



Oriental bamboo delphacid planthoppers: three new species of genus *Kakuna* Matsumura (Hemiptera: Fulgoromorpha: Delphacidae) from Guizhou Province, China

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Abstract

Three new species of the Oriental bamboo delphacid planthopper genus *Kakuna* Matsumura (Hemiptera: Fulgoromorpha: Delphacidae: Delphacinae: Delphacini), *K. lii* **sp. nov.** (Guizhou: Jiangkou, Suiyang, Daozhen), *K. nonspina* **sp. nov.** (Guizhou: Jiangkou, Leishan) and *K. zhongtuana* **sp. nov.** (Guizhou: Leishan, Suiyang, Daozhen, Libo), are described and illustrated from southwestern China. The generic characteristics are redefined. A checklist and a key to species of genus *Kakuna* are provided.

Key words: Fulgoroidea, planthopper, bamboo pests, Oriental region

Introduction

The genus *Kakuna* was erected by Matsumura (1935) based on specimens from Sapporo, Hokkaido, Japan (type species: *Kakuna kuwayamai* Matsumura, 1935). Yang (1989) erected a new genus *Parametopina* for a new species from bamboo of Taiwan, China, *Parametopina yushaniae* Yang. Recently, Ding (2006) regarded *Parametopina* Yang as a new synonymy of *Kakuna* Matsumura, and *Parametopina yushaniae* Yang was transferred to *Kakuna* as the new combination *Kakuna yushaniae* (Yang). To date, only the two species, *K. kuwayamai* (Japan: Hokkaido; China: Zhejiang, Fujian) and *K. yushaniae* (China: Taiwan), are included in the genus *Kakuna* and restricted to Oriental region (Ding 2006) (Fig. 35).

In this paper three new species of the genus *Kakuna* are described and illustrated from several national or provincial natural reserves (Fanjinshan, Kuankuoshui, Leigongshan and Dashahe) in China. The generic characteristics are redefined. A checklist and a key to known species of *Kakuna* are provided.

Materials and methods

The methods and morphological terminology used in this study follow Ding (2006). Spinal formula of hind leg means the numbers of spines of the tibia, plus the 1st and 2nd tarsomeres. The genital segments of the examined specimens were macerated in 10% NaOH and drawn from preparations in glycerin using a light microscope. Figures of the specimens were made using Leica MZ12.5 and edited and enhanced using Adobe Photoshop 7.0 (Adobe Systems).

Type specimens are deposited in the Institute of Entomology, Guizhou University, Guiyang, Guizhou Province, China (IEGU).