

Description of a new species of the genus *Coptotettix* Bolívar (Orthoptera: Tetrigoidea) from Thailand

Weian DENG¹⊙, Guofang JIANG²

1. College of Chemistry and Bioengineering, Hechi University, Yizhou, Guangxi 546300, China

2. College of Oceanology and Food Science, Quanzhou Normal University, Quanzhou, Fujian 362000, China

Abstract: A new species, *Coptotettix nigrifemurus* Deng & Jiang sp. nov. (Tetrigidae: Tetriginae), is described and photographed. The species was collected from the Phu Hin Rong Kla National Park in Loei Province, Thailand. The genus *Coptotettix* in Thailand is reviewed and a key to the genus in Thailand is provided.

Key words: Caelifera; pygmy locust; taxonomy

泰国柯蚱属一新种记述（直翅目：蚱总科）

邓维安¹⊙, 蒋国芳²

1. 河池学院化学与生物工程学院, 广西 宜州 546300; 2. 泉州师范学院海洋与食品学院, 福建 泉州 362000

摘要: 记述了柯蚱属 1 新种（蚱科：蚱亚科）：黑股柯蚱 *Coptotettix nigrifemurus* Deng & Jiang sp. nov. 并附照片。新种采自泰国黎府普荣卡拉国家公园。概述了泰国的柯蚱属并附有泰国柯蚱属的分种检索表。

关键词: 蝗亚目；蚱科；分类

Introduction

The genus *Coptotettix* was erected by Bolívar in 1887 who recorded 14 new species from Sri Lanka (= Ceylon), India, Philippines, Java, New Guinea and Australia (Bolívar 1887). Subsequently *Coptotettix asperatus* Bolívar, 1887 was designated as its type species (Kirby 1910). Zheng *et al.* (2013) revised the genus and reported thirty-one species from China. This genus currently includes 75 known species (Eades *et al.* 2016), which are distributed in the tropics and subtropics of Africa, Asia, Australia, and in the islands of the Oriental region (Eades *et al.* 2016). Very little is known about the genus *Coptotettix* Bolívar in Thailand, *Coptotettix annandalei* Hancock, 1915 and *Coptotettix conspersus* Hancock, 1915 were recorded by Storozhenko & Dawwrueng in 2015 from Thailand for the first time; Zha *et al.* (2016) described *Coptotettix acutiangulus* Zha; up to now, the genus includes three known species in Thailand.

In this report, we aim to describe a new species of *Coptotettix*, *C. nigrifemurus* Deng & Jiang sp. nov. from Thailand. At the same time, we provide a key to the genus *Coptotettix* Bolívar in Thailand. Type specimens are deposited in the School of Chemistry and Bioengineering, Hechi University, Yizhou, China (SCBHU).

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⊙ Corresponding author, E-mail: dengweian5899@163.com

Specimens were examined under a stereomicroscope (Guangzhou LISS Optical Instrument Ltd. XTL-1, China), and photographed using an Olympus digital camera with the program CombineZ5.3 (Hadley 2006). Morphological terminology and methods for measurement of features follow those of Zheng (2005) and Deng *et al.* (2007). Measurements are given in millimeters (mm).

Key to the species of *Coptotettix* Bolívar, 1887 in Thailand

1. Face, ventral surface of body, fore and middle legs, and subgenital plate covered with many long hairs..... *Coptotettix acutiangulus* Zha
- Face, ventral surface of body, fore and middle legs, and subgenital plate not covered with many long hairs..... 2
2. Pronotum with the dorsum deplanate, but with more or less distinct rugulae, or tubercles; pronotum longer, far surpassing apex of hind femora..... *Coptotettix conspersus* Hancock
- Pronotum with the dorsum deplanate, subsmooth, minutely granose; pronotum shorter, not reaching or reaching or lightly surpassing apex of hind femora..... 3
3. Antenna inserted between lower third of inner margin of eye, lateral ocellus placed slightly above the middle of inner margin of eye; in lateral view upper margin of pronotum straight; margins of middle femora straight..... *Coptotettix nigrifemurus* Deng & Jiang **sp. nov.**
- Antenna inserted between lower inner margin of eye, lateral ocellus placed between the middle of inner margin of eye; in lateral view upper margin of pronotum undulated behind the shoulders; margins of middle femora subundulate..... *Coptotettix annandalei* Hancock

Taxonomy

Coptotettix nigrifemurus Deng & Jiang **sp. nov.** (Fig. 1)

Male. Size small. Vertex slightly below the anterior margin of pronotum, and as wide as an eye (Fig. 1C). Anterior margin of vertex straight, median carina conspicuous and slightly surpass anterior margin; anterior part of lateral margin folded upwards, paired fossae presented between lateral margins and median carina. In lateral view, frontal ridge together with vertex rounded, longitudinal furrow a little narrower than diameter of 1st segment of antenna (Fig. 1E). Antenna filiform, inserted lower third of inner margin of eye (Fig. 1D). Eyes globose, lateral ocellus placed slightly above the middle of inner margin of eye (Fig. 1E).

Pronotal disc flattened, smooth and covered with numerous fine granules; pronotal midkeel entire and low at front (Fig. 1A), compressed elevated one the sulci, in lateral view upper margin nearly straight (Fig. 1B); anterior margin straight, lateral keels of prozona slightly constricted backwards; humeral angle obtuse, abbreviated carinae presented between shoulders; lateral margins low, finely serrulate; caudal end of pronotum narrow, short cone-shaped, nearly reaching apex of hind femora. Posterior margin of lateral lobe of pronotum has two concavities, posterior angle of lateral lobe of pronotum turned downwards, apex nearly round. Visible part of tegmen elongated, rounded at apex. Wings shortened, not reaching caudal end of pronotum but reaching knees of hind femora (Fig. 1B). Fore femora elongate, margins finely serrulate, lower margins straight; middle femur a little widened, slightly wider than tegmen (Fig. 1F), margins straight and finely serrulate (Fig. 1F), Hind femur stout, 3.0 times as long as wide, antegenicular and genicular denticles right angled, upper and lower margins with indistinct finely serrulate. Outer side of hind tibia has five to six

spines, inner side has four to five. First segment of posterior tarsus longer than third, third pulvillus longer than first and second, all apices sharp. Subgenital plate short, cone-shaped (Fig. 1G), apex bifurcated.

Body yellowish brown; wings black; fore and middle femora dark brown; lower outer side of hind femur black (Fig. 1B). Hind tibia black.

Female. Unknown.

Measurements. Length of body ♂ 7.0–7.2 mm; length of pronotum ♂ 6.5–7.0 mm; length of hind femur ♂ 4.5–5.0 mm.

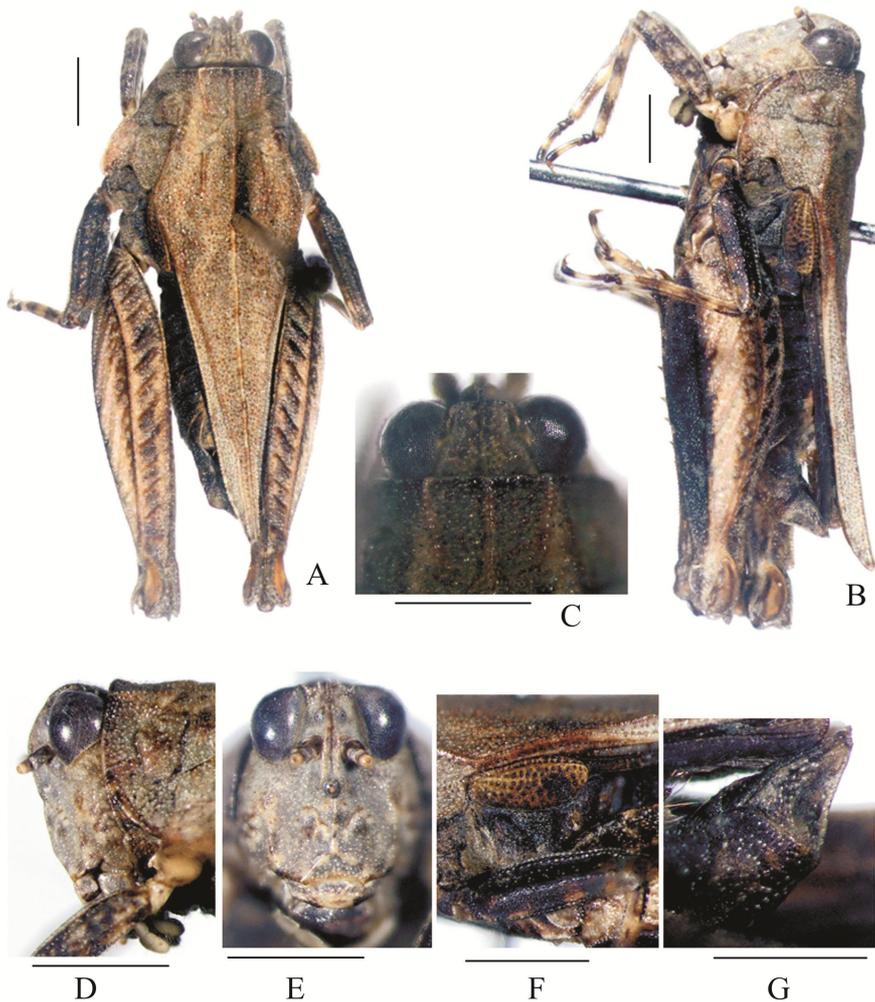


Figure 1. *Coptotettix nigrifemurus* sp. nov., ♂. A. Body, dorsal view; B. Body, lateral view; C. Head and anterior pronotum, dorsal view; D. Head and anterior pronotum, lateral view; E. Head, frontal view; F. Mid femur and tegmina, lateral view; G. Subgenital plate, lateral view. Scale bars = 1 mm.

Holotype. ♂, **Thailand**, Loei Province, Phu Hin Rong Kla National Park, 16°58'N,

101°00'E, alt. 400 m, 11-IV-2009, collected by Y. F. HSU. **Paratype.** 1♂, same data as holotype. Type specimens are deposited in the School of Chemistry and Bioengineering, Hechi University, Yizhou, China (SCBHU).

Diagnosis. The new species is similar to *Coptotettix annandalei* Hancock, 1915, but its antenna inserted between lower third of inner margin of eye (between lower margins of eyes in *C. annandalei*); lateral ocellus placed slightly above the middle of inner margin of eye (between the middle of inner margin of eye in *C. annandalei*); in lateral view upper margin of pronotum straight (undulated behind the shoulders in *C. annandalei*); margins of middle femora straight (little undulated in *C. annandalei*).

Etymology. This new species' epithet is derived from the Latin *nigri* and *femurus*, referring to the lower outer side of hind femur being black.

Distribution. Thailand (Loei).

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