



A new genus and new species of Phlaeobinae from China (Orthoptera: Acrididae)

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This paper reports a new genus of Phlaeobinae i.e. *Sinophlaeobida* gen. nov and a new species *Sinophlaeobida taiwanensis* sp. nov. The new genus is similar to *Phlaeobida* I. Bolivar, 1902, but differs from the latter in: 1) lateral carinae of pronotum nearly parallel. 2) prozona about 1.6 times longer than metazona and 3) hind margin of pronotum incised slightly in the middle.

The grasshopper subfamily Phlaeobinae is a small taxon with some genera and species distributed over the whole world. Characteristics for this subfamily are: body slender, antennae ensiform, with more than 18 segments; foveolae absent; pronotum often with lateral carinae; dorsal basal lobe of the hind femur longer than the ventral one, medial area with fishbone-pattern on the outside; tegmina often developed, sometime abbreviated, lateral. The short-winged species are usually distributed on islands, presumeably as an adaptation to harsh winds. *Calliphlaeoba* Ramme (Celebes), *Paraphlaeoba* Bolivar (Sri Lanka), *Phlaeobella* Ramme (Flores), *Phlaeobida* I. Bolivar (Hainan Island of China), *Pseudophlaeoba* Bolivar (Sri Lanka), *Zygophlaeoba* Bolivar (Sri Lanka), are examples.

While examining specimens of grasshoppers from Taiwan China, we discovered a new genus and species of Phlaeobinae. The descriptions are given as below. Type specimens are deposited in Taiwan Agricultural Research Institute of (TARI) and National Museum of Natural Science (NMNH), Taichung, Taiwan, China.

Sinophlaeobida gen. nov. (Figs. A–F)

Body median in size. Head large, shorter than length of pronotum. Face oblique distinctly. Antennae ensiform, widened distinctly in the basal part, toward apices gently narrow. Pronotum cylindrical, hind margin excised slightly in the middle, lateral carinae nearly parallel, median keel normal, low, slightly cut by hind transverse sulcus. Prozona about 1.6 times longer than metazona. Lateral lobes of metasternum and mesosternum separated in apical part. Mesosternal lobes broader than long. Tegmina and wings abbreviated, positioned laterally. Upper keel of hind femur serrated slightly, the end of lower knee lobes rounded. External apical spine of hind tibia absent. Second joint of hind tarsus shorter than the first joint. Tympanum distinct. Epiproct with longitudinal groove in the middle. Ovipositor valves short, distinctly hooked in the end, outer margin smooth.

Type-species: Sinophlaeobida taiwanensis sp. nov.

Diagnosis: The new genus is similar to *Phlaeobida* I. Bolivar, 1902, it differs from the latter see table 1:

TABLE 1. Comparison of new genus *Sinophlaeobida* and *Phlaeobida* I. Bolivar, 1902

	<i>Sinophlaeobida</i> gen. nov.	<i>Phlaeobida</i>
Lateral carinae of pronotum	parallel nearly	curve
Prozona : metazona in length	1: 1.6	1: 2.5-3
Hind margin of pronotum	excised slightly in the middle	excised distinctly in the middle

Etymology: The genus name is derived from the locality of type: China = *Sino-* and its sister genus *Phlaeobida* I. Bolivar, 1902.

***Sinophlaeobida taiwanensis* sp. nov. Figs. A–F**

Type materials

Holotype: male, China: Taiwan Pingtung, (22°40'N, 120°29'E), alt, 25m (K.S. Lin), 21 March 1980. Paratype: 1 female Pingtung (K.C. Chou & C.N. Lin) 4 August 1982; 1 male, same data as holotype; 1 female Pingtung (K.C. Lin & C.N. Lin) 3 August 1982 (AIT); 1 male, Pingtung Kenting (21°57'N, 120°47'E) (K.W. Wang) 23 May 1989; 1 male, Pingtung Manchou (22°02'N, 120°50'E) alt, 31m, (K.W. Wang) 17 Jan. 1990; 1 male Pingtung Manchou, (H.T. Chen) 24 May 1998 (NMNH).

Descriptions

Male (figs. A-C). Body median in size. Head larger and short, shorter than length of pronotum. Face oblique distinctly in profile, with sulcus throughout, contracted distinctly in the median part. Antennae ensiform, widened distinctly in the basal part, toward apices gently narrow, 18 segments, surpassing over the posterior margin of pronotum, length of a middle segment 2.5 times its width. Eyes globose, longitudinal diameter 1.5 times horizontal diameter and 1.6 times subocular furrow. Pronotum cylindrical, median keel normal, low, slightly cut by hind transverse sulcus, lateral carinae parallel nearly, the prozona is 1.5 times of metazona in length, hind margin excised slightly in the middle. The length of interspace of mesosternum equal to the narrowest, lateral lobes of metasternum separated. Tegmina abbreviated, scale, lateral. Upper keel of hind femur serrated slightly, well proportioned, length as long as 4.6 times of maximum width, the end of lower knee lobes rounded. Hind tibia with 12 spines on the inner and 11 spines outer side, external apical spine absent. Second joint of hind tarsus shorter than the first joint. Tympanum organ distinct. Epiproct with longitudinal groove in the middle. Cercus slender, reaching to the tip of epiproct, furculae absent. Subgenital plate short, conical.

Female (figs. D-F). Body larger, more robust. Antennae ensiform, 18 segments, shorter, not reaching to the posterior margin of pronotum. Longitudinal diameter of eyes 1.5 times horizontal diameter and equal to subocular furrow. The narrowest of interspace of mesosternum is 1.1 times its length. Length of the hind femur as long as 5.4 times of maximum width. Epiproct triangular, basal half part with longitudinal groove in the middle. Cercus short-conical, about reaching to the 2/3 of epiproct. Ovipositor valves short, distinctly hooked in the end, outer margin smooth.

Coloration

Males Body yellowish-brown. Antennae brown, apical three segments pale. Pronotum brown. Postocular band black, extending to the tegmina. Tegmina darker in anterior 2/3 part and yellowish-brown in posterior 1/3 part. Hind femur yellowish-brown, knee dark. Hind tibia brown, basal part dark. Abdomen and subgenital plate yellowish-brown.

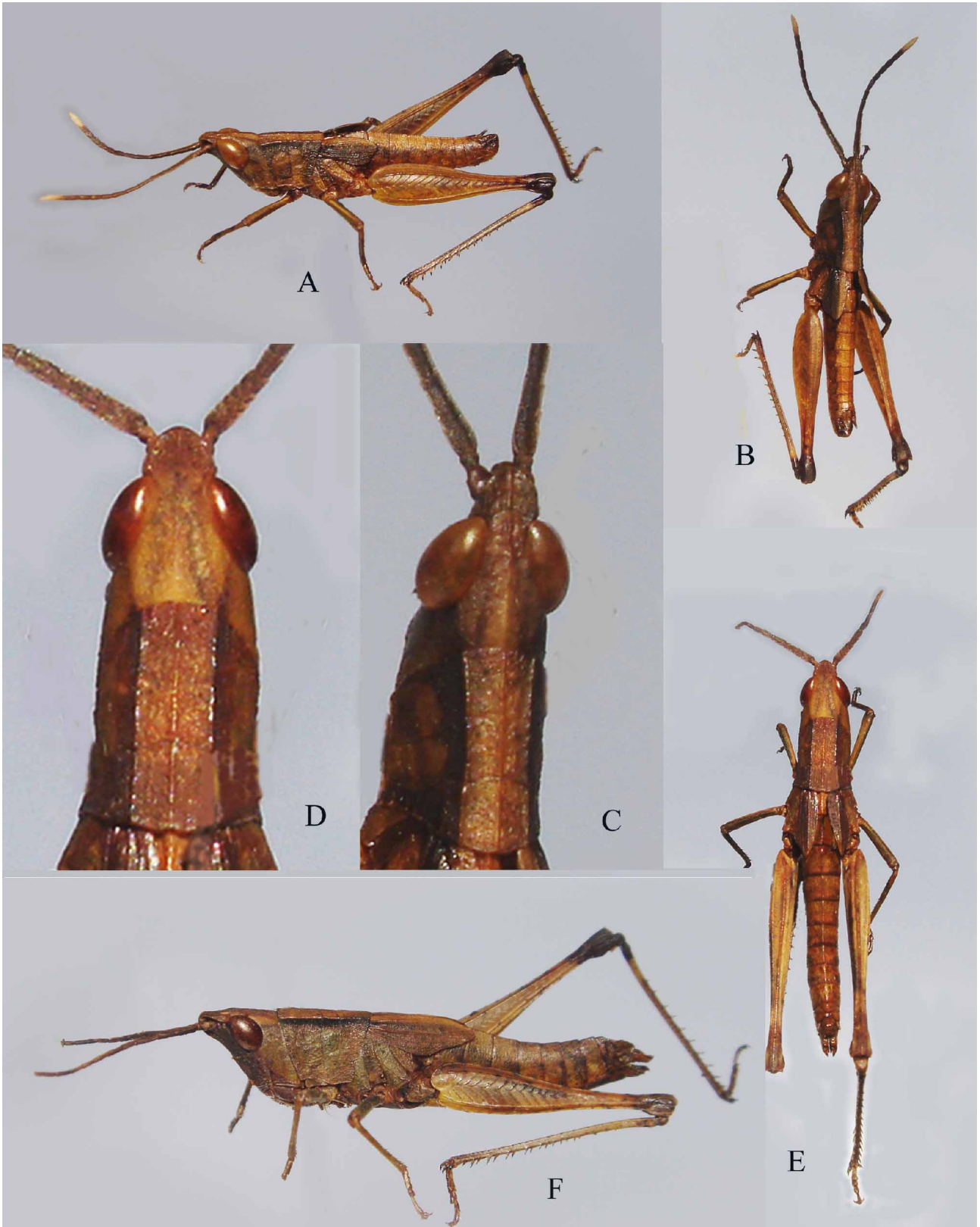
Females The color of body is similar to male.

Measurement

Length of body: ♂ 19.1-22.9 mm, ♀ 30.9-34.7 mm. Length of tegmen: ♂ 3.3-4.5 mm, ♀ 5.5-6.4 mm. Length of hind femur: ♂ 11.7-14.0 mm, ♀ 17.5-19.7 mm.

Acknowledgements

This study is financially supported by the grants of the National Natural Sciences Foundation of Peoples Republic of China (No. 30630010) and the Chinese Academy of Sciences (No. KSCX2-YW-Z). We are grateful to Prof. Yien-Shing Chow, who is the former Director of National Museum of Natural Science, Taichung for his kind invitation to the first author to visit Taiwan. We are also grateful to Mr. K.S. Lin, K.C. Chou, C.N. Lin, K.W. Wang & H.T. Chen for collecting specimens. We thank Dr. Zhiwei Liu (Biological Science Department, Eastern Illinois University, U.S.A) for providing some references.



FIGURES A–F Photographs of *Sinophaeobida taiwanensis* sp. nov. A Side view of holotype; B Dorsal view of holotype; C Head and pronotum of holotype; D Head and pronotum of paratype; E Dorsal view of paratype; F Side view of paratype.

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