



## Taxonomic study on the planthopper genus *Macrocixius* Matsumura (Hemiptera: Fulgoromorpha: Cixiidae) with descriptions of two new species from China

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### Abstract

The cixiid planthopper genus *Macrocixius* Matsumura, 1914 (Hemiptera: Fulgoromorpha: Cixiidae: Cixiini) is known to from two species: *M. giganteus* Matsumura, 1914 and *M. grossus* Tsaur & Hsu, 1991 which are redescribed and illustrated. Two new species, *M. rarimaculatus* **sp. nov.** and *M. unispinus* **sp. nov.** from south China, are described and illustrated. The generic characteristics are redefined and a key to the species is provided.

**Key words:** cixiid, Fulgoroidea, Oriental region, planthopper, taxonomy

### Introduction

The cixiid planthopper genus *Macrocixius* was established by Matsumura (1914) for *M. giganteus* Matsumura, 1914, from Kyushu, Japan, and belongs to the tribe Cixiini in the family Cixiidae. *Macrocixius grossus* Tsaur & Hsu, 1991, from Taiwan, China was described in Tsaur *et al.* (1991). Since then, no reports on this genus have been published.

While sorting and identifying Cixiidae from material in the Institute of Entomology, Guizhou University (IEGU), we found two new species of *Macrocixius*, which are herein described and illustrated. Furthermore, the two known species of this genus, *M. giganteus* Matsumura and *M. grossus* Tsaur & Hsu are redescribed and reillustrated. The purpose of this paper is to describe these two new species and to provide an identification key to the species of this genus.

### Material and methods

The morphological terminology follows Tsaur *et al.* (1988) and Löcker *et al.* (2006). Dry specimens were used for the description and illustration. External morphology was observed under a stereoscopic microscope and characters were measured with an ocular micrometer. The genital segments of the examined specimens were macerated in 10% KOH and drawn from preparations in glycerin jelly with the aid of a Leica MZ 12.5 stereomicroscope. Illustrations were scanned with CanoScan LiDE 200 and imported into Adobe Photoshop CS3 for labeling and plate composition. Specimens examined are deposited in the Institute of Entomology, Guizhou University, Guiyang, Guizhou Province, China (IEGU).