



Species of *Blepharicera* Macquart from China with descriptions of two new species (Diptera: Blephariceridae)

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Abstract

Blepharicera asiatica (Brodsky, 1930) is newly recorded from China. Two species, *Blepharicera hainana* **sp. nov.** and *B. hebeiensis* **sp. nov.**, are described as new to science. A key to the known species of the genus *Blepharicera* from China is presented.

Key words: net-winged midge, taxonomy, Holarctic, Oriental

Introduction

Blepharicera is distributed only in the Holarctic Region and Oriental Region. Currently, there are Fifty-one known species in the world. Five western and twenty-three eastern Nearctic species had been described (Courtney 2000b; Hogue 1978, 1986, 1989; Jacobson *et al.* 2011). Twenty-three species occur in Palaearctic Region and Oriental Region, including two doubtful species, *B. alhnicola* Kaul and *B. rahlaea* Kaul (Alexander 1922, 1924, 1952, 1953; Brunetti 1911; Jacobson *et al.* 2006; Kaul 1971; Kitakami 1931, 1937, 1950; Soós *et al.* 1992; Zwick 1997, 1998, 2005). The first-known Asian species of *Blepharicera* were described by Alexander and Kitakami. They recorded ten species distributed in Japan, China, Korea, Thailand and the Philippines (Alexander 1922, 1924, 1952, 1953; Kitakami 1931, 1937, 1950). Recently, most Palaearctic and Oriental species of *Blepharicera* were described by Zwick. He also confirmed that two Indian species of *Blepharicera* named by Kaul should be synonymized with *B. asiatica* Brodsky (Zwick 1990, 1991, 1998, 2005).

Blepharicera can be distinguished from other genera of Blephariceridae by the following features: middle coxa with setose median outgrowth; base of hind basitarsus with obvious black setae; vein R with 3 branches, veins R₄ and R₅ separate for entire length; absence of cross vein bm-cu, presence of M₂ (Zwick 1990; Courtney 2000a).

Five species of *Blepharicera* were known to occur in China (Alexander 1953; Kitakami 1937, 1950; Zwick 1990): *B. dimorphops* Alexander, *B. macropyga* Zwick, *B. taiwanica* Kitakami, *B. uenoi* Kitakami, *B. yamasakii* Kitakami. In the present paper, one newly recorded species, *B. asiatica*, and two new species, *B. hainana* **sp. nov.** and *B. hebeiensis* **sp. nov.**, are added to the Chinese fauna. A key to males of known species of *Blepharicera* from China is presented.

Material and methods

Studies were based on whole-animal preparations and dissections. Genitalia were prepared by macerating the apical portion of the abdomen in cold 10% NaOH for 12–15 h. Specimens were examined and illustrations prepared by using a ZEISS Stemi 2000-C stereomicroscope. Photomicrographs were captured on the same stereomicroscope with a Canon EOS-450D digital camera. After examination, the abdomen was transferred to fresh glycerine and stored in a microvial pinned below the specimen. Type specimens are deposited in the Entomological Museum of China Agricultural University, Beijing.

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