

A New *Trichotichnus* (Coleoptera, Carabidae) from the Southern Japanese Alps

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Abstract A new harpaline species, *Trichotichnus* (*Trichotichnus*) *hasensis* sp. nov., is described from the Southern Japanese Alps, central Honshu, Japan. It is mainly characterized by structure of the aedeagus.

Since the revisional study of the group of *Trichotichnus leptopus* (MORITA, 1997) was published, additional materials have rapidly been amassed at my hands. However, most of them have been known from only two or three examples, or only from females from one locality, so that I have been unable to decide with confidence their true systematic status. Recently, a long series of specimens of a single species were collected at the same place and on the same date on the Southern Japanese Alps and were submitted to me for study. It must be a new species, and I am going to introduce it into science in the present paper.

The description is short, because the members of the group of *T. leptopus* are very similar to one another and because slight differences in the shape of body parts can be expressed appropriately neither by measurements nor by ratios.

The abbreviations used herein are the same as those explained in my previous papers.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UENO for critically reading the original manuscript of this paper. My thanks are also due to Mr. Hanmei HIRASAWA for supplying me with material.

Trichotichnus (*Trichotichnus*) *hasensis* MORITA, sp. nov.

[Japanese name: Hase-tsuya-gomokumushi]

(Figs. 1–5)

Diagnosis. Body large; antennal segment I thick; elytra with straight basal borders; aedeagal inner sac with an elongate copulatory piece and a teeth-patch.

Description. L 10.8–12.0 mm. Head as in *T. spinifer* KASAHARA (1994, p. 75), but the eyes are usually larger; mentum tooth usually moderately rounded or obliquely truncated at the tip; antennal segment I rather thick, width/length=0.35–0.43 (M 0.39) in 21 ♂♂; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI :

XI=1:0.45:0.97:0.97:0.95:0.90:0.99.

Pronotum with dense punctures on the basal part; PW/HW 1.42–1.48 (M 1.45), PW/PL 1.39–1.48 (M 1.44), PW/PA 1.43–1.51 (M 1.47), PW/PB 1.23–1.31 (M 1.27), PA/PB 0.83–0.89 (M 0.86) in 20♂♂. Elytra with straight basal borders; WL/EL 0.25–0.26; setiferous dorsal pore situated a little before the middle; EW/PW 1.27–1.34 (M 1.29), EL/EW 1.48–1.60 (M 1.55), EB/EW 0.67–0.70 (M 0.68) in 20♂♂; TL/HW 1.14–1.33 (M 1.22) in 18♂♂. Anal sternite widely arcuate, and with a pair of setae.

Aedeagus elongate with rather large basal part; viewed laterally, aedeagus high at about middle, and with produced apical lobe; viewed dorsally, apical lobe slightly inclined to the right, simply rounded and usually weakly bordered at apex; inner sac armed with an elongate copulatory piece (*cp*) and a teeth-patch (*t*), and covered with poorly sclerotized scales or minute spinules; copulatory piece (*cp*) situated at ventral side of the teeth-patch (*t*) and a little inside of right wall of aedeagus; viewed right lat-

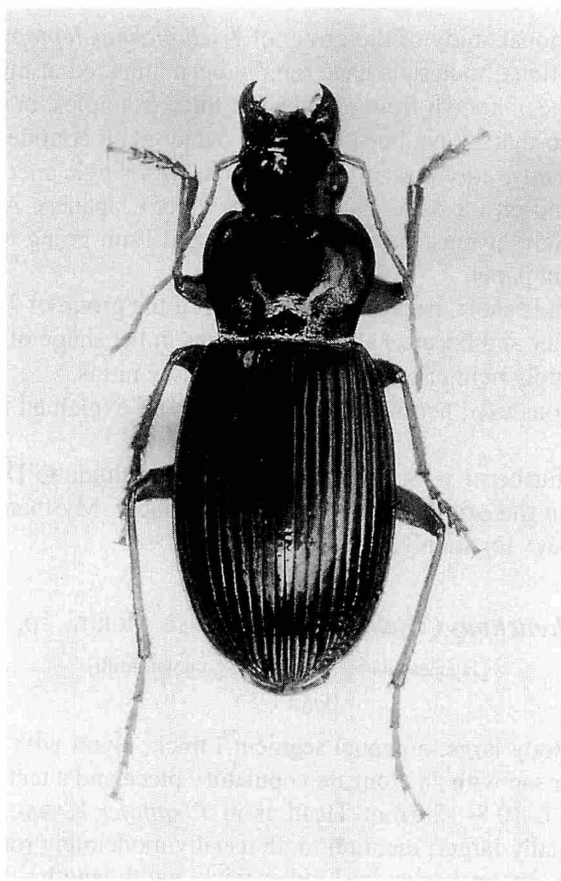
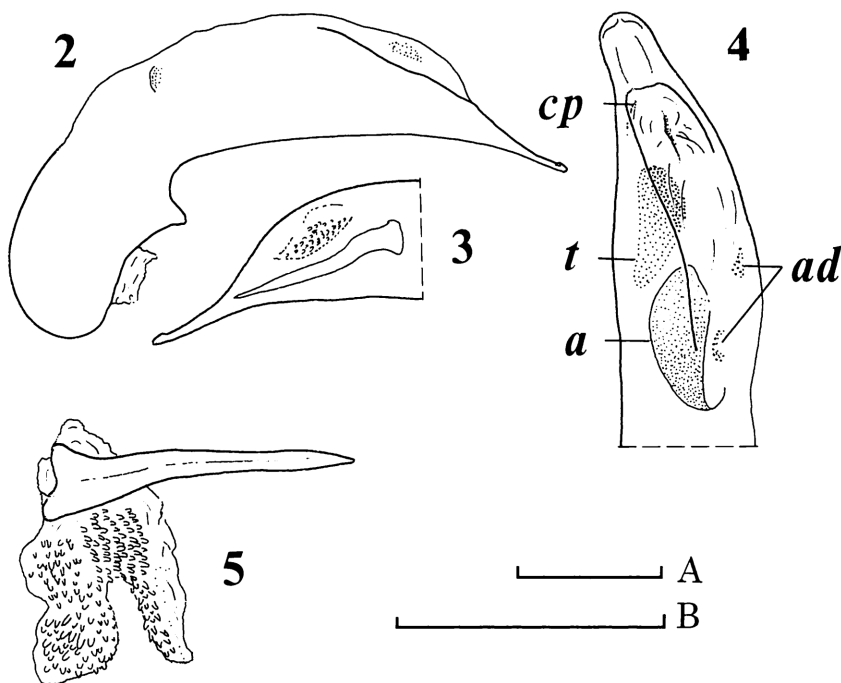


Fig. 1. *Trichotichnus (Trichotichnus) hasensis* MORITA, sp. nov., ♂, from Utajuku.



Figs. 2–5. *Trichotichnus (Trichotichnus) hasensis* MORITA, sp. nov., from Utajuku. — 2, Aedeagus, left lateral view; 3, apical part of aedeagus, right lateral view; 4, aedeagus, dorsal view; 5, copulatory piece. — *cp*, copulatory piece; *t*, teeth-patch; *a*, field *a*; *ad*, additional teeth-patches. Scales: 1 mm; A for 2–4; B for 5.

erally, basal part of copulatory piece wide and briefly straight, and abruptly and very briefly bent ventrad, and then becoming thinner towards the apex; teeth-patch consisting of sparse scales and spinules, which are rather heavily sclerotized; in 1 specimen, two small additional teeth-patches (*ad*) present as shown in Fig. 4; dorso-proximal part of inner sac consisting of moderately sclerotized and minute spinules, here called field *a* (*cf.* *a* in Fig. 4), but the folding pattern of the inner sac resembles those of the relative species.

The male genitalia of eight specimens were examined.

Variation in elytral dorsal pore. The setiferous dorsal pore is present on interval III and joining stria 2, or on stria 2, rarely on interval III. Of the 43 specimens of the type series, eight have an additional pore on one side, usually on interval III and joining stria 2, rarely on stria 2.

Variation of anal sternite. In one specimen, the apex of the anal sternite is shallowly emarginate at the apex. Five specimens have an additional seta on one side.

Female unknown.

Type series. Holotype ♂, Utajuku, 5~8-VI-2000, H. HIRASAWA leg. (NSMT).

Paratypes 11♂♂ (incl. teneral 1♂), Utajuku, 5~8-VI-2000, H. HIRASAWA leg.; 1♂, Yabusawa, 5~8-VI-2000, H. HIRASAWA leg.; 30♂♂, Utajuku, 3-VI-2001, H. & I. HIRASAWA leg.

Type locality. Utajuku, about 1,700 m alt., and Yabusawa, Hase-mura, Nagano Prefecture, Central Japan.

Notes. This new species is closely allied to *T. (T.) spinifer* KASAHARA (1994, p. 75) from Shizuoka Prefecture. It is, however, distinguished from it by the following points: elytra with straight basal border and aedeagal inner sac with a teeth-patch and more heavily sclerotized field “a”.

要 約

森田誠司：南アルプス産ツヤゴモクムシの1新種。——南アルプス北沢峠の北西に位置する歌宿付近で採集されたツヤゴモクムシの1新種を記載した。この種は、体形、交尾器などからみて、静岡県から記載されたテンリュウツヤゴモクムシ *T. (T.) spinifer* KASAHARA に近縁であるが、上翅基縁が直線であることのほか、陰茎内部の先端部に存在する長い交尾片の背面に大きいキチン化した、コケとトゲの束があること、内袋背面基部の部分がより強くキチン化すること、などで識別される。

References

- KASAHARA, S., 1994. Two new *Trichotichnus* (Coleoptera, Carabidae) from Shizuoka Prefecture, Central Japan. *Elytra, Tokyo*, **22**: 73–79.
- MORITA, S., 1997. The group of *Trichotichnus leptopus* (Coleoptera, Carabidae) of Japan. *Elytra, Tokyo*, **25**: 521–585.