

## Description of the Female of *Batriscenellus insulicola* NOMURA (Coleoptera, Staphylinidae, Pselaphinae), with a New Distributional Record from Amami-Ôshima Island

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**Abstract** The female of *Batriscenellus insulicola* NOMURA, 1991 is described for the first time and the species is newly recorded from Amami-Ôshima Is., the Ryukyus, southwestern Japan.

### Introduction

The pselaphine genus *Batriscenellus* was established by JEANNEL (1958) with the type species, *Batriscus fragilis* SHARP, 1883. Within the tribe Batrisini, *Batriscenellus* can be defined by the adult characteristic of the antennomere I with a subconical trichome which is composed of some brownish, semihyaline and bold setae (NOMURA, 1991; YIN *et al.*, 2011). Presently, 35 species have been known from Russia, North Korea, South Korea, China, Japan and India (YIN *et al.*, 2011; WANG *et al.*, 2015; JIANG & YIN, 2017; YIN *et al.*, 2017).

NOMURA (1991) described *Batriscenellus insulicola* based on the two male specimens from “Okinoerabu Is.” in the Ryukyus, southwestern Japan. Here I describe the female of *B. insulicola* for the first time from Amami-Ôshima Is. in the Ryukyus, with further description of the male based upon additional specimens.

### Material and Methods

All examined specimens are deposited in the National Museum of Nature and Science, Tsukuba.

Dried specimens were soaked in distilled water for a night. After that tergites and ventrites VIII–IX were removed from the body for genitalia extraction. The genitalia extracted were soaked in 5% KOH for about 10 hours, washed in distilled water for 10 minutes, and then treated for dehydration in 50% ethanol for five minutes, in 80% ethanol for five minutes and finally in 99% ethanol for 10 minutes. The dehydrated genitalia were mounted in euparal on a 5×10 mm micro cover glass for morphological observation and pinned together with the specimens (MARUYAMA, 2004). Morphological characters of the specimens were observed with a binocular stereoscopic microscope (Olympus SZH10). The mounted genitalia were observed with an optical microscope (Olympus BX41).

Abbreviations used in this study for measurements were as follows: HL — length of the head from the anterior clypeal margin to the occipital constriction; HW — width of the head across the eyes; PL — length of the pronotum along the midline; PW — maximum width of the pronotum; EL — length of the elytra along the suture; EW — maximum width of the elytra; AL — length of the dorsally visible part of the abdomen along the midline; AW — maximum width of the abdomen. In addition, length of the body (BL) was measured as a combination of HL + PL + EL + AL. All measurements are in millimeter (mm).

## Taxonomy

### *Batriscenellus insulicola* (NOMURA, 1991)

[Japanese name: Shima-tsuya-arizukamushi]

(Figs. 1–6)

*Batriscenellus* (*Scaioscenellus*) *insulicola* NOMURA, 1991: 316 (type locality: Sumiyoshi, Okinoerabu Is., Kagoshima Pref.).

*Batriscenellus insulicola*: YIN *et al.*, 2011: 39 (placed in the *B. similis* group).

**Description of female.** Habitus as figured (Fig. 2). Similar to male in size, BL 2.05–2.21 mm, HL 0.41–0.45 mm, HW 0.42–0.47 mm, PL 0.44–0.50 mm, PW 0.44–0.50 mm, EL 0.60–0.65 mm, EW 0.70–0.76 mm, AL 0.57–0.64 mm, AW 0.70–0.76 mm. External features are similar to those of male, except for the followings: elytra round-sided and narrowed anteriorly; mid tibiae slenderer; abdominal segment V short, slightly longer, without some secretory setae; abdominal segment VI also short, each slightly longer; tergite VIII wider than long, arcuate on posterior margin; and sternite VIII semicircular, weakly convex.

Genitalia (Fig. 4) wider than long in ventral view, weakly sclerotized, with sternite IX bilobed; basal lobe membranous on median part, with a pair of globular sclerites; apical lobe transverse, arcuate on posterior margin, broadly extended on anteromedian part, constricted on both sides, with a pair of lateral extensions on both anterolateral sides.

**Supplement to description of male.** Habitus as figured (Fig. 1). BL 2.09–2.24 mm, HL 0.41–0.44 mm, HW 0.42–0.47 mm, PL 0.44–0.51 mm, PW 0.45–0.50 mm, EL 0.63–0.68 mm, EW 0.73–0.77 mm, AL 0.57–0.62 mm, AW 0.69–0.74 mm.

**Specimens examined** (8 ♂♂, 8 ♀♀). Japan. [Ryukyus: Amami-Ôshima Is.] 1 ♀, Yuwan, Uken-son, Kagoshima-ken, 13.III.2019, S. TARU leg.; 1 ♂, 1 ♀, Santarô-tôge, Sumiyô-chô, Amami-shi, Kagoshima-ken, 14.III.2019, S. TARU leg.; 2 ♂♂, Yuwan, Uken-son, Kagoshima-ken, 15.III.2019, S. TARU leg.; 5 ♂♂, 6 ♀♀, Santarô-tôge, Sumiyô-chô, Amami-shi, Kagoshima-ken, 16.III.2019, S. TARU leg.

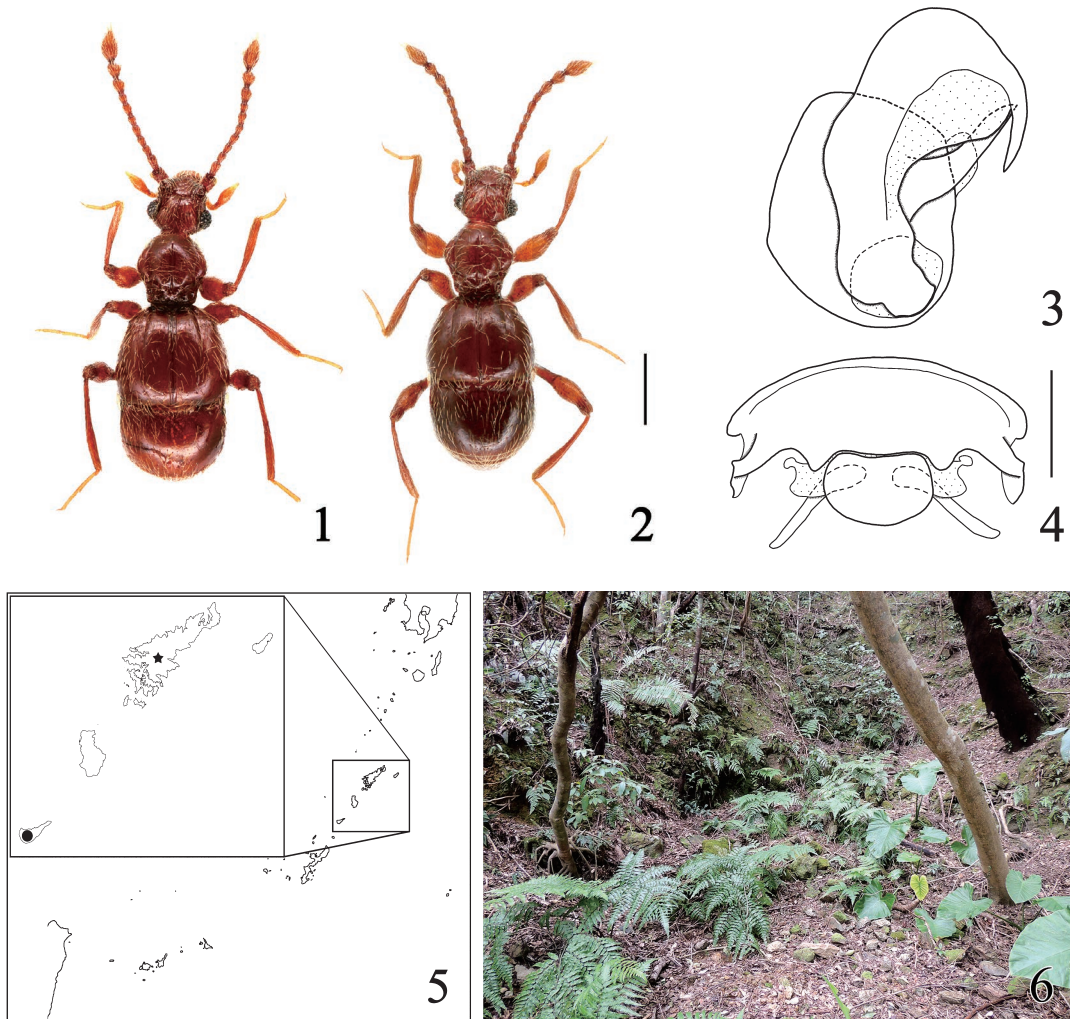
**Distribution.** Japan: the Ryukyus (Amami-Ôshima and Okinoerabujima Isls.) (Fig. 5).

**Remarks.** *Batriscenellus* had been classified into four subgenera, *Batriscenellus*, *Scaioscenellus* JEANNEL, 1958, *Nipponoscenellus* NOMURA, 1991 and *Batriscenellinus* NOMURA, 1991, by the male sexual characters on the abdominal tergites and structure of the male genitalia (NOMURA, 1991). YIN *et al.* (2011) synonymized these subgenera with the nominotypical subgenus and established six species groups because the distinguishing characters for the subgenera were not applicable for newly described species in *Batriscenellus* (*B. chinensis* YIN & LI, 2011, *B. femoralis* YIN & LI, 2011 and *B. pulcher* YIN & LI, 2011), as well as for newly combined species with the genus (*B. auritus* (LÖBL, 1973), *B. satoi* (NOMURA, 2003) and *B. subalpicolus* (NOMURA, 2003)).

This species belongs to the *B. similis* group (YIN *et al.*, 2011) by having the following features in the male: metaventrite with a pair of setiferous patches between metacoxae; abdominal tergites lacking setiferous patches, excavation on tergite VI occasionally present; and tergites V–VI sparsely covered with sensory setae.

According to NOMURA (1991), this species is related to *B. ohishii* NOMURA, 1991 in the structure of the sexual patch but it differs from *B. ohishii* in the following two characteristics in the male: 1) fore femora swollen and 2) male genitalia with a strong bent and simply sharpened dorsal apophysis. This study revealed that this species is distinguished from *B. ohishii* also by the following point: 3) basal lobe of sternite IX with a pair of globular sclerites in the female.

The dorsal apophysis of the male genitalia is longer in the specimens collected from Amami-Ôshima



Figs. 1–6. *Batriscenellus insulicola* NOMURA. — 1, Dorsal habitus, male; 2, ditto, female; 3, male genitalia; 4, female genitalia; 5, distributional map (black circle: known locality; black star: new locality); 6, habitat. Scale = 0.50 mm for 1 & 2 and 0.10 mm for 3 & 4.

Is. than in the holotype and a paratype collected from Okinoerabujima Is (Fig. 3).

**Biological notes.** The specimens examined here were captured by sifting litter of the evergreen forest floor (Fig. 6).

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## 要 約

樽 宗一郎：シマツヤアリヅカムシ（鞘翅目ハネカクシ科アリヅカムシ亜科）の雌の記載と奄美大島からの初記録。——シマツヤアリヅカムシ *Batriscenellus insulicola* NOMURA は 1991 年に沖永良部島産の 2 ♂♂ の標本を基に記載された Batrisini 族の一種である。今回、筆者はこれまで未知であった本種の雌の形態を記載すると共に、新たに奄美大島から記録した。

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