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# A New *Bradycellus* (Coleoptera, Carabidae) from the Tokara Islands, Southwest Japan

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**Abstract** A new harpaline carabid beetle, *Bradycellus* (*Tachycellus*) *insularis* sp. nov., is described from Southwest Japan. This new species is much isolated from all the members of the subgenus known from Asia by having larger body and lighter coloration.

In the present paper, I am going to describe a new *Bradycellus*, which was discovered on the Island of Takara-jima of the Tokara Islands, off southern Kyushu, Southwest Japan. This new species belongs to the subgenus *Tachycellus*, and is distinct from all the known members described or redescribed by various authors.

The abbreviations used herein are as follows: HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the median line; PA – width of pronotal apex; PB – width of pronotal base (PB value is approximate, as the hind angles are rounded); EW – greatest width of elytra; EL – greatest length of elytra; TI – length of segment I of metatarsus; TV – length of claw segment of metatarsus; M – arithmetic mean.

I wish to thank Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kindness in reading the manuscript of this paper. My thanks are also due to Mr. Noboru ITO (Kawanishi-shi) for his kind help, and to Dr. Takeshi MATSUMURA and Dr. Shin-ichi YOSHIMATSU (National Institute of Agro-environmental Sciences, Tsukuba) for allowing me to re-examine HABU's type material.

## ***Bradycellus* (*Tachycellus*) *insularis*** MORITA, sp. nov.

[Japanese name: Tokara-hime-gomokumushi]

(Figs. 1–8)

Length: 5.61–6.33 mm (from apical margin of clypeus to apices of elytra).

Body dark brown; elytral interval 1 brown; ventral side of fore body dark brown, though the sternites are more or less darker; antennae, palpi, legs and epipleura reddish brown.

Head convex, not large; PW/HW 1.40–1.48 (M 1.44) in 10 ♂♂, 1.39–1.53 (M 1.45) in 10 ♀♀; frontal furrows clearly impressed, sometimes becoming shallower or disappearing near lateral grooves; eyes moderately convex; supraorbital pores located at the post-eye level; apical margin of labrum usually very slightly produced, rarely

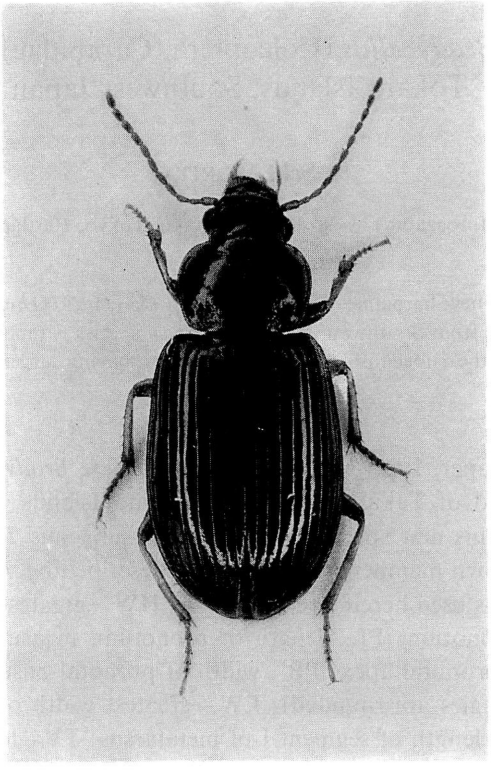
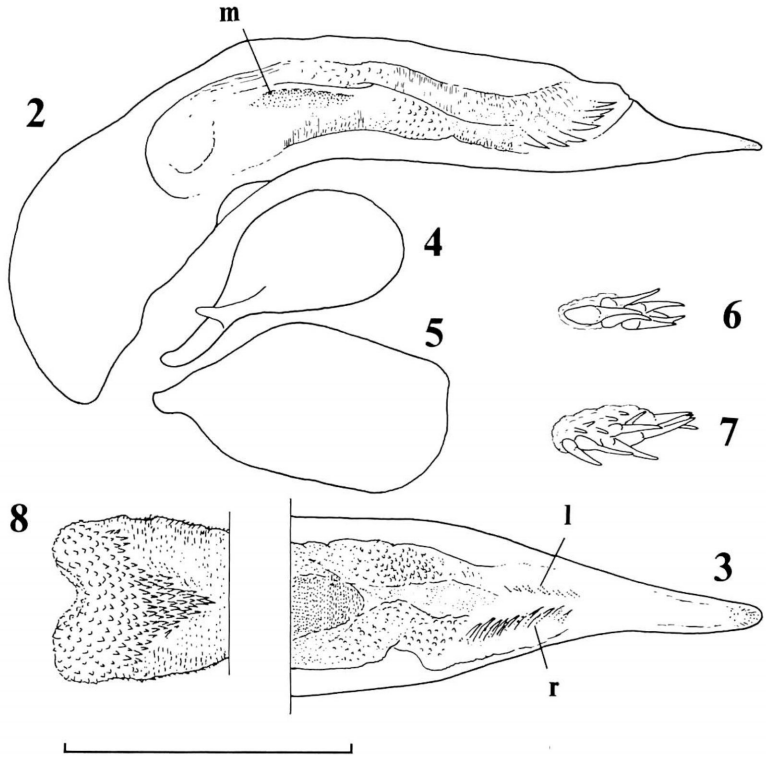


Fig. 1. *Bradycellus* (*Tachycellus*) *insularis* MORITA, sp. nov., from Takara-jima, Southwest Japan.

almost straight, and both corners rounded; mentum tooth simple; microsculpture obliterated, but partially visible as polygonal meshes, especially on the neck; antennae rather short, reaching basal 1/6 of elytra, and dilated towards apices; segment I about 1.77 times as long as wide; segment III about 2.25 times as long as wide, and pubescent at apex; segment IV about 2.28 times as long as wide, pubescent from basal third; segments VII–X each a little shorter than segment VI; relative lengths of antennal segments as follows:— I: II: III: IV: V: VI: XI≒1: 0.65: 0.88: 0.91: 0.87: 0.87: 1.02.

Pronotum transverse, PW/PL 1.31–1.42 (M 1.37) in 10 ♂♂, 1.37–1.49 (M 1.44) in 10 ♀♀, widest at about middle; apical margin slightly emarginate, rarely almost straight, and a little narrower than base, PA/PB 0.82–0.92 (M 0.87) in 10 ♂♂, 0.83–0.92 (M 0.86) in 10 ♀♀, PW/PA 1.43–1.51 (M 1.45) in 10 ♂♂, 1.41–1.48 (M 1.46) in 10 ♀♀; apical angles slightly produced, rounded at the tips, and without hairs; base almost straight or rarely slightly arcuate and with fine punctures at middle; PW/PB 1.22–1.32 (M 1.27) in 10 ♂♂, 1.19–1.30 (M 1.25) in 10 ♀♀; median line distinct, almost reaching both apex and base; apical transverse impression very shallow near median line, but obliterated at the sides; basal transverse impression nearly obliterat-




Figs. 2–8. Male genitalia of *Bradycellus* (*Tachycellus*) *insularis* MORITA, sp. nov. —— 2, Aedeagus, left lateral view; 3, same, ventral view; 4, separated right style; 5, separated left style; 6, everted left teeth-patch; 7, everted right teeth-patch; 8, everted teeth-mat (l: left teeth-patch, r: right teeth-patch, m: teeth-mat). (Scale: 0.4 mm.)

ed, rarely very shallow; sides almost evenly arcuate; hind angles rounded at the tips; basal foveae usually small and very shallow with coarse or fine punctures; reflexed lateral borders very narrow, widest at about middle, usually narrowed towards bases and towards apices, and joining the bottom of basal fovea on each side; microsculpture composed of fine transverse meshes but partially disordered on the disc and of polygonal meshes on the basal part.

Elytra elongate ovate, moderately convex, widest at about middle; EW/PW 1.40–1.44 (M 1.41) in 10 ♂♂, 1.37–1.45 (M 1.41) in 10 ♀♀; EL/EW 1.38–1.49 (M 1.44) in 10 ♂♂, 1.40–1.49 (M 1.45) in 10 ♀♀; shoulders distinct, without hairs; sides gently arcuate and slightly emarginate before apices; striae entire, impunctate, but the striae I–III (rarely IV) become shallower at apices; dorsal pore on interval 3 and adjoining stria II, and situated at 7/11 from base; scutellar striole distinct and rather long, and with basal pore; apices separately rounded, with a re-entrant angle at suture; intervals slightly convex, though almost flat at apices; marginal series composed of 14 pores;

microsculpture composed of transverse meshes but partially of wide ones.

Prosternum very sparsely covered with pubescence; sternite I and sides of sternites II and III without pubescence in ♂ and ♀; in ♂, median part of sternites II and III depressed and densely ciliate; anal sternite (VI) with a seta in ♂ and two setae in ♀ on each side.

Legs short and stout; posterior margin of each metafemur with two setae; in ♂, each segment of mesotarsus not dilated; in ♂ and ♀, dorsal sides of all tarsi smooth, but 2 proximal segments of all tarsi with one or two seta(e) on the dorsal side; claw segment of metatarsus glabrous below and two pair of setae on lateral side; TV/TI 1.43 in 5 ♂♂, 1.30 in 5 ♀♀.

Aedeagus elongate with a large basal part; viewed dorsally, apical lobe gradually narrowed towards the tip which is simply rounded; apex rarely very slightly bent in lateral view. Inner sac covered with scales and armed with two teeth-patches and a mat of poorly sclerotized teeth; of the two teeth-patches, the right one is longer than the left, and composed of seven heavily sclerotized spines and nine poorly sclerotized spines; left teeth-patch composed of seven heavily sclerotized spines; teeth-mat subtriangular in ventral view and composed of minute teeth; styles fairly broad, though the left style is larger than the left.

*Type series*. Holotype: ♂, allotype: ♀, paratypes: 49 ♂♂, 44 ♀♀ (teneral), 29–III～6–IV–1976, S. MORITA leg.

The holo-, allo- and several paratypes are preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo. The remaining paratypes are preserved in my collection.

*Locality*. Is. Takara-jima, the Tokara Islands, Kagoshima Prefecture, Japan.

*Notes*. The present new species can be easily distinguished from all the known members of the subgenus *Tachycellus* of Japan, Taiwan and China by larger body, lighter coloration and absence of microsculpture on head.

Judging from the conformation of male genital organ, this new species is closely allied to *B.* (*T.*) *glabratulus* LAFER (1989, pp. 199–200). However, it is distinguished from it by larger body, smaller head and presence of microsculpture on elytra in ♂. Besides, there is a wide geographical gap between Southwest Japan and southern Primorsky Territory.

## 要　　約

森田誠司：トカラ列島で採集されたヒメゴモクムシの1新種. —— トカラ列島の宝島で採集されたヒメゴモクムシの一種を新種と認め *Bradycellus* (*Tachycellus*) *insularis* MORITA, sp. nov. トカラヒメゴモクムシと命名した. わが国や台湾，中国から知られている種類とは，大型で体色が黒褐色，頭部に微細印刻を欠くことで容易に識別される. 陰茎の内部構造から判断すると，ロシアから記載された *B.* (*T.*) *glabratulus* LAFER に類似するものと思われるが，頭部が大きくなく，雄の上翅にも微細印刻が認められることで識別される.

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# Records of Some Cicindelid and Carabid Beetles (Coleoptera, Cicindelidae and Carabidae) from Kyushu and the Ryukyus, Southern Japan

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In the summer of 1991, Drs. N. V. KURZENKO and A. S. LELEJ took part in a joint field survey in Kyushu and the Ryukyus with Dr. Sk. YAMANE, Prof. T. SAIGUSA and other Japanese entomologists. The main task was to collect any kind of wasps in different biotopes but a few beetles were also collected. In this paper the results of our study on the Cicindelidae and Carabidae are given. All the material mentioned was collected by A. S. LELEJ and is deposited in the collection of the Institute of Biology and Pedology, Vladivostok. The taxonomic part of this paper was prepared by G. Sh. LAFER.

Before going further, we wish to express our hearty thanks to Prof. A. SHIBATANI of Kyoto Seika University, Prof. Sk. YAMANE of Kagoshima University, Prof. T. SAIGUSA of