

A New Species of the Genus *Metoecus* Gerstaecker (Coleoptera, Rhipiphoridae) from West Sumatra, Indonesia¹⁾

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Abstract

A new species of the rhipiphorid genus *Metoecus* is described. Beetles here studied were found from a nest of *Vespa multimaculata pendleburyi* in West Sumatra, together with some mature larvae for which a description is also given.

Key words: *Metoecus*, *Vespa*, Sumatra, Mature larva.

Introduction

During a brief stay in West Sumatra in 1985, one of us (Sk. Y.) collected a nest of *Vespa multimaculata pendleburyi* from under a log in a secondary forest in Lubuk Gadang (ca. 850 m alt.). Some adult and larval beetles of the genus *Metoecus* were found when dissecting the nest to obtain biological data. This may be the first reliable record of this genus from the true hornet (*Vespa*). The species will be described as new to science, and the mature larva is also described.

Before going further we thank Dr. Tohru OHI (Kyoto Univ.) and Mr. DARNIUS (Lubuk Gadang) for their kind help in collecting the *Vespa* nest.

Metoecus sumatrensis sp. n.

Male. Head, underside and legs black, pronotum and elytra reddish brown, pro- and mesosternal process more or less reddish, antennae and palpi dark reddish brown, and apical spurs of four hinder tibiae and claws yellowish brown. Head clothed with blackish erect hairs,

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pronotum with tawny suberect hairs, elytra covered with short recumbent tawny hairs, and body beneath clothed with blackish hairs, which are suberect on pectoral areas and recumbent on abdomen.

Head finely and shallowly punctured above, about twice as wide as long, flattened, transversely folded between antennal sockets, slightly depressed along the fold behind and abruptly steeply inclined anteriorly in front of the fold. Eyes moderate in size, far apart, weakly emarginate inwardly and rounded-prominent at sides. Clypeus broad, slightly convex medially. Labrum very short, strongly transverse and slightly rounded at apex. Antennae reaching hind angle of pronotum; 1st joint not very long, rather stout, gradually dilated to truncate apex, 2nd very short and transverse, 3rd to 10th subequal in length and very gradually diminishing their width, each a little shorter than 1st and bearing a pair of very long slender thread-like prolongations, which have short blackish hairs, and 11th very long and slender, about four times as long as the precedings. Maxillary palpi not so long, apical joint elongate securiform and as long as the antepenultimate, which is elongate and gradually widened to apex, and the penultimate half as long as the apical and subtriangularly dilated.

Prothorax about as long as wide, narrowed from base to near apex; hind angles projected obliquely backwards and slightly covering the humeri; median lobe of pronotal base large, broadly triangular and subrounded at apex; pronotum convex, finely and thickly punctured, with a very deep, broad impunctate median furrow extending from a little behind anterior border to apex of basal lobe and gradually tapering posteriorly, and the margin of furrow ridged. Scutellum almost hidden by basal lobe of pronotum and the surface broadly excavated longitudinally.

Elytra twice as long as prothorax, dehiscent, gradually tapered and acuminate posteriorly; surface closely and finely punctured, slightly depressed along middle and raised towards the suture.

Ventral surface of thorax very finely and somewhat less closely punctured than dorsal; mesosternal process tongue-shaped, flattened, finely and sparsely punctured; median area of metasternum very finely and closely punctured. Abdomen not very closely bearing somewhat rasp-like punctures; 1st visible sternite about as long as two followings combined, and the last (6th) rather small and broadly truncate at apex. Legs very long and slender; hind tibiae as long as hind femora, a little longer than middle tibiae and distinctly longer than fore tibiae; middle tarsi as long as hind tarsi and twice as long as middle tibiae; fore tarsi about two-thirds as long as middle tarsi. Claws bearing a sharp tooth near apex below.

Female (Fig. 1). Similar to male, but the antennae are subjectinate, the pronotum bears a broad longitudinal black stripe along middle, which covers the median furrow and reaches the anterior border, and the ventral surface of thorax entirely black.

Antennae subjectinate from 4th joint; 3rd joint long and slender and longer than two precedings combined, 4th to 10th similar to each other, but gradually diminishing their size, each with a short appendage or process arising from the apex, and 11th suboval and scarcely longer than the preceding.

Body length: 10-10.7 mm (from front of head to apices of elytra).

Holotype (♂) & Allotype (♀): Suka Bumi, Lubuk Gadang, West Sumatra, 21 viii, 1985, Sk. YAMANE leg.

Paratypes: 1 ♂ 1 ♀, same data as the holotype.

Host: *Vespa multimaculata pendleburyi* VECHT (Vespidae).

Distribution: West Sumatra.

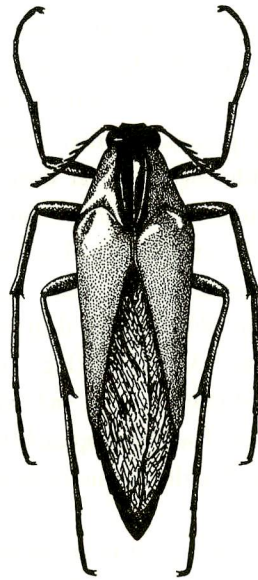
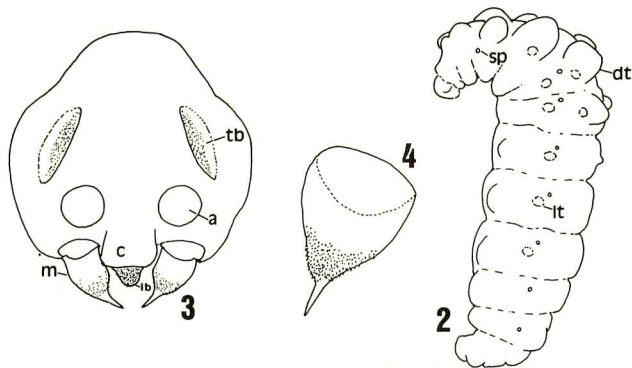


Fig. 1. *Metoecus sumatrensis* sp. nov. Female.



Figs. 2-4. Mature larva of *Metoecus sumatrensis* sp. nov. 2, body in profile (*dt*, dorsal tubercle; *lt*, lateral tubercle; *sp*, spiracle); 3, head in frontal view (*a*, antenna; *c*, clypeus; *lb*, labrum; *m*, mandible; *tb*, temporal band); 4, mandible.

Description of mature larva. Two specimens (one mounted) were examined.

Body (Fig. 2) 14.5 mm long and ca. 5 mm wide at the widest part, comprising a small head, three thoracic segments and eight visible abdominal segments, and with eight pairs of spiracles (*sp*; each on T2 and A1-7). Spiracles simple, without atrial processes; atrium weakly striate. Thoracic segments 1-3 and abdominal segments 1 and 2 dorsally with a pair of roundly produced, fleshy tubercles (*dt*); much smaller ones also found on thoracic segment 1 and abdominal segments 1 and 2. Lateral tubercles (*lt*) small and inconspicuous. Thoracic legs rudimentary. Integument weakly sclerotized, without visible setae and punctures, with microscopic denticles especially in the posterior portion of the body.

Head (Fig. 3) 2.43 mm in width, slightly wider than high when mandibles are removed. Cranium weakly sclerotized, without visible setae and punctures. Temporal bands (*tb*) developed, with many denticles; their outer margin ill defined. Antennae (*a*) rather large, very weakly sclerotized, each with two very minute sensillae. Clypeus (*c*) produced below, dorsally not demarcated from frons. Labrum (*lb*) narrower than clypeus, projecting downwards, with numerous minute spines or denticles. Mandibles (Fig. 4) wide and nearly circular in cross section near base, gradually narrowed towards apex, and abruptly narrowed at 1/4 length from the tip, with numerous minute spines or denticles in apical half but the sharp apical portion lacking them. Maxillae poorly developed, each with two microscopic papillae. Labium inconspicuous.

Remarks. This new species is very peculiar in having a very deep median longitudinal furrow of pronotum and easily distinguished from the known congeners. The species of this genus have been found almost solely from nests of social wasps of the genus *Vespula* (CHAPMAN, 1869; CLAUSEN, 1940; HATTORI & YAMANE, 1975). VECHT (1957) reared an unidentified rhipiphorid beetle from a nest of *Vespa velutina* collected near Bogor, Java, but did not refer to the genus name. Therefore the present specimens may be the first reliable record of the genus obtained from the nest of true hornets. The mature larva resembles those of so far studied congeners, and easily distinguished from those of the related genus *Macrosiagon* parasitic on solitary wasps by the poorly developed fleshy tubercles on the body.

References

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