

## A new species of the genus *Humphplotropis* (Orthoptera: Pamphagidae: Pamphaginae) from Shandong, China

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**Abstract:** A new species, *Humphplotropis culaishanensis* sp. nov. of the genus *Humphplotropis* Xiao, Yin et Yin, 2013, is described from Shandong, China in this paper. The new species is similar to *Humphplotropis taishanensis* Xiao, Yin et Yin, 2013, but differs from the latter by: both side carinae of frontal ridge distinct, widened gently downwards, not reaching the clypeus; pronotum hump along the median keel slightly, the over height above level line of vertex occupied 1/5 of whole high of pronotum in lateral view; anterior margin acute angular in the middle, the apex not reaching the hind margin of eyes; tegmina longer, extending over the hind margin of first abdominal terga. Type specimens are deposited in the College of Plant Protection, Shandong Agricultural University, Taian, China.

**Key words:** Caelifera; Acridoidea; taxonomy

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### 中国驼笨蝗属一新种（直翅目：癩蝗科：癩蝗亚科）

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**摘要：**记述来自中国山东的驼笨蝗属 *Humphplotropis* Xiao, Yin et Yin 1 新种：徂徕山驼笨蝗 *H. culaishanensis* sp. nov.。该新种近似泰山驼笨蝗 *Humphplotropis taishanensis* Xiao, Yin et Yin, 2013, 雄性区别特征为颜面隆起两侧隆线明显，向下张开，不到达唇基；雄性前胸背板前缘中央呈尖角形突出，其顶端不到达复眼的后缘；前胸背板中隆线隆起较低，侧面观其高出头顶水平线的高度为全高的 1/5；前翅较长，其顶端超过第 1 腹节的后缘。模式标本保存于山东农业大学植保学院。

**关键词：**蝗亚目；蝗总科；分类

### Introduction

The genus *Humphplotropis* Xiao, Yin et Yin, 2013 belongs to Pamphaginae, Pamphagidae, Acridoidea and includes 1 species in China only (Xiao *et al.* 2013; Eades *et al.*

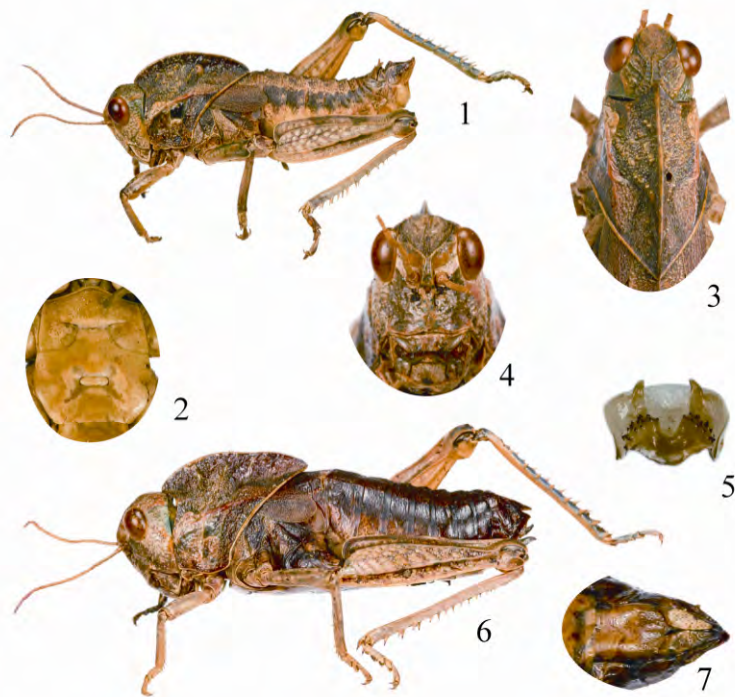
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2013).

When examining specimens of grasshoppers preserved in the College of Plant Protection, Shandong Agricultural University, we found a new species of the genus *Humphaplotropis*, i.e. *Humphaplotropis culaishanensis* sp. nov. from Culaishan, Shandong province, China. The description of this new species is given below. Type specimens are deposited in the College of Plant Protection, Shandong Agricultural University, Taian, China.

***Humphaplotropis culaishanensis* sp. nov.** (Figs. 1–7)



Figures 1–7. *Humphaplotropis culaishanensis*, sp. nov. 1. Body, side view, ♂; 2. Meso-meta sternum, ventral view, ♂; 3. Head and pronotum, dorsal view, ♂; 4. Head, frontal view, ♂; 5. Epiphallus; 6. Body, side view, ♀; 7. Subgenital plate, ventral view, ♀.

Male (Figs. 1–4). Body large in size. Head shorter than length of pronotum. Face slightly oblique in profile, frontal ridge with longitudinal sulcus, both lateral carinae expended downward, short, not reaching the clypeus. Antennae filiform, 22 segments, not reaching the posterior margin of pronotum. Eyes globose, vertical diameter 1.3 times horizontal diameter and 1.4 times subocular furrow. Pronotum lowerly humps along the median keel, the over height above level line of vertex occupied 1/5 of whole high of pronotum in lateral view; anterior margin acute angular in the middle, the apex not reaching the hind margin of eyes, posterior margin acute angular in the middle, the apex reaching the middle point of first abdominal terga; median keel not cut by hind transverse sulcus; lateral keels developed. Prosternum collar-like with a thin edge, without tubercles or lobes. Tegmina shortened, oval, lateral, extending over the hind margin of first abdominal tergum. Middle tibia without teeth or tubercles. Hind femur robust, its length as long as 3.9 times of maximum width, lower basal

lobe longer than the upper one, upper keel smooth, the end of lower knee lobes rounded. Hind tibia with 9 spines on the inner side and 10 spines on outer side, external apical spine present. Tympanum organ distinct, big and rotundity. Krauss' organ washboard-like. Epiproct with longitudinal groove in the middle. Cercus conical, almost reaching the tip of epiproct. Subgenital plate triangle, apex acute.

Female (Figs. 5–7). Body larger than male. Eyes small, longitudinal diameter almost equal subocular furrow. Tegmina shorter, reaching the middle of first abdominal tergum only.

Body yellowish-brown. Eyes brown. Antennae yellowish-brown, apical part dark. Hind femur yellowish-brown. Hind tibia and tarsus yellowish-brown, upper and inner side blue. Abdomen yellowish-brown, with a light dark band on both sides. Subgenital plate brown.

Measurements (in mm). Length of body: ♂27.5–30.4, ♀37.1–39.8. Length of pronotum: ♂11.5–12.2, ♀13.3–14.7. Length of tegmina: ♂5.2–5.8, ♀4.0–5.3. Length of hind femur: ♂14.3–15.7, ♀16.5–18.1.

**Holotype.** ♂; **Paratypes.** 1♂2♀, **China:** Shandong, Culaishan, 36°02'N, 117°13'E, 13-VII-2007, collected by Chengquan CAO & Yanzhen GE.

The new species is allied to *H. taishanensis* Xiao, Yin et Yin, 2013. The major differences are listed in Table 1.

**Table 1. Major differences of *H. culaishanensis* sp. nov. and *H. taishanensis* Xiao, Yin et Yin**

Characters in male	<i>H. culaishanensis</i> sp. nov.	<i>H. taishanensis</i> Xiao, Yin et Yin, 2013
Frontal ridge	Both lateral carinae expended downward, not reaching the clypeus	Both lateral carinae parallel, almost reaching the clypeus
Pronotum hump in lateral view	Over height above level line of vertex occupied 1/5 of whole high of pronotum	Over height above level line of vertex occupied 1/3 of whole high of pronotum
Anterior margin of pronotum	Acute angular in the middle, the apex not reaching the hind margin of eyes	Acute angular in the middle, the apex reaching the midpoint of eyes
Tegmina	Extending over the hind margin of first abdominal tergum	Extending to the middle of first abdominal tergum

Etymology. The specific epithet is named for Culaishan, the type locality.

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