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The genus *Plectrocnemia* Stephens in China (Trichoptera, Polycentropodidae)

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Abstract

Currently, 21 species of the genus *Plectrocnemia* are known from China. Examination of material collected from 13 provinces of China from 1990–2005 has revealed 9 new species and 3 new records of this genus, bringing the number of Chinese *Plectrocnemia* species to 33. Newly described species include: *P. monacanthus* sp. nov., *P. huangi* sp. nov., *P. maoerensis* sp. nov., *P. pectinata* sp. nov., *P. fanjingensis* sp. nov., *P. platilobus* sp. nov., *P. paragryphalis* sp. nov., *P. bifoliolata* sp. nov., and *P. wuyiensis* sp. nov. Two species, *Plectrocnemia sinualis* Wang & Yang and *P. uncatata* Wang & Yang are synonymized with *P. tsukuiensis* (Kobayashi) and *P. tortosa* Banks, respectively. *Plectrocnemia jonam* (Malicky), *P. ondateana* Tsuda and *P. salah* Malicky are newly recorded for the Chinese fauna. All species are organized by monophyletic species groups; the diagnostic characters for the species groups are discussed.

Key words: new species, new records, new synonyms, species groups.

Introduction

Ninety-two extant species and 24 fossil species of the genus *Plectrocnemia* Stephens (1836) are currently known from the world, of which 40 extant species occur in the Oriental Region (OL), 21 in the Eastern Palearctic Region (EP), 23 in the Western Palearctic Region (WP), and 8 in the Australasian Region (AU) (Morse, 2011).

Since Ulmer described the first Chinese *Plectrocnemia* species, *P. chinensis* from Guang-dong in 1926, only 17 species of *Plectrocnemia* were documented from China by the end of 1998 (Ulmer 1926, 1932; Mosely 1942; Banks 1947; Hwang 1957, 1958; Schmid 1959, 1965; Tian in Tian *et al.* 1992; Li 1998; Wang & Yang in Yang *et al.* 1997; Wang & Yang in Wang *et al.* 1998). Dr. Li You-wen studied this genus based on specimens collected from expeditions to Si-chuan, Jiang-xi and Fu-jian provinces of China in 1990. He established 4 monophyletic species groups and described 4 new species in his doctoral dissertation (Morse *et al.* 2012), bringing the total previously known Chinese fauna for *Plectrocnemia* to 21 species.

Recently, we examined specimens of *Plectrocnemia* mainly from the expeditions organized by the junior authors to the Heng-duan Mountain Range in 1996, the Qin-ling Mountain Range in 1998, Guang-dong and Guang-xi Provinces in 2004 and Jiang-xi and Si-chuan Provinces in 2005. These studies revealed 9 new species and 3 new records from China, bringing the Chinese *Plectrocnemia* to 33 species. Of these, 24 species are endemic to China, 6 species are distributed in both OL China and the OL outside of China, 4 in EP China and the EP outside of China, 1 in EP and OL China and the EP Region outside of China, and 1 in both western China (Xin-jiang; EP) and the WP.

The present Chinese species all fall in Li's four species groups (Li 1998) with four species currently unassigned. All Chinese species of this genus are studied and included in this work except 10 species that are not available. These unstudied species are only listed in their groups with distributional notes. The diagnostic characters for the species groups are discussed.

The morphological terms for male genitalia and wing venation follow mostly Arefina *et al.* (2003), but partly Ohkawa & Ito (2007) and Hamilton (1988).

All the specimens are preserved in 75% ethyl alcohol and deposited in the Insect Collection, Nanjing Agricultural University.