

# A new species of the genus *Macromotettixoides* Zheng (Orthoptera: Metrodoridae) from Fujian Province

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**Abstract:** One new species *Macromotettixoides wuyishana* sp. nov. in the genus *Macromotettixoides* Zheng is described from Fujian and a key to the Chinese species in the genus *Macromotettixoides* is given.

**Key words:** Caelifera; Tetrigoidea; taxonomy

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## 福建省拟大磨蚱属一新种记述(直翅目: 短翼蚱科)

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**摘要:** 记述采自福建省拟大磨蚱属 *Macromotettixoides* 1 新种: 武夷山拟大磨蚱 *M. wuyishana* sp. nov.。文中附有中国拟大磨蚱属分种检索表及种类分布。

**关键词:** 蝗亚目; 蚱总科; 分类

## Introduction

The genus *Macromotettixoides* was erected by Zheng in 2005, with *Macromotettixoides jiuwanshanensis* Zheng, 2005 from Guangxi as its type species. Zheng *et al.* (2006) reported *Macromotettixoides cliva* Zheng, Li, Wang & Niu, 2006 and transferred *Hyboella aellytra* Zheng, Li & Shi, 2002 to *Macromotettixoides*; Zheng *et al.* (2009) reported *Macromotettixoides wufengensis* Zheng, Wei & Li, 2009; Zheng and Shi (2009) reported *Macromotettixoides brachynota* Zheng & Shi, 2009; and Deng (2011) reported *Macromotettixoides zhengi*, 2011. By now the genus *Macromotettixoides* includes 6 species, most of which are distributed in Guizhou, Hubei, Jiangxi, Yunnan, Guangxi and Guangdong. One new species of the genus *Macromotettixoides* was found when Tetrigidae specimens deposited in the Institute of Zoology, Shaanxi Normal University were curated. The type specimens were collected from the Wuyishan region and this new species is described.

## Key to the species of *Macromotettixoides* Zheng distributed in China

1. Tegmina and wings absent..... 2
- . Tegmina absent, with very degenerate wings..... 6

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2. Anterior margin of pronotum obtusely angular..... 3
- Anterior margin of pronotum straight..... 5
3. Anterior margin of vertex arched or obtusely angular, protruding before anterior margin of eyes; upper margin of pronotum slightly arched in profile; hind process reaching top of hind femur ..... 4
- Anterior margin of vertex straight, not protruding before anterior margin of eyes, upper margin of pronotum slightly arched before shoulders and straight behind in profile; hind process reaching two thirds of hind femur. China (Jiangxi) ..... *M. brachynota* Zheng & Shi
4. Width of vertex 2.1 times width of an eye; anterior margin of vertex arched; vertex and frontal ridge forming a right angle in profile; frontal ridge concave before eyes in profile; without a pair of short longitudinal keels between shoulders; middle of hind margin of subgenital plate of female triangularly convex. China (Guangxi) ..... *M. jiuwanshanensis* Zheng
- Width of vertex 3 times width of an eye; anterior margin of vertex obtuse angular; vertex and frontal ridge forming an obtuse angle in profile; frontal ridge straight before eyes in profile; with a pair of short longitudinal keels between shoulders; hind margin of subgenital plate of female with three teeth. China (Fujian) ..... *M. wuyishana* sp. nov.
5. Width of vertex 2 times width of an eye; antennae inserted below lower margin of eyes; upper margin of pronotum distinctly arched before shoulders and straight behind in profile; lateral keels of prozona parallel; without a pair of short longitudinal keels between shoulders. China (Hubei) .....  
..... *M. wufengensis* Zheng, Wei & Li
- Width of vertex 1.3 times width of an eye; antennae inserted between lower margin of eyes; upper margin of pronotum nearly straight in profile; lateral keels of prozona contracted backwards; with a pair of short longitudinal keels between shoulders. China (Guangxi) ..... *M. zhengi* Deng
6. Width of vertex 2 times width of an eye; lower margin of hind process straight; lateral keels of metazona straight; interspace area narrow; hind process only reaching half of hind femur; upper margin of pronotum distinctly protruding before shoulders in profile; lower margin of midfemur undulated; in the middle of hind margin of subgenital plate of female with a triangular process. China (Yunnan) .....  
..... *M. cliva* Zheng, Li, Wang & Niu
- Width of vertex 1.5 times width of an eye; lower margin of hind process arched; lateral keels of metazona curved; interspace area wide; hind process reaching two thirds of hind femur; upper margin of pronotum slightly arched before shoulders in profile; lower margin of midfemur straight; in the middle of hind margin of subgenital plate of female concave. China (Guizhou) ..... *M. aelytra* (Zheng, Li & Shi)

## Description

### *Macromotettixoides wuyishana* sp. nov. (Figs. 1–3)

Female. Body small. Head not protruding above pronotum, vertex very wide, its width 3 times width of an eye, anterior margin obtusely angular, protruding beyond eyes, midkeel distinct, reaching occiput; fastigium of vertex and frontal ridge obtuse rounded in profile, straight before lateral ocelli; width of frontal ridge equal to width of first segment of antennae. Antenna filiform, inserted between lower margin of eyes, 15-segmented, length of one segment in middle 5 times its width. Eyes globose; lateral ocelli placed in the middle of anterior margin of eyes. Pronotum tectiform, anterior margin of pronotum obtusely angular, midkeel distinct, upper margin of pronotum slightly arched in profile; lateral keels of prozona contracted backwards; humeral angle obtusely angular, with a pair of short longitudinal keels between shoulders; humeral apex ridge and lower margin of pronotum connected in the middle

of pronotum; hind process reaching top of hind femur, apex narrowly rounded; lateral lobes of pronotum with one concavity, apex of hind angles truncate. Tegmina and wings absent. Upper and lower margins of fore and middle femora straight. Length of hind femur 2.7 times longer than width, upper midkeel finely serrulate, antegenicula right angled, genicular obtuse; outer side of hind tibia with 8 spines, inner side with 8 spines; length of first segment of hind tarsi 2 times the length of the third, first and second pulvilli of first segment of tarsus small, the third larger. Ovipositor slender, length of upper valvulae 5 times its width, upper and lower valvulae with big sawteeth. Length of subgenital plate slightly longer than its width, hind margin with 3 obtuse protuberances.

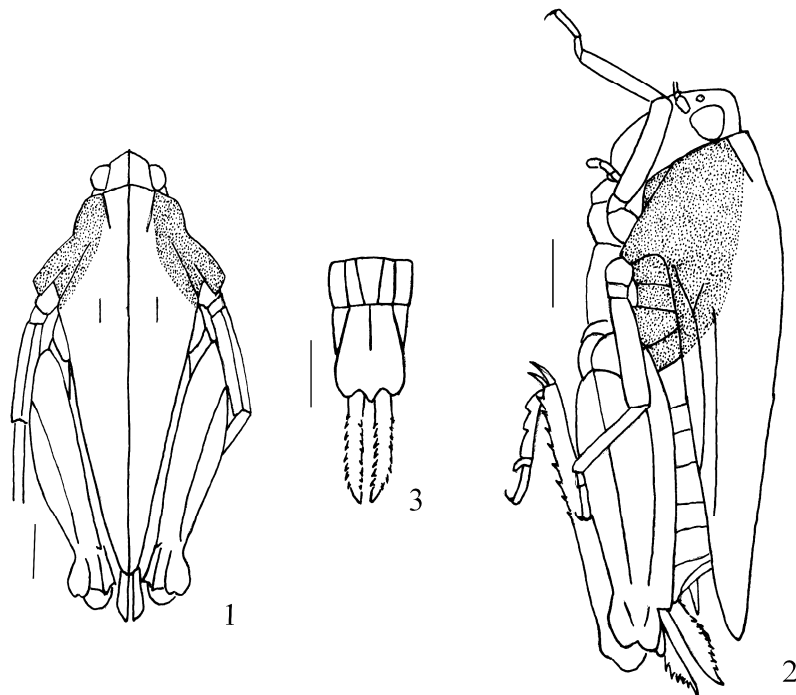
Body dark brown; lateral lobe of pronotum, mesopleuron and metapleuron black; hind tibia dark brown.

Measurements. Length of body: ♀ 11–11.5 mm; length of pronotum: ♀ 10–10.2 mm; length of hind femur: ♀ 7–7.5 mm.

**Holotype.** ♀, **China:** Fujian, Wuyishan, 17-V-2004, Coll. Caixia YUAN. **Paratypes.** 2♀, same data as holotype.

The new species is allied to *Macromotettixoides jiuwanshanensis* Zheng, 2005, the main differences are delineated in the key.

Etymology. The specific epithet indicates the type locality “Wuyishan”.



Figures 1–3. *Macromotettixoides wuyishana* sp. nov. 1. Body, dorsal view; 2. Body, lateral view; 3. Terminalia of female, ventral view. Scale bars = 1 mm.

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