

Far Eastern Entomologist

Number 446: 7-12

ISSN 1026-051X (print edition)
ISSN 2713-2196 (online edition)

January 2022

<https://doi.org/10.25221/fee.446.2>

<http://zoobank.org/References/91D78EBA-9A28-4E37-97C9-151A37CC8283>

A NEW SPECIES OF THE GENUS *TOCAMA* REITTER, 1902 (COLEOPTERA: SCARABAEIDAE, MELOLONTHINAE) FROM CHINA

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Summary. *Tocama huangjianbini* sp. n. is described from Fujian province, China. The new species differs from its known congeners by apex of parameres of male genitalia rounded and without setae.

Key words: scarab beetles, taxonomy, new species, Asia.

Ф. Л. Ванг. Новый вид рода *Tocama* Reitter, 1902 (Coleoptera: Scarabaeidae, Melolonthinae) из Китая // Дальневосточный энтомолог. 2022. N 446. С. 7-12.

Резюме. Из китайской провинции Фуцзянь описан *Tocama huangjianbini* sp. n. Новый вид отличается от известных видов рода округлой и лишенной щетинок вершиной парамер самца.

INTRODUCTION

Tocama Reitter, 1902 is a small genus with ten species and one subspecies from China and Indochina (Wang *et al.*, 2015). Reitter (1902) considered this genus as a subgenus of *Melolontha* Fabricius, 1775, and Kryzhanovskij (1978) elevated *Tocama* to the generic level depending on male genitalia. After Kryzhanovskij (1978), eight new taxa were described in this genus, and several taxa were also transferred into *Tocama* (Keith 2006, 2007; Li *et al.*, 2010; Keith & Sabatinelli 2012; Li *et al.* 2012; Wang *et al.*, 2015). New species of *Tocama* is described below.

MATERIAL AND METHODS

Type specimens of the species described in this paper bear the following two labels, separate label lines are indicated by a slash (/), and separate labels by a double slash (//): 1 (red label). "HOLOTYPE or PARATYPE / *Tocama huangjianbini* / FL- Wang det. 2021"; 2. Collecting label. Photos were taken using a Canon® D60 digital camera with Canon® AF 100 mm macro lens. The materials examined are housed in the following collections: Fa-Lei Wang Personal Collection, Chongqing, China (CFLW) and Mianyang Normal University, Mianyang, China (MYNU).

DESCRIPTION OF NEW SPECIES

Tocama huangjianbini Wang, sp. n.

<http://zoobank.org/NomenclaturalActs/B7627FC6-DD40-40DE-90DF-D9409EBCFDD5>

Figs 1–9

TYPE MATERIAL. Holotype – ♂, **China**: Fujian Province / Fuzhou City, Pintan Island / Longfengtou Coast / alt. 0m, 6.IV 2020 / Jian-Bin Huang leg. // HOLOTYPE / *Tocama huangjianbini* / FL-Wang det. 2021 (MYNU). Paratypes – 1♂, 1♀, **China**: Fujian Province / Fuzhou City, Pintan Island / Longfengtou Coast / alt. 0 m, 6.IV 2020 / Jian-Bin Huang leg. // PARATYPE / *Tocama huangjianbini* / FL-Wang det. 2021 (MYNU); 2♂, 1♀, **China**: Fujian Province / Fuzhou City, Pintan Island / Longfengtou Coast / alt. 0 m, 6.IV 2020 / Jian-Bin Huang leg. // PARATYPE / *Tocama huangjianbini* / FL-Wang det. 2021 (CFLW).

DESCRIPTION. MALE (holotype). Habitus (Figs 1, 2). Length: 16.2 mm, width: 10.7 mm. Body elongate ovoid, rather convex in profile (Fig 5).

Color. Head, pronotum, scutellum, and abdomen dark brown to blackish brown, pronotum brown, antennal and legs dark reddish brown.

Head. Clypeus rectangular, bordered, anterior corners board rounded, anterior margin reflexed, incurved in the middle, surface with dense, coarse, setiferous punctures; fronto-clypeal suture raised in the middle; frons densely setiferous punctate, coarsely in the middle, hair-like setae slightly long; antennal club longer than footstalks.

Pronotum wide trapezoid, surface densely punctate, densely covered with long hair-like setae; sides well crooked, anterior angles obtuse, apex rounded, posterior angles acute. Scutellum densely punctate, surface with long hair-like setae.

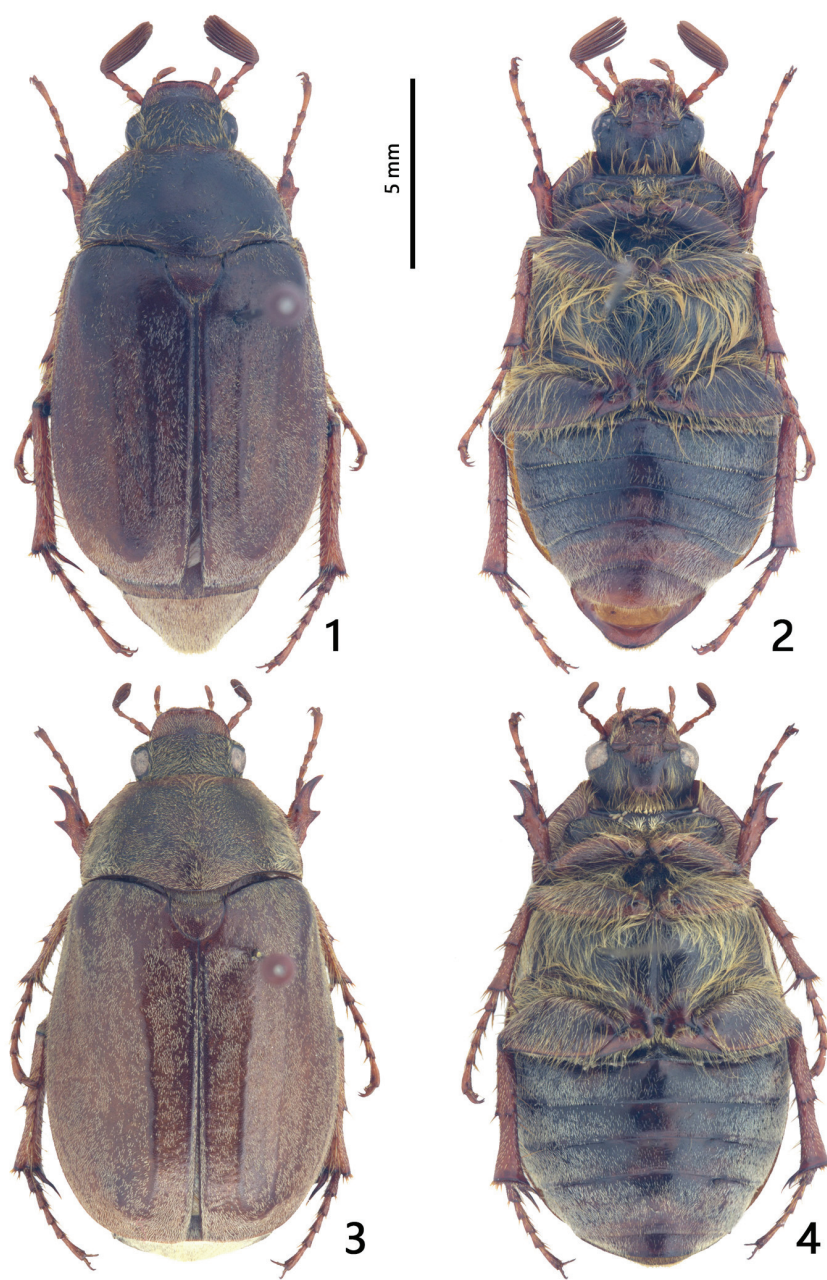
Elytra. Surface rugose with three developed costae between suture and humerus, sutural costa (as costa 1) and costae 2 complete and distinct, costa 3 weak; overall surface with setae which shorter than those on pronotum, setae on hind angles denser and shorter.

Propygidium with dense setae on sides, little on disc. Pygidium. apex rounded, lateral margins straight, slightly incurved before apex; surface densely with setae, also with long hair-like setae overall spread. Venter (Fig 2). Prosternal process hardly protruding. Metepisternum and metepimeron overall covered with long hair. Sides of abdominal sternites 1–5 weakly with disconnected maculation consisting of whitish scale-like setae; abdominal sternites with rather dense, short setae on sides, setae on the middle sparer, overall covered with another kind of long setae.

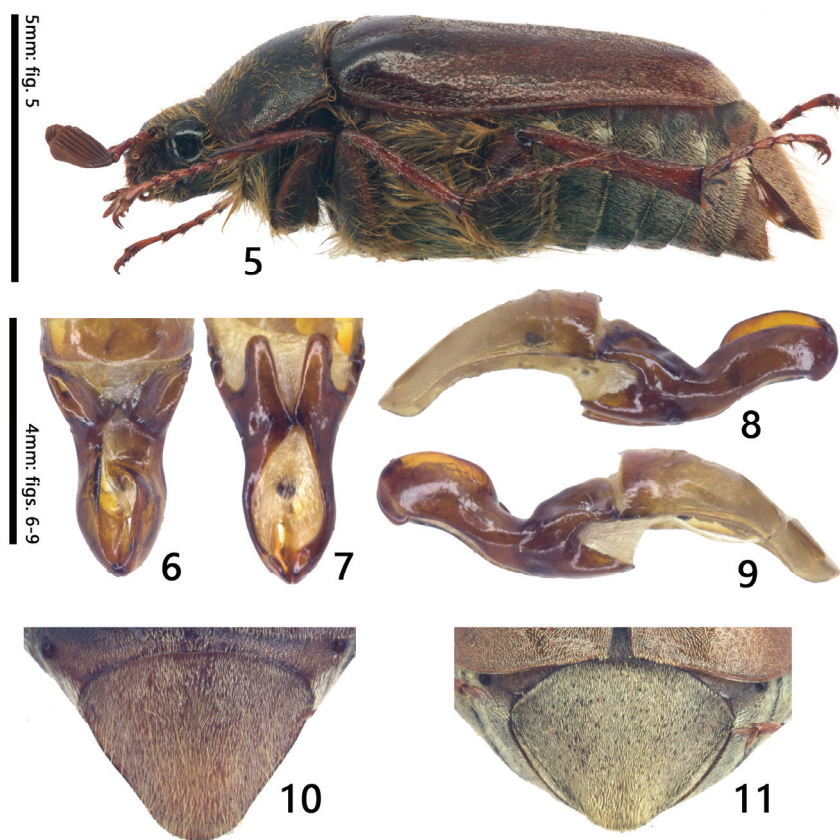
Legs. Protibia slender, surface with short setae, tridentate with terminal tooth rather prolonged, middle tooth acute, basal tooth weakly developed; mesotibia and metatibia cylindrical, surface with short setae, inner surface with a row of strong setae, apex gradually widening, both with two unequal length spurs; surface of tarsal with dense, short setae. Parameres (Figs 6–9) asymmetrical, apex of parameres without setae; in lateral view, apex of parameres rounded.

FEMALE. Similar with male in general appearance (compare Figs 1–4) but differs in the following characters: 1) body generally wider; 2) antennal shorter than footstalks; 3) protibia wider, hind tooth distinctly; 4) pygidium shorter (Figs 10, 11).

DIFFERENTIAL DIAGNOSIS. The new species can be distinguished from congeners by apex of parameres of male genitalia rounded and without setae (Figs 6–9). New species is most similar to *T. formosana* (Yu, Kobayashi & Chu, 1998) in appearance, but protibia slenderer (compare Fig. 1 with Wang *et al.*, 2015: fig. 8) and elytra not incurved distinctly in lateral view (compare Fig. 5 with Wang *et al.*, 2015: fig. 24).



Figs 1–4. *Tocama huangjianbini* sp. n., habitus. 1, 2 – holotype, male; 3, 4 – paratype female. 1, 3 – dorsal view; 2, 4 – ventral view.



Figs 5–11. *Tocama huangjianbini* sp. n. 5 – left lateral view of holotype; 6–9 – male genitalia of holotype: 6 – dorsal view, 7 – ventral view, 8 – lateral view from right, 9 – lateral view from left; 10 – pygidium of holotype; 11 – pygidium of female paratype.

REMARKS. Wang *et al.* (2015) described genus *Tocama* as: “possessing strongly asymmetrical parameres of the male genitalia with a bundle of curled, robust setae at the apex of the parameres”. So far, *Tocama huangjianbini* sp. n. is unique species of *Tocama* with apex of parameres without setae.

HABITAT. The habitat of the new species is a seaside village of Pintan Island (130 kilometers northwest of Taiwan Island), Fujian as shown in Figs 12–15. The specimens examined were collected around light at night.

DISTRIBUTION. Known only from the type locality in Fujian Province, South China.

ETYMOLOGY. The new species is named after Jian-Bin Huang, who collected all types.



Figs 12–15. Type locality of *Tocama huangjianbini* sp. n. (Pintan Island, Longfengtou Coast). Photos by Jian-Bin Huang.

ACKNOWLEDGMENTS

I thank Jian-Bin Huang (Fuzhou, China) for specimens supporting generously and for photos of the type locality of new species.

REFERENCES

- Keith, D. 2006. Sur le genre *Tocama* Reitter, 1902 (Col. Scarabaeoidea Melolonthidae Melolonthinae). *Lambillionea*, 106: 223–229.
- Keith, D. 2007. Nouveaux Melolonthini du Sud-Est asiatique (Coleoptera, Scarabaeoidea). *Nouvelle Revue d'Entomologie*, 24: 335–349.
- Keith, D. & Sabatinelli, G. 2012. Description de trois espèces et d'une sous-espèce nouvelles de Melolonthini des genres *Tocama* Reitter, 1902, et *Exolontha* Reitter, 1902 (Coleoptera, Scarabaeoidea). *Bulletin de la Société entomologique de France*, 117: 269–276.
- Kryzhanovskij, O.L. 1978. A new species of the genus *Melolontha* F. (Coleoptera, Scarabaeidae) from Central Asia. *Trudy Zoologicheskogo Instituta AN SSSR*, 61: 133–137. [In Russian]
- Li, C.-L., Wang, C.-C., Keith, D. & Yang, P.-S. 2012. On the genus *Tocama* Reitter (Coleoptera, Scarabaeidae, Melolonthinae), with descriptions of two new species from Indochina. *Zookeys*, 177: 37–48.

- Li, C.-L., Wang, C.-C. & Yang, P.-S. 2010. Revision of the *Melolontha guttigera* group (Coleoptera: Scarabaeidae) with a key and an annotated checklist of the East and South-East Asian *Melolontha* groups. *Annals of the Entomological Society of America*, 103: 341–359.
- Reitter, E. 1902. Bestimmungs-Tabelle der Melolonthidae aus der europäischen Fauna und den angrenzenden Ländern, enthaltend die Gruppen der Pachydemini, Sericini and Melolonthini. *Verhandlungen des Naturforschenden Vereins in Brunn*, XL [1901]: 93–303.
- Wang, C.-C., Yang, P.-S. & Li, C.-L. 2015. Synopsis of the genus *Tocama*. *Annals of the entomological Society of America*, 108(1): 89–108.
- Yu, C.-K., Kobayashi, H. & Chu, Y. 1998. *The Scarabaeidae of Taiwan*. Mu Sheng Co., Taipei. 263 pp.