



Two new species of genus *Deferunda* Distant (Hemiptera: Fulgoromorpha: Achilidae) from southwest China

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Abstract

Two new species of *Deferunda* Distant, 1912 (Hemiptera: Fulgoroidea: Achilidae: Plectoderini), *D. diana* **sp. nov.** (China: Yunnan) and *D. qiana* **sp. nov.** (China: Guizhou, Yunnan), from southwest China, are described. The generic characters are modified, including the addition of male genitalia characters. A key for identifying the known species of *Deferunda* is provided.

Key words: Fulgoroidea, Oriental region, planthopper

Introduction

The achilid genus *Deferunda* Distant (Hemiptera: Fulgoroidea: Achilidae: Plectoderini) was established by Distant (1912) based on specimens of *D. stigmatica* Distant, 1912 from Bengal. Eleven species have now been recorded in the genus: *D. acuminata* Chou & Wang, 1985 (China) (in Chou *et al.* 1985), *D. albomaculata* (Muir, 1922) (India), *D. incompta* Dlabola, 1961 (Tajikistan), *D. lineola* (Matsumura, 1914) (Japan?), *D. majella* (Kirkaldy, 1906) (Australia), *D. philippina* (Melichar, 1914) (Philippines), *D. rubrostigmata* (Matsumura, 1914) (Japan; Korea; China), *D. stigmatica* Distant, 1912 (India), *D. striata* Wang & Liu, 2008 (China) (in Wang *et al.* 2008), *D. trimaculata* Wang & Peng, 2008 (China) (in Wang *et al.* 2008), and *D. truncata* Chen, Yang & Wilson, 1989 (China) (Fig. 23).

To date, five species in the genus are known from China, namely *D. rubrostigma* (Yunnan, Hunan, and Taiwan), *D. acuminata* (Hainan), *D. truncata* (Taiwan), *D. trimaculata* (Hainan), and *D. striata* (Hainan) (Matsumura, 1914; Chou *et al.*, 1985; Chen *et al.* 1989; Wang *et al.* 2008) (Fig. 23).

During the course of studying species biodiversity of the suborder Auchenorrhyncha in southwest China, two specimens belonging to undescribed species of the genus *Deferunda* were found. The purpose of this paper is to describe two new species and to provide an identification key to the known species of *Deferunda*.

Materials and methods

Morphological techniques and terminology follows Chen *et al.* (1989); male genitalia follows Yang and Chang (2000). 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 8.0 for labeling and plate composition. Spinal formula means the numbers of apical spines of the hind tibiae and 1st and 2nd hind tarsomeres.