## Two new species of pill beetles (Coleoptera: Byrrhidae) from Japan

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**Abstract.** Two new species *Curimopsis hakonensis* sp. nov. and *Simplocaria isensis* sp. nov. from Japan are described, illustrated and compared.

#### INTRODUCTION

Many apterous or brachypterous species belonging to *Simplocaria* Stephens, 1829, *Horiella* Takizawa, 1983 and *Curimopsis* Ganglbauer, 1902 occurring in Japan still remain undescribed. They closely resemble each other in appearance, but in many cases each of them has unique male genitalia. In the work presented here, two new species have been distinguished from known species.

#### MATERIAL AND METHODS

This study is based on the materials collected by Y. Hirano, K. Mizuno and K. Kannô. The morphological characters were examined by using Nikon SMZ 745. The photographs of habitus were taken by using Olympus Stylus TG-4. The photographs of male genitalia were taken by Shodensha GR-D8T2. The two holotypes of the new species are deposited in the Osaka Museum of Natural History, Japan.

#### **TAXONOMY**

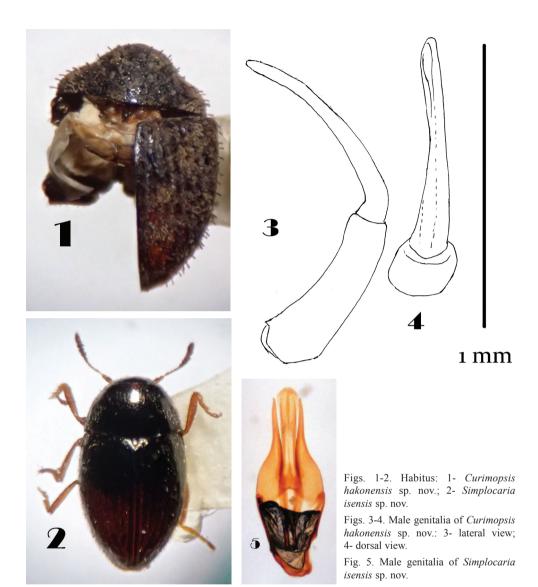
## Curimopsis hakonensis sp. nov.

(Figs. 1, 3-4)

Type material. Holotype (3): Ôwakidani, Hakone, Kanagawa, Japan, 21.VIII.2005, Y. Hirano leg.

**Additional material:** 1 ex., Kadono cho, Nirasaki shi, Ymanashi, 22. VI. 1993, K. Hosoda leg. (collection of K. Mizuno); 1 ex., Gozaishikousen, Mt. Houou, Ymanashi, 8. V. 1989, K. Hosoda leg. (collection of K. Mizuno). Unfortunately these two specimens are females. They resemble the holotype in appearance, but differ from it by their somewhat smaller bodies. Furthermore the collecting localities were apart from the type locality.

**Description.** Holotype. Body rather small, 2.04 mm in length, 1.44 mm in width, strongly convex above. Colour dark brown: antennae, mouth parts, tarsi, and claws somewhat pale.



Dorsum covered with erect setae, hair-like scales and mud-like substance. Erect setae of pronotum and elytra dark brown, shorter than the interval of humeral striae, well swelling apicad: apex truncate; setae of head somewhat finer and paler than those of pronotum. Hair-like scales various in colour; brighter scales larger than darker ones. Head weakly convex above: anterior part depressed; external margin well carinate. Antennae 11-segmented; 3<sup>rd</sup> faintly longer than 4<sup>th</sup>; terminal 2 segments forming clubs; terminal segment enlarged, rounded at apex. Pronotum wide, strongly constricted at anterior angles, 0.44 times as long as wide. Elytra well shining, sparsely punctate, 1.08 times as long as wide: striae composed

of conspicuous punctures; intervals of striae almost flat. Hind wings brachypterous. Abdomen exposing 5 sternites: 1<sup>st</sup> and 2<sup>nd</sup> distinctly divided; punctures of 1<sup>st</sup> finely punctate; punctures becoming finer toward disc; 2<sup>nd</sup> to 4<sup>th</sup> densely and coarsely punctate; punctures of 5<sup>th</sup> finer and smaller than those of previous. Male genitalia: median lobe slightly curved in dorsal view, longer than basal piece, rounded at apex.

**Differential diagnosis.** This species resembles *Curimopsis ehimensis* Kitano et Sakai, 2006 by having a short body and hair-like scales, but differs by having gently sinuate sides of male genitalia.

**Etymology.** The specific epithet is derived from the type locality.

# Simplocaria isensis sp. nov. (Figs. 2, 5)

Type material. Holotype (3): Mt. Myoujin, Iitaka-chô, Mie Pref., 4. VII. 1998, K. Kannô leg.

**Description.** Holotype. Body rather small, 2.8 mm in length, 1.56 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. Head moderately convex above, finely and sparsely punctate. Antennae 11-segmented: 3<sup>rd</sup> twice as long as 4<sup>th</sup>; apical 5 segments forming club. Pronotum transverse, finely punctate, 0.57 times as long as wide: anterior angles weakly constricted. Elytra finely and sparsely punctate, 1.28 times as long as wide: punctures denser than those of pronotum; elytral pubescence somewhat longer than the interval of punctures; pubescence rather pale, not forming mottled pattern. Prosternum rather sparsely punctate. Metasternum finely punctate: punctures becoming denser toward sides; pubescence pale and recumbent. Legs slender: front tibiae finely dilated, not carinate; middle tibiae finely dilated, carinate laterally; hind tibiae leg scarcely dilated, carinate laterally.

Male genitalia trilobed, relatively slender: apex of median lobe straightly tapering apicad; lateral lobe as wide as the median lobe, strongly sinuate at the outside line.

**Differential diagnosis.** This species resembles *Simplocaria basistriata* Nakane, 1964 which was redescribed and provided with the illustration of the male genitalia by Kitano, Pütz et Sakai (2008) and *S. ivanloebli* Pütz, 2002 by having the dark elytral pubescence which is not forming mottled pattern, but from the former it is distinguished by its straightly tapering apex of median lobe and strongly sinuate lateral lobes of male genitalia and from the latter it is distinguished by its slender male genitalia.

**Etymology.** The specific epithet is derived from the type locality.

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### REFERENCES

KITANO T., PÜTZ A. & SAKAI M. 2008: Taxonomic notes on the family Byrrhidae (Coleoptera) Japan. *Japanese Journal of Systematic Entomology* 14(2): 311-318.

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