

## A New Species of the Genus *Menimus* SHARP (Coleoptera, Tenebrionidae) from Lan-yu Island, Taiwan

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**Abstract** A new taxon of Tenebrionidae, *Menimus* (*Menimus*) *formosanus* sp. nov. is described from Lan-yu Island. The genus is the first record from Taiwan.

Recently, a new species collected from Lan-yu (Orchid Island), Taiwan was found in the collection of the Ehime University Museum, Matsuyama, Japan. It belongs to the genus *Menimus* SHARP, 1876, of the tribe Gnathidiini, and 86 species has been known in the Oriental, Pacific, Papuan and Australian Regions (MEDVEDEV, 2007, SCHAWALLER, 2009, 2016 a–b).

So far as it is well known, the insect fauna of Lan-yu Island are closely related to that of the Philippines (KANO, 1933, 1935, 1936). However the new species has rather close relation with Japanese species, *M. niponicus* LEWIS than all the five known Pilipino species (GEBIEN, 1925; KASZAB, 1946). Additionally, the new species is quite different from the known species in having the unique aedeagus which is peculiar in its shape. Type series designated in this paper are preserved in the Ehime University Museum, Matsuyama, Japan (EUMJ).

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Abbreviations of body parts in the descriptions are as follows: mCG — anterior margin of head between clypeus and genae; EL — length of elytra along midline, from anterior margin of scutellum to elytral apices; EW — maximum width of elytra; IE — distance between eyes; PL — length of pronotum along midline; PW — maximum width of pronotum; TD — transverse diameter of an eye in dorsal view. Body length refers to the median length from the apex of labrum to the apices of elytra.

### *Menimus* (*Menimus*) *formosanus* sp. nov.

(Figs. 1–9)

*Type series.* Holotype: ♂, Rong-Meng Br., Lan-yu Is. (蘭嶼), Taiwan, 23.III.1998, M. SAKAI leg. (EUMJ). Paratypes: 1 ♂, 2 ♀♀, same data as for the holotype (EUMJ).

*Measurements.* Body length: 2.32–2.62 mm in male and 2.35–2.43 mm in female. Male (n = 2): IE/TD 10.00–10.53; PW/PL 1.55; EL/EW 1.35–1.36. Female (n = 2): IE/TD 10.53–13.00; PW/PL 1.54–1.64; EL/EW 1.31–1.42.

Oblong-oval, strongly convex, shiny; body colour light chestnut brown, antennae and mouthparts more or less paler.

Male. Head transversely oval, strongly convex; mCG not sinuate; clypeus moderately convex,

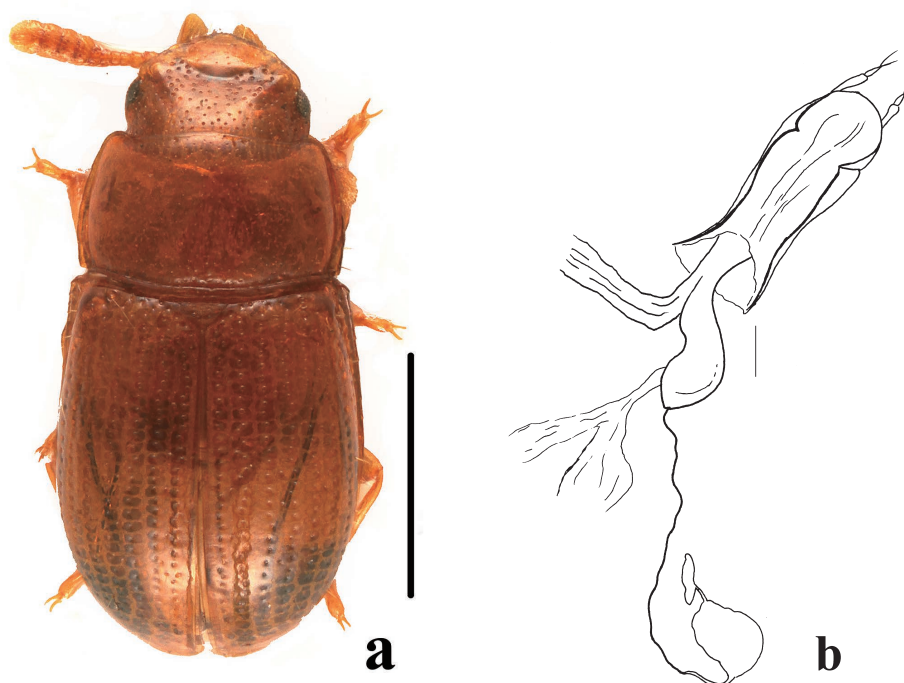
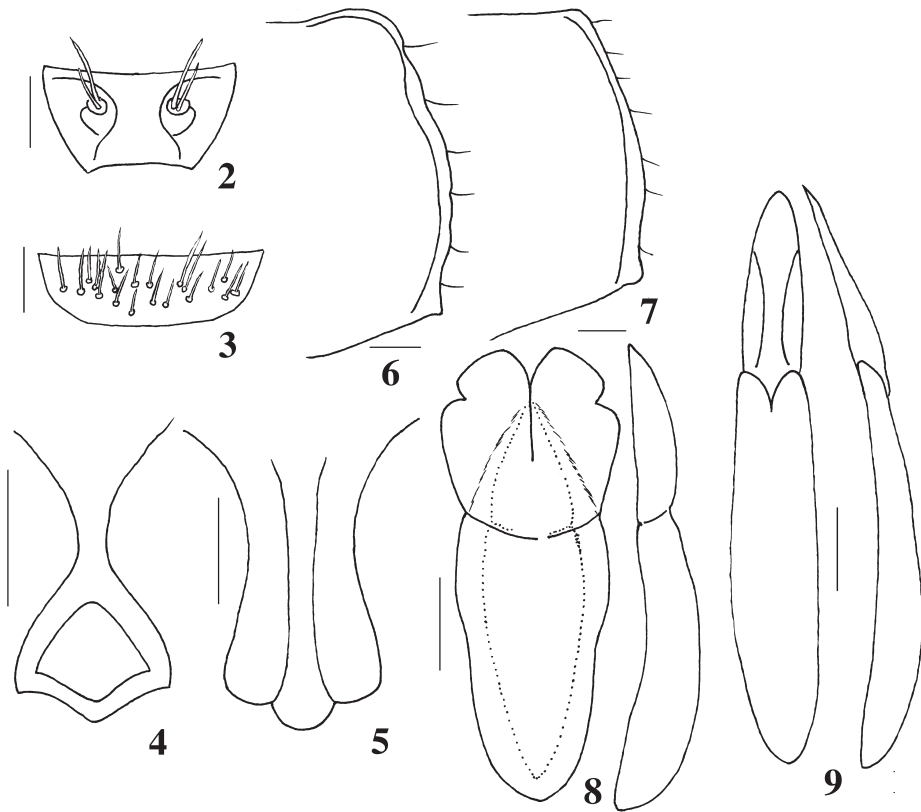


Fig. 1. *Menimus (Menimus) formosanus* sp. nov. — a, Dorsal view; b, ovipositor and vagina. Scale bars: 1.00 mm for 1a; 0.20 mm for 1b.

weakly produced forwards, weakly arcuate at apex, with punctures fine and sparse, puberulous, among them a pair of punctures each bearing very long hair, and situated near lateral sixth; fronto-clypeal suture arcuate, distinctly impressed; genae weakly convex, wider than long, evenly oblique at sides; frons obtriangularly depressed, finely and sparsely punctate, the punctures not puberulous; eyes small and lateral, without inner ocular sulci. Antennae compactly articulate, reaching middle of pronotum; antennomeres VII–X distinctly transverse and forming a club; X oval. Ultimate maxillary palpomere triangular, very densely covered with puberulous punctures; ecto-apical angle rectangular and endo-apical one obtusely rounded. Mentum obtrapezoidal (Fig. 2), raised towards middle as a roof-shape, weakly depressed at sides, the depressed area with some setigerous pubescence.

Pronotum (Fig. 6) quadrate, widest at basal third; disc strongly convex, subvertically sloping laterally, finely and rather densely punctate; anterior margin very feebly emarginate, roundly and weakly produced in median half, weakly beaded, with anterior corners obtusely rounded; lateral margins evenly narrowed forwards and roundly so backwards from the widest point, with sparse setiferous punctures, and with posterior angles obtusely angulate, feebly produced laterad; basal margin weakly rounded, thinly beaded. Scutellum transversely semicircular, weakly convex, covered with irregular punctures.

Elytra oblong-oval, weakly divergent posteriorly, widest just before apical third, strongly convex above, with lateral margins distinctly beaded and sparsely serrate, each serration with a puncture which bears long hair; striae vestigial or consist of weak depression; striae puncture coarse and dense,



Figs. 2–9. *Menimus (Menimus) niponicus* LEWIS, 1894 and *M. (M.) formosanus* sp. nov. — 2 & 3, Mentum; 4 & 5, prosternal process; 6 & 7, right lateral margin of pronotum; 8 & 9, male genitalia (right: lateral; left: dorsal). — Even-numbers, *M. (M.) formosanus* sp. nov.; odd numbers, *M. (M.) niponicus* LEWIS. Scale bars: 0.05 mm for 2 & 3; 0.10 mm for 4–9.

evenly arranged; intervals of punctured rows weakly to moderately convex, but rather distinctly so in intervals III–V, with very sparse microscopic punctures; humeral calli oval, distinctly humped; epipleuron flat, a little oblique, smooth, reaching behind base of abdominal ventrite V. Hind wings complete.

Prothoracic hypomeron distinctly depressed, with some fine punctures. Prosternum broad and long, 1.20 times as long as coxa, very sparsely and finely punctate, thinly beaded at apex; prosternal process short triangular (Fig. 4), strongly bent inwards behind coxae, longitudinally carinate in middle and depressed at sides. Mesoventrite convex and smooth, without posterior ridge. Metaventrite moderate in length, strongly convex, depressed and smooth in median third, finely punctate at sides and coarsely so on the lateralmost portions. Abdomen moderately convex, almost smooth, with very fine and sparse punctures, without any microsculpture.

Male genitalia short and flat; parameres semitransparent and foliaceous, broadened outwards, and covering median lobe (Fig. 8).

Legs short and robust; inner margins of tibiae densely pubescent; tarsi with last tarsomere longer than the preceding tarsomeres combined.

**F e m a l e.** No external differences from male are recognised. Vagina and ovipositor almost similar to *M. (Sinomenimus) kabaki* (MEDVEDEV, 2007), but spermathecal gland long, with membranous capsule before its terminal (Fig. 1b), and terminal gonostyles composed of two segments.

**Etymology.** Specific epithet is derived from the old name of Taiwan.

**Diagnosis.** The new species is similar in external feature to *Menimus niponicus* LEWIS, 1882, from Japan, but is distinctly different from the latter in the following points: clypeus produced; mentum obtrapezoidal; antennal clubs slender; punctures on head fine, smaller and a little denser; each puncture on frons without pubescence; fronto-clypeal suture arcuate; pronotum more distinctly emarginate at apex, with punctures fine and small, denser and not puberulous; pronotal lateral margins different in curvature; humeral calli oval, distinctly humped; elytra with strial punctures a little coarser and denser, evenly and linearly arranged, intervals narrower, weakly to moderately convex; hind wings present; prothoracic hypomeron punctate; prosternum in front of coxae longer than coxa with prosternal process short and triangular; metaventricle moderate in length, depressed and smooth in median third, finely punctate at sides and coarsely so on the lateralmost portions; abdomen almost smooth, with very fine and sparse punctures; male genitalia with aedeagus quite unique in shape which is not known from the other known congeners. In contrast, *Menimus niponicus* possesses the clypeus shallowly emarginate in middle of apex; mentum transversely quadrate; antennal clubs robust; punctures on clypeus and frons coarse and large; each puncture on frons with pubescence; fronto-clypeal suture present, weakly angulate; pronotum scarcely emarginate at apex, with punctures coarse and large, each with long pubescence; pronotal posterior angles not produced; elytra devoid of humeral calli; elytra with strial punctures a little finer and sparser; elytral intervals broader, flat, slightly and irregularly sinuate; hind wings absent; prothoracic hypomeron smooth; prosternum in front of coxae nearly as long as coxa with prosternal process longer and gradually divergent posteriorly; metaventricle very short, coarsely punctate; abdomen distinctly microsculptured, coarsely and evenly punctate; male genitalia simple.

## 要 約

安藤清志：台湾蘭嶼産アカチビゴミムシダマシ属の1新種(鞘翅目ゴミムシダマシ科)。——台湾南部の蘭嶼よりアカチビゴミムシダマシ属の1新種, *Menimus (Menimus) formosanus* sp. nov. を記載した。蘭嶼の甲虫類はフィリピン甲虫類と深い関係にあることが知られているが、本新種はフィリピンに産する既知種とはいずれも異なり、むしろ日本産のアカチビゴミムシダマシ *Menimus (Menimus) niponicus* LEWIS に近縁であると考えられる。これまで台湾からの本属の記録はなく、これが初めての報告となる。

## References

- GEBIEN, H., 1925. Die Tenebrioniden (Coleoptera) des indomalayischen Gebietes, unter Berücksichtigung der benachbarten Faunen, VIII Die Gattungen *Anisocara*, *Spiloscapa*, *Menimus*, *Labidocera*, und *Pentaphyllus*. *The Philippine Journal of Science*, **28**: 101–128.
- KANO, T., 1933. [Zoogeography of Botel Tobago Island (Kôtôsho), with a consideration on the northernmost portion of Wallace line.] *Geographical Review of Japan*, **9**: 591–613. (In Japanese.)
- KANO, T., 1935. [Some problems concerning the biogeography of Kôtôsyô (2)]. *Geographical Review of Japan*, **11**: 1027–1055. (In Japanese.)
- KANO, T., 1936. [A personal opinion on the Neo-Wallace line]. *Kagaku*, **6**: 151–155, 244–247. (In Japanese.)
- KASZAB, Z., 1946. Neue philippinische *Menimus*-Arten. (Coleopt., Tenebr.). *Folia entomologica hungarica*, **1** (2): 46–50.
- MEDVEDEV, G. S., 2007. The genus *Menimus* SHARP, 1876 (Coleoptera: Tenebrionidae) from southern Palaearctic. *Entomologicheskoe Obozrenie*, **86**: 665–682.

- SCHAWALLER, W., 2009. Two new epigeal species of the genus *Menimus* SHARP, 1876 from Yunnan (China) (Insecta: Coleoptera: Tenebrionidae). Pp. 363–365. In HARTMANN, M., & J. WEIPERT (eds.), *Biodiversität und Naturschutz im Himalaya, Erfurt*, **III**. 477 pp.
- SCHAWALLER, W., 2016 a. The genus *Menimus* SHARP (Coleoptera: Tenebrionidae: Gnathidiini) in India, with descriptions of two new species. *Stuttgarter Beiträge zur Naturkunde A*, (n. ser.), **9**: 191–195.
- SCHAWALLER, W., 2016 b. New species of the genus *Menimus* SHARP (Coleoptera: Tenebrionidae: Gnathidiini) from Peninsular Malaysia and adjacent southern Thailand. *Stuttgarter Beiträge zur Naturkunde A*, (n. ser.), **9**: 207–216.

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