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A review of the Chinese species of the genus *Picromerus* Amyot and Serville, with description of a new species (Hemiptera: Heteroptera: Pentatomidae: Asopinae)

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Abstract

Six species of the genus *Picromerus* Amyot and Serville from China were reported, in which, *Picromerus elevatus* **sp. nov.** from Yunnan province, was described as new to science. Drawings and photographs of genital characters, photographs of imagoes in dorsal and ventral views, and some diagnostic characters were provided, together with a detailed key to the six species occurring in China. The type specimens were deposited in the Institute of Entomology, Nankai University, Tianjin, China, except noted.

Key words: Heteroptera, Asopinae, *Picromerus*, new species, review, China

Introduction

Picromerus is a well-known genus of the predaceous subfamily Asopinae (Hemiptera: Heteroptera: Pentatomidae), with most of the included species occurring in the Palaearctic Region, some extending to Oriental Region. The genus was erected by Amyot and Serville (1843). Prior to this study, ten species of *Picromerus* have been recorded worldwide, of which five species occurring in China (Zhang and Lin 2000; Rider and Zheng 2002).

The present paper deals with the six species of this genus from China. *Picromerus elevatus* **sp. nov.** was described as new, and new distributional information on other species was reported. The imagoes of six species, lateral view of two species, some diagnostic characters, pygophore and paramere of male terminalia were photographed, and detailed keys were provided. The drawings and photos of male terminalia of four of six species were provided for the first time, except that of *P. bidens* and *P. lewisi* by Josifov and Kerzhner (1978) and Nonnaizab *et al.* (1988).

During the study, we found that the pronotal humeral angles of *P. lewisi* were various (Figs. 20–22), from sharp to obtuse, bifurcate to unbifurcate. But in other species, the pronotal humeral angles were stable.

Material and methods

Male terminalia were illustrated after treatment with warm 5% NaOH for about 20 min, while female genitalia were illustrated directly. Photographs of imagoes in both dorsal and ventral views were made using a Nikon SMZ1000 microscope equipped with a computer-controlled SPOT RT digital camera and Helicon software. Photographs of male terminalia were made using an OLYMPUS BX53 microscope equipped with a computer-controlled Canon OLYMPUS DP72 digital camera and Cell sens Standard software. All the examined specimens were deposited in the Institute of Entomology, College of Life Sciences, Nankai University, Tianjin, China, except noted. The distributional data were referred to Rider and Zheng (2002) and Hsiao *et al*. (1977). The terminology of aedeagus follows Gapon (2006).

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