

A New Species of the Genus *Malthodes* (Coleoptera, Cantharidae) from the Island Yaku-shima, Southwest Japan

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Abstract A new cantharid beetle is described under the name of *Malthodes takakuwai* sp. nov. on the basis of materials collected in the montane zone of Yaku-shima Island, Southwest Japan.

Introduction

Malthodes KIESENWETTER, 1852 is a relatively large genus in the tribe Malthodini BRANCUCCI, 1980, subfamily Malthininae. The genus contains twenty-three species in Japan, though only one species *M. yakushmanus* N. TAKAHASHI, 2000 is hitherto known from Yaku-shima Island.

In 2008, on a survey of the higher region of Yaku-shima conducted by the Kanagawa Prefectural Museum of Natural History, interesting cantharid specimens doubtless belonging to the genus *Malthodes* were collected. Through the courtesy of Dr. M. TAKAKUWA, I was given an opportunity to study the material. After a detailed examination, I have concluded that the specimens belong to a species quite different from *M. yakushmanus*. Besides, it does not coincide with any of the other Japanese species of *Malthodes*. I am therefore going to describe it in the present paper.

Before going further, I wish to express my deep gratitude to Dr. Masatoshi TAKAKUWA, Kanagawa Prefectural Museum of Natural History, Odawara, for his giving me the opportunity to study on the precious material and critically reading the original manuscript.

Material and Methods

The male genitalia examined in this paper were treated with 10% KOH solution at 90°C for about 10 minutes or more to remove membrane, protein, etc. After that they were sketched in 50% glycerin.

A term for the male genitalia is followed TAKAHASHI (2002).

The abbreviations used in the text are as follows: HW – width of head; PW – width of pronotum; PL – length of pronotum; PA – width of anterior margin of pronotum; PB – width of basal margin of pronotum; EW – width of elytra; EL – length of elytra.

Type depositories. The holotype designated in this paper is deposited in the

collection of the Kanagawa Prefectural Museum of Natural History, Odawara. Paratypes are preserved in the same museum and in my collection.

Description

Malthodes takakuwai sp. nov.

(Figs. 1–7)

M a l e. Body almost brownish black; mandibles and claws testaceous.

Head obtriangular, densely covered with fine punctures and pubescence; frons and clypeus provided with relatively long hairs; eyes rather large and prominent; interocular distance 2.25–2.37 times as wide as eye. Mandibles simple in shape though very slightly serrate at the anterior inner half. Gula lustrous and hardly punctate; gular sutures clearly visible. Antennae filiform and obviously long, nearly reaching the apices of elytra; comparative lengths of respective segments as follows:— 1.63 : 1.00 : 1.43 : 1.84 : 1.91 : 1.85 : 1.69 : 1.63 : 1.58 : 1.56 : 1.84.

Pronotum approximately rectangular, rather broad, widest at base or basal two-thirds; frontal and basal margins slightly curved outwards, lateral ones curved inwardly in basal two-thirds, obliquely truncated in frontal third, the truncation being like a sucker in oblique-frontal view; anterior angles somewhat angulate, posterior ones slightly prominent; PW/HW 0.98–1.00, PW/PL 1.43–1.44, PW/PA 1.21–1.31, PW/PB 0.99–1.00; surface closely covered with pubescence; punctures small and moderately dense on elevated area, rather rugose at lateral concave areas; disc well elevated except for lateral sides, with a longitudinal furrow at middle; lateral sides longitudinally concave, each concavity being constricted at the middle. Scutellum trapezoidal, very broad and short. Elytra slender though abbreviated, wider than pronotum, shorter than abdomen; EW/PW 1.34–1.38, EL/EW 2.66–2.68. All claws simple, somewhat swollen at bases.

Eighth tergite short, gradually narrowed posteriad (Fig. 4); ninth tergite invisible in dorsal view, though the basal part is slightly visible in lateral view (Fig. 6); tenth tergite barely rectangular in dorsal view, posterior margin slightly emarginate, and basal portion weakly constricted in dorsal view (Figs. 4, 6). Ninth sternite slender, slightly dilated posteriad; posterior margin emarginate in nearly U-shape (Fig. 5). Male genitalia relatively slender; basal piece with posterior angles weakly concave; dorsal lobes of penis relatively long, slightly longer than basal piece, apices somewhat angulate in ventral view (Fig. 7).

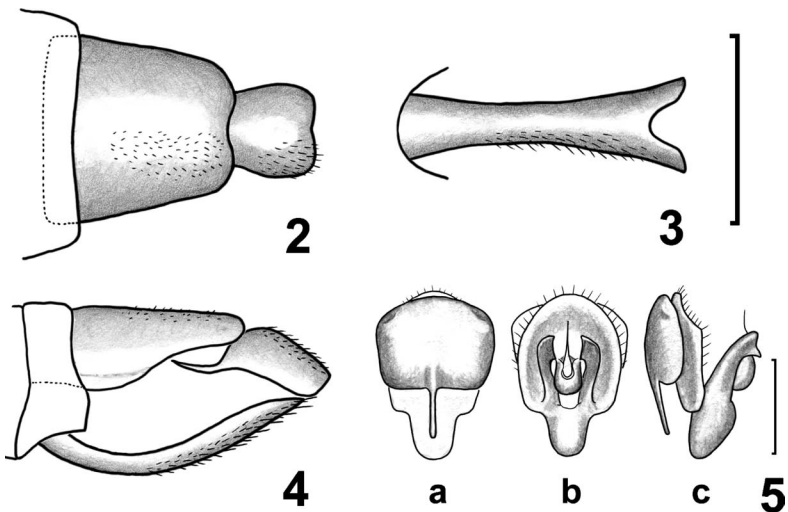
Length: 3.8–4.3 mm; breadth: 1.0–1.1 mm.

F e m a l e. Similar to male, but body somewhat wider, eyes relatively small, antennae shorter than in male; PW/HW 1.12–1.18, PW/PL 1.40–1.42, PW/PA 1.20–1.22, PW/PB 1.00–1.01; EW/PW 1.35–1.43, EL/EW 2.53–2.72.

Length: 3.9–4.5 mm; breadth: 1.1–1.3 mm.



Fig. 1. Habitus of the holotype of *Malthodes takakuwai* sp. nov.



Figs. 2-5. Apical portions of male abdomen and genitalia of *Malthodes takakuwai* sp. nov. — 2, 8th and 10th tergites in dorsal view; 3, 9th sternite in ventral view; 4, 8th and 10th tergites and 9th sternite in lateral view; 5, male genitalia. — a: ventral view; b: dorsal view; c: lateral view. Scales long: 0.5 mm (2-4); short: 0.25 mm (5).

Type series. Holotype: ♂, Hananoegô, Yaku-shima Is., northern Ryukyus, Kagoshima Pref., 27-V-2008, M. TAKAKUWA leg. Paratypes: 8 ♂♂, 11 ♀♀, same data as for the holotype.

Distribution. Yaku-shima Is., Southwest Japan.

Remarks. The present new species is fairly related to *M. kurosawai* WITTMER, 1954 from Odayama, Fukushima Pref., but can be distinguished from the latter by the following points: tenth tergite slightly constricted near anterior margin in dorsal view; posterior margin of ninth sternite of male emarginate in a U-shape.

要 約

高橋和弘: 屋久島産の *Malthodes* 属 (コウチュウ目ジョウカイボン科) の 1 新種。—— 鹿児島県屋久島産の標本に基づき、ジョウカイボン科の 1 新種 *Malthodes takakuwai* sp. nov. を記載した。本種は、屋久島から 2 種目として記録される *Malthodes* 属の種で、雄交尾器の構造は、カタチビジョウカイ *Malthodes kurosawai* WITTMER にやや近縁であるが、雄の第 8 腹板および第 10 背板の形態で区別できる。

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