

# A New Genus of The Subfamily Gryllacrinae From China (Orthoptera: Stenopelmatidae: Gryllacridae)

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**Abstract:** In this paper, one new genus, two new species are described: *Homogryllacris* gen. n., *Homogryllacris gladiata* sp. n. and *Homogryllacris rufovaria* sp. n.

**Key words:** taxonomy gryllacrinae homogryllacris china

## Introduction

The subfamily Gryllacrinae was erected by Blarchard, 1845. type genus is *Gryllacris* Serville, 1831. There are about 640 described species in about 90 genera (Eades et al., 2007), which are mostly restricted to the tropics of indo-Malaysia and other tropical regions. During the course of a revision of Chinese Gryllacrinae, I discovered that the males of two new species have highly modified paraprocts (with a long apical spine) and 10<sup>th</sup> abdominal tergite without processes, female with longer than body ovipositor. These characters differ clearly from the other genera of Gryllacrinae. Thus I think it is wiser to treat them as a single genus for the time being. The type specimens are deposited in Shanghai Entomological Museum, Chinese Academy of Sciences (SEM).

## *Homogryllacris* Liu, gen. n.

Type species: *Homogryllacris gladiata* Liu, sp. nov.

Small to medium size. Head slightly wider than pronotum, fastigium of vertex wider than first antennal segment, front smooth. Eyes ovate, prominent. Pronotum subquadrate, fore margin broadly rounded, hind margin truncate, lateral plate lower. Tegmina and wings fully developed. M of tegmina simple, free, not united with R. wings elongated, hyaline. Fore and median tibiae with 5 pairs of spurs, median tibiae with an apical spur on internal side of dorsal surface. Hind tibiae above with 5-6 internal spines and 6-7 external spines. 10<sup>th</sup> abdominal tergite of male without processes, paraprocts with a long apical spine, subgenital plate with styles. Ovipositor longer than body, almost straight.

**Discussion.** This new genus differs from the other genera of Gryllacrinae by the 10th abdominal tergite of male without process and paraprocts with a long apical spine, by the female with longer than body ovipositor.

**Distribution.** China

## *Homogryllacris gladiata* Liu, sp. nov. (figs. 1-4)

**Diagnosis.** ♂. Fastigium of vertex about 1.5 times wider than first antennal segment. Tegmina rather extending to the apex of hind femora, Sc bifurcate at apex, Ra with 3 branches, Rs arising the middle, M and R very close in base, Cua bifurcate and in this their anterior branch united with the M, 3A and 4A united in the base.

Wings hardly longer than tegmina. Hind femora beneath with 9-13 internal spines and 3-7 external spines, hind tibiae above with 6 internal spines and 7 external spines. 10<sup>th</sup> abdominal tergite with posterior margin slightly concave, paraprocts with a long, curved apical spine; cerci rather short, simple; subgenital plate broad, with posterior margin triangularly notched, styles rather long, cylindrical.

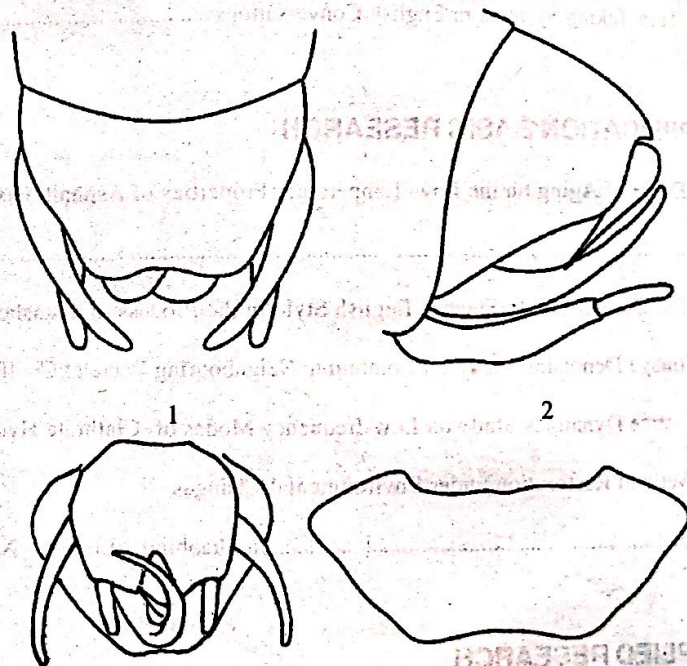


图 1-4. *Homogryllacris gladiata* Liu, sp. n.

1. End of ♂ abdomen, dorsal view; 2. End of ♂ abdomen, lateral view; 3. End of ♂ abdomen, ventral view; 4. Subgenital plate of ♀, ventral view.

♀. Venation of tegmina as male, but Ra bifurcate, Rs arising the behind the middle and with 2-3 branches. Hind femora beneath with 8 internal spines and 6 external spines, hind tibiae above with 5-6 internal spines and 6-7 external spines. Subgenital plate transverse, with truncate hind margin. Ovipositor much longer than hind femora, nearly straight.

**Coloration** Pale yellowish green, antennal sockets and base of antennae darkened.

Measurements (length in mm).

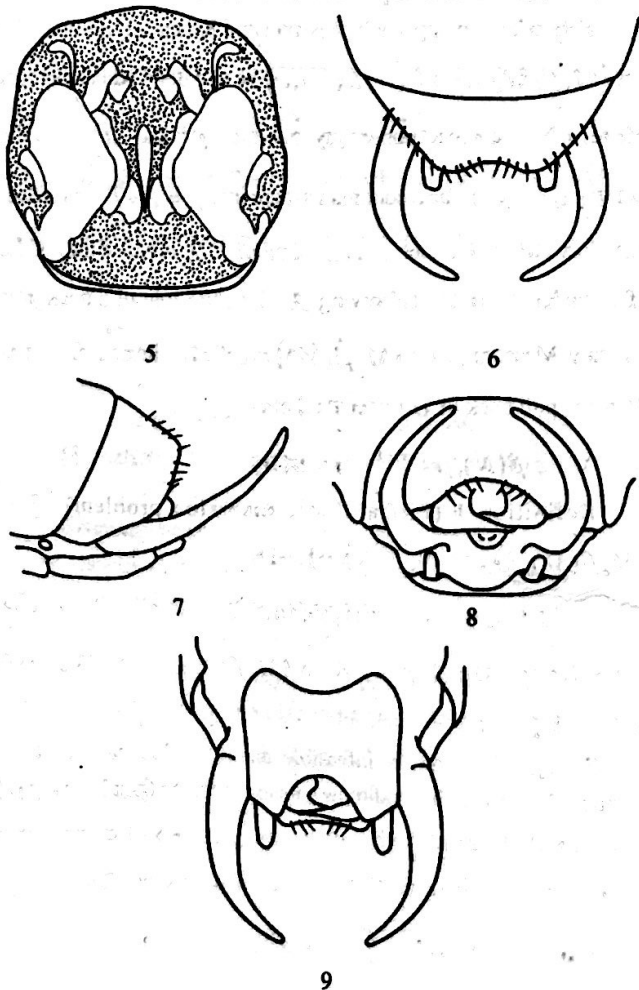
	Body	pronotum	tegmina	hind femora	ovipositor
♂	15.5-17.0	4.0-4.5	15.5-17.0	11.5-12.5	
♀	17.0-19.5	4.5-5.0	17.0-17.5	12.5-14.0	19.0-22.0

Holotype ♂, Hunan(Chili SuQiyu), 1988.IX.4, coll.by LIU, Xian-Wei; Paratype 1 ♂, Anhui(Huangshan), 1980.X.8; 1 ♂, Sichuan(Guanxian), 1987.VIII.5, Coll. By LIU Xian-Wei and WANG, Tian-Qi; 1 ♂, 1 ♀, Chongqing(Jinyunshan), 2002.IX.14, coll. By WANG-Shuai; 1 ♀, Guangxi(Xinan Maoershan), 480-600m, 1992. VIII.24-25, coll. By LIU Xian-Wei and YIN Hai-Sheng.

Discussion. This new species differs from other allied species at once by the shape of male paraprocts.

### Homogryllacris rufovaria Liu, sp. nov. (figs. 5-9)

Diagnosis. ♂. Fastigium of vertex about 1.5 times as wide as the first antennal segment. Tegmina not reaching to the apex of abdomen, Ra simple or with 3 branches on right tegmen, Rs arising the middle, simple or with 3 branches on right tegmen, M simple or bifurcate on right tegmen, Cua simple. Wings hardly longer than tegmina. Hind femora beneath with 8-9 internal spines and 7-8 external spines, hind tibiae above with 5 internal spines and 6 external spines. 10<sup>th</sup> abdominal tergite with posterior margin feebly emarginated, paraprocts shorter, with angularly curved apical spine; cerci rather short, simple; subgenital plate broad, with posterior margin roundly notched, styles rather long, cylindrical.



Figs. 5-9. Homogryllacris rufovaria Liu, sp. nov.

5. Pronotum, dorsal view; 6. End of ♂ abdomen, dorsal view; 7. End of ♂ abdomen, lateral view;

8. End of ♂ abdomen, seen from behind; 9. End of ♂ abdomen, ventral view.

♀ unknown.

Coloration. Pale reddish yellow. Antennal sockets, base of antennae and venation of tegmina darkened, pronotum with pale reddish marks, dorsal surface of abdomen purplish red.

Measurements (length in mm).

	Body	pronotum	tegmina	hind femora	ovipositor
♂	22.0	4.3	15.0	10.0	
♀					

Holotype ♂, Zhejiang (Qingyuan Baishanzu), 2005.VII.26-30, coll. by BI Wen-Xuan.

Discussion. This new species is similar to Homogryllacris gladiata Liu, sp. n., but differs in the paraprocts of male shorter and with angularly curved apical spine, subgenital plate of male with posterior margin roundly notched.

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