



## A new genus, *Paraxantia* gen. nov., with descriptions of four new species (Orthoptera: Tettigoniidae: Phaneropterinae) from China

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### Abstract

Here we report a distinctive new genus *Paraxantia* gen. nov. (Orthoptera: Tettigoniidae: Phaneropterinae) from southern China. The new genus is distinguished from *Xantia* and other genera in the subfamily Phaneropterinae by the shape of fastigium verticis, the widened tegmen behind middle, and the complex sclerotized concealed genitalia. Description and important illustrations of four new species *P. tibetensis* sp. nov., *P. hubeiensis* sp. nov., *P. parasinica* sp. nov., and *P. bicornis* sp. nov. are presented. *Xantia sinica* Liu is transferred to *Paraxantia* with redescription and illustration. A key covering type species of *Xantia* Brunner von Wattenwyl and five species of *Paraxantia* gen. nov. is provided.

**Key words:** new genus, new species, concealed sclerotized genitalia, katydid, China

### Introduction

*Xantia* was established by Brunner von Wattenwyl in 1878, based on one species from Borneo, *Xantia borneensis*, which was monotypic until 1993 when *Xantia sinica* Liu 1993 was described from four males collected in Fujian Province in southeast of China. Currently, we collected material for Tibet, Guangxi, Hubei, and Sichuan Province in South China. After careful examination, we discovered that specimens from different geographical locations differ from individuals of *Xantia sinica* in the male stridulatory apparatus and male concealed genitalia. There are slight differences in other characteristics noted below. Moreover, *Xantia sinica* is quite distinctive based on the diagnostic characteristics of *Xantia*.

Those specimens including type of *Xantia sinica* have distinctive posterior tibiae and tegminal structure from *Xantia borneensis*, type species of *Xantia*. They resemble the latter in shape of compound eyes and of lateral lobes of pronotum. *Xantia* possesses inflated base of posterior tibia, lanceolate tegmina, which is attenuated towards both sides from middle and bears furcated radial sector. Species, like *Xantia* from China, have normal posterior tibiae and tegmina, which taper from behind the middle and bear non-furcated radial sector. They also differ from *X. borneensis* by possessing emarginated posterior margin of pronotal disk. Furthermore, males of the species from China possess complex concealed sclerotized genitalia, which is significantly different from many species of Phaneropterinae. Unfortunately, abdomen of type specimen of *X. borneensis* was lost, and remains undescribed (Brunner von Wattenwyl, 1891; Karny, 1923). To sum up, the specimens from South China, including four which had been identified as *Xantia sinica*, share some significant common characteristics. Therefore, we propose to erect a new genus, *Paraxantia*, to include *Paraxantia sinica* (Liu, 1993) and all species that are described here.

The species of *Paraxantia* gen nov. differ from each other in the male stridulatory apparatus and the male concealed genitalia. The characteristics of the sclerotized genitalia are of note because most male phaneropterines possess membranous genitalia.