

On *Synuchus* (*Synuchus*) *patroboides* LINDROTH
(Coleoptera, Carabidae)

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Abstract The synuchine carabid beetle, *Synuchus* (*Synuchus*) *patroboides* LINDROTH is redescribed based on the holotype and additional materials from Yamanashi and Shizuoka Prefectures, Central Japan.

In 1956, LINDROTH briefly described a new species, *Synuchus patroboides* (1956, p. 531) based on one male collected at Shôji, Yamanashi Prefecture, Central Japan. Since the original description, little information has been added to the species.

In his monograph of Japanese platynine carabids, HABU (1978) was unable to study this species, so that he only transferred the original description to his monograph. Through the courtesy of Dr. Alexey SOLODOVNIKOV where SUENSON's collection is housed, we had the opportunity to study the type specimen of this species. In this paper, we will redescribe the species because the original description by LINDROTH is not sufficient for recognizing the species.

The abbreviations used herein are the same as those explained in previous papers of MORITA's.

Before going further, we wish to express our deep gratitude to Dr. Shun-Ichi UENO of the National Museum of Nature and Science, Tokyo, for his critically reading the original manuscript of this paper. Hearty thanks are also due to Mrs. Mutsumi ONDA for supplying us with important material.

Our thanks are also due to Dr. Alexey SOLODOVNIKOV of the Zoological Museum of Copenhagen, Denmark for the loan of the type material of *Synuchus patroboides* LINDROTH under his care. Similar prompt aid was given by Mr. Erich KIRSCHENHOFER.

Synuchus (Synuchus) patroboides LINDROTH

[Japanese name: Yamanashi-tsuya-hirata-gomimushi]

(Figs. 1-13)

Synuchus patroboides LINDROTH, 1956, Trans. r. ent. Soc. London, **108**: 531, figs. 18-C, 19-B, 21-E, 22-I; type locality: Shoji. — HABU, 1978, Fn. Japon., Carab. Platyn., pp. 320, 388, 389, fig. 787.

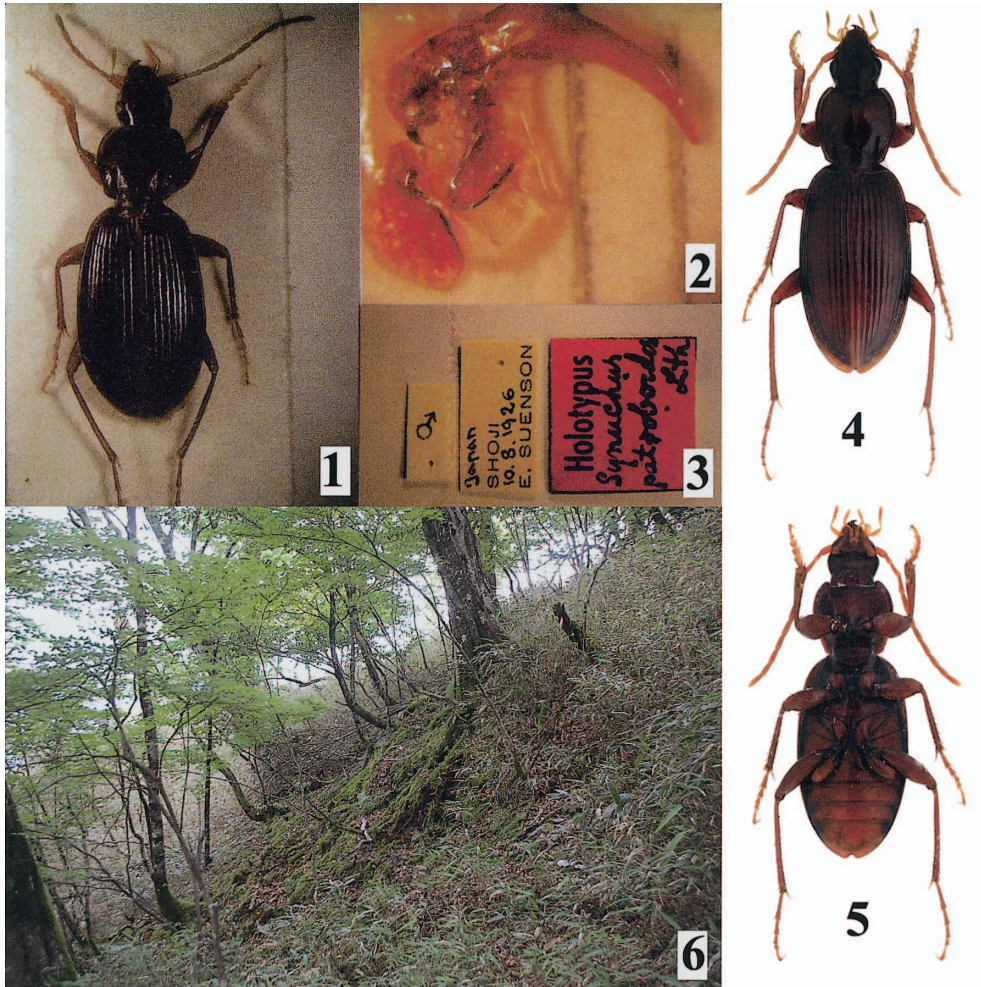
Diagnosis. Body rather small and elongate; terminal segments of palpi not dilated; antennal segment 2 with three or four setae on each side; sides of pronotum weakly sinuate just before hind angles; elytral apices not obliquely truncate; elytral stria 7 usually vestigial at apex, approaching to the apex of stria 1; claw with several teeth; anal sternite (VI) deeply emarginate at apex in ♂; viewed dorsally, aedeagus sigmoidally curved with ridges at about basal third of aedeagus; right paramere weakly bent at about middle.

Redescription. L: 7.07-8.57 mm. Body rather small and elongate. Body blackish brown to brown; appendages slightly lighter than dorsum.

Head moderately convex; eyes weakly convex; frontal furrows shallow, wide, almost parallel or slightly divergent posteriad, and reaching the level of anterior supraorbital pore; lateral grooves linear, deep, straight and reaching the post-eye level; anterior supraorbital pore situated at a level of basal 2/3 of eyes; posterior supraorbital pore situated at a level of the neck constriction; microsculpture sharply impressed, consisting of polygonal meshes; genae weakly convex and 3/5-7/10 as long as eyes; mentum tooth wide and bifid at the tip; apex of labrum weakly arcuate; terminal segment of labial palpus cylindrical and widest at about middle (not dilated); terminal segment of maxillary palpus widest at about middle and truncated at the tip; antennae filiform, reaching the basal 1/3 of elytra; antennal segment 2 with three or four setae on each side; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI \approx 1 : 0.55 : 1.02 : 1.21 : 1.18 : 1.14 : 1.22.

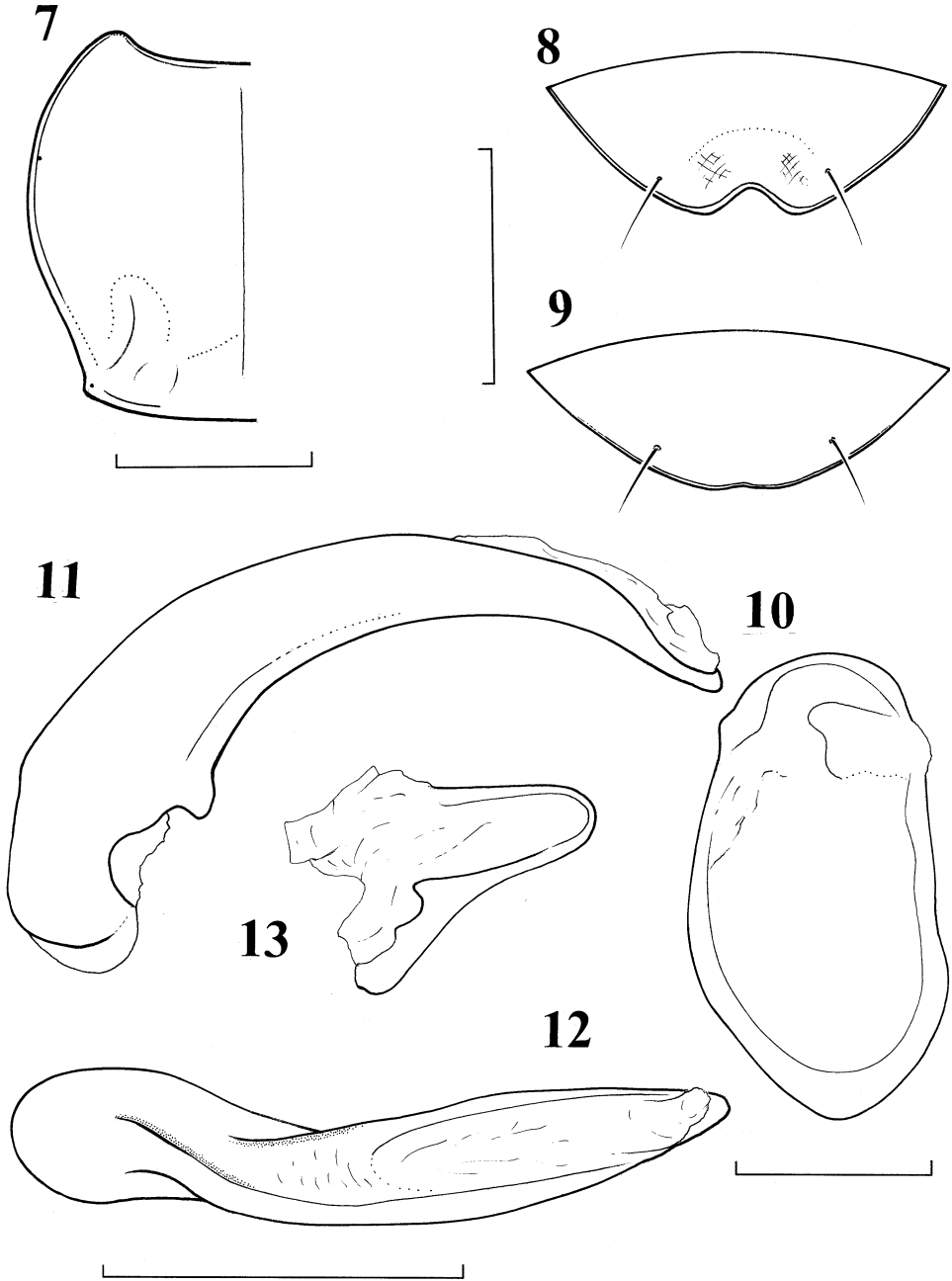
Pronotum rather narrow, weakly convex and widest at about apical third; PW/HW 1.53-1.58 (M 1.54) in ♂, 1.56, 1.52 in ♀; PW/PL 1.19-1.25 (M 1.21) in ♂, 1.18, 1.17 in ♀; PW/PA 1.46-1.60 (M 1.53) in ♂, 1.45, 1.49 in ♀; PW/PB 1.36-1.44 (M 1.37) in ♂, 1.39, 1.40 in ♀; PA/PB 0.87-0.96 (M 0.91) in ♂, 0.89, 0.94 in ♀; sides widely arcuate in front and then usually very weakly sinuate just before hind angles; apical angles moderately produced and simply rounded at the tips; apex almost straight at middle and moderately emarginate at the sides or moderately emarginate throughout; median line finely impressed and not reaching apex nor base; anterior marginal setae situated at the widest part or a little before that level; anterior transverse impression obliterated; basal foveae rather shallow, wide and almost smooth; hind angles obtuse; basal part usually smooth, rarely with longitudinal wrinkles at the median part: microsculpture clearly impressed and consisting of transverse meshes.

Elytra elongate and moderately convex; EW/PW 1.93-2.03 (M 1.99) in ♂, 1.91-2.10 (M 2.01) in ♀; EL/EW 1.57-1.71 (M 1.65) in ♂, 1.55-1.74 (M 1.65) in ♀; sides



Figs. 1–6. *Synuchus (Synuchus) patroboides* LINDROTH. — 1, Holotype; 2, extracted male genital organ of the holotype; 3, labels attached to the holotype; 4, additional male specimen from the Abe Pass, dorsal view; 5, same specimen, ventral view; 6, habitat (at the Abe Pass, Shizuoka Prefecture).

moderately arcuate throughout, with no preapical emargination; apices obtuse or rather rounded (not obliquely truncate); striae deep and impunctate; scutellar striole short and situated on interval I; basal pore usually situated on the meeting point of striae 1 and 2; microsculpture rather strongly impressed and composed of fine transverse lines; intervals weakly convex and impunctate; marginal series of umbilicate pores 14–15 in number; two dorsal pores situated on interval III and adjoining stria 2; the first pore situated at about basal $3/10$ – $2/5$ of elytra, the second one at a little behind the middle to basal $3/5$;



Figs. 7-13. *Synuchus (Synuchus) patroboides* LINDROTH. — 7, Pronotum; 8, anal sternite in ♂; 9, same in ♀; 10, genital segment, ventral view; 11, aedeagus, left lateral view; 12, aedeagus, dorsal view; 13, left paramere, left lateral view. (Scale: 1 mm.)

stria 1 clearly impressed throughout; stria 2 similar to stria 1, but the apex is vestigial at basal 7/8–9/10 of elytron; apices of striae 1 and 2 rarely anastomosed at a little before the elytral apices; apices of striae 3–6 usually free; stria 7 usually very shallow at apex, approaching to the apex of stria 1; elytral epipleuron gradually narrowed apicad; inner plica distinct.

Ventral surface smooth; sternites I and II usually with short and longitudinal wrinkles; anal sternite (VI) deeply emarginate at apex in ♂, very weakly emarginate in ♀.

Legs long and slender; metatrochanter very short, with rounded apex; metafemora each with two setae in ventral view; dorsal sides of meso- and metatarsi not sulcate; segment 4 of metatarsi with a pair of minute setae in apical part; claw segments of meso- and metatarsi with several setae on ventral side; claw with several teeth.

Genital segment elongated ovate and without handle.

Aedeagus elongate and moderately arcuate in lateral view; viewed dorsally, aedeagus sigmoidally curved; basal part large with large basal orifice; viewed dorsally, basal parts of lateral walls strongly sclerotized and forming a ridge on each side at about basal third of aedeagus; apical part weakly arcuate dorsad or almost straight in lateral view; viewed dorsally, apical lobe short, with simply rounded apex; right paramere weakly bent at about middle, with widely rounded apex.

Specimens examined. 1 ♂, “Japan SHOJI 10. 8. 1926 E. SUENSON” / “♂” / “Holotypus *Synuchus patroboides* Lth”; 1 ♂, Abe Pass, 17–XI–1996, S. MORITA leg.; 1 ♀, Abe Pass, 4~11–X–1997, S. MORITA leg.; 1 ♂, Abe Pass, 2–VIII–2008, I. OSHIO leg.; 4 ♂♂, 2 ♀♀, Abe Pass, 11~12–X–2008, S. MORITA leg.; 1 ♂, 1 ♀, Mt. Yanbushi-dake, 25–VIII–2002, K. ONDA leg.

Localities. Shoji, Yamanashi Prefecture; Abe Pass and Mt. Yanbushi-dake, Shizuoka-shi, Shizuoka Prefecture, Central Japan.

Range. Central Japan (Yamanashi and Shizuoka Prefectures).

Notes. This species is similar in body form and coloration to *Synuchus (Synuchus) tanzawanus* (HABU) (1955, p. 180), but differs from it mainly in the shape of anal sternite in the male and the peculiar shape of aedeagus.

The standard ratios of body parts shown in the descriptive part are those of 5 ♂♂ and 2 ♀♀ including the holotype.

要 約

森田誠司・大塩一郎: *Synuchus (Synuchus) patroboides* LINDROTH について。—— ヤマナシツヤヒラタゴミムシ *Synuchus (Synuchus) patroboides* LINDROTH を、正基準標本ならびに、静岡県安倍峠、山伏岳で採集された標本を基に再記載した。

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Elytra, Tokyo, **37**(2): 226, November 14, 2009

Notes on the Bembidiinae (Coleoptera, Carabidae) of Japan XXII. Systematic Position of *Bembidion yoshidai*

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Bembidion (Ocydromus) yoshidai MORITA, 2009

In one of the foregoing papers published in this volume, I described *Bembidion yoshidai* (2009, p. 23) from the Island of Amami-Ōshima, Southwest Japan, but I did not decide the systematic position of this species.

Very recently, I studied the structure of the male genital organ of *B. (Ocydromus) echigonum* HABU et BABA (1957, p. 31) and its related species, and noticed that *B. yoshidai* shares the same component of aedeagus. Though the reduced punctuation occurs on the head, I place this species in the subgenus *Ocydromus*.

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