

A New Genus and Two New Species of the Passalid Beetles (Coleoptera, Passalidae) from Sulawesi, Indonesia

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Abstract A new genus of passalid beetles from Sulawesi, *Paratiberioides*, is established on the basis of a combination of the following characters: bidentate lacinia, presence of secondary scars of mentum and presence of ventro-external tooth of left mandible. Two new species of the new genus, *P. mirabilis* and *P. trajae*, are described. A key to the species of the genus *Paratiberioides* is provided.

The passalid genus *Plesthenus* KAUP was revised by HINCKS (1938), who described *P. laminatus* at the same time. This is the second species whose left mandible bears a ventro-external tooth. The first species of this type is *P. mandibularis* HELLER (1900), and in my cabinet, there are two different allied species. Their features more closely resemble those of the members of the genus *Tiberioides* GRAVELY than those of the other species of the genus *Plesthenus*, because of the presence of the oblique area before the ridge which connects the two inner tubercles, the shape of the outer tubercles and the almost smooth pronotum. For these reasons, the present author has concluded that a new genus should be established for the four species.

Paratiberioides gen. nov.

Black and shining; dorsal surface moderately convex, polished, almost hairless except for anterior vertical portion of elytra.

Antenna with six lamellae. Anterior border of labrum weakly emarginate, frequently with a small tooth near the middle; left anterior angle more prominent than right one. Mandibles asymmetrical, hairy near base of the external face, with three terminal teeth and an anterior lower tooth, respectively; movable teeth present; right mandible rather strongly curved near base, narrower than left one, without ventro-external tooth; right lowest terminal tooth as large as or a little smaller than left one; right anterior lower tooth small with an upper denticle; left mandible with a ventro-external tooth near base; left anterior lower tooth larger than left lowest terminal one; posterior convexity (upper tooth) of left mandible massive. Middle part of mentum nearly smooth, with anterior border straight, divided from lateral pieces by secondary scars, which are a pair of arcuate grooves; primary scar absent. Lacinia bidentate.

Anterior angle of head not prominent; supraorbital and supraoccipital ridges continuous; the two inner tubercles situated behind anterior border of head, connected

by a distinct ridge, which is weakly emarginate in dorsal view; outer tubercles situated at anterior border of head and below inner ones, at least right outer one with a denticle above it, the upper denticle of right outer tubercle connected with right inner tubercle by a distinct ridge; central tubercle low, parietal ridges rather indistinct near central tubercle; depressed area of head almost smooth; the area between anterior border and the ridge which connects the two inner tubercles oblique (*anterior oblique area* in this paper). Ventral surface of hypostomal process hairless and impunctate.

Pronotum polished; anterior border very weakly sinuate, anterior angle not prominent, posterior one rounded; median groove almost absent; marginal grooves narrow, indistinctly punctate, anterior marginal groove incomplete; scars hairless or with a few hairs.

Elytra widest behind the middle, hairless at lateral sides and before shoulders, sparsely hairy at anterior vertical portion; grooves fine, very weakly punctate in second to fourth ones, a little strongly punctate in other ones.

Anterior coxae separated by prosternal keel; posterior plate of prosternum pentagonal; ventral surface of prothorax near posterior angles widely and densely clothed with long hairs, which are visible in dorsal view. Mesosternum almost hairless; scar broad, occasionally with a few hairs; mesepisternum hairy near posterior angle. Central area of metasternum almost polished; lateral area broad, sharply defined at anterior 2/3; lateral area, anterior intermediate area and posterior intermediate area near postero-external angle densely hairy; posterior intermediate area with umbilicate punctures near central area. Abdomen with six sternites visible; second abdominal sternite with scattered hairs behind the transverse ridges, third to sixth ones hairless. Middle tibia densely hairy, without external spine.

Type species: *Paratiberioides mirabilis* sp. nov. (to be described later).

Distribution. All known from Sulawesi, Indonesia.

Etymology of the new generic name. *Paratiberioides* is a combination of *para* and *Tiberioides*, *para* means 'beyond', *Tiberioides* is the Indian passalid genus related to the new genus.

Generic gender. Masculine.

The Oriental passalid genera which have bidentate lacinia are *Pleurarius* KAUP, *Tiberioides* GRAVELY, *Pelopides* KUWERT, *Plesthenus* KAUP, *Labienus* KAUP, *Proto-mochoelus* ZANG and the new genus. Of these, *Paratiberioides* gen. nov. is characterized by the presence of ventro-external tooth of the left mandible. This character is present only in *Tiberioides* other than the new genus, and these two genera are distinguished by the shape of the right mandible, the ventro-external tooth being absent in *Paratiberioides*, present in *Tiberioides*, and the mentum of the latter lacks scar.

Key to the Species of the Genus *Paratiberioides* nov.

1. Right mandible with large secondary upper tooth at the innerside of primary upper tooth; posterior convexity of left mandible with large horizontal trian-



Fig. 1. Head of *Paratiberioides* spp.; a, *P. mirabilis* sp. nov.; b, *P. laminatus* (HINCKS), comb. nov.; c, *P. mandibularis* (HELLER), comb. nov.; d, *P. trajae* sp. nov.

- gular dorsal face; posterior plate of prosternum hairless; 31–34 mm *P. mirabilis* sp. nov.
- Right mandible normal, without secondary upper tooth; posterior convexity of left mandible more or less oblique internally; if narrow triangular face is present, its inner side is distinctly oblique internally; posterior plate of prosternum hairy or not 2.
- 2. Larger, more than 40 mm; posterior plate of prosternum hairless; 42 mm *P. laminatus* (HINCKS), comb. nov.
- Smaller, less than 40 mm; posterior plate of prosternum hairy 3.
- 3. Posterior convexity of left mandible with narrow horizontal triangular dorsal face; mesosternal scar larger and hairless; 34 mm *P. mandibularis* (HELLER), comb. nov.
- Posterior convexity of left mandible without horizontal dorsal face; mesosternal scar smaller, with a few hairs; 36 mm *P. trajae* sp. nov.

***Paratiberioides mirabilis* sp. nov.**

(Figs. 1 a, 2 a)

Antennal lamellae short. Anterior border of labrum with obtuse middle tooth.

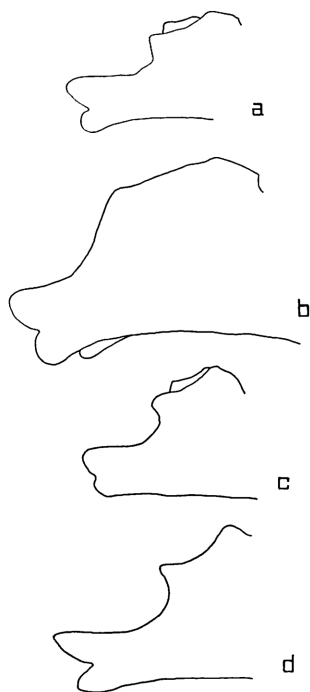


Fig. 2. Left mandible of *Paratiberioides* spp. in lateral view; a, *P. mirabilis* sp. nov.; b, *P. laminatus* (HINCKS), comb. nov.; c, *P. mandibularis* (HELLER), comb. nov.; d, *P. trajae* sp. nov.

Right lowest terminal tooth acute, a little smaller than left one; right anterior lower tooth acute, upper denticle with long edge, its tip being acute; anterior tip of posterior convexity of right mandible (primary upper tooth) obtuse, not projecting anteriorly, dorsal border gradually raised behind anterior tip in lateral view; dorsal face of right mandible with a strong tooth near base. Posterior convexity of left mandible with triangular dorsal face, its inner side hanging, anterior tip acute or rectangular, a little projecting anteriorly in lateral view; dorso-external border weakly sinuate and gradually raised behind anterior tip in lateral view. Middle part of mentum sometimes with a few hair-bearing punctures; both scars a little distant from each other at posterior ends, reaching the anterior border of middle part of mentum. Eye gibbous.

Apices of outer tubercles a little pointed outward, respectively; right outer tubercle a little more projecting anteriorly than the acute upper denticle, anterior border between right outer tubercle and the upper denticle emarginate in lateral view; left outer tubercle with rectangular upper denticle, more projecting anteriorly than the latter; anterior border of head between the two outer tubercles weakly emarginate in dorsal view; inner tubercles small; ridges between inner and outer tubercles distinct; frontal ridge indistinct near inner tubercle; parietal ridge indistinct near central tubercle; depressed area of head impunctate; anterior oblique area finely rugose, with scattered small granules.

Pronotal scar hairless.

Posterior plate of prosternum hairless, weakly coriaceous. Mesosternum very

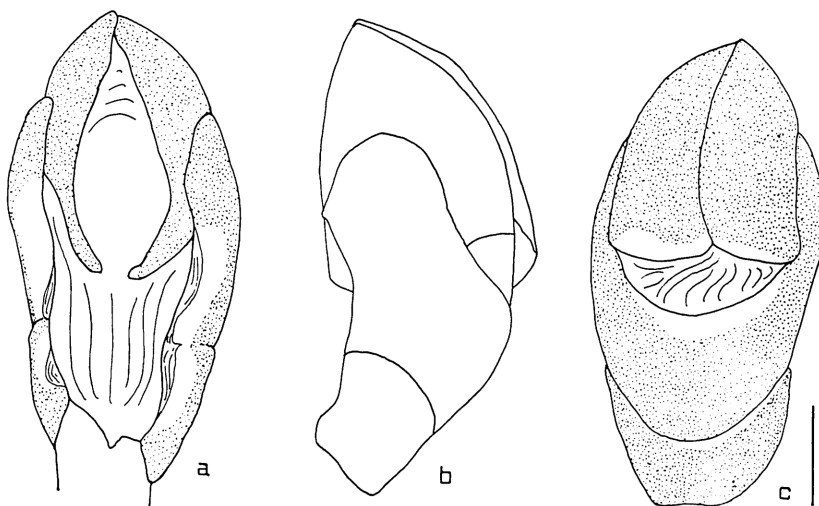


Fig. 3. *Paratiberioides mandibularis* (HELLER), comb. nov., male genitalia (scale: 0.5 mm); a, dorsal view; b, lateral view; c, ventral view.

finely punctate medially, finely rugose behind scars; scar finely rugose, almost reaching the anterior border of mesosternum, longer than $1/2$ length of lateral border of mesosternum, occasionally with a few hairs, inner wall of scar arcuate, gradually becoming indistinct posteriorly. Sixth abdominal sternite sparsely punctate laterally.

Length: 31–34 mm (from apex of labrum to apex of elytra); pronotal width: 9–10 mm; elytral width: 11–12 mm.

Holotype: ♀, Palolo, Palu, Sulawesi Tengah, Sulawesi, II–1994; paratypes: 1 ♀, same data as holotype; 3 ♀♀, same locality as holotype, I–1988.

The holotype will be preserved in the National Science Museum (Nat. Hist.), Tokyo.

***Paratiberioides laminatus* (HINCKS), comb. nov.**

(Figs. 1 b, 2 b)

Plethenus laminatus HINCKS, 1938, p. 246.

HINCKS' specimen is 48 mm long (from apices of mandibles to elytral apices).

Anterior border of labrum without median tooth; eye gibbous; pronotal scar occasionally with a few hairs; posterior plate of prosternum hairless; outer wall of mesosternal scar almost indistinct. Length: 42 mm.

Specimens examined. 2 ♀♀, Danau Mooat, Sulawesi Utara, Sulawesi, II–1994.

***Paratiberioides mandibularis* (HELLER), comb. nov.**

(Figs. 1 c, 2 c, 3)

Plethenus mandibularis HELLER, 1900, p. 11. — HINCKS, 1938, pp. 246, 247.

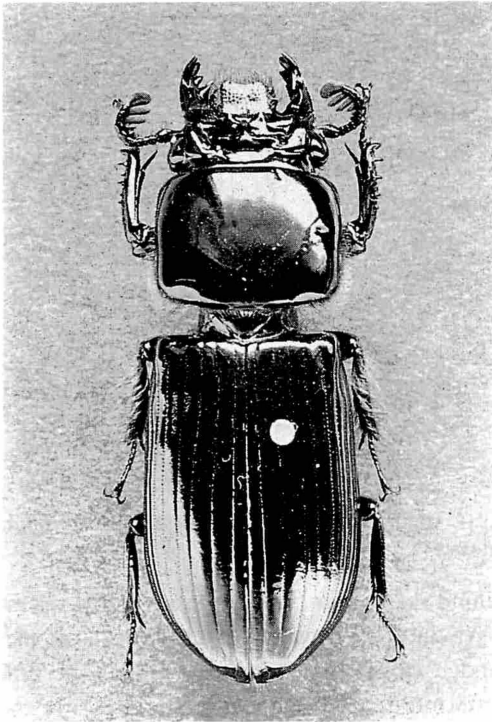


Fig. 4. *Paratiberioides trajae* sp. nov., dorsal aspect.

Posterior convexity of left mandible with narrow triangular dorsal face; eye large; upper denticle of left outer tooth indistinct; mesosternal scar (L: W=2: 1), about 1/2 as long as the length of lateral border of mesosternum. Length: 34 mm. Male genitalia as shown in Fig. 3.

Specimen examined. 1 ♂, Sampraga, Sulawesi Selatan, Sulawesi, II-1994.

***Paratiberioides trajae* sp. nov.**

(Figs. 1 d, 2 d, 4)

Antenna with three short and three moderately long lamellae. Anterior border of labrum with obtuse middle tooth. Right lowest terminal tooth as large as left one; right anterior lower tooth acute, upper denticle with a rather long edge, its tip obtuse; anterior tip of posterior convexity of right mandible acute. Posterior convexity of left mandible high, without dorsal face, anterior tip of posterior convexity acute, a little bent inward, dorsal border distinctly emarginate in lateral view, posterior tip higher than anterior tip, nearly rectangular, bent outward; internal face with a triangular tubercle below posterior tip of dorsal border. Middle part of mentum smooth; scars reaching the anterior border of middle part of mentum. Eye gibbous.

Apices of outer tubercles a little pointed outward, respectively; right outer tubercle

a little more projecting anteriorly than the rectangular upper denticle, anterior border between right outer tubercle and the upper denticle a little emarginate in lateral view; left outer tubercle without upper denticle, the ridge extending from left inner tubercle to near left outer tubercle distinct; anterior border of head between the two outer tubercles nearly straight in dorsal view; inner tubercle rather large, though not so strongly projecting anteriorly; the ridge between the two inner tubercles weakly emarginate in frontal view; depressed area of head hairless; anterior oblique area with some granules.

Pronotal scar hairless.

Punctures of elytral grooves small but rather distinct.

Posterior plate of prosternum hairy. Mesosternum finely and densely punctate medially, almost smooth laterally; scar (L: W=3: 1) rather distinctly defined, short, about 1/3 as long as the length of lateral border of mesosternum, with a few short hairs. Sixth abdominal sternite impunctate.

Body length: 36 mm; pronotal width: 10 mm, elytral width: 12 mm.

Holotype: ♀, Pulupulu, Sapan, Tana Traja, Sulawesi Selatan, Sulawesi, 29-VII-1993. The holotype will be preserved in the National Science Museum (Nat. Hist.), Tokyo.

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要 約

岩瀬一男: スラウェシ産クロツヤムシ科の新属と新種について。——スラウェシ産クロツヤムシ類のうち、小顎内葉が2歯状で、左大顎のみに下面基部の外歯を有する種群に対して、*Paratiberooides* という新属を創設した。またこの新属に属する2新種、*P. mirabilis*、*P. trajae* を記載するとともに、2既知種を含む検索表を作成した。

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