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Review of the genus *Loxocephala* Schaum, 1850 (Hemiptera: Fulgoromorpha: Eurybrachidae) with description of three new species from China

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Abstract

The genus Loxocephala Schaum, 1850 is reviewed. Three new species: L. rugosa sp. nov., L. verticalis sp. nov. and L. mangkangensis sp. nov. are described from China. L. perpunctata Jacobi, 1944 and L. sinica Chou & Huang, 1985 are given supplementary descriptions. In addition, according to the male genitalia, L. sinica sichuanensis Chou & Huang, 1985 is upgraded to species level: L. sichuanensis Chou & Huang, 1985 stat. nov. A key to all the known species of the genus is provided.

Key words: planthopper, taxonomy, Loxocephalini, new species, China

Introduction

The genus Loxocephala was erected by Schaum in 1850 for the type species Lystra aeruginosa Hope, 1840 from India, and was placed in the tribe Loxocephalini of the family Eurybrachidae. Five species: L. aeruginosa (Hope, 1840), L. castanea Distant, 1892, L. decora (Walker, 1851), L. maculata Lallemand, 1928 and L. perpunctata Jacobi, 1944 were listed in this genus in Metcalf's catalogue (1956). In recent years, Chou & Lu (1981), Chou et al. (1984, 1985a) reported seven species and one subspecies distributed in China (Yunnan, Shaanxi, Gansu, Sichuan Provinces and Xizang Autonomous Region). Later, Huang & Wang (1994) described L. lisiera from Xizang. Currently, the genus Loxocephala has 13 described species and one subspecies.

In the present paper, three new species of *Loxocephala* from China are described. The male and female genitalia of *L. perpunctata* and *L. sinica* are supplemented because they were originally described without genitalia description. According to the male genitalia, *L. sinica sichuanensis* Chou & Huang, 1985 is upgraded to species level: *L. sichuanensis* Chou & Huang, 1985 **stat. nov.** The genus *Loxocephala* therefore comprises 17 described species, including the three new species described below, and these species are mainly distributed in the Oriental region except for two species, *L. sinica* and *L. rugosa* **sp. nov.**, extending into the eastern Palaearctic region. A key is provided for the identification of all 17 species.

Material and methods

The abdomens of dry specimens were extracted after being placed in a rehydrating cylinder for two days and then boiled for 10–15 minutes in 10% NaOH solution. All dissected genitalia were observed and stored in glycerine. A Leica MZ125 microscope was used for observations and drawing. Photographs were taken with a Leica DFC camera attached to a Leica M205A microscope and further treated with LAS V3.7 software. Terminology used for male genitalia mainly follows Constant (2008). Terminology used for female genitalia mainly follows Bourgoin (1993). All the specimens studied are deposited in the Entomological Museum of Northwest Agriculture and