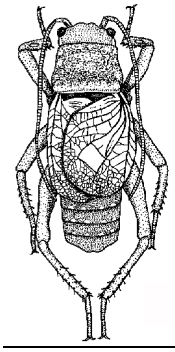

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A NEW SPECIES OF THE GENUS *STRIATOSEDULIA* (ORTHOPTERA: ACRIDIDAE, CATANTOPINAE) FROM THAILAND

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Striatosedulia pooae **sp. n.** is described from the Nakhon Ratchasima province, Thailand. New species differs from all known species of the genus *Striatosedulia* Ingrisch, 1989 in the male genitalia.

KEY WORDS: Orthoptera, Acrididae, Catantopinae, Gereniini, taxonomy, new species, Sakaerat Environmental Research Station, Thailand, Southeast Asia.

М. К. Тан[1)], Р. Давврueнг[2)], Т. Артчаваком[3)]. Новый вид рода *Striatosedulia* (Orthoptera: Acrididae, Catantopinae) из Таиланда // Дальневосточный энтомолог. 2017. N 333. С. 1-9.

Из Таиланда описан *Striatosedulia pooae* **sp. n.** Новый вид отличается от всех известных видов рода *Striatosedulia* Ingrisch, 1989 строением гениталий самца.

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INTRODUCTION

The genus *Striatosedulia* Ingrisch, 1989 currently consists of four species distributed in Thailand and Vietnam (Ingrisch, 1989; Storozhenko, 1992, 2005, 2009; Dawwrueng *et al*., 2015; Cigliano *et al*., 2016). A new species of this genus is found in Thailand and described below.

MATERIAL AND METHODS

The grasshoppers were collected by sweep-netting and light-trapping by first two authors in the Sakaerat Environmental Research Station, Thailand in 2013–2015. Specimens were preserved by storing in absolute analytic-grade ethanol or pinned and dry-preserved. Male specimens were softened using diluted KOH and genitalia were removed by pushing the cerci against one another laterally. The male genitalia were then cleaned using aqueous KOH and subsequently preserved in glycerine. Terminology of male genitalia follows Dirsh (1956). Photographs were done with a digital SLR camera with Visionary Digital (VD) BK PLUS Lab System with compact-macro lens EF 100mm 1:2.8 USM for habitus images and with 5X, 10X and 20X LD objective for smaller morphological characters. The images were then edited using Adobe Photoshop CC2014. Scales were given with the images. Whenever possible, in-situ images were also taken using a Canon EOS 500D digital SLR camera with a compact-macro lens EF 100mm 1:2.8 USM. Measurements of dried-pinned specimen were made using Vernier calipers.

The type specimens are deposited in the Thailand Natural History Museum, National Science Museum, Thailand (THNHM) and the Zoological Reference Collection, Lee Kong Chian Natural History Museum (former Raffles Museum of Biodiversity Research), National University of Singapore (ZRC).

DESCRIPTION OF NEW SPECIES

Subfamily Catantopinae

Tribe Gereniini

Genus *Striatosedulia* Ingrisch, 1989

Striatosedulia pooae **Tan, Dawwrueng et Artchawakom, sp. n.**
Figs 1–21

MATERIAL. Holotype – male, **Thailand**: Nakhon Ratchasima province, Sakaerat Environmental Research Station, dry evergreen forest, near Upper Dam, 14.49801°N, 101.91687°E, 22 IX 2013, coll. M.K. Tan (ZRC). Paratypes: **Thailand**: 1 ♂, 2 ♀,

the same label as holotype (ZRC); 1 ♂, 2 ♀, Sakaerat Environmental Research Station, dry evergreen forest, beside main road, 300–350m, 23-24 X 2015, coll. W. Jaitrong and P. Dawwrueng (THNHM).

Figs 1–4. *Striatosedulia pooae* sp. n., body. 1 – male holotype, lateral view; 2 – same, dorsal view; 3 – female paratype, lateral view; 4 – same, dorsal view. Scale bars 5 mm.

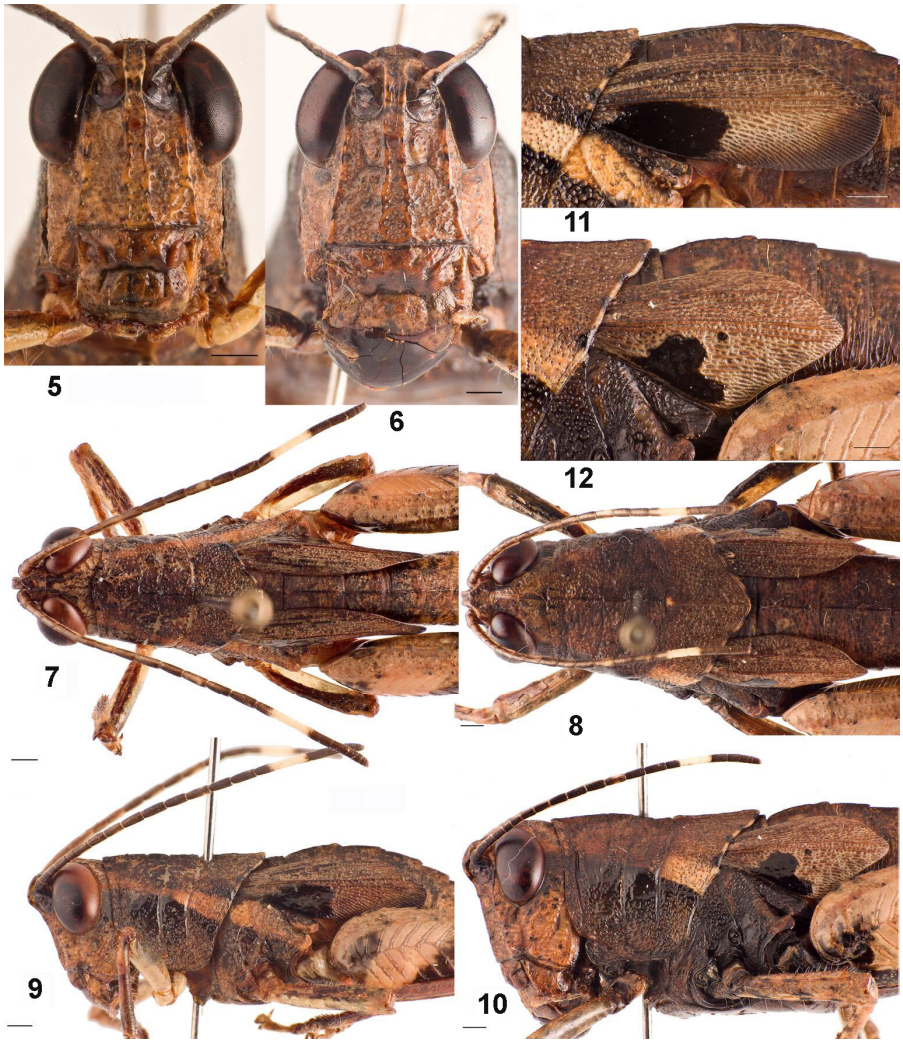
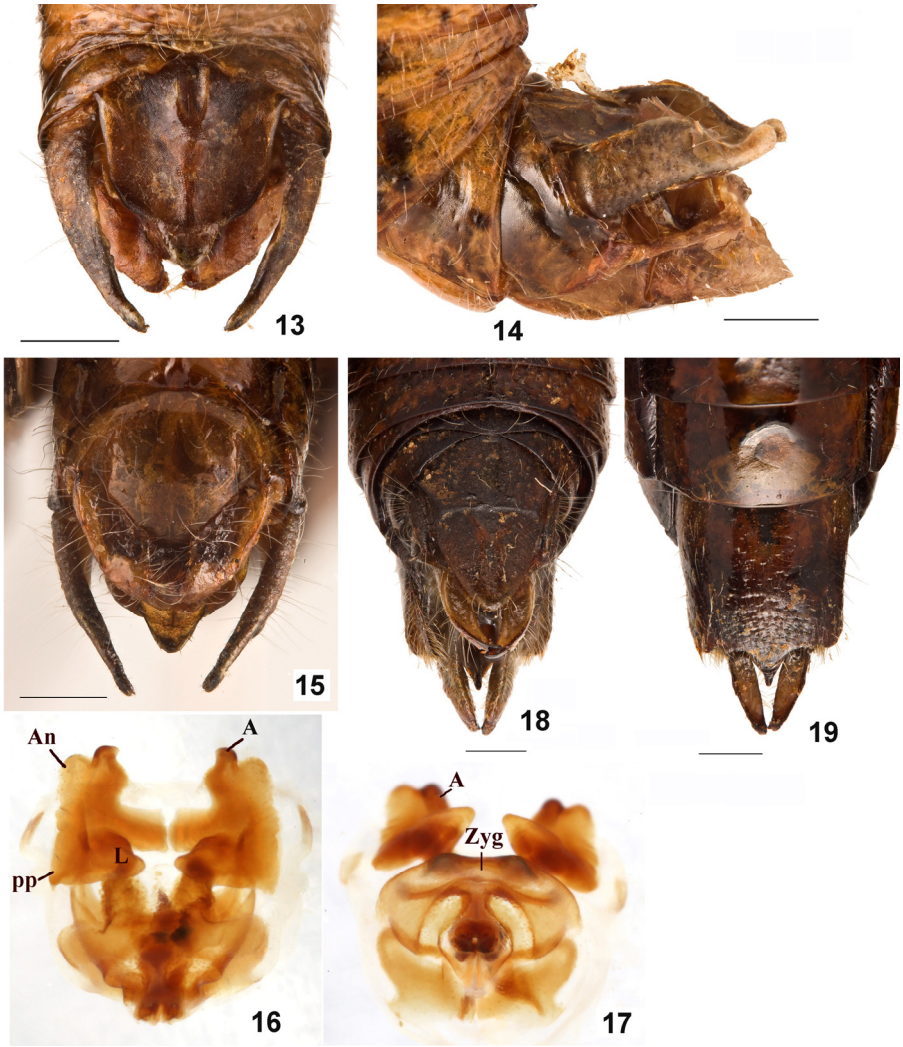


Fig. 3. *Striatosedulia pooae* sp. n., male (5, 7, 9, 11) and female (6, 8, 10, 12). 5, 6 – head, anterior view; 7, 8 – head and pronotum, dorsal view; 9, 10 – and pronotum, lateral view; 11, 12 – tegmen, lateral view. Scale bars 1 mm.

DESCRIPTION. Habitus as shown in Figs 1–4. Frontal ridge narrow, parallel-sided above median ocellus and slightly broadened below this ocellus (Figs 5, 6). Vertex between eyes slightly less than twice as broad as frontal ridge between antennae (Figs 7, 8). Eyes large. Antennae 22 to 24-segmented, surpassing middle of tegmen in males (Fig. 9) and reaching posterior margin of pronotum in females (Fig. 10). Head considerably shorter than pronotum (Figs 7–10). Pronotum long, crossed by three transverse furrows; prozona in males 1.6 times, in females 1.8 times

as long as metazona; anterior margin of prozona feebly emarginated in the middle, sometimes forming two lobes between the emargination; posterior margin of metazona gently angularly rounded; lateral carinae absent; median carina distinct (Figs 7, 8). Prosternal spine distinct, conical with subacute apex. Metasternal lobes broader than long, with inner margin roundly truncated. Mesosternal lobes rounded.



Figs13–19. *Striatosedulia pooae* sp. n., male (13–17) and female (18, 19). 13, 18 – apex of abdomen, dorsal view; 14 – the same, lateral view; 15, 19 – the same, ventral view; 16 – phallic complex, dorsal view; 17 – the same, anterior view. A – ancora; An – anterior projection; L – lophus; pp – posterior projection of epiphallus; Zyg – zygoma. Scale bars 1 mm.

Tegmen short, in males 3.0 times longer than broad, with rounded apex, not touching each other in rest position, elongated and reaching fifth tergite (Fig. 11); in females tegmen 1.7 times longer than broad, with angular apex, not touching each other in rest position, shorter than in males and reaching basal half of fourth tergite (Fig. 12). Hind wings absent. Hind femora stout, 3.8 times as long as maximal width of these femora and in males 1.1 times, in females 1.2 times longer than hind tibiae; dorsal carina of hind femora finely serrated. Hind tibiae with 7–8 outer dorsal spines and 8 inner dorsal spines; outer apical dorsal spine absent. Hind tarsi short, not longer than half of hind tibiae; arolium moderately large, almost reaching apex of claws. Male tenth tergite on posterior margin with two indistinct swelling, distinctly separated furculae (Fig. 13); female tenth abdominal tergite forming a shallow triangle in the middle on posterior margin, without lateral lobe (Fig. 18). Male epiproct tongue-shaped with an apical lobe in the middle, about as long as its width near base; median sulcus only at the basal half, shallow but broad and distinct, bordered by distinct parallel carinae that merged into a median carina at the distal half; apical lobe triangular with obtuse apex (Fig. 13). Female epiproct elongated, separated into two parts by a middle transverse carina, with two small and indistinct lateral tubercles just before transverse carina, apical half triangular with obtuse apex (Fig. 18). Male cercus in dorsal view highly compressed and gently incurved (Fig. 13); in lateral view, rectangular with parallel dorsal and ventral margins in basal half, in apical third suddenly narrowed ventrad, forming ventral apical lobe pointing posteriorly, apex slightly swollen and roundly truncated (Fig. 14). Female cercus triangular with pointed apex (Fig. 18). Male subgenital plate with apex subtruncated (Fig. 15); female subgenital plate rectangular slightly longer than broad; posterior margin with large median angular projection and without distinct lateral incisions (Fig. 19). Ovipositor short, hook-like; dorsal valves smooth with apex gently curved dorsad; ventral valves with apex bent ventrad.

Male genitalia. Epiphallus with anchora stout, highly sclerotized, in dorsal view stoutly hooked inwards with obtuse apex (Fig. 16); rounded when viewed anteriorly (Fig. 17). Anterior projection of epiphallus less sclerotized, surface slightly granular, broadly rounded. Lophi strongly sclerotized and broad, process-like pointing internally (parallel to the epiphallus bridge); apex with a lobe produced along the length of the lophi, with apex obtuse (when viewed dorsally) (Fig. 16). Oval sclerites present and sclerotized, in dorsal view appear flattened and elongated (Fig. 16). Zygoma bridge-shaped and depressed in the middle (Fig. 17); apodeme sclerotised and tapers posteriorly. Valves of cingulum transverse and not surpassing apical penis valves (Fig. 16). Basal and apical penis valves highly sclerotized and connected by a curved, unbroken flexure. Apical penis valves with truncated apices (Fig. 16).

Coloration. Body brown with light brown and blackish pattern (Figs 20, 21). Head and frons brown with numerous small irregular dark brown spots. Antennal segments black ventrally and brown dorsally, with white band between 18th–21th-segments. Head with dark brown postocular band that continues to the lateral lobe of pronotum. Disc of pronotum brown, with dark spots spaced out along posterior margin and sometimes anterior margin; lateral lobes with black spots spaced out along

margins, brown with light brown stripe in dorsal part, beneath the light brown stripe is a blackish stripe, ventral third brown to dark brown. Tegmen light brown with large and shining black spot before middle of tegmen and touching the anterior (or ventral) margin of tegmen (Figs 11, 12). Fore and mid legs light brown with a few dark spots. Hind femur light brown or brown with ventrolateral area black; three oblique and blackish bands, one near the trochanter and two bands on medial area; bands broken up in the dorsal half in females; hind knees brown. Hind tibia dark brown, apical third red; its spines brown with black apex. Abdomen brown with dark spots; ovipositor brown with blackish apex.

Figs. 20, 21. *Striatosedulia pooae* sp. n. in natural habitat. 20 – male; 21 – female.

MEASUREMENTS (in mm). Length of body: male 17.6–18.6, female 23.0–29.1; pronotum: male 5.5–5.9, female 7.5–8.1; tegmen: male 6.0–6.9, female 5.6–6.7; hind femur: male 12.0–12.9, female 16.5–17.2.

DISTRIBUTION. Thailand (so far endemic to Nakhon Ratchasima Province).

HABITATS. New species inhabits the undergrowth vegetation in dry evergreen forest in vicinity of the Sakaerat Environmental Research Station (Figs 20, 21).

ETYMOLOGY. This species is named after Sinlan Poo, who first introduced and invited the first author (MKT) to conduct research in Sakaerat Environmental Research Station.

COMPARISONS. Male of new species differs from all congeners by the shape of epiphallus and by the zygoma bridge-shaped and depressed in the middle. *Striatosedulia pooae* sp. n. is most similar to *S. pluvisilvatica* Ingrisch, 1989 in the shape of male and female tegmina, male epiproct and cercus, female epiproct and hind tibia colour but differs from latter in the male tegmen more elongated, the male epiproct trapezoidal, ancorae stout with obtuse apex, and the female tegmen with smaller black shining spot (in *S. pluvisilvatica*, the male tegmen less elongated, the male epiproct triangular, ancorae slender with acute apex, and the female tegmen with large black shining spot).

DISCUSSION

Thus, the genus *Striatosedulia* is consists of five species described from South-East Asia, namely *S. pluvisilvatica* Ingrisch, 1989 from Rayong, Thailand; *S. beybienkoi* Storozhenko, 2005 from Chang Island, Thailand; *S. pooae* sp. n. from Nakhon Ratchasima, Tailand, *S. ingrishi* Storozhenko, 1992 from Dong Nai, Vietnam, and *S. cattiensis* Dawwrueng, Storozhenko et Asanok, 2015 from Dong Nai, Vietnam (Fig. 22).

Fig. 22. Distribution of the species of the genus *Striatosedulia*.

The genus *Striatosedulia* is similar to *Sedulia* Stål, 1878, *Leosedulia* Storozhenko, 2009, *Anasedulia* Dawwrueng, Storozhenko et Asanok, 2015 and the brachypterous species of *Gerenia* Stål, 1878. Although there are concerns about possible synonymy among these similar-looking small genera, we can affirm that *Striatosedulia* is distinct from *Sedulia*, particularly in the male genitalia and tegmina. A key to species of *Striatosedulia* and *Sedulia* from Malay Peninsula is provided recently (Tan *et al*., 2016).

The description of male genitalia of *Sedulia specularia* (Stål, 1875) given by Tan *et al*. (2016) must be corrected as follow. Epiphallus with lophus highly sclerotized, elongated and triangular (sometimes feebly or slightly curved posteriorly), projecting dorso-apically and interiorly, surface granular, apex obtuse (sometimes appears slightly bulbous); base of lophus forming a stout and short (never reaching middle of lophus) tubercle, also sclerotized and granular; sometimes slightly pointed; posterior projection of epiphallus long, forming at slightly more than 90º angle with the lophus, the apex of posterior projection obtuse; anchora projecting dorso-apically, seen from behind broadly rounded to slightly bilobate, with margins thickened.

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