

A New *Bradycellus* (Coleoptera, Carabidae) from the
Subalpine Zone of the Japanese Alps

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Abstract A new harpaline carabid beetle, *Bradycellus (Tachycellus) saitoi* sp. nov., is described from the subalpine zone of the Japanese Alps, central Honshu, Japan. It is related to *B. (T.) chinensis* JEDLIČKA, but differs from it mainly in the shape of aedeagal apex.

The most important and recent work concerning the subgenus *Tachycellus* is that of JAEGER and WRASE (1994). According to their paper, nine species occur in Japan. In this paper, a tenth species is added under the name of *Bradycellus (T.) saitoi*. But for their study which was based upon the type materials of the species described by old authors, I could never have determined this new species.

The abbreviations used herein are as follows: HW—greatest width of head; PW—greatest width of pronotum; PL—length of pronotum, measured along the midline; PA—width of pronotal apex; PB—width of pronotal base; EW—greatest width of elytra; EL—greatest length of elytra; WL—length of hind wing; TL—length of hind tarsus; M—arithmetic mean; NSMT—National Science Museum (Nat. Hist.), Tokyo.

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Bradycellus (Tachycellus) saitoi MORITA, sp. nov.

[Japanese name: Takane-hime-gomokumushi]

(Figs. 1–6)

Diagnosis. Left mandible of normal form (not truncate at the apex); microsculpture vanished on dorsal side; pronotal hind angles obtuse; anal sternite with 2 pair of long setae in ♂; hind wings reduced; aedeagus strongly bent at apex in lateral view.

Description. Length: 4.74–4.82 mm (from apical margin of clypeus to apices of elytra).

Body black to blackish brown, and shiny; side of pronotum and elytral interval 1 brown; ventral side lighter than dorsum; clypeus and appendages brown, but the anten-

nal segments 1 and 2 are usually reddish brown.

Head convex, not large; PW/HW 1.32–1.34 (M 1.33) in 4 ♂♂; frontal furrows clearly and deeply impressed, sometimes shallower near lateral grooves; eyes moderately convex; supraorbital pores located at the post-eye level; apical margin of labrum usually widely emarginate, with both corners rounded; surface very sparsely and finely punctate; microsculpture vanished; left mandible strongly curved in dorsal view, pointed at apex in both dorsal and dorso-apical views; antennae rather short; relative lengths of antennal segments as follows: I : II : III : IV : V : VI : XI = 1 : 0.63 : 0.79 : 0.82 : 0.86 : 0.89 : 1.20.

Pronotum transverse and convex, widest at 3/5 from base; PW/PL 1.39–1.41 (M 1.40) in 4 ♂♂; PW/PA 1.34–1.39 (M 1.37) in 4 ♂♂; PW/PB 1.27–1.33 (M 1.30) in 4 ♂♂; apical margin slightly emarginate, a little narrower than base, PA/PB 0.93–0.96 (M 0.95) in 4 ♂♂; apical angles widely rounded and a little produced; sides rather strongly arcuate, and then narrowed towards hind angles or very shallowly sinuate just before hind angles; marginal gutters deep, joining both basal and apical borders, and then vanished at the medial parts; hind angles obtuse; base slightly arcuate; median line clearly impressed; apical transverse impression shallow, becoming shallower at the

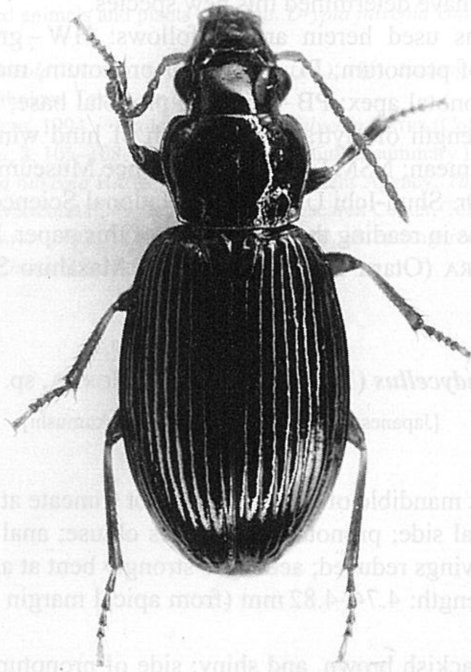


Fig. 1. *Bradycellus (Tachycellus) saitoi* MORITA, sp. nov., from Mt. Jizô-dake.

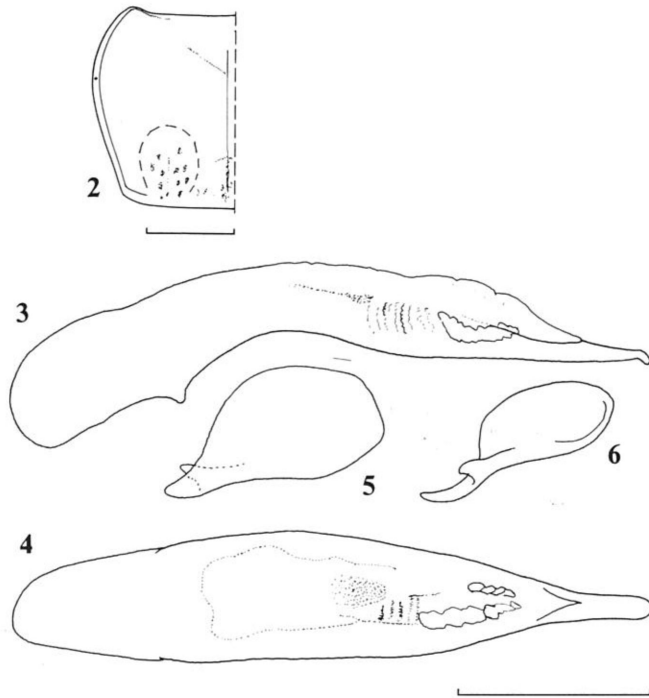


Fig. 2-6. *Bradycellus (Tachycellus) saitoi* MORITA, sp. nov. — 2, Outline of the left side of pronotum; 3, aedeagus, left lateral view; 4, aedeagus, dorsal view; 5, left paramere, left lateral view; 6, right paramere, left lateral view. (Scale: 0.5 mm.)

sides; basal transverse impression shallow; basal foveae deep and round, and with coarse punctures; microsculpture vanished.

Wings reduced, $WL/EL \approx 0.24$. Elytra convex and relatively narrow in basal parts; EW/PW 1.44–1.47 (M 1.45) in 4 ♂♂; EL/EW 1.45–1.50 (M 1.48) in 4 ♂♂; shoulders rounded; sides weakly arcuate towards the middle which is the widest, moderately arcuate in apical halves, and with shallow preapical emargination; intervals slightly convex; striae almost smooth; dorsal pore situated at $11/20-3/5$ from base; marginal series composed of 15 pores; microsculpture vanished. Anal sternite with two setae on each side. TL/HW 0.85–0.87 (M 0.86) in 3 ♂♂.

Aedeagus elongate; viewed dorsally, apical lobe gradually narrowed towards the tip which is simply rounded; apex strongly bent in lateral view. Inner sac covered with poorly sclerotized teeth and armed with two teeth-patches and a mat of poorly sclerotized teeth; of the two teeth-patches, the left one is larger than the right; a mat of poorly sclerotized teeth small and vague. Left style more or less broad; right one rather elongate.

Female unknown.

Type series. Holotype: ♂ (NSMT), paratypes: 3 ♂♂, 3–XI–1996, M. SAITÔ leg.

Type locality. Mt. Jizô-dake, 2,360 m in altitude, Hôou-zan Mts., Nirazaki-shi, Yamanashi Pref., central Honshu, Japan.

Notes. The present new species can be easily distinguished from all the known members of the subgenus *Tachycellus* from Japan by the obtuse hind angles of pronotum and differently shaped aedeagal apex.

Judging from the shape of pronotum and the chaetotaxy of anal sternite, this new species is rather closely allied to *B. (T.) chinensis* JEDLIČKA (1953, p. 143). It is, however, distinguished from the latter mainly by the following points: 1) head narrow, PW/HW M 1.33 [in *B. chinensis*, PW/HW M 1.22 (cf. JAEGER & WRASE, 1994, p. 493)], 2) vanished microsculpture on dorsal side, 3) left mandible not truncate at apex, 4) aedeagus with apex strongly bent, and 5) inner sac armed with two teeth-patches and a mat of poorly sclerotized teeth.

Although the two forms are decisively different in the male genitalia in spite of their close similarity in external morphology, this new species is tentatively placed at the side of *B. chinensis*.

要 約

森田誠司：日本アルプス亜高山帯の *Bradycellus* 属の1新種。——南アルプスで採集されたヒメゴモクムシの1新種，タカネヒメゴモクムシ *Bradycellus (Tachycellus) saitoi* を記載した。本種は，わが国から知られている *Tachycellus* 亜属のすべての種と，前胸背板の後角が鈍角であること，陰茎先端部が強く屈曲することで容易に識別される。

種名 *B. saitoi* は，快く研究材料を提供して下さった斎藤昌弘氏に捧げた。

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