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Two New Species of Catantopidae (Orthoptera: Acridoidea) from Guangxi, China

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Zhemin Zheng and Kai Li (2001) Two new species of Catantopidae (Orthoptera: Acridoidea) from Guangxi, China. *Zoological Studies* **40**(4): 305-308. This paper reports on 2 new species of Catantopidae, *Oxya maoershanensis* sp. nov. and *Caryanda damingshana* sp. nov., collected from the Maoer Mountains and Daming Mountains in Guangxi, China. Type specimens are deposited at the Institute of Zoology, Shaanxi Normal Univ., Xian, China. http://www.sinica.edu.tw/zool/zoolstud/40.4/305.pdf

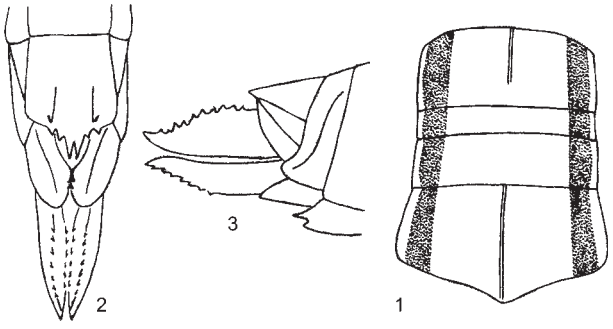
Key words: Grasshopper, New species, China.

From July to Aug. 2000, the authors and their colleagues surveyed of Orthopteran insects in the Shiwanda Mountains, Daming Mountains, Daqing Mountains, Maoer Mountains, Dayao Mountains, etc. in Guangxi, China. Among the specimens of Acridoidea collected, through identification we found 2 species of Catantopidae that are new to science. They are described below. Type specimens are preserved at the Insect Collection of the Institute of Zoology, Shaanxi Normal Univ., Xian, China.

Oxya maoershanensis sp. nov.

(Figs. 1, 2, 3)

Female: Size moderate. Head big, shorter than pronotum. Vertex wide and short, anterior margin wide, obtuse, round. Maximum width of vertex in front of eyes twice as long as its length. Disc of vertex relatively flat. Width of interocular distance 1.6 times as long as width of frontal ridge between 2 antennae. In profile, frons slightly oblique. Lateral margin of frontal ridge nearly parallel, only slightly concave below median ocellus. Frontal ridge with sulcus throughout. Lateral facial keels distinct, comparatively straight. Antennae filiform, thick, and short, with 25 segments, not reaching posterior margin of pronotum, length of middle segment 2.2 times its width. Eyes oblong and oval, longitudinal diameter of eyes 1.5 times as long as horizontal diameter, the former 1.5 times as long as length of subocular furrow. Disc of pronotum with big, thick punctate, anterior margin straight, posterior margin wide, obtuse, angular; median keel distinct on metazona and front of anterior transverse sulcus, indistinct between anterior transverse sulcus and posterior transverse sulcus, lateral keels absent, posterior transverse sulcus at middle and rear part of pronotum, length of prozona 1.33 times as long as length of metazona; length of lateral lobe slightly longer than its height, lower margin forward rising at middle, anterior lower



Figs. 1-3. *Oxya maoershanensis* sp. nov. ♀: 1, pronotum, dorsal view; 2, abdominal terminalia, ventral view; 3, abdominal terminalia, lateral view.

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angle wide, round, posterior lower angle obtuse angular. Prosternal spine conical. Width of mesosternal lobes larger than length, length of interspace 2 times as long as its minimum width. Metasternal lobes slightly separated. Tegmina short, slightly reaching beyond middle of hind femur or end of epiproct, apex narrow, rounded. Hind femur well proportioned, its length 4.5 times its width; median keel of upper side smooth, forming a toothlike protrusion at end; tip of lower kneelobe sharp and spiny. Apical 1/2 of hind tibia slightly widened, with narrow flaky edge. Hind tibia on outer side with 10 spines (including outer apical spine), on inner side with 10 spines. Length of 1st segment of hind tarsus 1.3 times 3rd segment, the former as long as the sum of 2nd and 3rd segments. Arolium between 2 claws big, reaching tip of claw. Tympanal organ developed, tympanum nearly oval. Posterior lower angle of tergum of 3rd abdominal segment with sharp spine. Epiproct triangular, with horizontal ridge in middle. Cercus long-conical, apex sharp. Valvulae thick and short, length of dorsal valves 3 times as long as width, upper-outer margin of dorsal valves with equal sharp teeth. Inner side of ventral basivalvular plate with 2 teeth. Subgenital plate with close side ridge in apical part, low and concave between 2 side ridges, posterior margin with triangular protuberance in middle, tip with 2 sharp teeth, two sides with 1 small tooth and 1 big tooth.

Body yellow-green. Head and pronotum on disc ocherous. Postocular band black. Tegmina ocherous. Hind femur green, knee black. Hind tibia light blue-green, basal part black.

Male unknown.

Length of body: ♀ 29 mm; length of pronotum: ♀ 5.5 mm; length of tegmina: ♀ 16 mm; length of hind femur: ♀ 20 mm.

Types: Holotype: ♀. Paratype: ♀, Guangxi: Maoer Mountains, 22 Aug. 2000, Kai Li.

This new species is allied to *Oxya tinkhami* Uvarov 1935 and *Oxya agavisa* Tsai 1931. It differs from both as described in table 1.

***Caryanda damingshana* sp. nov.**

(Figs. 4, 5, 6, 7, 8)

Male: Size small. Head shorter than pronotum. Vertex protuberant, wide, short, anterior margin somewhat wide arc. Width of vertex in front of eyes 3 times as long as its length. Disc of head with distinct median keel. In profile, frons oblique. Frontal ridge slightly narrowed, lateral margin almost parallel, slightly widening only at median ocellus. Frontal ridge with longitudinal sulcus throughout, reaching clypeus. Lateral facial keels straight. Antennae filiform, reaching beyond posterior margin of pronotum, with 22 segments, length of middle segment 3 times as long as its width. Eyes oval-round, longitudinal diameter of eye 1.8 times its horizontal diameter, the former 2.25 times as long as length of subocular furrow. Pronotum cylindrical, with thick puncture, anterior margin nearly straight with slight concavity at middle, posterior margin with small shallow triangular concavity in middle; median keel distinct and entire on metazona, intermittent granulations on prozona, lateral keels absent, three trans-

Table 1. Comparison of morphological characters among *Oxya maoershanensis* sp. nov., *O. tinkhami*, and *O. agavisa*

	O. maoershanensis sp. nov	*O. tinkhami*	*O. agavisa*
Tegmina	slightly extending beyond median of hind femur	only reaching median of hind femur	almost reaching, reaching, or reaching slightly beyond tip of hind femur
Median keel of pronotum	distinct only in metazona and front of anterior transverse sulcus	distinct throughout	distinct throughout
Subgenital plate in female	side ridge in apical part close, between side ridges low and concave	side ridge in apical part distant, between side ridges flatter	side ridge in apical part close, between side ridges low and concave
Posterior margin of subgenital plate in female	middle with triangular protuberance, tip with 2 sharp teeth, each side with 1 small and 1 big tooth	middle without protuberance, 2 sharp teeth close, each side with 1 small and 1 big tooth	middle with triangular protuberance, tip with 2 teeth, each side with 1 small tooth
Inner side of ventral basivalvular plate	with 2 teeth	with 1 tooth	with 1 tooth

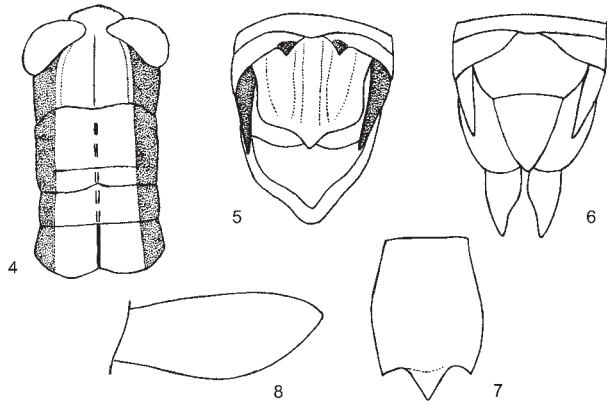
verse sulci apparent, all cutting median keel; posterior transverse sulcus near rear part of pronotum, length of prozona 2.3 times as long as length of metazona. Prosternal spine conical, apex obtuse. Width of mesosternal lobes slightly larger than length, interspace of mesosternal lobes wide, length of interspace 1.43 times its minimum width; metasternal lobes linked in apical part. Tegmina narrow, long, oval, placed in lateral, separated in disc, reaching posterior margin of tergum of 1st abdominal segment, apex narrow, rounded, length of tegmina 2.3 times its maximum width. Hind femur well proportioned, median keel of upper side smooth, forming tooth at end, tip of lower kneelobe a sharp spine. Hind tibia on outer side with 8 spines, on inner side with 9-10 spines, including inner and outer apical spines. First segment of hind tarsus shorter than 3rd segment. Arolium between 2 claws big, reaching tip of claw. Tympanal organ developed, tympanum nearly half-rounded. Tergum of abdominal terminal segment with small triangular furcula. Epiproct nearly scutiform, apex a triangular projection, with longitudinal sulcus throughout in middle, two side margins slightly upturned. Cercus conical, apex sharp, reaching beyond end of epiproct. Subgenital plate short, conical, apex sharp.

Body yellowish green. Head and pronotum on disc brown-green. Postocular band wide, black, extending beyond posterior margin of pronotum and reaching tergum of 8th abdominal segment. Lateral lobe of pronotum on lower part yellowish green. Tegmina black. Fore and median legs yellowish green. Hind femur yellowish green, knee black. Hind tibia dark blue, basal part black. Tergum of abdomen black, with 2 yellow longitudinal stripes. Furcula black. Cercus black. Segmental venter of abdomen yellowish green.

Female: Size larger than male. Antennae thick and short, not reaching posterior margin of pronotum, length of middle segment twice its width. Eyes oval, longitudinal diameter of eye 1.76 times as long as its horizontal diameter, the former 2 times length of subocular furrow. Median keel of pronotum entire, length of prozona 2.35 times length of metazona. Epiproct long, triangular, with horizontal sulcus in middle. Cercus short, conical, not reaching tip of epiproct. Valvulae thick and short, dorsal and ventral valves with tiny teeth. Posterior margin of subgenital plate with triangular protuberance in middle.

The body color is the same as in the male.

Length of body: ♂ 20 mm, ♀ 23.5-25 mm;



Figs. 4-8. *Caryanda damingshana* sp. nov.: 4, ♂, head and pronotum, dorsal view; 5, ♂, abdominal terminalia, dorsal view; 6, ♀, abdominal terminalia, dorsal view; 7, ♀, subgenital plate; 8, ♂, tegmina.

Table 2. Comparison of morphological characters among *Caryanda damingshana* sp. nov., *C. guangxiensis*, and *C. hubeiensis*

	C. damingshana sp. nov	*C. guangxiensis*	*C. hubeiensis*
Subgenital plate in male	apex sharp	apex concave in middle	apex obtuse
Furcula of abdominal terminal segment in male	triangular	triangular	rounded
Tegminae	reaching posterior margin of 1st tergum of abdomen	reaching 1/3 of 2nd abdominal segment	reaching posterior margin of 1st tergum of abdomen
Length of elytra lager than its width	2.3 times	2.45 times	3 times
Posterior margin of subgenital plate in female	triangular protuberance in middle	protuberance in middle with a small tooth on each side	
Cercus in male	black	brown	pitch black, apex pale
Color of body	yellowish green	blue-brown or blue-black	yellowish green

length of pronotum: ♂ 4.5 mm, ♀ 5-6 mm; length of tegmina: ♂ 3 mm, ♀ 4-4.5 mm; length of hind femur: ♂ 11.5 mm, ♀ 14-15 mm.

Types: Holotype: ♂. Paratypes: 3 ♀♀, Guangxi: Daming Mountains, 12 Aug. 2000, collected by Kai Li.

This new species is similar to *Caryanda guangxiensis* Li et al. 1995 and *Caryanda hubeiensis* Wang 1995. It differs from both as described in table 2.

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廣西斑腿蝗科二新種記述(直翅目：蝗總科)

鄭哲民　李　愷

本文記述採自廣西貓兒山及大明山地區斑腿蝗科(Catantopidae)二新種，模式標本保存於陝西師範大學動物研究所標本室。

關鍵詞：蝗蟲，新種，中國。

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