

**Notes on the Bembidiinae (Coleoptera, Carabidae) of Japan XXIV.
A New Species of the Group of *Bembidion cnemidotum*
from the Southern Japanese Alps**

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Abstract A new species of the group of *Bembidion cnemidotum* is described from the Southern Japanese Alps, Central Japan under the name of *B. hosodai* MORITA, sp. nov.

In recent years, I described some new species of the group of *Bembidion cnemidotum* BATES (KRYZHANOVSKIJ *et al.*, 1995, p. 87). They share almost the same basic structure of the male genital organ. The main purpose of this paper is to add a new species from the Southern Japanese Alps, Central Japan.

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 UÉNO for critically reading the original manuscript of this paper. My thanks are also due to Messrs. Kouichi HOSODA, Hitoshi ISHIKAWA, Ichiro OSHIO and Masahiro SAITÔ for their kind help.

Bembidion hosodai MORITA, sp. nov.

[Japanese name: Akaishi-mizugiwa-gomimushi]

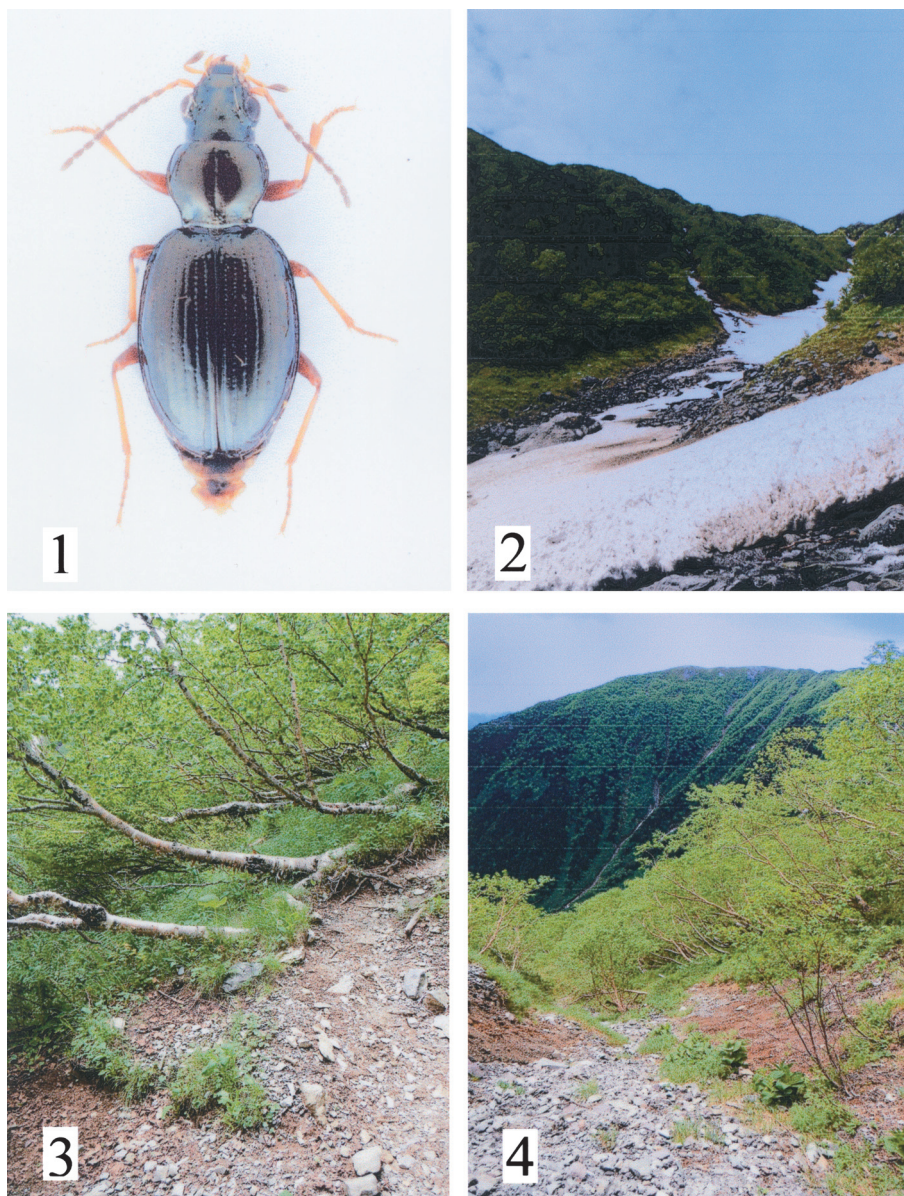
(Figs. 1–5)

Diagnosis. Body small, with oval elytra; body black, with dark greenish or brownish lustre; frons and vertex impunctate; frontal furrows impunctate; eyes flat; anterior transverse impression of pronotum impunctate; elytral microsculpture largely vanished, though consisting of isodiametric meshes in the humeral parts in ♀; apterous; aedeagus rather elongate in lateral view.

Description. L: 3.85–4.22 mm. Small species with oval elytra. Body black, with dark greenish or brownish lustre; ventral side dark brown to blackish brown; antennal segments I, II, basal half of III, and basal third of IV, mandibles and legs reddish brown to brown; palpi, the rest of antennal segments and mouth parts brown to dark brown.

Head moderately convex; eyes flat; PW/HW 1.27–1.31 (M 1.29) in ♂, 1.23–1.28 (M 1.26) in ♀; frontal furrows wide, deep, impunctate, almost straight or plurisinuuous, divergent posteriad, and reaching the post eye-level; root of anterior supraorbital pore depressed and situated a little behind the mid-eye level, posterior ones at the post-eye level; frons and vertex impunctate; frons with a small rounded fovea at the mid-eye level; microsculpture vanished, though consisting of wide meshes on the neck; genae very short, oblique and very slightly convex; relative lengths of antennal segments as follows: — I : II : III : IV : V : VI : XI \approx 1 : 0.67 : 0.97 : 0.89 : 0.84 : 0.83 : 1.13 in ♂ and ♀.

Pronotum narrow and convex; PW/PL 1.16–1.26 (M 1.20) in ♂, 1.14–1.23 (M 1.18) in ♀; apex straight; anterior transverse impression shallow, usually with fine wrinkles; PW/PA 1.30–



Figs. 1–4. *Bembidion hosodai* MORITA, sp. nov., and habitat, Mt. Kita-dake.

1.42 (M 1.34) in ♂, 1.29–1.38 (M 1.32) in ♀; sides widely and moderately arcuate in front, and sinuate at basal 1/6, and then almost parallel to each other towards hind angles; PW/PB 1.37–1.46 (M 1.43) in ♂, 1.36–1.46 (M 1.42) in ♀; PA/PB 1.03–1.10 (M 1.06) in ♂, 1.06–1.11 (M 1.07) in ♀; median line finely impressed; base weakly arcuate throughout or weakly so at middle and briefly and weakly oblique at the sides; basal part coarsely and sparsely punctate; hind angles with a weak carina on each side; basal foveae deep, oval and with rather coarse punctures; microsculpture vanished.

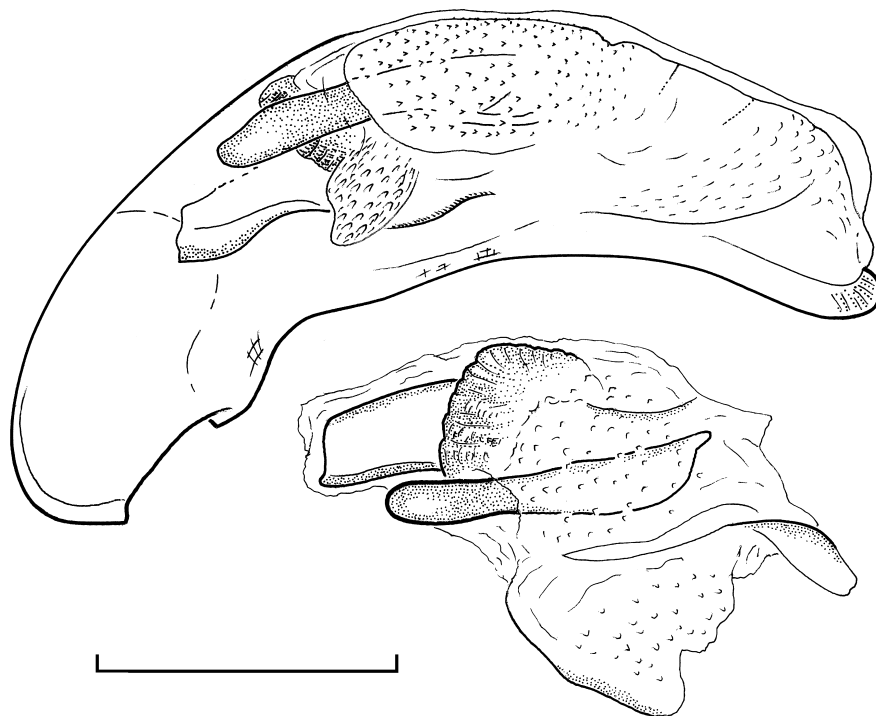


Fig. 5. Aedeagus and inner sac of *Bembidion hosodai* MORITA, sp. nov., from Mt. Kita-dake. — Aedeagus, left lateral view, and cut open and extended inner sac, right ventro-lateral view. Scale: 0.3 mm.

Elytra oval and relatively narrow; EW/PW 1.52–1.60 (M 1.55) in ♂, 1.55–1.62 (M 1.59) in ♀; EL/EW 1.43–1.50 (M 1.45) in ♂, 1.38–1.45 (M 1.40) in ♀; shoulders widely rounded; sides widely arcuate throughout; intervals very weakly convex and impunctate; striae 1 and 2 clearly impressed throughout, and moderately punctate, but the punctures become indistinct at about middle and almost disappearing at basal 7/10; striae 3 and 4 disappearing at about basal 3/4; stria 5 disappearing at basal 7/10; stria 6 disappearing at basal 3/5; stria 7 marked with a row of fine punctures, but disappearing at about middle; scutellar striole short, usually marked with a row of several punctures; two dorsal pores situated on interval III and adjoining stria 3; anterior dorsal pore situated at basal 1/5–3/10 of elytra and posterior one at the middle to 7/10, respectively; microsculpture vanished in ♂, largely vanished, though consisting of isodiametric meshes in humeral parts in ♀. Apterous.

Ventral side almost smooth; metasternal process rather widely bordered at the median part.

Aedeagus weakly arcuate and rather elongate in profile; viewed laterally, apical lobe rather short and simply rounded at the tip; inner sac armed mainly with five components of sclerites; ostium flag poorly sclerotized (cf. MORITA, 2009).

Left style provided with a long seta and three short setae at apex; right style provided with a long seta and two short setae at apex.

Type series. Holotype: ♂, allotype: ♀, Mt. Kita-dake, 2,200–2,700 m alt., Minamiarupusushi, Yamanashi Pref., 8–VII–2011, S. MORITA leg. (NSMT). Paratypes: 1 ♂, 5 ♀♀, Mt. Chausu-dake, Shizuoka-shi, Shizuoka Pref., 22–VII–1978, S. MORITA leg.; 3 ♂♂, 3 ♀♀, Mt.

Senmai-dake, Shizuoka-shi, Shizuoka Pref., 22-VII-1981, S. MORITA leg.; 1 ♂, 4 ♀♀, Mt. Kita-dake, Yamanashi Pref., 31-VII-1982, S. & E. MORITA leg.; 1 ♂, Mt. Tekari-dake, Minamishinano-mura (Iida-shi), Nagano Pref., 1-VIII-1996, H. ISHIKAWA leg.; 6 ♂♂, 17 ♀♀, Mt. Kita-dake, 8-VII-2011, S. MORITA leg.

Range. The Southern Japanese Alps, Central Japan (Yamanashi, Shizuoka and Nagano Prefectures).

Notes. This new species is closely allied to *Bembidion saitoi* MORITA (2009, p. 32). It is, however, distinguished from the latter by the following points: 1) body with stronger greenish lustre, 2) genae less convex, 3) elytra with narrow basal part and more oblique shoulders, and 4) in ♀, elytral microsculpture consisting of isodiametric meshes in humeral parts.

The type material was obtained from under stones on the borders of snow patches and mountain trails coexisting with alpine carabids, *Bembidion (Plataphodes) tetraporum* BATES, *B. (P.) fujiyamai* HABU and *Trichotichnus (Trichotichnus)* sp.

The specific epithet is given after Mr. Kouichi HOSODA, who kindly helped for my study.

The standard ratios of body parts given in the descriptive part are those of 5 ♂♂ and 6 ♀♀ from the type locality.

要 約

森田誠司：日本産ミズギワゴミムシ類（コウチュウ目オサムシ科）の知見. XXIV. 南アルプ스에서採集されたウスモンミズギワゴミムシ種群に属する1新種。——南アルプスから採集されたミズギワゴミムシを新種としてアカイシミズギワゴミムシ *Bembidion hosodai* MORITA と命名し記載した。この種は、ホウオウミズギワゴミムシ *Bembidion saitoi* MORITA に近縁であるが、側頭部があまりふくれず、上翅基部の構造において差異が認められる。

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Manuscript received 8 September 2011;
revised and accepted 17 October 2011.