# A new species in the genus *Epitettix* Hancock (Orthoptera: Tetrigoidea: Cladonotidae) from Yunnan Province

Zhemin ZHENG①, Liliang LIN

*Institute of Zoology, Shaanxi Normal University, Xi'an, Shaanxi 710062, China*

**Abstract**: One new species of *Epitettix* Hancock in the family Cladonotidae is described, i.e. *Epitettix torulosinota* sp. nov. This new species is allied to *Epitettix tamilus* Günther, 1939, but differs in: 1) anterior margin of pronotum straight; 2) lateral carinae of prozona long, obviously shrunk to posterior; 3) posterior process reaching 3/4 of hind femur; 4) disc of pronotum rough, with dense protuberances; 5) lower margin of lateral lobe of pronotum in postzona straight, space between lateral carina and lower margin of lateral lobe narrow.

**Key words**: Caelifera; pygmy locust; taxonomy

**云南省后蚱属一新种（直翅目：蚱总科：枝背蚱科）**

郑哲民①，林立亮

陕西师范大学动物研究所，陕西 西安 710062

**摘要**：记述枝背蚱科 Cladonotidae 后蚱属 *Epitettix* Hancock 1 新种：瘤背后蚱 *Epitettix torulosinota* sp. nov.。该新种近似于 *Epitettix tamilus* Günther, 1939, 主要区别为：1) 前胸背板前缘平直；2) 沟前区侧隆线长，明显向后收缩；3) 前胸背板后突到达后足股节 3/4 处；4) 前胸背板背面粗糙，密具瘤突；5) 前胸背板沟后区侧片下缘近平直，与侧隆线间区域窄。

**关键词**：蝗亚目；蚱；分类

## Introduction

The genus *Epitettix* was erected by Hancock in 1907, with *Epitettix punctatus* Hancock, 1907 as its type species. It was collected from Borneo. Willemse (1928) transferred *Tetrix emarginatus* de Haan, 1843 into the genus *Epitettix*. Günther (1938) reported *E. fatigans* Günther, 1938, *E. humilicolus* Günther, 1938, *E. lativertex* Günther, 1938 and *E. tumidus* Günther, 1938. Günther (1939) reported *E. dammermanni* Günther, 1939, *E. elytratus* Günther, 1939 and *E. tamilus* Günther, 1939. Günther (1974) described *E. spheniscus* Günther, 1974. Storozhenko (2012) described *E. strigonovae* Storozhenko, 2012 and Storozhenko & Dawwrueng (2014) reported *E. obtusus* Storozhenko & Dawwrueng, 2014. So far, this genus included 12 known species worldwide, distributed mainly in Indonesia, Malaysia, New Guinea, Thailand, Vietnam, Madagascar and India.

*Epitettix* is closely related to *Pseudepitettix* Zheng 1995, but can be easily distinguished by the narrow frontal ridge, width of forntal ridge near base of antennae 1.3–1.8 times width of

Accepted 14 May 2015. Published 25 March 2016. Published online 25 January 2016.

①E-mail: zhengzhemin@163.com

1st antennal segment in species of the genus *Epitettix*, while width of frontal ridge near base of antennae 2.3–2.5 times width of 1st antennal segment in species of the genus *Pseudeitettix*.

While identifying tetrigid specimens provided by Professor Zhenghui XU, collected from Yunnan and Xizang regions, one new species in the genus *Epitettix* was found. This is the first discovery of species in this genus in China, which is described as follows. Type specimens are deposited in the Institute of Zoology, Shaanxi Normal University.

## Taxonomy

### *Epitettix* Hancock, 1907

*Epitettix* Hancock, 1907. *Transactions of the Entomological Society of London*: 216.

Type species: *Epitettix punctatus* Hancock, 1907.

Size small, stubby. Head not prominent above the pronotal surface; vertex broad, much wider than width of an eye; frontal ridge between antennae 1.3–1.8 times width of first segment of antennae. Antennae filiform, inserted between upper or lower margin of eyes. Anterior margin of pronotum straight, posterior process not reaching top of hind femur, apex point or depressed in the middle; with or without lateral carinae in prozona; lateral lobes of pronotum outturned, posterior margin with only one depression, apex of posterior angle truncated. Totally wingless. Length of first segment of hind tarsi greater than the third.

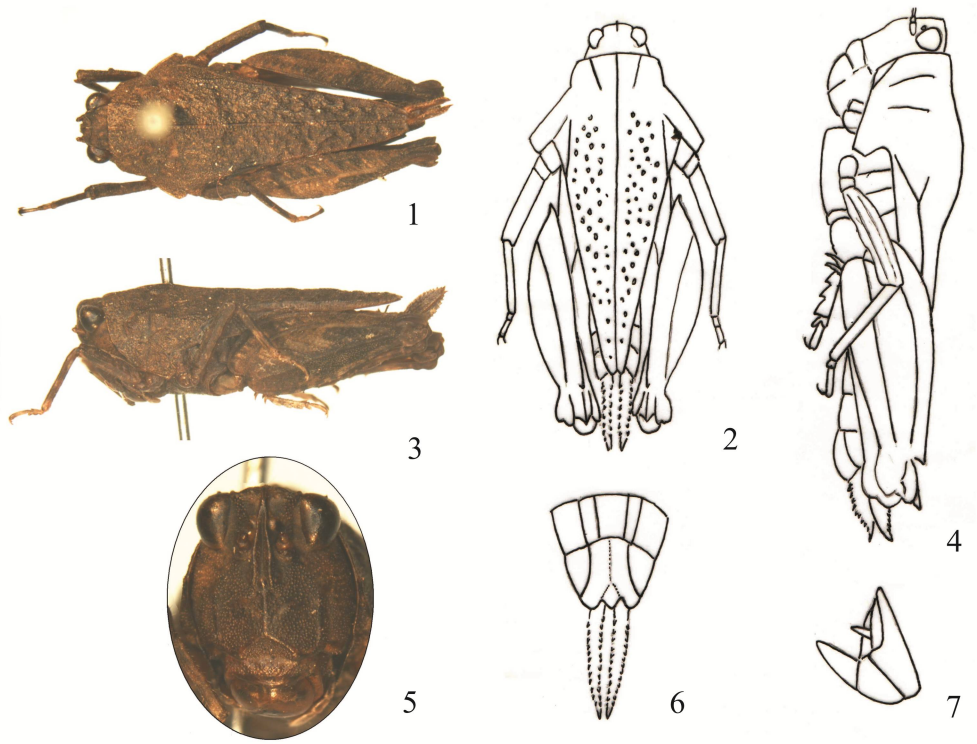
**List and distributions of species in the genus *Epitettix***

*E. dammermanni* Günther, 1939—South Java
*E. elytratus* Günther, 1939—Northeast India
*E. emarginatus* (de Haan, 1843)—New Guinea and Northeast India
*E. fatigans* Günther, 1938—New Guinea
*E. humilicolus* Günther, 1938—New Guinea
*E. lativertex* Günther, 1938—New Guinea
*E. obtusus* Storozhenko & Dawwrueng, 2014—Thailand
*E. punctatus* Hancock, 1907—Borneo
*E. spheniscus* Günther, 1974—Madagascar
*E. strigonovae* Storozhenko, 2012—Vietnam
*E. tamilus* Günther, 1939—South India
*E. torulosinota* **sp. nov.**—China (Yunnan)
*E. tumidus* Günther, 1938—New Guinea

***Epitettix torulosinota* sp. nov.** (Figs. 1–7)

Female. Body small, stubby. Head not prominent above the pronotal surface; vertex broad, with width 2.0 times width of an eye; anterior margin of vertex straight, slight prominence before anterior margin of eyes, middle carina short, obvious; lateral margin of vertex upturned; Frons vertical in lateral view, vertex and frons form a right angle; width of frontal ridge between antennae 1.3 times width of first segment of antennae. Antennae filiform, inserted between lower margin of eyes, 16-segmented, length of one segment in the middle 4.0–5.0 times its width. Eyes globose, prominent; lateral ocelli located in the middle of anterior margin of eyes. Disc of pronotum rough, with dense protuberances; anterior margin of pronotum

straight, middle carina distinct in whole length, upper margin of pronotum slightly arc-shaped and uplifting before shoulders in profile, nearly straight after shoulders; lateral carinae of prozona long, obviously shrunk to posterior; humeral angle inconspicuous; posterior process reaching 3/4 of hind femur, apex depressed in the middle; lateral lobes of pronotum outturned, posterior margin with only one depression, apex of posterior angle truncated, lower margin of lateral lobe of pronotum in postzona straight, space between lateral carina and lower margin of lateral lobe narrow. Totally wingless. Anterior and middle femora slender, lower margin of middle femur slightly undulating; hind femur stubby, pre-knee and knee teeth acute; outer side of hind tibia with 8 spines, inner side with 6–7 spines; length of first segment of hind tarsi 2.0 times the length of the third, three pulvilli of first tarsus progressively larger. Ovipositor slender, length of upper valvulae 3.0–4.0 times its width, upper and lower valvulae with fine serrations. Length of subgenital plate greater than its width, posterior margin with 3 protuberances in the middle.




Figures 1–7. *Epitettix torulosinota* sp. nov. 1. Body, dorsal view, holotype; 2. Body, dorsal view, paratype; 3. Body, lateral view, holotype; 4. Body, lateral view, paratype; 5. Head, frontal view; 6. ♀, Terminalis, ventral view; 7. ♂, Terminalis, lateral view.

Body black brown, hind tibia black brown.

Male. Body smaller than female, subgenital plate long, conical, with lighter body colour; other structures similar to male.

Measurements. Length of body: ♂ 8.0–8.5 mm, ♀ 13.0–13.5 mm; length of pronotum: ♂ 7.0–8.0 mm, ♀ 9.0–9.5 mm; length of posterior femur: ♂ 6.0 mm, ♀ 6.5 mm.

**Holotype.** ♀, **China,** Yunnan, Cangyuan (Mengleng), 2210 m, 18-IV-2012, Coll. Chunchang LI. **Paratypes.** 3♂1♀, same data as holotype.

Habitat. This new species lives on moss and surfaces of evergreen broad-leaved forest.

Remarks. Most species in this genus do not have lateral carinae in prozona of pronotum, except in 4 species. This new species is allied to *Epitettix tamilus* Günther, 1939, the main differences are listed in Table 1.

Etymology. The specific epithet is derived from the Latin words "torus" for "bulging" and "nota" meaning "mark".

**Table 1. Differences between *E. tamilus* and *E. torulosinota* sp. nov.**

| | *E. tamilus* | *E. torulosinota* sp. nov. |
|---|---|---|
| Disc of pronotum | Smooth, lack of protuberance | Rough, with dense protuberances |
| Anterior margin of pronotum | Obtuse protruded | Straight |
| Lateral carinae of prozona | Short, slightly shrunk | Long, obviously shrunk in backward |
| Posterior process | Reaching 2/3 of hind femur | Reaching 3/4 of hind femur |
| Lower margin of lateral lobe of pronotum in postzona | Broad arc-shaped protruded | Almost straight |

## Acknowledgements

We thank Prof. Zhenghui XU (Southwest Forestry University, China) for providing tetrigid specimens collected from the Yunnan and Xizang regions.

## References

Günther K. 1938. Revision der Acrydinae, I. Sectiones Tripetalocera, Discotettigiae, Lophotettigiae, Cleostratae, Bufonidne, Cladonotae, Scelimenae verae. *Mitteilungen Zoologisches Museum Berim*, 23: 299–437.

Günther K. 1939. Revision der Acrydinae (Orthoptera), III. Sectio Amorphori (Metrodorae Bol. 1887 auct.). *Abhandlungen und Berichte der Museum fur Tierkunde und Volkerkunde zu Dresden* (*A*), 20: 1–335.

Günther K. 1974. Beitrag zur Kenntnis der Tetrigoidea (Orthoptera, Caelifera) von Madagascarund von Mauritius. *Bulletin du Musee d'Histoire Naturelie de Paris. 3e Serie Zoologie*, 236: 937–1031.

Hancock JL. 1907. Studies of the Tetriginae (Orthoptera) in the Oxford Museum. *Transactions of the Entomological Society of London*, 55(2): 212–249.

Storozhenko SY. 2012. A new species of the genus *Epitettix* Hancock, 1907 (Orthoptera, Tetrigidae, Cladonotinae) from Vietnam. *Russian Entomological Journal*, 21(2): 185–187.

Storozhenko SY & Dawwrueng P. 2014. Three new species of the subfamily Cladonotinae (Orthoptera: Tetrigidae) from Thailand. *Zootaxa*, 3811(3): 325–337.

Willemse C. 1928. Revision des Acridoidea, decrites Pec description de nouvelles especes. *Zoologische Mededelingen*, 11: 1–27.

Zheng ZM. 1995. New genera and new species of Cladonotinae from China (Orthoptera: Tetrigidae). *Acta Zootaxonomica Sinica*, 20(3): 342–347.