



Article

urn:lsid:zoobank.org:pub:9486CB82-21BE-4000-9AF7-A1B124F29788

Species of *Bittacomorphella* Alexander from China with descriptions of two new species (Diptera: Ptychopteridae)

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Abstract

The genus *Bittacomorphella* (Alexander) is newly recorded from the Chinese mainland. Two species, *Bittacomorphella gongshana* sp. nov. and *B. zhaotongensis* sp. nov., are described. A key to males of described *Bittacomorphella* from the Oriental region is presented.

Key words: phantom crane fly, taxonomy, new record, Chinese mainland

Introduction

The world fauna of Ptychopteridae includes approximately 70 species (Alexander 1965; Alexander & Alexander 1973; Alexander 1981; Rozkošný 1992; Rozkošný 1997; Young & Fang 2011). Ptychopteridae is divided into two subfamilies, Ptychopterinae Shiner and Bittacomorphinae Alexander. Most of the species belong to subfamily Ptychopterinae, with only 10 species currently placed in subfamily Bittacomorphinae, including the genus *Bittacomorphella* Alexander, 1916 (Alexander & Alexander 1973). *Bittacomorphella* is a small genus with only 8 described species distributed in the Holarctic and Oriental Regions (Alexander 1916; Alexander 1924; Alexander 1965; Alexander & Alexander 1973; Alexander 1981; Nakamura & Saigusa 2009; Young & Fang 2011). Two species *Bittacomorphella thaiensis* Alexander, 1953 and *B. lini* Young, 2011 are known to occur in the Oriental Region (Alexander 1953; Young & Fang 2011). *B. nipponensis* Alexander, 1924 and *B. esakii* Tokunaga, 1938 are distributed in Japan (Nakamura & Saigusa 2009). *B. jonesi* Johnson is distributed in the northeast United States while *B. sackenii* Roder, *B. fenderiana* Alexander and *B. pacifica* Alexander are distributed in the northwest United States. No species of *Bittacomorphella* has previously been reported from the Chinese mainland.

Larvae and pupae of *Bittacomorphella* species develop in aquatic habitats of a lentic character. They live in the upper layers of mud and exchange air through their respiratory siphon (Alexander 1981). Adults in this subfamily are known as "phantom crane flies" due to their tipulid-like body and black-and-white banded legs (Young & Fang 2011). They typically hold the legs straight out from the body as they drift in the air, and it is difficult to see their dark body, except the white bands on their legs. The genus is characterized by antennae with 18–20 segments, longer in males than in females, with the terminal segment extremely small. Wings of *Bittacomorphella* are shorter than their body, with M un-branched, distal radial and medial cells with macrotrichia. Legs are usually with conspicuously white bands, first tarsomere of all legs not dilated (Alexander 1981).

In the present paper we record *Bittacomorphella lini* Young and Fang, and describe two species, *B. gongshana* sp. nov. and *B. zhaotongensis* sp. nov., from the Chinese mainland. A key to males of the described species of *Bittacomorphella* from the Oriental region is presented.