

A New Species of the Genus *Nesocaedius* KOLBE, 1915 (Coleoptera, Tenebrionidae) from Bali, Indonesia

Kiyoshi ANDO¹⁾ and Junsuke YAMASAKO²⁾

¹⁾Entomological Laboratory, College of Agriculture, Ehime University
5–7, Tarumi 3 chôme, Matsuyama, Ehime, 790–8566 Japan

²⁾Department of General Systems Studies, Graduate School of Arts and Sciences,
The University of Tokyo, Komaba 3–8–1, Meguro, Tokyo, 153–8902 Japan

Abstract A new species, *Nesocaedius insularis* sp. nov., is described from Bali, Indonesia. This genus is recorded from Indonesian Sunda Islands for the first time.

The genus *Nesocaedius* was established by KOLBE, 1915 on the basis of *Nesocaedius schultzei* KOLBE, 1915 (type locality: Insel Tubbataha, Sulu-See). This genus was characterised by the setaceous body and peculiar sculpture on the dorsal surface. Since KOLBE (1915), SHIBATA (1979) revised this genus by transferring one species from southern Japan described by M.-T. CHÛJÔ, 1966 under the genus *Caedius*, and adding two species from Taiwan. In this paper, we describe a new species of this genus collected from the southern beach of Bali Island, Indonesia. They are seashore tenebrionids and might feed on seaweed fungal or scavenger of seaside plants by our experiment, but no detailed information had been reported.

The holotype in this study is deposited in the Ehime University Museum, Matsuyama, Japan.

Abbreviation applied in the descriptions: EL = length of elytra along midline; 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.

Nesocaedius insularis ANDO et YAMASAKO, sp. nov.

(Figs. 1–5)

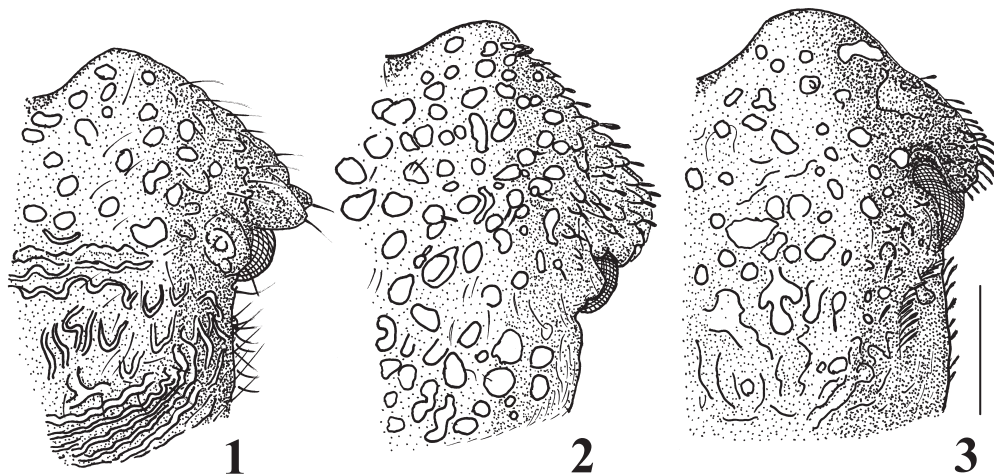
Type series. Holotype: ♂, Bali Is., Indonesia, Legina Beach, Kuta, 17.II.2013, K. ANDO et J. YAMASAKO leg. Paratypes: 3 ♂♂, 2 ♀♀, same data as for the holotype.

Type locality. Indonesia, Bali Is., Kuta, Legina Beach.

Measurements. Body length: 2.82–3.40 mm in male; 3.71–3.84 mm in female. Male (n = 4) IE/TD = 10.00–13.33; PW/PL = 1.44–1.87; EL/EW = 1.18–1.20; female (n = 2) IE/TD = 10.00–13.33; PW/PL = 1.54–1.55; EL/EW = 1.17–1.24.

Ovoid, distinctly convex above, shiny or often dull shiny. Body black to dark reddish brown, legs, mouthparts, and venter constantly dark reddish brown; elytral granules pitchy; setae yellowish brown.

Male. Head transversely elliptic, weakly convex, densely and irregularly granulate; the granule large and raised, becoming smaller anteriorly; clypeus deeply notched at apex, devoid of fronto-clypeal suture; genae distinctly produced, tapering laterad and incurved near apex, forming acute edge at lateral terminals; frons and vertex weakly convex, with roundly produced process on supra-ocular portions, with granules which are larger than those on the other part of head, and interspace between granules vermiculate. Antennae clavate, compactly articulate, densely covered with sensory setae; 10th antennomere widest; 11th quadrate, with dense erect sensory setae at apex. Eyes strongly invad-



Figs. 1–3. Heads of *Nesocaedius* spp. — 1, *Nesocaedius insularis* sp. nov.; 2, *N. minimus* (M. T. CHŪJŌ, 1966); 3, *N. vermiculus* SHIBATA, 1979. Scale: 0.25 mm.

ed in the front by genae; the narrowest inter-ocular space as wide as diameter of each facet. Mentum arrowhead-shape, longitudinally convex medially, unevenly punctate. Ultimate maxillary palpomere distinctly securiform with external margin about three times as long as inner margin (6 : 17). Gula densely punctate and uneven, without suture.

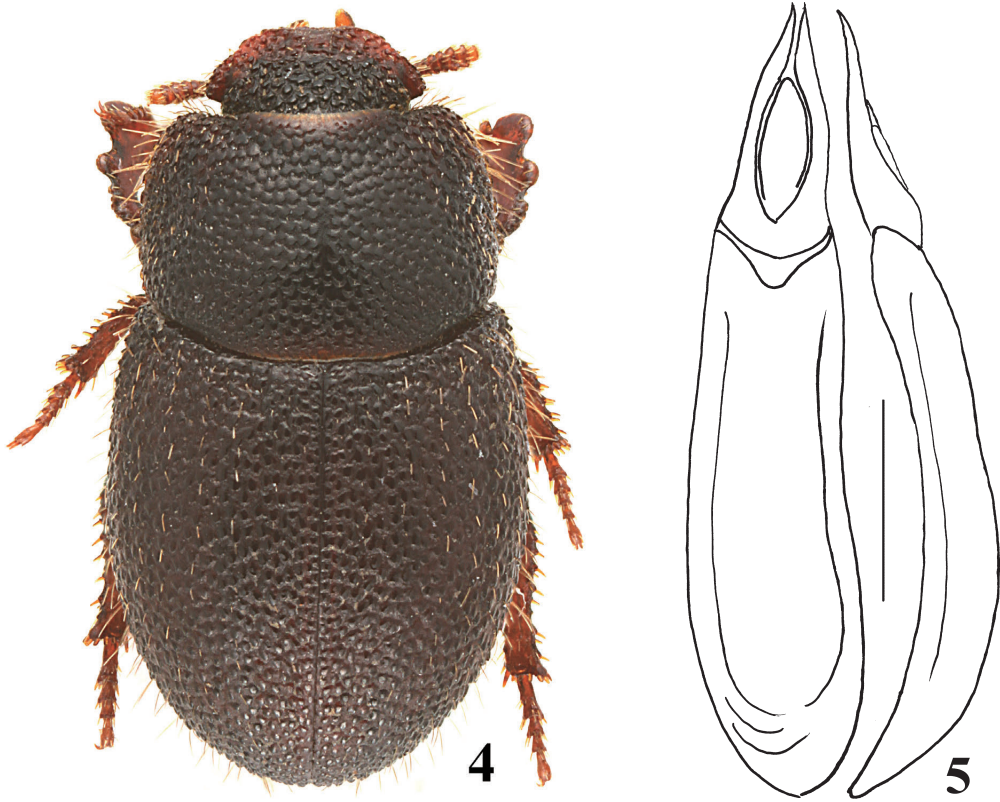
Pronotum subquadrate, widest before middle; anterior margin gently emarginate in broadened V-shape; lateral margins gently arcuate, rather steeply narrowed to basal corners, with thin, dense and setaceous tubercles; basal margin entirely roundly produced, faintly beaded laterally; anterior angles rounded, obtusely angulate; basal angles rounded, very obtusely angulate; disc distinctly convex, with compact granules; the granules rather large and clearly margined, flattened, becoming smaller along lateral margins; major of the granules emarginate anteriorly by the crescent-shaped interspace of granules. Scutellum thin and vestigial.

Elytra oval, strongly convex, weakly rounded at sides, widest at middle, longitudinally depressed along lateral margins; disc irregularly and densely granulate; granules almost subtriangular, moderately raised and becoming smaller apically, bearing short seta at posterior terminal, not serial but with three or four recognisable serial granules along lateral margins; lateral margins with irregularly serrate granules throughout; epipleuron unevenly flattened, sparsely and minutely tuberculate and punctulate.

Venter densely setaceous. Hypomeron irregularly rugose, setaceous, with dense and long setae along lateral margins. Prosternal process rhombic, depressed in middle, densely and irregularly tuberculate. Mesoventrite with very weak ridges in front of coxae, and lower than coxae. Metaventrite very short, weakly convex, irregularly granulate, and longitudinally depressed in middle. Abdominal ventrites densely granulate; posterior angles of third and fourth ventrites produced latero-posteriorly.

Male genitalia elongate; parameres pointed at each apex, with lateral and internal margins roundly sinuous; median lobe exposed between parameres as in Fig. 5.

Legs robust, with short and bold setae on outer margins of tibiae; femora short and very thick; protibiae dilated and explanate, distinctly tuberculate ventrally, and outer margin strongly bisinuate by



Figs. 4–5. *Nesocaedius insularis* sp. nov. — 4, Habitus; 5, male genitalia in dorsal (left) and lateral (right). Scale: 0.25 mm.

two large flattened teeth.

F e m a l e. No apparent differences are recognised.

Remarks. Although the known species of the genus closely resemble each other, this new species is separable from *N. schultzeri* KOLBE, 1915 and *N. taiwanus* SHIBATA, 1979 by the following characteristics: posterior corners of pronotum obtusely angulate (entirely smoothly rounded in *N. schultzeri*); tubercles along lateral margins of pronotum distinctly produced; the narrowest space of eye as wide as single facet (two facets in *N. schultzeri* and *N. taiwanus*); granules on pronotum and elytra obvious (ambiguous in *N. schultzeri* and *N. taiwanus*).

Nesocaedius insularis sp. nov. is also similar to *N. minimus* (M.-T. CHÛJÔ, 1966) and *N. vermiculus* SHIBATA, 1979, in having the narrowest inter-ocular space of 1.0–1.5 times as wide as width of a facet, but distinguishable from them by having vermiculate irregular granules and flattened ridge on posterior part of head, smaller supra-ocular process, and obviously produced genal process.

Acknowledgements

We express our deep gratitude to the following colleagues for their various assistance in this study: Drs. Nobuo OHBAYASHI, Kanagawa, and Ryo OGAWA, Kobe University, and Mr. Yasuhiko HAYASHI, Hyôgo.

要 約

安藤清志・山迫淳介：インドネシア，バリ島産コマルチビゴミムシダマシ属（鞘翅目ゴミムシダマシ科）の1新種。——コマルチビゴミムシダマシ属 (*Nesocaedius*) はKOLBE, 1915によってフィリピン産の1種をもとに設立された。その後，SHIBATA (1979) は本属の再検討を行い，CHŪJŌ (1966) が日本から別属のマルチビゴミムシダマシ属で記載した1種を本属に移すとともに，台湾から2新種を追加した。今回，筆者らは，バリ島南部クタのビーチで本属の種を採集した。これを既知4種のすべてと比較したところどの種にも合致せず，*Nesocaedius insularis* sp. nov. と命名し記載した。インドネシアからの本属の記録は初めてとなる。

References

- CHŪJŌ, M.-T., 1966. Taxonomic study of the Tenebrionidae (Coleoptera) of the Ryukyu Islands. *Journal of the Faculty of Agriculture, Kyushu University*, **14** (1): 1–32, pl. 1–2.
- KOLBE, H. J., 1915. Eine neue isolierte Tenebrionidengattung von den Philippineninseln. *Deutsche Entomologische Zeitschrift*, **1915**: 261–264.
- SHIBATA T., 1979. Notes on the Tenebrionidae from Taiwan and Japan, II. (Coleoptera). *Entomological Review of Japan, Osaka*, **33**: 67–73.

Manuscript received 20 June 2015;
revised and accepted 2 August 2015.