



Two new genera with descriptions of three new species of Phaneropterinae (Orthoptera: Tettigoniidae) from China

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Abstract

Two new genera, *Parapelerinus* gen. nov., and *Conversifastigia* gen. nov. with three new species, *P. ensatus* sp. nov., *P. emarginatus* sp. nov., and *C. gressitti* sp. nov. are described from Southern China. Principal taxonomic and diagnostic characters including structure of head, tegmen, stridulatory file of male, male and female apex are illustrated. *Parapelerinus* is distinguished from other related genera by the sword-like ovipositor, which is very uncommon in the subfamily Phaneropterinae. The species of *Conversifastigia* gen. nov. possess a pyramidal fastigium frontis, which is not present in related genera.

Key words: new genus, new species, Phaneropterinae, China

Introduction

Southern China is characterized as sub-tropical region with very rich flora and fauna, in which there is high biodiversity of tettigoniid species because of diversity of habitats and complex topography. The Phaneropterinae, the largest subfamily in the Tettigoniidae, which numbers 31 genera and 106 species in Jin & Xia's list (1994), was systematically studied in Southern China in the last century. Our recent studies, bring the number up to 40 genera and 180 species in the Phaneropterinae. These studies include the description of 4 new genera and 33 new species (Gorochoy & Kang, 2002, 2004; Liu et al, 2004; Liu & Kang, 2006a, b; 2007a, b, c). We believe that with more specialists working on the fauna of this region, more species remain to be discovered. Here, we describe two new genera and three new species from Southern China. One new genus *Parapelerinus* gen. nov. is described to include two new species, *P. ensatus* sp. nov., occurring in the primal forests of Guangxi Province and Hainan Island, and *P. emarginatus* sp. nov. from Fujian Province. *Parapelerinus* gen. nov. is similar to *Pelerinus* Bolivar and *Arnobia* Stål, but differs by many morphological characters. Field collections on Hainan Island, reveal that adults of *P. ensatus* sp. nov. occur in May or November, and, however, we didn't find any specimens of this species in August or September. The other new genus *Conversifastigia* gen. nov. with one new species *C. gressitti* sp. nov., is distributed in Guangdong Province. The fastigium frontis of *Conversifastigia* gen. nov. is inversely pyramidal, with truncated dorsal apex distinguishes it from other related genera, such as *Letana* Walker and *Qinlingea* Liu & Kang.

All specimens were examined with a Leica MZ12.5 microscope, drawings were made with Leica MZ12.5 with a drawing mirror, and photographs of stridulatory areas were made with a Canon Powershot 50 digital camera fixed on Leica MZ12.5 microscope.

Material comes from the following two depositories: Insect Collection of Institute of Zoology, the Chinese Academy of Sciences, Beijing, China (IZAS); and Institute of Entomology, the Chinese Academy of Sciences, Shanghai, China (IEAS).