



Article

urn:lsid:zoobank.org:pub:24ECC63D-7978-4029-BF23-050EF59198D6

The crickets of genus *Zvenella* Gorochov, 1988 (Gryllidae: Podoscirtinae) from China

MA LIBIN^{1,2} & ZHANG YALIN^{*1}

¹ Key Laboratory of Plant Protection Resources and Pest Management, Ministry of Education, Entomological Museum, Northwest A&F University, Yangling, Shaanxi, 712100, China

² Key Laboratory of Vegetation Ecology, Ministry of Education, Northeast Normal University, Changchun, Jilin, 130024, China

* Corresponding author: yalinzh@yahoo.com.cn

Abstract

Three species of genus *Zvenella* from China are reviewed and the species *Zvenella acutangulata* Xia, Liu & Yin, 1991 is redescribed and illustrated. Three additional new species, *Zvenella scalpratus* sp. nov., *Zvenella aequalis* sp. nov. and *Zvenella decussatus* sp. nov., are described and reported from Hainan and Yunnan Provinces, China.

Key words: Orthoptera, Grylloidea, Podoscirtini, morphology, taxonomy

Introduction

Zvenella (Gryllidae: Podoscirtinae) was established by Gorochov in 1988, with *Madasumma yunnana* Gorochov 1985 as its type species. It belongs to the tribe Podoscirtini and is separated from other members by the following characters: pronotum broader than long and disc broadly rounded into paranota. Tegmen often ornamented with two conspicuous white spots, one before stridulatory vein and the other behind mirror. The underside of stridulatory vein has a step near the middle and the teeth are very narrow and dense, but restricted to the area before the step (Ingrisch 1997). Anal plate is flattened and without any spinule fields, but ornamented with a plain figure in the middle outlined by a fine furrow. The epiphallus is curved and provided with spines distally. Thirteen *Zvenella* species were previously reported worldwide; these species are mainly known to occur in the localities of Southeast Asia (Vietnam, Thailand, Laos, Cambodia and the south of China) (Eades, *et al.* 2012).

In China, the first *Zvenella* species, *Zvenella yunnana*, was reported by Gorochov from Yunnan (Jinghong) in 1985. *Zvenella acutangulata* is the second Chinese species reported by Xia *et al.* in 1991 with the holotype from Hainan Island. In 1993, Liu *et al.* reported the third species, *Zvenella nigrotibialis*, from Yunnan, but Gorochov (2002) considered it as the synonym of *Zvenella geniculata* (Chopard 1931). Therefore, three species of the genus are currently known in China. In this paper, three new *Zvenella* species from China are reported and the known species, *Zvenella acutangulata*, is redescribed.

Materials and Methods

Identification is mainly based on males. Genitalia were prepared by placing the dissected genitalia complex into a concentrated solution of KOH for about five hours. Figures of genitalia and body morphology were produced using a highly sensitive QIMAGING Retiga 2000R digital camera (CCD) and Auto-montage imaging software. Whole bodies were photographed with a Nikon D100 using a Micro-Nikkor 105mm macro lens.

Abbreviations: BL body length (from head to tip of abdomen), HW head width, PL pronotum length, PW pronotum width (max. width of pronotum), FWL forewing length, HWL hind wing length (length of uncovered part), HLL hind legs (femur) length, CL cercus length, OL ovipositor length; up. upper process, ua. upper apical lobes, la. lower apical lobes, ln. lower median notch, hl. hind lateral lobes.

Type materials are deposited at Northwest A & F University (NWFU).