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Taxonomic study of the cricket genus *Valiatrella* Gorochov (Gryllidae, Podoscirtinae) from China

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Abstract

Four *Valiatrella* species, *Valiatrella pulchra* (Gorochov, 1985), *Valiatrella sororia* (Gorochov, 2002), *Valiatrella laminaria* Liu & Shi, 2007 and *Valiatrella multiprotubera* Liu & Shi, 2007, recorded from China are reviewed. A new species, *Valiatrella persicifolius* **sp. nov.**, is described and illustrated.

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

Introduction

The genus *Valia* was established by Gorochov in 1985, with *Valia pulchra* as the type. In 2002, Gorochov reported *Valia sororia* from Vietnam and moved *Madasumma bimaculata* Chopard, 1928, from Bhoutan, into this genus, as *Valia bimaculata*. Gorochov also considered that *Calyptotrypus flavomarginata* Xia & Liu, 1993 was a synonym of *Valia pulchra*. Gorochov (2005) and found that the cricket genus *Valia* Gorochov, 1985 and the Hymenoptera genus *Valia* Alexeev, 1979 are homonyms. He replaced the cricket genus name *Valia* with *Valiatrella*. Then, subspecies *Valiatrella sororia meridionalis* was reported from Vietnam (Gorochov, 2006). *Valiatrella laminaria* and *Valiatrella multiprotubera* were reported from China (Liu & Shi, 2007). Presently, six taxa in the genus *Valiatrella*, mainly from Vietnam and southern China, are known worldwide (Eades, *et. al.*, 2012).

In China, four species, *Valiatrella pulchra* (Gorochov, 1985), *Valiatrella sororia* (Gorochov, 2002), *Valiatrella laminaria* Liu & Shi, 2007 and *Valiatrella multiprotubera* Liu & Shi, 2007, were recorded by Liu & Shi (2007). We describe a new species from Hubei Province of China (Map I).

Material and methods

Identification of *Valiatrella* is mainly based on males. Genitalia were prepared by placing the dissections in a concentrated solution of KOH for about five hours. Figures of genitalia and other structural 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), MLL middle legs (femur) length, HLL hind legs (femur) length, CL cercus length, OL ovipositor length. The CuA branching stems and resulting cells are named after Robillard & Desutter-Grandcolas (2004).

Type materials are deposited at Northwest A & F University and Yangtze University.