

## Two new Cnodalonini (Coleoptera, Tenebrionidae, Stenochiinae) species from southeastern Asia

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**Taxonomy, new species, description, Coleoptera, Tenebrionidae, Stenochiinae, Cnodalonini, *Asbolodomimus*, *Pigeus*, Sumatra, Vietnam**

**Abstract.** Two new species from southeastern Asia are described under the names *Asbolodomimus sumatrensis* sp. nov. and *Pigeus maedai* sp. nov. (Tenebrionidae, Stenochiinae, Cnodalonini).

### INTRODUCTION

In the Masumoto Collection (Tenebrionidae) preserved in the National Museum of Nature and Science, Tsukuba, in Japan, we found two unknown tenebrionid species. For the last two years, we carefully examined them and confirmed that they are an *Asbolodomimus* and a *Pigeus* belonging to the tribe Cnodalonini, and the subfamily Stenochiinae. Furthermore, we recognized them to be new to science. Therefore, we will describe them below as new species. Holotypes will be deposited in the National Museum of Nature and Science, Tsukuba, Japan (NSMT).

### MATERIAL AND METHODS

As mentioned above, the material specimens used for the present study are offered from the Masumoto Collection preserved in the National Museum of Nature and Science, Tsukuba, Japan. The specimens were carefully compared with types and also referred to original descriptions and various recent studies. External morphology and male genitalia were examined using an Olympus SZ60 and a Leica MS5 stereoscopic microscope. Pictures were taken using an Olympus PEN E-P3 digital camera equipped with an extension tube and a ZUIKO AUTO-MACRO 50 mm f3.5 lens or a 80 mm f4 lens, and stacked using the free software Combine ZM from Alan Hadley.

The label data of the holotypes are verbatim cited between quotation marks. A slash is used to separate lines of the data on the label, and a double slash separates the labels.

Abbreviations used herein are as follows: NSMT= National Museum of Nature and Science, Tsukuba, Japan; BL = Body length; BW = Body width; LAI-XI = Length of antennomere I to XI in mm; WE/ED = Width between eyes / Eye transverse diameter; PW = Pronotal width; PL = Pronotal length; EL = Elytral length; EW = Elytral width; LTB-A = Length of pro-, meso- and metatarsi from baso- to apicomeres in mm; AL: Aedeagus length. AW: Aedeagus width; Abl = Basale of aedeagus length; Aal = Apicale of aedeagus length.

### TAXONOMY

#### Subfamily Stenochiinae Kirby, 1873

## Tribe Cnodalonini Oken, 1843

### Genus *Asbolodomimus* Pic, 1921

**Type species:** *Asbolodomimus subcarinatus* Pic, 1921.

#### *Asbolodomimus sumatrensis* sp. nov.

(Figs. 1-4)

**Type locality.** Indonesia, West Sumatra, Mount Sanggul, 1200-1400 m.

**Type material.** Holotype (♂): "INDONESIA, WEST SUMATRA, Mt. / Sanggul 1200-1400 m / alt. IV. 2004, St. JAKL leg. // Coll. Masumoto / 2013 // HOLOTYPE / *Asbolodomimus / sumatrensis / Masumoto et Akita, 2022*", (NSMT).

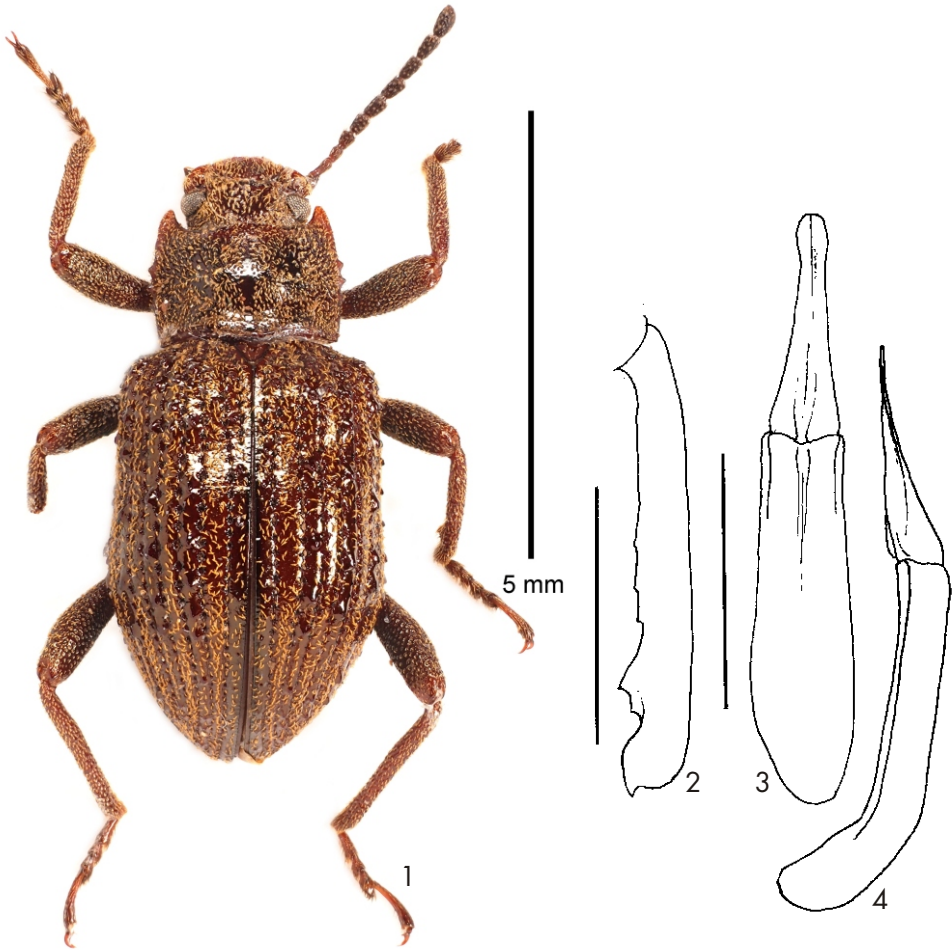
**Description of holotype.** Male. Body oblong-oval, fairly strongly convex dorsad; BL 6.5, BW 3.1 (widest level of elytra); body almost wholly dark brown; hairs on surface pale brown, and those on apico-ventral parts of tibiae and ventral parts of tarsi blackish brown; dorsal surface gently, slightly vitreously shining, legs moderately shining; ventral surface weakly shining; dorsal surface clothed with subdecumbent setaceous hairs, antennae densely clothed with minute hairs; legs clothed with fine setaceous hairs.

Head subelliptical, weakly convex dorsad; clypeus transversely subelliptical, finely punctate and haired, with apex rather widely truncate; fronto-clypeal suture grooved, connected with clypeo-genal suture, and forming semicircular groove; genae dilated and weakly raised antero-laterad, finely punctate and haired, with exterior margins moderately rounded; frons rather wide, weakly elevated posteriad, punctate and haired, the punctures a little larger and a little sparser and hairs longer and thicker than those on clypeus, with very shallow median impression. Eyes subtriangular in dorsal view, gently convex laterad, roundly inlaid into head, deeply grooved along interior border; WE/ED 3.2. Antennae subfiliform, slightly thickened apicad, antennomere XI subelliptical, with the tip reaching to basal 1/6 of elytra; LAI-XI: 0.14, 0.09, 0.25, 0.20, 0.20, 0.25, 0.26, 0.26, 0.25, 0.29, 0.39.

Maxilla with terminal palpomere well dilated and triangular. Mentum subpentagonal, raised antero-medially, microsculptured. Gula wide parabolic, weakly convex, transversely wrinkled.

Pronotum subquadrate, though anterior corners acutely produced and lateral margins gently rounded with three small protrusions in middle; PW/PL 1.9 times as wide as long (1.6 mm length, 2.3 mm width); apex widely emarginate, finely margined; base bisinuous, bordered by a groove and margined; parts of front angles noticeably protruded anteriorly, weakly incurved, with each apex acute; hind angles subrectangular; disc gently convex, roundly impressed in posterior 1/5, depressed in lateral 1/3, irregularly clothed with subdecumbent setaceous hairs in major surface except along median line glabrous. Scutellum a little elongated triangular, nearly flat, scattered with minute punctures.

Elytra subovate, 1.4 times as long as wide (4.4 mm in length, 3.2 mm in width); EL/PL 2.8, EW/PW 1.4; widest at the middle, slightly narrowed basad and roundly so apicad from the widest point; dorsum strongly convex, highest at the middle; disc punctate-striate; the punctures in striae small, rather closely set and each with small tubercle at exterior upper side; intervals gently convex, microscopically punctate, haired and minutely tuberculate, sparsely scattered with larger tubercles, which become larger in lateral portions; sides steeply, roundly inclined laterad, and bordered by fine margins, which are invisible from above; humeri swollen, closely tuberculate; apices slightly, roundly produced.



Figs. 1-4. *Asbolodomimus sumatrensis* sp. nov., holotype, ♂: 1-habitus; 2-mesotibia; 3-4-aedeagus: 3-dorsal view; 4-lateral view. Scales: 5.0 mm for Fig. 1; 1.00 mm for Figs. 2-4.

Prosternum extremely short; apex widely emarginate, ridged along apical margin; anterior part depressed, weakly microsculptured and finely haired; medial part abruptly raised, with three round protuberances and finely haired in middle; posterior part steeply inclined posteriorly; prosternal process semicircular, strongly depressed, microsculptured and granulate, with rounded apex. Mesoventrite rather short; anterior part strongly depressed, hidden under the prosternum in repose, minutely punctate in medial part, minutely punctate and finely haired in lateral parts; medial part hollowed, smooth, with posterior part abruptly raised; posterior part forming V-shape, densely clothed with decumbent scale-like hairs. Metaventrite medium-sized, wholly punctate and clothed with decumbent hairs; anterior part narrowly elongated between metacoxae, weakly declined to medial part; medial and posterior parts moderately convex in middle, microsculptured, densely punctate and clothed with decumbent scale-like hairs; lateral parts punctate and haired. Abdomen rather long, microsculptured; ventrite I to IV almost wholly

clothed with short decumbent scale-like hairs, but in medial parts fine decumbent hairs intermixed; ventrite V strongly punctate, clothed with fine decumbent hairs in medial part longitudinally, and in lateral parts with scale-like decumbent hairs, with apex rounded and finely pubescent.

Femora subclavate, wholly minutely punctate and clothed with fine scale-like hairs. Tibiae closely minutely punctate, densely clothed with fine setaceous hairs on apico-ventral faces, all tibiae with grooves under faces and clothed with fairly long hairs on groove ridges. Mesotibiae with distinctive projections on postero-interior face (see Fig. 2). Tarsi fairly long, each tarsomere slightly dilated; LTb-A: 0.33, 0.28, 0.26, 0.17, 0.61; 0.28, 0.26, 0.24, 0.12, 0.65; 0.40, 0.25, 0.14, 0.64.

Aedeagus (see Figs. 3 and 4) elongated subtriangular, AL 2.18 mm AW 0.32 mm; BbL 1.26 mm, AaL 0.79 mm, AaL/AL 0.36 moderately curved in lateral view; basale longitudinally subelliptical, though the apical part becomes more strongly narrower than the basal part; apicale elongated triangular with apical part prolonged, and apices spatulate.

**Female.** Unknown.

**Differential diagnosis.** This new species somewhat resembles *Asbolodomimus sarawakicus* (Schawaller, 2008), from Borneo, Sarawak. The former can be easily distinguished from the latter in having smaller body (8.0-8.5 mm in the latter), the pronotum wider and with clearer side protrusions, the elytra a little slenderer with striated punctures each with small tubercle at the side on the surface, and intervals with more distinctly tubercles. Incidentally, the genus *Asbolodomimus* Pic, 1921, was treated as a synonym of *Allopezus* Gebien, 1922 for a long time, but due to the real published year of the original description, *Allopezus* is now the synonym of *Asbolodomimus*.

**Etymology.** The specific name is given after the place where the holotype was collected.

**Distribution.** Sumatra.

### Genus *Pigeus* Gebien, 1919

**Type species:** *Camarimena nitidipes* Fairmaire, 1983.

#### *Pigeus maedai* sp. nov.

(Figs. 5-8)

**Type locality.** Vietnam, Sapa, 1600 m.

**Type material.** Holotype (♂): "VIETNAM / Sapa, 1600 m, / 12. VII. 1997, / Takeshi Maeda leg. // K. AKITA / Collection / KAC 292470 // Coll. Masumoto / 2002 // HOLOTYPE / *Pigeus/ maedai* / Masumoto et Akita, 2022", (NSMT).

**Description of holotype.** Body elongate, subcylindrical, BL 17.4 mm, BW 6.1 mm (widest level in elytra); dorsal surface almost black with head and pronotum dark purplish tinge, elytra also mostly with dark purplish but partly with dark greenish tinge, ventral surface black with feeble dark greenish tinge; dorsal surface weakly, sericeously shining, ventral surface weakly, partly sericeously shining, legs moderately shining; each surface almost glabrous, legs mostly glabrous, apico-ventral sides of tibiae finely haired, ventral sides of tarsi densely clothed with short setaceous hairs.

Head somewhat transversely subhexagonal, microsculptured; clypeus widely trapezoidal,

latero-posterior parts weakly depressed, closely, finely punctate, each puncture with a minute hair; fronto-clypeal suture gently impressed and connecting with clypeo-genal sutures, which are fairly deeply impressed; genae dilated and rather strongly raised antero-laterad, scattered with microscopic punctures, exterior margins rounded; frons somewhat widely Y-shaped, weakly convex and somewhat longitudinally rugulose. Eyes subovate, nearly transversely set in dorsal view, weakly convex antero-laterad, subelliptically inlaid into head, WE/ED 1.2, deeply grooved along interior margins. Antennae subfiliform, gently thickened apicad, tip of antennomere XI reaching to basal 1/5 of elytra, LAI-XI: 0.70, 0.18, 1.24, 0.81, 0.80, 0.79, 0.82, 0.72, 0.69, 0.67, 1.01.

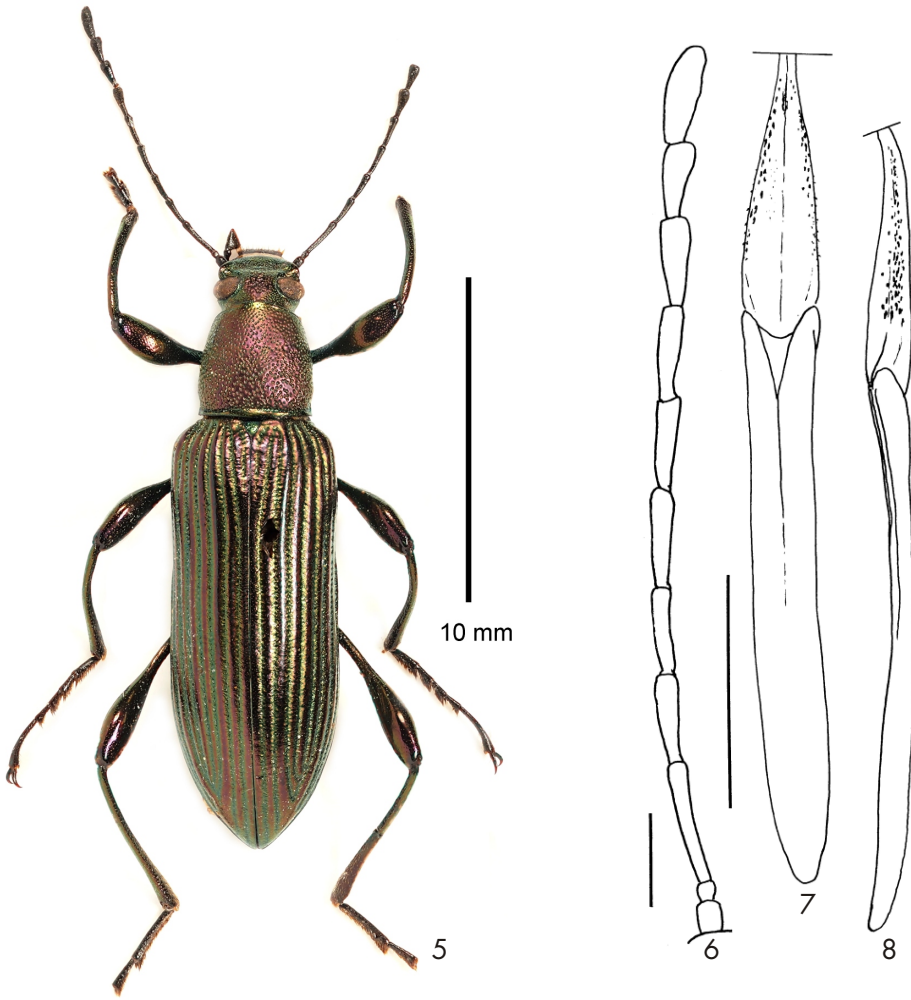
Maxilla with terminal palpomere subsecuriform. Mentum slightly transversely subhexagonal, longitudinally raised along median line and depressed on both sides, closely minutely punctate. Gula triangular, moderately convex, rather smooth, impressed on the borders near apex.

Pronotum subtrapezoidal, PW/PL1.0 (3.4 mm in length, 3.4 mm in width), wholly noticeably microsculptured; apex very weakly produced, obviously narrower than base, not margined; base feebly produced, bordered by groove and ridge, the ridge tapering laterad, microscopically punctate in posterior area; sides with moderately rounded with areas before base slightly sinuous, rather steeply inclined and gently enveloping ventral body, with borders of ventral body ridged but invisible from above; front angles obtusely angulate, hind angles a little acute; disc rather strongly convex, weakly depressed in medio-basal part, rather closely, strongly punctate, the punctures in basal and lateral portions becoming smaller, often fused with one another and forming rugosities. Scutellum subcordate, finely microsculptured, minutely punctate.

Elytra elongated subfusiform, 2.1 times as long as wide (12.8 mm in length, 6.1 mm in width); EL/PL 3.8, EW/PW 1.8, widest at apical 1/3, slightly constricted in basal 1/3 in dorsal view, wholly noticeably microsculptured; dorsum longitudinally convex, highest at basal 1/4; disc mildly punctate-grooved, the punctures in the grooves small and rather closely set; intervals moderately convex, noticeably, finely transversely scratched; sides steeply declined to lateral margins, which are bordered by punctate-grooves, the edges of them almost wholly visible from above; humeri moderately swollen, minutely punctate; apical portions moderately produced.

Prosternum short; apex gently rounded and finely margined; anterior part depressed and rugose; medial part (inter-procoxal space) strongly raised, ruguloso-punctate; posterior part depressed, rather closely punctate; prosternal process somewhat widely linguiform, strongly depressed, longitudinally impressed on median line, with a tubercle at apex. Mesoventrite short; anterior part depressed and hidden by prosternum in repose, closely punctate, with median ridge in anterior 2/3; posterior part strongly ridged in V-shape along the borders of mesocoxae (opposite to prosternal process), ruguloso-punctate. Metaventrite medium in size, longitudinally impressed on median line in posterior 3/5; anterior part weakly depressed, ruguloso-punctate; medial and posterior parts divided into two areas by the longitudinal impression; each side of the impression a little convex, microsculptured, scattered with small punctures and irregularly scratched; lateral parts more coarsely punctate than in medial parts. Abdomen rather long, wholly microsculptured and scattered with microscopic punctures; ventrite I to III finely, longitudinally scratched; ventrites IV and V rather smooth, scattered with minute punctures, ventrite V with apex simply rounded.

Legs normal in shape in the members of this genus and mostly smooth. Femora short-clavate, finely punctate. Tibiae gently bent weakly ventrad and interirad, closely and finely punctate; metatibiae rather noticeably with setaceous hairs in apico-ventral parts. Tarsi (some tarsomeres lost in the holotype) weakly dilated to each apex, densely, setaceously haired beneath, LTB-A: 0.61, 0.52, -, -,; 1.00, 0.59, 0.57, 0.40, 2.37; 2.00, 0.99, -, -.



Figs. 5-8. *Pigeus maedai* sp. nov., holotype, ♂: 5- habitus; 6- antenna; 7-8- aedeagus: 7- dorsal view; 8- lateral view. Scales: 5.0 mm for Fig. 5; 1.00 mm for Figs. 6-8.

Aedeagus (see Figs.7 and 8) extremely slender, though apical parts slightly damaged, nearly straight; AL 3.32 mm, AW 0.27 mm; Abl 2.24 mm, AaL1.19 mm, elongated equilateral triangular in dorsal view, weakly curved in lateral view; basale gently curved in lateral view; apicale depressed in basal 1/3, prolonged and curved ventrad in apical part, lateral parts with fine spines in basal half, apices acute.

**Female.** Unknown.

**Differential diagnosis.** This new species somewhat resembles *Pigeus striatus* (Pic, 1923), originally described from Shanghai. The former can easily be distinguished from the latter by

the body smaller (27-28 mm in the latter), more elongate, the dorsal surface not strongly shining but weakly sericeously so, and the coloration also different, the pronotum much more strongly punctate, and the elytra with intervals more convex, strongly sculptured and transversely scratched.

**Etymology.** The specific name is given in honor of Takeshi Maeda who collected the holotype.

**Distribution.** Vietnam.

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