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Notes on *Trypherus makiharai* M. Satô (Coleoptera, Cantharidae, Chauliognathinae)

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Abstract. Male and female terminalia of *Trypherus makiharai* M. Satô, 1976, are reexamined based on the holotype and additional materials. Habitus and male terminalia of this species are illustrated.

Key words: *Trypherus makiharai*, additional description, terminalia, Ryukyus, Ishigaki Island, Japan.

The chauliognathine genus *Trypherus* has a typical eastern Asian – eastern North American disjunct Arcto-Tertiary distribution (Ramsdale, 2002), and currently comprises 30 species (Brancucci, 1985) with most of the diversity found in Taiwan and Japan. Although about half of the congeners are recorded from Taiwan, only one species, *Trypherus makiharai* M. Satô, has been known to occur in the Ryukyus, Southwest Japan, which is the area between Taiwan and the mainland of Japan. It was originally described by M. Satô (1976), and later redescribed with strongly asymmetrical male genital segments by Brancucci (1985). The 8th abdominal tergite of the male segments, however, seems unusual in the outline and quite different from those of other congeners illustrated previously. In this study, male and female terminalia of this species were reexamined based on the holotype and additional materials as outlined in the following section.

The abbreviations for depositories of materials employed herein are as follows: ELKU (Entomological Laboratory, Kyushu University, Fukuoka); NTC (Naoki Takahashi's personal collection).

***Trypherus makiharai* M. Satô, 1976**

(Japanese name: Ishigaki-kobane-jôkai)

(Figs. 1-4)

Trypherus makiharai M. Satô, 1976: 56, figs. 10-11;
Delkeskamp, 1977: 482 (in list); Brancucci, 1985: 260,
269, 300, figs. 3, 30, 57, 82; Imasaka & Yamaji, 1989:

15, fig. 6 (habitus); Satô, 1985: 118, pl. 19, fig. 35;
Takahashi, 1998: 48 (in list); Kazantsev & Brancucci,
2007: 298 (in list).

Additional description.

Eighth abdominal tergite symmetrical in outline, sub-rectangular, somewhat long and dilated apicad in dorsal view, with apical angles subtubular, produced and weakly narrowed apicad, dorsum provided with intermingled dark setae in addition to primary pubescence. Median lobe of genitalia slender, flattened apicad, somewhat asymmetrically narrowed around tip, left margin widely arcuate and right margin narrowly arcuate there in ventral view. Female terminalia is almost identical in general appearance with the redescription of Brancucci (1985).

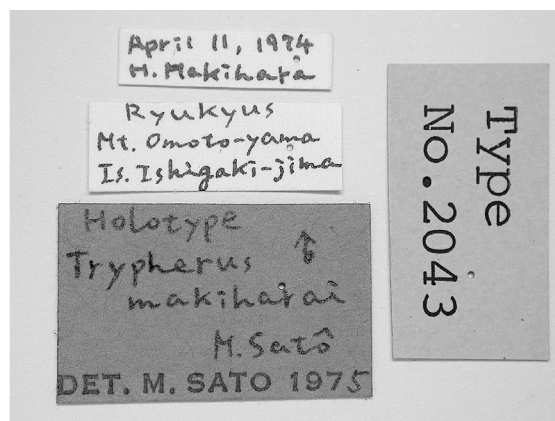
Type material examined. Holotype, male, "Type/ No. 2043 [pink rectangle and typed]"; "April 11, 1974/ H. Makihara [white rectangle with handwritten words]"; "Ryukyus/ Mt. Omoto-yama/ Is. Ishigaki-jima [white rectangle with handwritten words]"; "Holotype ♂/ *Trypherus/ makiharai/ M. Satô/ DET. M. SATO, 1975* [red rectangle with handwritten words except for the bottom line typed]" (deposited in ELKU); a female allotype and six female paratypes, same data as for the holotype (deposited in ELKU).

Additional material examined. [Ryukyus: Ishigaki Is.] 1 female, Mt. Omoto-dake, 23.iii.1990 (H. Kojima, NTC); 5 males and 1 female, 31.iii.1994 (N. Takahashi, NTC); 5 males, 2.iv.1994 (N. Takahashi, NTC).

Notes. Most additional specimens examined here



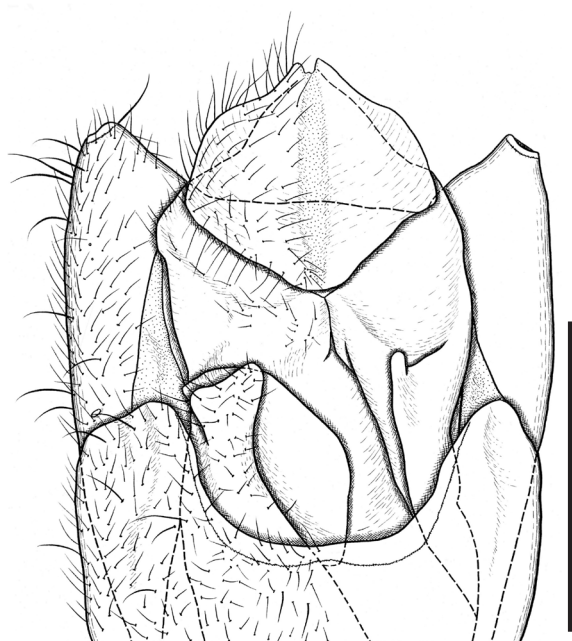
1



2



3



4

Figs. 1-4. *Trypherus makiharai* M. Satō. 1: Holotype, male; 2: type labels; 3: habitus, male; 4: apical portion of male abdomen, ventral view (macerated condition). Scales: 1.0 mm.

were swept from the leaves of *Pleioblastus linearis* (Hackel) Nakai [Poaceae] (“Ryûkyû-chiku” in Japanese) around the top of Mt. Omoto on Ishigaki Island. One photograph of the holotype is also available at <http://konchudb.agr.agr.kyushu-u.ac.jp/elkuetype/>.

As mentioned and illustrated above, it is not clear that the male genital segments of this species are strongly asymmetrical, and the male material examined in Brancucci (1985) may possibly be damaged.

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