Zootaxa 2653: 60–68 (2010)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Two new species of the genus *Angarotipula* Savchenko, with a key to world species (Diptera, Tipulidae)

QIFEI LIU & DING YANG[1]
Department of Entomology, China Agricultural University, Beijing 100193, China. E-mail: lqflying@yahoo.cn
[1]Correspondence author. E-mail: dyangcau@126.com

Abstract

The following two new species of the genus *Angarotipula* Savchenko from China are described: *Angarotipula aspina* **sp. nov.** and *A. biprocessa* **sp. nov.** A key to the world species of the genus *Angarotipula* is presented.

Key words: Diptera, Tipulidae, *Angarotipula*, new species, China

Introduction

The genus *Angarotipula* Savchenko, 1961 is a small genus in the family Tipulidae. It is characterized by the following features: body middle-sized, main color brownish yellow or black; nasus distinct; flagellum of both sexes without verticils, flagellomeres 2–10 usually short, either enlarged on basal half (Figs. 2 and 5) or uniformly cylindrical; ground color of abdomen yellow or black, tergites usually with black central stripe; tergite 9 with posterior border blackened, laterally usually produced into spine-like process; lobe of gonostylus rod-like or subtriangular with posterior border near apex produced; clasper of gonostylus usually with long beak (Savchenko 1961). It is distributed in the Holarctic and Oriental Regions with thirteen known species, of which two species are in the Nearctic Region, six in the Palaearctic Region and six in the Oriental Region (Oosterbroek 2010; details in Alexander 1919, 1935, 1964, 1966; Doane 1901; Edwards 1926; Lundstrom 1907; Savchenko 1961; Yang and Yang 1995, 1996). One species, *A. laetipennis* (Alexander 1935), is distributed in both Oriental and Palaearctic regions. Five species are known to occur in China (Oosterbroek 2010; details in Alexander 1935; Yang and Yang 1995, 1996). In the present paper, two new species of the genus *Angarotipula* are described from southern China. A key to the world species of the genus *Angarotipula* is presented.

Material and methods

The specimens were studied and illustrated with ZEISS Stemi 2000-c. Genitalic preparations were made by macerating the apical portion of the abdomen in cold 10% NaOH for 12–15 h. After examination it was transferred to fresh glycerine and stored in a microvial pinned below the specimen. Type specimens examined were deposited in the Entomological Museum of China Agricultural University (CAU), Beijing.

Morphological terminology follows McAlpine (1981), terminology of male terminalia changes according to Ribeiro (2006): lobe of gonostylus = outer gonostylus, clasper of gonostylus = inner gonostylus. The following abbreviations in figures are used: 9t—ninth tergite, 9s—ninth sternite, gx—gonocoxite, lg—lobe of gonostylus, cg—clasper of gonostylus, cc—cercus, hv—hypogynial valve.

 Accepted by V. Blagoderov: 21 Sep. 2010; published: 21 Oct. 2010