

## A new species of *Simplocaria* Stephens, 1829 from Japan (Coleoptera: Byrrhidae)

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**Abstract.** A new species *Simplocaria sakaii* sp. nov. from Japan is described, illustrated and compared with similar Japanese species.

### INTRODUCTION

The genus *Simplocaria* Stephens, 1829 is poorly studied in Japan, because many undescribed species are deposited in my cabinet. One species is described as a new species in the present paper. Pütz (2002a) provided a key to species of this genus based on various characters and classified into *Simplocaria bicolor* species group and *Simplocaria hakonensis* species group. At this point, the Japanese species belonging to this group, *S. yamashitai* Ohtsuka & Yoshitomi, 2018, should be transferred to the genus *Horiella* Takizawa, 1983 by the absence of the elytral striae and the apical process of the male genitalia according to the original description (Ohtsuka & Yoshitomi, 2018). This new species should belong to the *S. hakonensis* species group by having a sutural stria on the elytron and a slender body. Additionally, I note diagnoses of *Lamprobyrrhulus aino* Nakane, 1983 and *Byrrhus shinanensis* Nakane, 1963.

### MATERIAL AND METHODS

The holotype will be deposited in the Osaka Museum of Natural History, Osaka. The others belong to the author's collection. This study is based only on male specimens.

### TAXONOMY

#### ***Simplocaria sakaii* sp. nov.**

(Figs. 1-3)

**Type material.** Holotype (♂): Mt. Sasayama, Tsushima-cho, Ehime Prefecture, 1.x.2005, T. Kitano leg. Paratypes: (3 spec.): Kanayamadani, Kumakougen-cho, Ehime Pref., 24.iv.2005, T. Kitano leg.; (1 spec.): Mt. Iwaguro, Kumakougen-cho, Ehime Pref., 23.x.2005, T. Kitano leg.; (1 spec.): Tsuchigoya, Kumakougen-cho, Ehime Pref., 4.v.2006, T. Kitano leg.; (1 spec.): Shirataki park, Ozu-shi, Ehime Pref. 21.vi.2006, T. Kitano leg.; (2 spec.): Irazu-keikoku, Tsuno-cho, Kochi Pref., 10.x.2005, T. Kitano leg.

**Description.** Male. Body (Fig. 1) rather small, 2.7 mm in length, 1.5 mm in width, strongly convex above. Colour: body metallic dark green: antennae, mouth parts, tarsi, and claws pale brown. Integument well shining, with short and subrecumbent pubescence; elytral long yellowish pubescence forming indistinct mottled pattern. Head moderately convex above, finely and sparsely punctate. Antennae 11-segmented: 3rd twice as long as 4th; 5 apical segments forming club. Pronotum transverse, finely punctate, 0.57 times as long as wide: anterior angles weakly constricted. Elytra finely and sparsely punctate, 1.34 times as long as wide, with sutural stria and without humeral striae: punctures denser than those of pronotum; elytral pubescence rather longer than the interval of punctures. Prosternum rather sparsely punctate. Metasternum finely punctate: punctures becoming denser toward sides. Legs slender: front tibiae finely dilated; middle and hind tibiae scarcely dilated. Male genitalia (Fig. 3) trilobed, relatively slender: apex of median lobe straightly tapering apicad; lateral lobe slender, weakly sinuate at the lateral margin, with a small process near apex.

**Female.** Not identified.

**Differential diagnosis.** This species resembles two species, *S. oharai* Pütz, 2002 and *S. munetoshii* Pütz, 2002 by having elytral long pubescence. The elytra of this new species covered with yellowish pubescence, while those of the latter two species covered with whitish ones.

**Etymology.** The specific epithet is dedicated to Masahiro Sakai who devoted many years of his life to the study of beetles.

***Lamprobyrrhulus aino* Nakane, 1983**

(Fig. 4)

**Material examined:** (1 spec.): Obihiro, Hokkaido, 11-17.v.1996, A. Ohkawa leg. Coll., Y. Hirano.

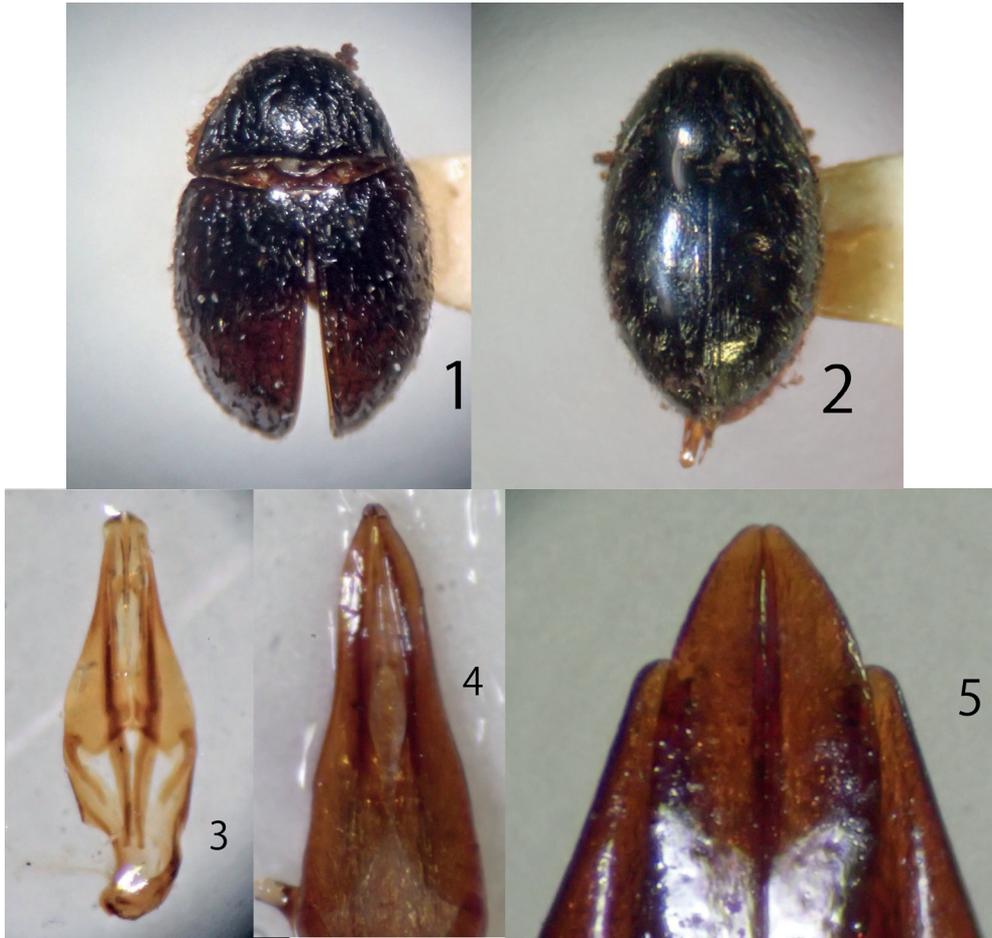
**Remarks.** This species was compared with *L. hayashii* Fiori, 1967 on their external characters in the original description by Nakane (1983). However, Pütz (2003) treated this species as a junior synonym of *L. hayashii* Fiori, 1967 by the similarity of the male genitalia. This species is distinguishable from the latter by having the denser punctures of pronotum, the more strongly arcuate male genitalia, the faintly sinuate lateral lobes of the tegmen (Fig. 4).

***Byrrhus shinanensis* Nakane, 1963**

(Fig. 5)

**Material examined:** (2 spec.): Mt. Houou, Yamanashi Pref., 28.viii.1989, K. Hosoda leg.; (1 spec.): Mt. Daibosatsu, Hagiwara, Enzan-shi, Yamanashi Pre., alt. 1400-1700 m, 13.viii.2005, T. Kurihara leg.; (1 spec.): Sengendaru, Takane-mura, Ohno-gun, Gifu Pref., 8.viii.2001, K. Toyoshima leg.

**Remarks.** Takizawa & Nakane (1977) compared *Byrrhus fasciatus* Forster, 1771 with *B. f. shinanensis* based on the many characters. Furthermore, the sharper apex of median lobe



Figs. 1-3 *Simplocaria sakaii* sp. nov.: 1- habitus of holotype; 2- habitus of paratype; 3- male genitalia of holotype, dorsal view.

Figs. 4-5. Male genitalia: 4- *Simplocaria sakaii* sp. nov.; 5- *Lamprobyrrhulus aino* Nakane, 1983; 5- *Byrrhus shinanensis* Nakane, 1963.

(Fig. 5) is diagnostic, so that I treat it as an independent species. However, Pütz (2002a) treated this species as a junior synonym of *B. fasciatus* by the similarity of the male genitalia. I wrongly treated this species as *B. fasciatus* in the key to the species of the genus *Byrrhus* (Kitano, 2018).

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