



Three new species of *Megaselia* Rondani (Diptera, Phoridae) from mainland China

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Abstract

Three new species, *Megaselia cornipalpis* sp. nov., *M. lacunitarsalis* sp. nov. and *M. trimacula* sp. nov. are described and illustrated from mainland China. A checklist of species of genus *Megaselia* recorded from mainland China is provided.

Key words: Phoridae, *Megaselia*, new species, mainland China

Introduction

The genus *Megaselia* was established by Rondani in 1856 with the type species *Megaselia crassineura* Rondani (= *Phora costalis* Roser, 1840). About 1600 species are recorded and distributed all over the world. The knowledge of the genus in China is still limited. Its fauna in China belongs to the Palaearctic and Oriental Regions. So far, only 33 species were recorded from mainland China (Schmitz 1933; Borgmeier 1968; Disney *et al.* 1995; Liu 1998 a, b; Fang & Liu 2005a, b; Fang, Xia *et al.* 2009; Fang, Hai *et al.* 2009; Fang & Liu 2012), in which 21 species are known from the Oriental Region, 10 species are known from the Palaearctic Region, and *M. spiracularis* Schmitz and *M. grisaria* Schmitz are known from both of the regions.

During the survey of Chinese phorid flies, we found three species of the genus *Megaselia* as new to science, which distribution areas belong to the Palaearctic Region. All the new species have the following common characteristics: postpedicels without SPS (subcuticular pit sensilla) vesicles. Mesopleuron with hairs. Notopleuron with 3 bristles and no cleft. Scutellum with a posterior pair of bristles and an anterior pair of hairs. Hind tibia with posterodorsal hairs and without anterodorsal hairs. Specific characters of these species are described below.

Material and methods

The specimens were preserved in alcohol (70–80%) and subsequently some of them were mounted on slides, in so-called Berlese Fluid (Disney 2001). Terminology is mainly based on Disney (1983) and Brown (1992). Type specimens are deposited in Liaoning Key Laboratory of Urban Integrated Pest Management and Ecological Security, Shenyang University, China.

Descriptions of new species

Megaselia cornipalpis, sp. nov.

(Figs. 1–6)

Description. Male. Body length 1.9–2.1 mm.