

A NEW GENUS OF GRASSHOPPER (ORTHOPTERA: ACRIDOIDEA: CATANTOPIDAE: CYRTACANTHACRIDINAE) FROM CHINA¹

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ABSTRACT: This paper reports a new genus i.e. *Parapachyacris* gen. nov and a new species *Parapachyacris taiwanensis* sp. nov in Cyrtacanthacridinae. The new genus is similar to *Pachyacris* Uvarov, 1923 and differs from the latter in: 1) foveolae lacking; 2) hind tibiae with 10 spines on inner side and 8 spines on outer side; 3) basal part of prosternal process thickened; 4) cross veins right angled with longitudinal veins in apical part of tegmina and 5) the back of body with yellow longitudinal stripe in middle. The new genus is also similar to *Patanga* Uvarov, 1923 and differs from the latter in: 1) foveolae lacking; 2) basal part of prosternal process thickened; 3) upper side of hind femora with three dark bands and 4) black spots of tegmina lacking. Type specimen is deposited in the National Museum of Natural Science (NMNH), Taichung, Taiwan, China.

KEY WORDS: Orthoptera, Catantopidae, Cyrtacanthacridinae, new genus, new species, China

The grasshopper subfamily Cyrtacanthacridinae is a small taxon, in which there are some genera and species distributed over the whole world. Characteristics for this subfamily are: body large; antennae filiform, with more than 18 segments; foveolae indistinct or absent; prosternal process conical or cylindrical; pronotum without lateral carinae; dorsal basal lobe of hind femur longer than ventral one, medial area with fishbone-pattern on outside; tegmina developed, extending over end of the hind femora.

When examining specimens of grasshoppers from Taiwan China, we discovered a genus and a species of Cyrtacanthacridinae as new to science. The descriptions are given as below. Type specimen is deposited in the National Museum of Natural Science (NMNH), Taichung, Taiwan, China.

SYSTEMATIC ENTOMOLOGY

Parapachyacris gen. nov.

Figs. A-D

Body large in size. Head large and shorter than length of pronotum. Face slightly oblique. Foveolae lacking. Head and pronotum with yellow longitudinal stripe in middle. Antennae filiform, longer, extending to base of hind femora. Prosternal process nearly cylindrical, slightly sloping backward, basal part thick-

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ened, apex acuter. Pronotum cylindrical, hind margin curved in middle, lateral carinae lacking, median keel raised in prozona and low in metazona, distinctly cut by three transverse sulci. Prozona equal to metazona in length. Mesosternal lobes longer than width. Lateral lobes of metasternum slightly separated in apical part. Tegmina and wings developed, without black spots, extending over middle of hind tibiae, cross veins right angled with longitudinal veins in apical part of tegmina. Hind femur with three dark bands on upper side, upper keel serrated, with end of lower knee lobes rounded. Hind tibiae with 10 spines on inner side and 8 spines on outer side, external apical spine absent. Second joint of hind tarsus shorter than the first one. Tympanum distinct. Ovipositor valves short, distinctly hooked in the end, outer margin smooth.

Type Species: *Parapachyacris taiwanensis* sp. nov.

Diagnosis: The new genus is similar to *Pachyacris* Uvarov, 1923 and differs from the latter as listed in Table 1.

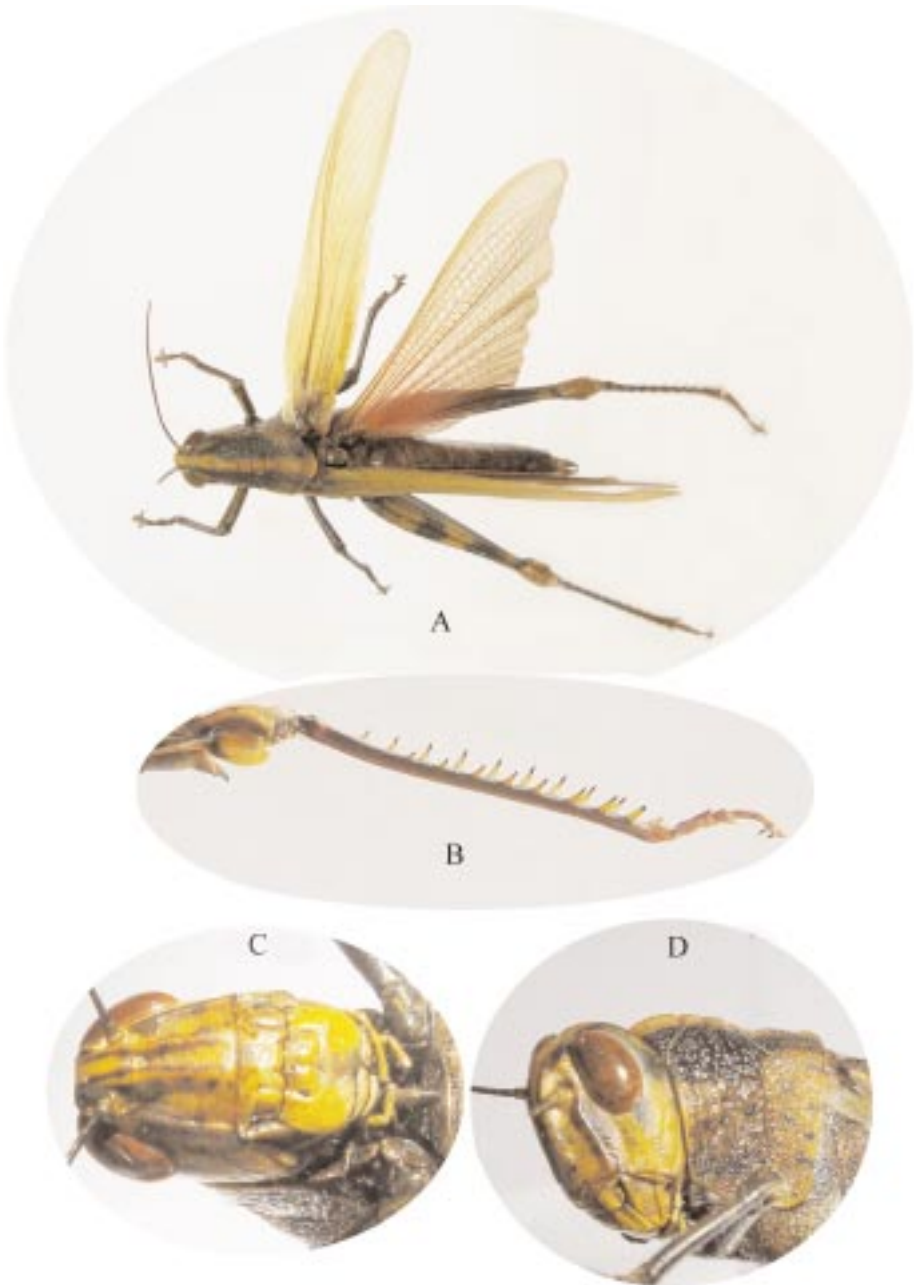
Table 1. Comparison of new genus *Parapachyacris* and *Pachyacris* Uvarov, 1923

	<i>Parapachyacris</i> gen. nov.	<i>Pachyacris</i>
foveolae	lacking	indistinct
spines of hind tibiae	inner side 10, outer side 8	inner side 8, outer side 7
prosternal process	basal part thickened	basal part not thickened
apical part of tegmina	cross veins right angled with longitudinal veins	cross veins oblique angled longitudinal veins
head and pronotum	with yellow longitudinal stripe in middle	without yellow longitudinal stripe in middle

The new genus is also similar to *Patanga* Uvarov, 1923 and differs from the latter as listed in Table 2.

Table 2. Comparison of new genus *Parapachyacris* and *Patanga* Uvarov, 1923

	<i>Parapachyacris</i> gen. nov.	<i>Patanga</i>
foveolae	lacking	indistinct
Prosternal process	basal part thickened	basal part not thickened
upper side of hind femora	with three dark bands	with a black longitudinal stripe
black spots of tegmina	lacking	present



Figures A-D. Photographs of *Parapachyacris taiwanensis* sp. nov. A. Dorsal view of holotype. B. Hind tibia. C. Head and prosternal process. D. Head and pronotum lateral view.

Etymology: Name of the genus is derived from its sister genus *Pachyacris* Uvarov, 1923, Para- in Latin means derivation.

***Parapachyacris taiwanensis* sp. nov. (Figs. A-D)**

Type Data. Holotype: Female, China: Taiwan Taichung, Hoping, Paileng, (21°11'N, 120°54'E), (G. S. Tung & M. M. Yang), 3. August, 1996 (NMNH).

Description of Female (Figs. A-D). Body large in size. Head larger and shorter than length of pronotum. Face slightly oblique in profile. Antennae filiform, 27 segments, distinctly surpassing over posterior margin of pronotum, middle segment 2.5 times as long as its width. Eyes globose, longitudinal diameter 1.7 times as long as horizontal diameter and 1.8 times subocular furrow. Pronotum cylindrical, hind margin curved in middle, lateral carinae lacking, median keel raised in prozona and low in metazona, distinctly cut by three transverse sulci. Prozona equal to metazona in length. Interspace of mesosternum narrowed backward, 1.5 times as long as minimum width, lateral lobes of metasternum slightly separated, almost contiguous. Tegmina and wings developed, extending over middle of hind tibiae, cross veins right angled with longitudinal veins in apical part of tegmina. Upper keel of hind femur serrated, well proportioned, 4.6 times as long as its maximum width, end of lower knee lobes rounded. Hind tibia with 10 spines on inner side and 8 spines on outer side, external apical spine absent. Second joint of hind tarsus shorter than first one, arolium large, longer than claw. Tympanum distinct. Epiproct with longitudinal groove in middle. Cercus conical, not reaching to tip of epiproct. Subgenital plate oblong, hind margin acute angled in middle. Ovipositor valves short, apex hooked, outer margin smooth.

Coloration: Body darkish-brown. Antennae darkish-brown. Head and pronotum with yellow longitudinal stripe in middle. Tegmina yellowish-brown, without black spots. Wing darkish-brown, red at base. Hind femur yellowish-brown, with three dark bands on upper side, upper kneelobe dark, lower one yellow. Hind tibia darkish-brown, spines yellow, apex black. Abdomen and subgenital plate darkish-brown.

Measurements: Length of body, female 58.2 mm. Length of tegmen: female 58.1 mm. Length of hind femur: female 33.9 mm.

Male: Unknown.

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