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Three new species of the genus *Kosalya* Distant, 1906 (Hemiptera: Fulgoromorpha: Achilidae) from China

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Abstract

Three new species of the planthopper genus *Kosalya* Distant, 1906 (Hemiptera: Fulgoromorpha: Achilidae: Plectoderini) are described and illustrated from China: *K. unimaculata* **sp. nov.**, *K. circumscripta* **sp. nov.** and *K. curvusanusa* **sp. nov.**. The genus is redescribed, and includes male genitalia characters. A key to all species of the genus is given.

Key words: Achilid, Fulgoroidea, Oriental region, planthopper, Plectoderini, taxonomy

Introduction

Plectoderini is the largest tribe of Achilidae, containing about 80 genera. The tribal characters include the following: the vertex at least two-thirds as wide as pronotum; anterior margin of vertex convex or angulately produced in the middle; forewings shallowly rounded over dorsum and with membranous areas overlapping when folded; apical margin of forewing strongly convex; forewing with six subapical and eight or nine apical areoles, vein Sc with anterior branch short; post-tibiae with one spine (Fennah 1950).

The achilid genus *Kosalya* (Hemiptera: Fulgoromorpha: Achilidae: Plectoderini) was established by Distant (1906) with *K. flavostrigata* Distant, 1906 from Burma as its type species. Later, Fennah (1950) redescribed the type species. Anufriev (1969) recorded *K. flavostrigata* from Russia, and described and illustrated the male genitalia. Chen *et al.* (1989) described a further two species from China: *K. dilatata* and *K. improcera*. Recently, Emeljanov (2005) described a fourth species *K. concludens* from Russia. Until now, four species were known. Among them, one species *K. concludens* is distributed in the Palaearctic region, one species *K. flavostrigata* is distributed in the Palaearctic region and Oriental region, and the other two species occur in the Oriental region.

Here, three new species are described and illustrated from China. The type specimens of the new species are deposited in the Institute of Entomology, Guizhou University, Guiyang, China (IEGU). The genus *Kosalya* now contains seven species. A key is given to all species.

Material and methods

Specimens were collected by sweeping net. 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 using a Leica MZ 12.5 stereomicroscope. Illustrations were scanned with Canon CanoScan LiDE 200 and imported into Adobe Photoshop CS3 for labeling and plate composition.

Terminology of morphological and genital characters follow Chen *et al.* (1989) and Yang and Chang (2000). We redescribe the generic characters of this genus based on the literature and new type specimens.