

A new species in the rice grasshopper genus *Oxya* Serville (Orthoptera: Catantopidae) from Yunnan

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Abstract: A new species *Oxya trimaculata* sp. nov. from Yunnan is described and illustrated. The type specimens are deposited in the Biological Science Museum at Dali University (BMDU).

Key words: Caelifera; Acridoidea; taxonomy

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云南稻蝗属一新种（直翅目：斑腿蝗科）

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摘要: 记述云南省稻蝗属 1 新种, 即三斑稻蝗 *Oxya trimaculata* sp. nov.。新种近似于小稻蝗 *O. intricata* (Stål, 1861) 和暗纹稻蝗 *O. fuscovittata* (Marschall, 1836), 但以下特征区别于后二者: 雄性尾须明显侧扁, 向端部逐渐趋狭, 侧观长三角形, 近端部明显或略呈二分支, 背支短, 端部钝, 腹支较长, 端部较尖锐; 雄性肛上板的三角形后突明显较大; 后足股节内侧具 3 个黑色斑。另外, 新种体型较小稻蝗大。模式标本保存于大理学院生物科学博物馆。

关键词: 蝗亚目; 蝗总科; 分类

Introduction

The genus *Oxya* was established by Serville (1831) with *Oxya hyla* Serville, 1831 as the type species. So far, about 42 species of the genus have been reported, mainly distributed in the Oriental, Ethiopian, S. E. Palaearctic and Australasian Regions (Hollis 1971; Eades, Otte, Cigliano & Braun 2014). Twenty-one species have been recorded in China with 6 species in Yunnan (Xu & Zheng 1999; Li & Xia 2006; Yin, Yin & Zheng 2008; Zheng & Shi 2001; Li, Zhang & Ma 2011; Mao, Ren & Ou 2011). While examining the material collected from Yunnan, we found a new species, increasing the number to 7 species in Yunnan.

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Taxonomy

Oxya trimaculata sp. nov. (Figs. 1–10)

Diagnosis. The morphological similarities on male supra-anal plate, phallic complex and female subgenital plate suggest that this new species is similar to *Oxya intricata* (Stål, 1861) and *Oxya fuscovittata* (Marschall, 1836). But it differs from the latter two in the following characteristics: male cercus strongly compressed, gradually narrowing apically, subterminal apex distinctly or faintly bifurcated, ventral branch longer, stouter and apically acuter than dorsal branch; male supra-anal plate with triangular posterior lobe observably developed; inner side of hind femur with three black maculae. Moreover, the body size of the new species is larger than that of *O. intricata*.

Body size small (♂) or medium (♀), stouter in female. Head conical; fastigium roundly pentagonal in dorsal view, prominent forwards, apical margin rounded, slightly depressed in middle. Vertex with interocular distance 1.1–1.3 (♂) or 1.4 (♀) times as wide as frontal ridge between antennae. Face strongly oblique in profile; frontal ridge with longitudinal sulcus throughout; lateral margins parallel. Antennae backward reaching (♀) or beyond (♂) hind margin of pronotum. Eyes oval, longitudinal diameter 1.4–1.6 (♂) or 1.6 (♀) times as long as horizontal diameter, and 2.3–2.6 (♂) or 2.1 (♀) times longer than subocular furrow. Pronotum subcylindrical; disc with rough points in prozona and dense points in metazona; anterior margin nearly straight, posterior margin posteriorly obtusely angular; median carina indistinct and intersected by three transverse sulci, lateral carinae absent; prozona 1.2–1.3 (♂) or 1.2 (♀) times as long as metazona. Prosternal spine conical, posteriorly oblique, hind margin compressed, apex obtuse. Mesosternal interspace about 3.8–4.5 (♂) or 3.1 (♀) times longer than minimum width; metasternal lobes contiguous (♂, ♀). Tegmina and hind wings developed, surpassing the end of hind femur, hind wings almost as long as tegmina (♂, ♀); tegmina with anterior margin hardly spined (♀). Hind femur with upper carina smooth, terminating in an acute angle; lower knee lobes with apex spinous on inner and outer sides. Hind tibiae expanded in apical half and with acute dorso-lateral margins, with 8 inner spines and 9 outer spines on both dorsal margins, external apical spines present. Tympana opening distinct, oval.

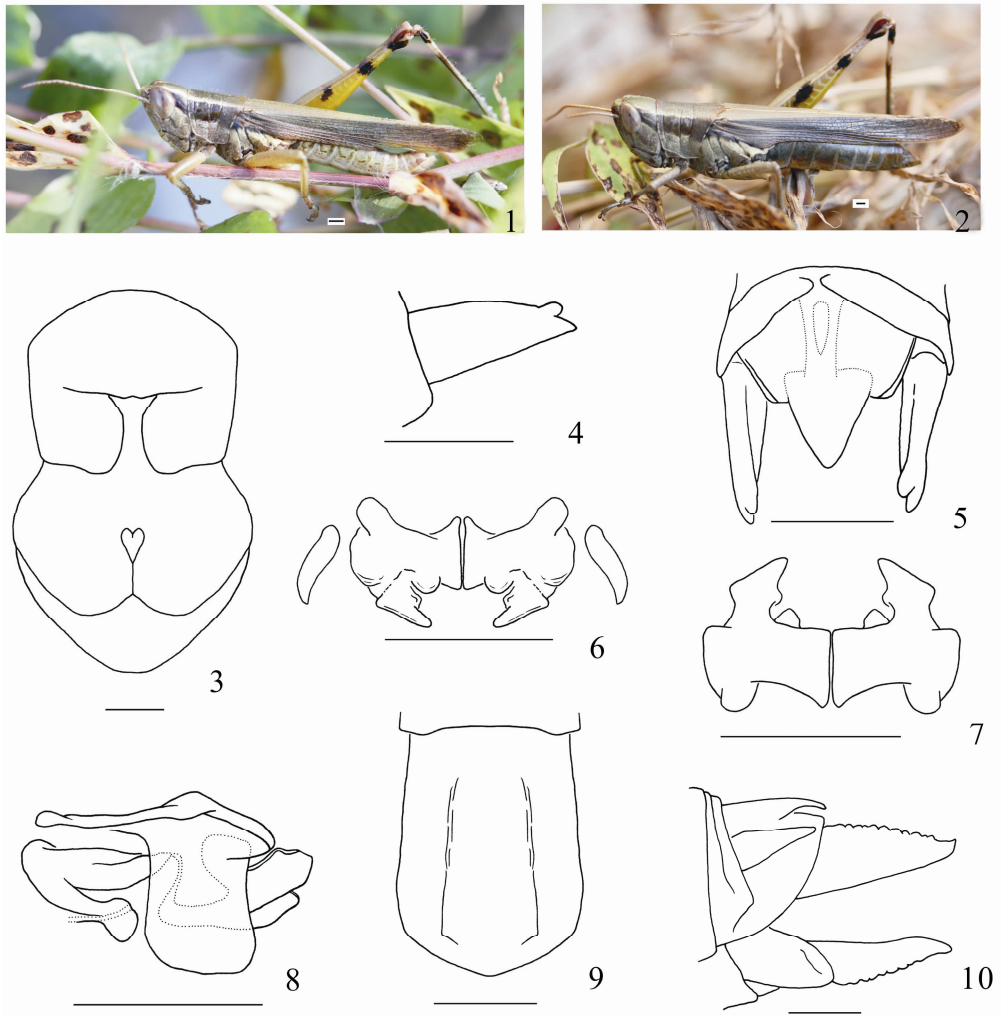
Male. Supra-anal plate longer than wide, trilobitic; basal half with a shallowly longitudinal groove in middle; lateral margin raised; hind margin projecting acute triangular in middle and raised on both sides. Cercus strongly compressed, gradually narrowing apically, triangular in lateral view; subterminal apex distinctly or faintly bifurcated (sometimes incised), ventral branch longer, stouter and apically acuter than dorsal branch. Subgenital plate with apex obtuse. Epiphallus without anchorae; outer lophi shoe-shaped, with punctations on surface, expanded in middle, apex acute and pointing postero-entad; inner lophi semicircular, approaching outer lophi, surface punctuate. Cingular valves of phallic complex broad and long in lateral view, apex obliquely truncate; apical valves of penis narrow and short, apex rounded.

Female. Abdominal tergites without spine on postero-lower angle. Ventral basivalvular sclerite with inner edge smooth and outer edge indistinctly toothed. Upper and lower ovipositor valves with outer edges densely and obtusely toothed, the latter having 4–5 indistinct spines on inner edge in ventral view, apex obtuse. Subgenital plate with lateral longitudinal ridges on ventral surface, a shallow concavity between lateral longitudinal ridges,

posterior margin broadly rounded.

Coloration. Body gray. Postocular bands brown, upper edge distinctly (♂) or indistinctly (♀) yellow-margined. Hind femur yellow (♂) or grayish yellow (♀) on outer side, greenish yellow (♂) or grayish yellow (♀) on inner side, with three regular black maculae (including one in middle, one on subapical part and one before knee) on inner side; inner side of knee black, but apical part of lower knee lobes yellow. Hind tibia gray or grayish yellow, but inner side black at base and yellow near base.

Measurements (mm). Length of body: ♂ 24.2–26.5, ♀ 35.0. Length of pronotum: ♂ 4.7–5.2, ♀ 7.7. Length of tegmen: ♂ 18.0–20.5, ♀ 25.5. Length of hind femur: ♂ 13.0–15.0, ♀ 20.5. Width of hind femur: ♂ 2.7–3.1, ♀ 4.3.



Figures 1–10. *Oxya trimaculata* sp. nov.. 1, 3–8. Male; 2, 9, 10. Female. 1, 2. Habitus, lateral view; 3. Mesosternum and metasternum; 4. Cercus, lateral view; 5. Terminalia, dorsal view; 6, 7. Epiphallus, dorsal and posterior views; 8. Phallic complex, lateral view; 9. Subgenital plate, ventral view; 10. Terminalia, lateral view. Scale bars = 1 mm.

Holotype. ♂, **China**, Yunnan, Mangshi, 24°30'N, 98°36'E, alt. 1063 m, 22-XI-2013, leg. MAO Benyong. **Paratypes.** 3♂1♀, *ibid.*, 22-XII-2013, leg. LUO Ziwang. All type specimens are deposited in BMDU.

Biology. The food plants of this species have not been definitely determined, but all specimens were captured from the harvested rice fields and the weeds at that locality during November to December.

Distribution. China (Yunnan).

Etymology. The specific epithet is derived from the Latin “tri” and “macula”, referring to the hind femur having three black spots on its inner side.

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