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Discovery of four new species of the genus *Planaeschna* from Southwestern China (Odonata: Anisoptera: Aeshnidae)

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Abstract

Four new species of the genus *Planaeschna*, *P. robusta* sp. nov. (holotype male; Mt. Emeishan, Emeishan City, Sichuan Province, China, 16. VIII. 2007), *P. maculifrons* sp. nov. (holotype male; Mt. Emeishan, Emeishan City, Sichuan Province, China, 20. VIII. 2007), *P. caudispina* sp. nov. (holotype male; Mt. Qingchengshan, Dujiangyan City, Sichuan Province, China, 30. VIII. 2007) and *P. monticola* sp. nov. (holotype male; Sanjiacun Stream, Fengyi Town, Dali City, Yunnan Province, China, 19. XI. 2012) are described and illustrated and diagnosed from their congeners. All the holotypes have been deposited in the Collection of Aquatic Animals, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan City, Hubei Province, China. Brief notes on the biology of each species are also provided.

Key words: Odonata, *Planaeschna*, China, new species

Introduction

The genus *Planaeschna* McLachlan, 1896, is one of the most speciose genera among the family Aeshnidae in the Oriental realm. Presently it includes 14 species in mainland China and Taiwan (Table 1). But this knowledge is mainly confined to the south and east, and species from southwestern China are very scarcely reported. In the neighbouring country Vietnam new taxa of the genus are continuously discovered, and species must be rich in southwest China, especially in Yunnan. During our ongoing fieldwork in Sichuan, Guizhou and Yunnan provinces, many valuable specimens of *Planaeschna* were collected, some of them described but very poorly known species, and the most interesting discoveries are the new species described and discussed in this paper. It should be mentioned that the terrain of southwestern China is more complex than east China, and freshwater habitats are extremely abundant; no doubt species richness there must be higher.

All holotypes will be deposited in the Collection of Aquatic Animals, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan City, Hubei Province, China.

Abbreviations of abdominal maculation are adopted from Walker (1912) include: S = abdominal segment, AD = anterodorsal, AL = anterolateral, MD = mediodorsal, PD = posterodorsal, and PL = posterolateral.

Descriptions

Planaeschna robusta sp. nov.

Figs. 1–9

Material examined. Holotype male, Mt. Emeishan, Wannian Temple (29°35'N, 103°23'E), altitude 880 m, Emeishan City, Sichuan Province, China, Haomiao Zhang leg., 16. VIII. 2007; paratypes: 2 ♂, same data; 5 ♂ 2 ♀, same locality and collector, 20. VIII. 2007; 1 ♂ 1 ♀, same locality and collector, 23. VIII. 2007; 3 ♂, Mt. Qingchengshan, Sichuan Province, Dujiangyan City, China, Haomiao Zhang leg., 31. VIII. 2007.

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