

A New Patrobine Carabid Beetle from Kyushu, West Japan

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Abstract A new patrobine carabid beetle is described from the central mountains of Kyushu, Japan, under the name of *Apatrobus ohtsukai*. It is related to *A. hikosanus* (HABU), but differs from it mainly in the structure of male genitalia.

Ten years ago, an apterous patrobine carabid beetle was obtained by Mr. Isao OHTSUKA on Mt. Yamaingiri in central Kyushu, Japan, and was submitted to me for identification. I was, however, unable at that time to determine with confidence its true systematic position. Very fortunately, I made a collecting trip to the mountain with him, and was able to obtain many additional specimens of the same species. An examination of male genital organ, especially aedeagal structure, proved that though closely related to *Apatrobus hikosanus* (HABU) (1953, p. 47), it was no doubt new to science. In this paper, I am going to describe it under the name of *A. ohtsukai*. 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 of the National Science Museum (Nat. Hist.), Tokyo, for critical reading of the original manuscript of this paper. My thanks are also due to Messrs. Isao OHTSUKA, Hideto ARAMAKI, Takuya KURITA and Yûji TOMISHIMA for their kind help.

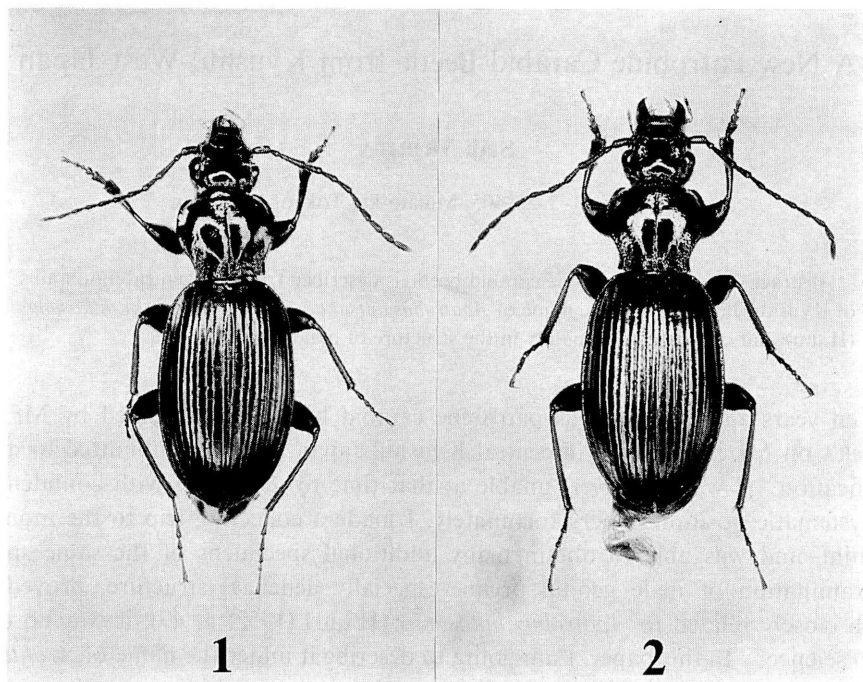
Apatrobus ohtsukai MORITA, sp. nov.

[Japanese name: Ohtsuka-nurechi-gomimushi]

(Figs. 1, 3–8)

Length: 9.72–11.00 mm (from apical margin of clypeus to apices of elytra).

Colour as in *A. hikosanus*; head large and more convex than in *A. hikosanus*; PW/HW 1.31–1.43 (M 1.35) in 6 ♂♂, 1.30–1.39 (M 1.35) in 4 ♀♀; frontal furrows moderately deep and wide, diverging behind and usually arcuate inwards at the posterior parts, with fine punctures; lateral grooves very deep, rather wide, and reaching the mid-level or apical third of genae; eyes more convex than in *A. hikosanus*; genae strongly tumid; anterior supraorbital pore situated a little before the mid-eye level or at about that level; posterior supraorbital pore situated a little before neck constriction, which bears fine punctures; mandibles stout and rather short; apical margin of labrum almost straight, rarely a little advanced; mentum tooth bifid; microsculpture almost vanished; antennae rather long, segment 2 with four setae (rarely three); relative lengths of antennal segments as follows:— I: II: III: IV: V: VI: XI ≐

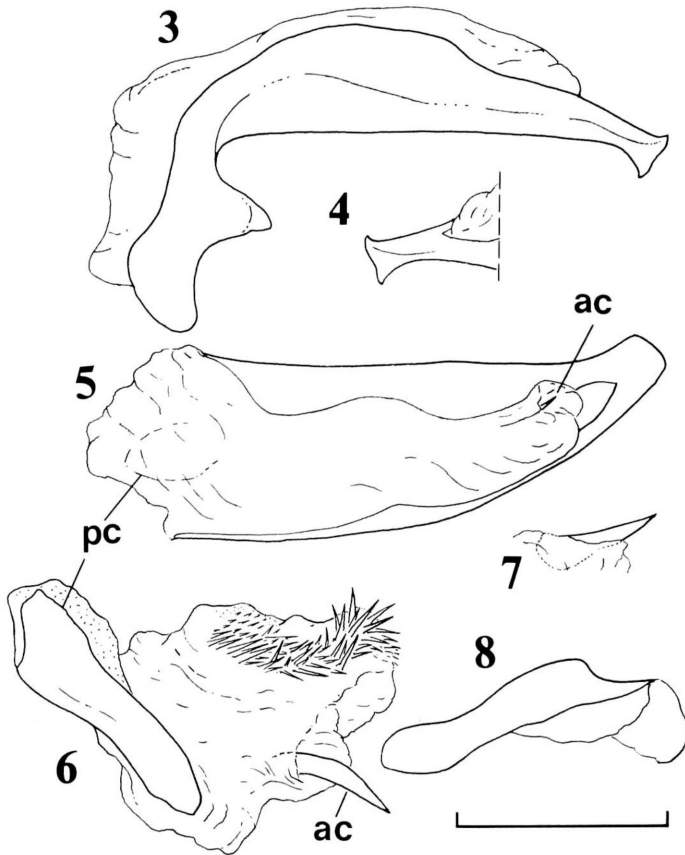


Figs. 1-2. — 1, *Apatrobus ohtsukai* sp. nov., from Mt. Yamaingiri, Kumamoto Prefecture;
2, *A. hikosanus* (HABU) from Mt. Hiko-san, Fukuoka Prefecture.

1: 0.44: 1.53: 1.02: 0.95: 0.97: 1.14.

Pronotum rather quadrate, moderately convex, widest at about 7/10 from base, usually without small depression between anterior marginal seta and median line; PW/PL 1.18–1.25 (M 1.23) in 6 ♂♂, 1.22–1.28 (M 1.24) in 4 ♀♀, PW/PA 1.41–1.50 (M 1.45) in 6 ♂♂, 1.40–1.45 (M 1.42) in 4 ♀♀, PW/PB 1.36–1.49 (M 1.41) in 6 ♂♂, 1.39–1.43 (M 1.41) in 4 ♀♀: apex almost straight, usually a little narrower than base, PA/PB 0.94–1.05 (M 0.98) in 6 ♂♂, 0.96–1.02 (M 1.00) in 4 ♀♀; sides moderately arcuate in front, rather strongly sinuate behind and slightly divergent towards hind angles; reflexed lateral borders very narrow; apical angles produced and widely rounded, hind ones usually a little sharp or rarely rectangular, without carina; anterior marginal setae situated at the widest part; posterior ones situated a little before and inside hind angles; anterior transverse impression shallow, with fine punctures; median line deep, not reaching apex, but deeply and widely impressed in basal area; basal fovea deep and rather large, with coarse punctures and transverse wrinkles; base almost straight, and with coarse punctures and longitudinal wrinkles; microsculpture irregular, largely consisting of transverse meshes but partially obliterated.

Elytra elongated ovate, widest at about middle or a little before middle; EW/PW 1.30–1.37 (M 1.35) in 6 ♂♂, 1.38–1.43 (M 1.40) in 4 ♀♀; EL/EW 1.61–1.64 (M 1.63) in 6 ♂♂, 1.54–1.61 (M 1.58) in 4 ♀♀; sides gently arcuate, very slightly sinuate before



Figs. 3–8. Male genitalia of *Apatrobis ohtsukai* sp. nov. — 3, Aedeagus, left lateral view; 4, apical part of aedeagus, right lateral view; 5, aedeagus, dorsal view; 6, separated and everted inner sac, showing sclerotized armature (ac: apical copulatory piece, pc: proximal copulatory piece); 7, apical copulatory piece, dorsal view; 8, proximal copulatory piece, dorsal view. (Scale: 1.00 mm.)

apices; intervals slightly convex near bases but flat at apices, and with microscopic punctures; striae rather deep near bases, with fine punctures, and becoming shallower near apices; scutellar striole distinct, with fine punctures; three dorsal pores on interval 3, situated at $1/5$ – $1/4$ from base, at about middle, and $7/10$ – $4/5$ from base respectively; apices separately rounded in general, forming a small re-entrant angle; microsculpture irregular, largely consisting of wide meshes, but partially disordered.

Anal sternite shallowly emarginate on each side; in ♀, anal sternite widely and rather deeply depressed along margin near outer seta, and with two pair of setae which are on a shallow arc open anteriorly.

Aedeagus elongate and moderately sclerotized; viewed dorsally, apical part strongly turned to the right as in *A. hikosanus*, right corner ventrally produced and the

left one dorsally produced, with apical margin almost straight or slightly emarginate; inner sac armed with two copulatory pieces and a patch of sclerotized teeth; apical copulatory piece (ac) heavily sclerotized, elongate and gently curved, lying at the dorsal position, and with pointed apex; proximal copulatory piece (pc) elongate and twisted from left dorso-proximal to right apico-ventral, and with the apical part wide and lamellar; a teeth patch elongate and lying near apical copulatory piece; styles fairly broad, left style wider than the right; right style with two long setae and a short seta at apex, left one with two long setae and a short seta at apex and a short seta at apical part.

Type series. Holotype: ♂, allotype: ♀, 13-IX-1992, S. MORITA leg. Paratypes: 1 ♂, 30-VII-1983, I. OHTSUKA leg.; 12 ♂♂, 3 ♀♀, 13-IX-1992, S. MORITA leg.; 1 ♂, 1 ♀, 27-IX-1992, T. KURITA & Y. TOMISHIMA leg.

Type locality. Mt. Yamaingiri, 1,400 m in altitude, Izumi-mura, Kumamoto Prefecture, central Kyushu, Japan.

The holo- and allotypes are preserved in the National Science Museum (Nat. Hist.), Tokyo. The paratypes are preserved in the private collection of the author.

Notes. It is possible that the species recorded by HABU (1960) under the name of *Patrobus (Apatrobus) hikosanus* from Shiiba actually belongs to this new species. Judging from his accounts and illustrations, his observation concerning aedeagal structure seems unsatisfactory, so that his record may be based on misidentification.

This new species is very closely allied to *A. hikosanus*. It is, however, distinguished from it by the smaller body and the differently shaped pronotum. The only definite differences between the two are in the shape of aedeagal apical part and in the shape of the proximal copulatory piece: in *A. ohtsukai*, apex of aedeagus without a denticle at the middle; proximal copulatory piece elongate and twisted; in *A. hikosanus*, apex of aedeagus with a denticle at the middle; proximal copulatory piece spatulate and twisted (cf. HABU, 1960, p. 9, fig. 7; MORITA, 1986, p. 146).

This new patrobine carabid is dedicated to Mr. Isao OHTSUKA, the discoverer of the beetle.

要 約

森田誠司：九州産ヒメヌレチゴミムシの1新種。——熊本県山犬切で採集された、ヒメヌレチゴミムシ属の1新種、オオツカヌレチゴミムシ *Apatrobus ohtsukai* を記載した。本種は、ヒコサンヌレチゴミムシ *A. hikosanus* (HABU) に似ているが、陰茎の先端部中央が歯状とならないこと、基部骨片が細長いことなどの点で区別される。

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Elytra, Tokyo, **21** (1): 177–178, May 15, 1993

Collecting Records of *Encyclops viridipennis* MAKIHARA (Coleoptera, Cerambycidae, Lepturinae)

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Encyclops viridipennis MAKIHARA, 1978, was described on a male specimen collected at Hohuanchi—Sungchuangkang, about 2,500 m in altitude, Nantou Pref., Taiwan. Later, SHIMOMURA and SAITO (1979) reported that this species was collected at Pilu-shenmu, Hualien Pref., Taiwan, without the collecting date. YU and NARA (1988) also recorded a female specimen (most probably a male judged from plate 3, no. 5 of their paper) of this species collected at the same locality. The altitude of the two localities is about 2,200–2,500 m and these specimens were collected from May to June. However, I collected this species in March near Ssulung, ca. 900 m in altitude, Taoyuan Pref., northern Taiwan. The following three localities of this species are herewith reported from specimens preserved in my collection.

Nr. Sungchuangkang, ca. 2,400 m, Nantou Pref., Taiwan: 1 ♀, 5–VII–1982, T. SHIMOMURA leg. (on the flowers of *Quercus* sp.).

Pilu-shenmu, ca. 2,200–2,300 m, Hualien Pref., Taiwan: 4 ♂♂, 8–V–1977, S. SAITO leg.; 8 ♂♂, 1 ♀, 16–V–1978, T. SHIMOMURA leg.; 7 ♂♂, 17–V–1978, T. SHIMOMURA leg.; 4 ♂♂, 3 ♀♀, 18–V–1978, T. SHIMOMURA & S. SAITO leg. (on the flowers of *Trochodendron aralioides*).

Nr. Ssulung, ca. 900 m, Taoyuan Pref., Taiwan: 7 ♂♂, 2 ♀♀, 19~22–III–1982, T. SHIMOMURA leg. (on the flowers of *Quercus* sp.).

Notes. The females of this species are similar to the males in coloration, but differ from the latter in the following characters: antennae with the apex of 11th segment reaching basal three-fourths of elytra, elytral sides almost parallel. The abdominal sternites