygastrini (as “Gruppe Tamiclea-Hyalomyiodes”) as primitive Phasiinae based on the structure of the egg, larva and female terminalia. Verbeke (1962) treated Strongygastrini (as Strongygastrina) as a subtribe of Phasiinae based on the structure of the male terminalia. Mesnil (1966), Herting (1983, 1984), Tschorsnig (1985), Shima (1989, 2006), Herting & Dely-Draskovits (1993) and Tschorsnig & Herting (1994) included the Strongygastrini in the Phasiinae, whereas O’Hara & Wood (2004) placed it in Dexiinae and Cerretti (2010) followed. In the reconstruction of the phylogenetic relationships of the tachinid groups Cerretti et al. (2014) reconstructed the Strongygastrini as sister group to the monophyletic group comprising most genera of the Phasiinae. The known hosts of members of the Phasiinae sensu Herting (1984) are hemipteran bugs except for Strongygaster Macquart, the hosts of which are variable, such as queen ants, adult beetles, pyrrhocorid bugs and even lepidopterans (Herting 1960; Guimarães 1977; Arnaud 1978; Shima 2006; Wood 2009). This variant host selection, together with the peculiar structure of the male terminalia, makes the systematic position of the Strongygastrini difficult to understand.

Herein is proposed a new genus assigned to the tribe Strongygastrini with five new species from Asia. These new species are rather variant from known members of this tribe; they are strongly sexually dimorphic, bristly, and the female terminalia have a piercing structure, but the structure of the male terminalia fundamentally corresponds to that of other strongygastrines. I discuss the systematic position of the Strongygastrini in light of this new genus and species, although the hosts of these new species and their reproductive strategy are still unknown.

Material and methods

Material was studied from the collection of the following institutions:

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