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## New species and records of *Burmagomphus* Williamson, 1907 (Odonata, Gomphidae) from China

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### Abstract

Four new species of *Burmagomphus* Williamson, 1907 are described from Southwestern China: *B. apricus* **sp. nov.** from Xishuangbanna National Nature Reserve, Menglun Town, Xishuangbanna Dai Autonomous Prefecture, Yunnan Province; *B. magnus* **sp. nov.** from Huayudong, Nanxi Town, Hekou County, Hani-Yi Autonomous Prefecture of Honghe, Yunnan Province; *B. dentatus* **sp. nov.** from Zhangjiang River in Xiaoqikong scenic spot, altitude 400 m, Libo County, Guizhou Province, and *B. latescens* **sp. nov.** from Sifangjing, Mengding Town, Gengma County, Lincang City, Yunnan Province. New records of *Burmagomphus* spp. in China are provided, with *B. asahinai* and *B. williamsoni* *williamsoni* for the first time reported from China. A revised checklist of *Burmagomphus* spp. of China is provided which includes 14 species. A doubtful record of *B. arboreus* and relations of the newly described species are discussed. All types are deposited in the Collection of Aquatic Animals, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan City, Hubei Province, China.

**Key words:** dragonfly, Anisoptera, China, Yunnan, Guizhou, new species

### Introduction

The genus *Burmagomphus* Williamson, 1907 ranges in East, South and Southeast Asia, from Korea and Pakistan to Indonesia (Tsuda 2000). According to the most recent counts by Kosterin et al (2012), the genus included 25 species. They exhibit quite a variation in many respects. Fraser (1926) and Chao (1990) found it most convenient to start their identification and classification from such a character as the anterior synthorax pattern. Following them, Kosterin *et al.* (2012) subdivided the genus into conventional (missing phyletic content) groups. In group 1 (14 species), the dorsal and antehumeral stripes are fused into a single, more or less uneven band. In group 2 (five species plus an additional subspecies) both stripes are free but short. In group 3 (five species), they are long and go in parallel. Group 4 (one species), seems to be a version of group 3 where the long stripes are parallel but fused anteriorly. Judging by morphological characters, groups 1 and 2 are by no means monophyletic, with some species of group 1 probably deserving separation into new genera, while group 3 may be monophyletic (this matter is to be solved in future via molecular phylogenetic approach).

Interestingly, this group 3 mostly embraces northern species, with four of its five species (80%), all described by J. G. Needham, occurring in China: *Burmagomphus arvalis* (Needham 1930), *B. collaris* (Needham 1929), *B. intinctus* (Needham 1930) and *B. sowerbyi* (Needham 1930), the three former being confined to this country from present knowledge. Of the five species of group 2, two (40%: *B. bashanensis* Yang et Li, 1994, and *B. gratiosus* Chao 1954) are confined to China. At the same time, only two of the fourteen species of group 1 (14%): *B. arboreus* Lieftinck, 1940, and *B. vermicularis* (Martin 1904) were thought to reach the territory of China in their northernmost ranges (Chao 1990, see also Kosterin *et al.* 2012). Hence, the hitherto known Chinese fauna of *Burmagomphus* embraced as many as eight species (Chao 1990).