



***Bicaubittacus*, a new genus of the Oriental Bittacidae (Mecoptera) with descriptions of two new species**

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Abstract

Bicaubittacus **gen. nov.**, the second genus of the family Bittacidae from the Oriental Region, is erected with *Bittacus appendiculatus* Esben-Petersen, 1927 as its type species. A key to the 17 extant genera of Bittacidae is compiled to include the new genus. Two new species, *Bicaubittacus yangi* **sp. nov.** and *Bi. mengyangicus* **sp. nov.** are described and illustrated from China. Three new combinations, *Bicaubittacus appendiculatus* (Esben-Petersen, 1927) and *Bi. longiprocessus* (Huang & Hua, 2005) from China, and *Bi. burmanus* (Tjeder, 1974) from Myanmar (formerly Burma), are transferred from the genus *Bittacus* Latreille. A key to the five species of *Bicaubittacus* is provided. The validity of *Neobittacus* and *Thyridates* is briefly discussed

Key words: Bittacidae, *Bicaubittacus*, *Bittacus*, China, Myanmar (Burma), Oriental Region, taxonomy

Introduction

The hangingflies Bittacidae, the most widely distributed and the only cosmopolitan family in Mecoptera, currently consist of 16 extant genera and over 180 species throughout the world (Penny & Byers, 1979; Penny, 1997; Hua & Chou, 1998; Zhou, 2003; Huang & Hua, 2005; Cai *et al.*, 2006; Hua & Tan, 2007; Bicha, 2007; Hua *et al.*, 2008; Tan & Hua, 2008; Machado *et al.*, 2009). Until the end of the 19th century almost all the described bittacid species from various parts of the world were all assigned to the genus *Bittacus* Latreille, 1805, the oldest and for a long time the only genus in Bittacidae. Since then, six genera, i.e. *Harpobittacus* Gerstaecker, 1885; *Apterobittacus* MacLachlan, 1893; *Pazius* Navás, 1913; *Neobittacus* Esben-Petersen, 1914 which is just synonymized with *Bittacus* by Machado *et al.*, 2009; *Edriobittacus* Byers, 1974, and *Hylobittacus* Byers, 1979, have been separated from *Bittacus*. As the result the genus *Bittacus* comes to be a repository for the very many “non-outstanding” species of Bittacidae, basically similar to the type species *Bittacus italicus* (Müller, 1766) (Lambkin, 1988). During our recent taxonomic study, *Bittacus appendiculatus* Esben-Petersen, 1927, *B. burmanus* Tjeder, 1974, *B. longiprocessus* Huang & Hua, 2005, and two undescribed related species from the Oriental Region were found to constitute a distinct group that is morphologically so different from the typical *Bittacus* in some striking features (especially the male gonocoxites with two long distal prolongations) such that they need to be erected as a new genus. Hereby *Bicaubittacus* **gen. nov.** is proposed with *Bittacus appendiculatus* Esben-Petersen, 1927 as its type species. This is the second genus in Bittacidae from the Oriental Region. Two additional species are assigned to the new genus and described as new to science: *Bicaubittacus yangi* **sp. nov.** and *Bi. mengyangicus* **sp. nov.** Three new combinations, *Bicaubittacus appendiculatus* (Esben-Petersen, 1927), *Bi. longiprocessus* (Huang & Hua, 2005) and *Bi. burmanus* (Tjeder, 1974) are all transferred from the genus *Bittacus*. Keys to the genera of Bittacidae and the species of *Bicaubittacus* are provided.