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A NEW SPECIES OF THE GENUS *ZHENGITETTIX* (ORTHOPTERA: TETRIGIDAE, SCELIMENINAE) FROM THAILAND

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Zhengitettix ruangsuwani sp. n. is described from Loei province. Key to species of the genus *Zhengitettix* Liang, 1994 from Thailand is given.

KEY WORDS: Orthoptera, Tetrigidae, Scelimeninae, *Zhengitettix*, new species, Thailand.

П. Даввруенг¹⁾, Ч. Дуддуем²⁾. Новый вид рода *Zhengitettix* (Orthoptera: Tetrigidae, Scelimeninae) из Таиланда // Дальневосточный энтомолог. 2014. N 282. С. 1-6.

Из провинции Лой описан *Zhengitettix ruangsuwani* sp. n. Дана определительная таблица известных из Таиланда видов рода *Zhengitettix* Liang, 1994.

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INTRODUCTION

Genus *Zhengitettix* Liang, 1994 consists of thirteen species distributed in China, Thailand, Vietnam and Philippines (Liang, 1994; Zheng & Jiang, 2002; Zheng, 2005; Zheng *et al.*, 2005; Liang *et al.*, 2007; Zheng *et al.*, 2010; Deng *et al.*, 2010; Storozhenko, 2013; Eades *et al.*, 2014). Species of *Zhengitettix* are typical inhabitants of moist places in tropical rainforests, such as stones on banks of streams. Nowadays two species, *Z. albitarsus* Storozhenko, 2013 and *Z. extraneus* Storozhenko, 2013, are known from Thailand. A new species of the genus *Zhengitettix* is found in this country and described below.

MATERIAL AND METHODS

The present paper is based on specimens collected in Thailand by Thiti Ruangsuan in 2013 and deposited in the Kasetsart University (Bangkok, Thailand). The specimens are preserved in alcohol. Photographs were made using a Canon EOS 600D with Canon MPE-65 macro lens and MT24EX flash unit.

TAXONOMY

Family Tetrigidae Rambur, 1838

Subfamily Scelimeninae Bolívar, 1887

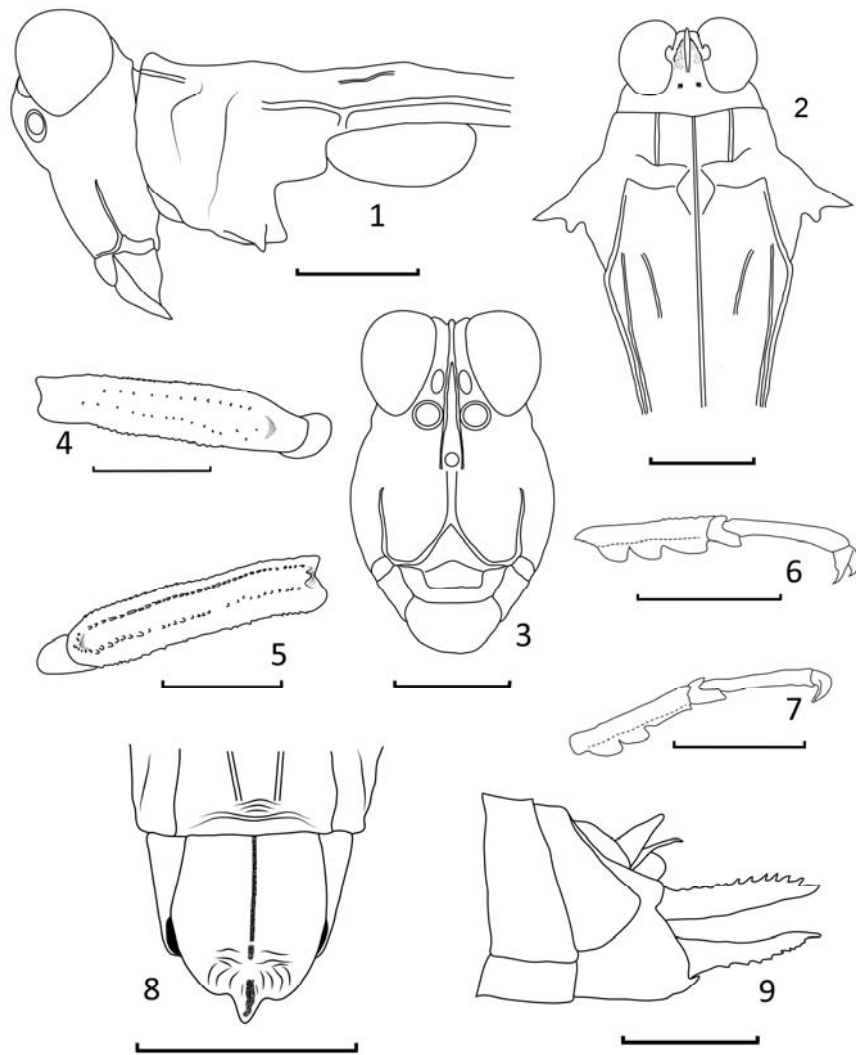
Genus *Zhengitettix* Liang, 1994

Zhengitettix ruangsuwani Dawwrueng et Dooddurm, sp. n.

Figs 1–11

MATERIAL. Holotype – male, Thailand: Loei Province, Khok Nok kraba, environs of Phu Luang Wildlife Sanctuary, 1470-1500m, 24 May 2013, coll. T. Ruangsuan. Paratype: female, same data as in holotype. Types are kept in the Department of Entomology, Kasetsart University, Bangkok.

DESCRIPTION. Male (holotype). Body medium-sized for this genus. Antennae filiform, 15-segmented, 1.8 times longer than length of fore femur; mid segments of antennae (7-9th) 6.4–8.2 times as long as wide. Antennal sockets situated on the level of lower margin of eyes. Eyes protruding above pronotum in lateral view and distinctly separated from anterior margin of pronotum in dorsal view. Lateral ocelli placed near the middle of eyes. Fastigium of vertex 1.7 times narrower than width of one eye from above; median carina of fastigium reaching middle of eyes. Frontal ridge in lateral view broadly rounded. Width of frontal ridge near base of antennae 0.7 times narrower than width of 1st antennal segment. Pronotum rather rough, almost reaching apex of hind tibia; in dorsal view anterior margin of pronotum slightly concave in the middle; in dorsal view posterior process of pronotum narrow with rounded apex. Median carina of pronotum in profile low, almost straight. Lateral carinae in prozona well defended; prozona transverse, 1.6 times as wide as long. Hind



Figs. 1–9. *Zhengitettix ruangsuwani* sp. n.: 1 – male head and pronotum, lateral view; 2 – male head and anterior part of pronotum, dorsal view; 3 – male head, frontal view; 4 – female fore femur, lateral view; 5 – female mid femur, lateral view; 6 – male hind tarsus, lateral view; 7 – female hind tarsus, lateral view; 8 – female apex of abdomen, ventral view; 9 – the same, lateral view. Scale bar = 1 mm.

margin of lateral lobes of pronotum with deep tegminal sinus; lower part of lateral lobes of pronotum with short, acute and almost straight spine. Tegmina ovate; visible part of tegmen 2.4 times as long as wide and equal to mid femur in width. Hind wings reaching apex of posterior process of pronotum. Fore and mid femora with almost straight and finely serrate lower and upper carinae. Fore femur 5.2 times, mid femur 5.5 times, and hind femur 3.6 times as long as wide. Upper side of hind tibia with 4 outer and 4 inner teeth. First tarsal segment of hind legs 1.2 times longer than 3rd segment (without claws); ventral surface of first segment with three triangular pads (two basal pads shorter than apical pad). Epiproct triangular. Subgenital plate in ventral view with narrowly excised apex, 1.3 times as long as wide; in lateral view subgenital plate conical. Cerci conical, 1.8 times as long as wide near base.

General colouration of body blackish brown. Head blackish from above; eyes blackish; antennae light brown. Genae and frons black. Disc of pronotum blackish brown but posterior process of pronotum in lateral view yellowish brown; upper part of lateral lobes blackish brown; lower part of lateral lobes light brown. Tegmina black with brown veins. Hind wings black with light brown veins. Hind femora brown with a few indistinct dark spots on most part of outer side; lower part of outer side completely black. Hind tibia blackish brown. Tarsal segments of hind leg light brown. Sternites black. Ventral and dorsal part of subgenital plate blackish brown. Epiproct blackish. Cerci brown.

Female (paratype). Shape and structure of body similar to those of male. Antennae 16-segmented; middle segments of antennae (7-9th) 5.1–9.5 times as long as wide. Fastigium of vertex 1.7 times narrower than width of one eye from above. Frontal ridge near base of antennae equal to 1st antennal segment in width. Median and lateral carinae as in male; prozona transverse, 1.5 times as wide as long. Visible part of tegmen 2.3 times as long as wide and 1.2 times as wide as mid femur. Hind wings as in male. Fore femur 4.9 times, mid femur 5.2 times, and hind femur 3.3 times as long as wide. Upper side of hind tibia with 6 outer and 5 inner teeth. Ventral surface of first segment with two basal triangular pads as in male, but apical pad narrow. Epiproct narrowly triangular, with pointed apex. Subgenital plate elongate, with distinct longitudinal creases around triangular posterior process and shallow transverse creases only near the apical part. Cerci conical, 1.9 times as long as wide near base. Valves of ovipositor narrow, dentate; upper valve 4.9 times and lower valve 4.5 times longer than their maximum width.

General colouration as in male. Sternites black. Subgenital plate blackish brown with blackish median line but apex of this plate light brown. Ovipositor brown with blackish brown teeth.

MEASUREMENTS (in mm). Length of body (from frontal ridge to apex of subgenital plate) male 7.8, female 8.7; pronotum male 11.1, female 11.2; antenna male 3.9, female 4.0; fore femur male 2.2, female 2.5; mid femur male 2.3, female 2.5; hind femur male 5.2, female 5.6; ovipositor 1.2.

DISTRIBUTION. Thailand: province Loei.



Figs. 10–11. *Zhengitettix ruangsuwani* sp. n.: 10 – female body, lateral view; 11 – male body, dorsal view.

DIAGNOSIS. The new species is similar to *Z. mucronatus* Storozhenko, 2013 from Vietnam, but clearly distinguished from latter in the fastigium of vertex, the lateral lobe of pronotum, hind wings and the female subgenital plate (in *Z. mucronatus* the fastigium of vertex 1.9 times narrower than one eye from above, the lateral lobe of pronotum with long and sharp spine, hind wings not reaching apex of posterior process of pronotum and the female subgenital plate with shallow transverse creases in basal part and distinct longitudinal crease around posterior process).

HABITATS. The new species was collected in moist areas on stones at elevation 1470–1500 m.

ETYMOLOGY. The specific epithet honors Mr. Thiti Ruangsuan, who is collector.

CONCLUSION

Thus, there are tree species of the genus *Zhengitettix* in Thailand. The key to these species is provided below.

- 1(2) Hind tarsi white. Female subgenital plate with shallow transverse creases situated in basal part of plate. (Thailand: Nakhon Ratchasima and Mae Hong Son provinces) *Z. albitarsus* Storozhenko, 2013

- 2(1) Hind tarsi light brown. Female subgenital plate with creases situated in apical part of plate.
- 3(4) Antennal sockets situated below the lower margin of eyes. Female subgenital plate with longitudinal creases only. (Thailand: Surat Thani and Phang Nga provinces) *Z. extraneus* Storozhenko, 2013
- 4(3) Antennal sockets situated on the level of lower margin of eyes. Female subgenital plate with longitudinal and transverse creases. (Thailand: Loei province) *Z. ruangsuwani* **sp. nov.**

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REFERENCES

- Deng, W.-A., Zheng, Z.-M. & Wei, S.-Z. 2010. A taxonomic study on the genus *Zhengitettix* Liang (Orthoptera, Tetrigoidea, Scelimenidae). *Acta Zootaxonomica Sinica*, 35(1): 46–48.
- Eades, D.C., Otte, D., Cigliano, M.M. & Braun, H. 2014. *Orthoptera Species File Online. Version 5.0/5.0* Available from: <http://Orthoptera.SpeciesFile.org> (accessed 8 August 2014)
- Liang, G.-Q. 1994. A new genus and a new species of Scelimenidae from Hainan, China (Orthoptera: Tetrigoidea). *Entomological Research*, (1): 33–34. [In Chinese with English summary]
- Liang, G.-Q., Jiang, G.-F. & Liu, J.-W. 2007. A new species of the genus *Zhengitettix* (Orthoptera, Scelimenidae). *Acta Zootaxonomica Sinica*, 32(3): 659–660. [In Chinese with English summary]
- Storozhenko, S.Yu. 2013. New and little-known species of the genus *Zhengitettix* (Orthoptera: Tetrigidae: Scelimeninae) from Southeast Asia. *Zoosystematica Rossica*, 22(2): 204–223.
- Zheng, Z.-M. 2005. *Fauna of Tetrigoidea from Western China*. Science Press, Beijing. 501 pp. [In Chinese with English summary]
- Zheng, Z.-M. & Jiang, G.-F. 2002. One new genus and seven new species of Tetrigoidea from Southern Region of Guangxi. *Zoological Research*, 23(5): 409–416.
- Zheng, Z.-M., Jiang, G.-F. & Liu, J.-W. 2005. Six new species of Tetrigidae (Orthoptera) from Guangxi, P. R. China. *Oriental Insects*, 39: 175–185.
- Zheng, Z.-M., Zeng, H.-H. & Ou, X.-H. 2010. A review of the genus *Zhengitettix* Liang (Orthoptera: Tetrigoidea) with description of one new species. *Acta Entomologica Sinica*, 53(10): 1153–1156.