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Four new species of *Tanycarpa* (Hymenoptera, Braconidae, Alysiinae) from the Palaearctic Region and new records of species from China

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Abstract

Four new species of *Tanycarpa* (Hymenoptera, Braconidae, Alysiinae), *T. gymnotum* Yao sp. n., *T. similis* Yao sp. n., *T. areolata* Yao sp. n., and *T. lineata* Yao sp. n., are described from the Palaearctic Region of China, and *T. chors* Belokobylskij is newly recorded from China. Significant range extensions are given for *T. bicolor* (Nees von Esenbeck), *T. gracilicornis* (Nees von Esenbeck), and *T. mitis* Stelfox. A key to the Palaearctic species of *Tanycarpa* is provided.

Key words: Alysiini, Asia, identification, key, range extension, taxonomy

Introduction

The subfamily Alysiinae is traditionally divided into two tribes, the Dacnusiini and the Alysiini (Shenefelt 1974; Wharton 1997, 2002). Monophyly of the Alysiinae is based on the possession of outwardly directed, non-overlapping (=exodont) mandibles and endoparasitism of cyclorrhaphous Diptera but has not been tested with an adequate sampling of molecular data relative to Opiinae, its putative sister taxon. The Alysiini is a much more diverse assemblage of lineages than the Dacnusiini, with a wide range of hosts among the Cyclorrhapha (Wharton 1984, 1997, 2002). There are 71 genera in Alysiini compared with 33 genera in Dacnusiini (Yu *et al.* 2012).

Tanycarpa Foerster, 1862 is a small genus of Alysiini with 20 species worldwide. The only known fossil was described by Statz (1936) from Germany. Fischer (1971) and van Achterberg (1976) revised the Palaearctic species. Wharton (1980) presented a key to the Nearctic species and discussed the phylogenetic placement of *Tanycarpa* relative to other genera of Alysiini. Chen and Wu (1994) produced a key to the Chinese species, including three new species and six species reported from China for the first time. Belokobylskij (1998) revised the eastern Asian species and generated a key, and Dix (2010) described two new species from Colombia. Host and biological information are limited, but at least two species, *T. punctata* van Achterberg and *T. bicolor*, attack larval Drosophilidae (Diptera).

Species of Alysiini have been known from China for almost 100 years. However, published data are rare, and the most recent revision by Chen and Wu (1994) mostly covered southeastern China. The purpose of this article is to report new data on the Chinese species of *Tanycarpa* based on newly collected material, including four new species and range extensions for several others. The species described below bring the total number of *Tanycarpa* species known from China to 14.