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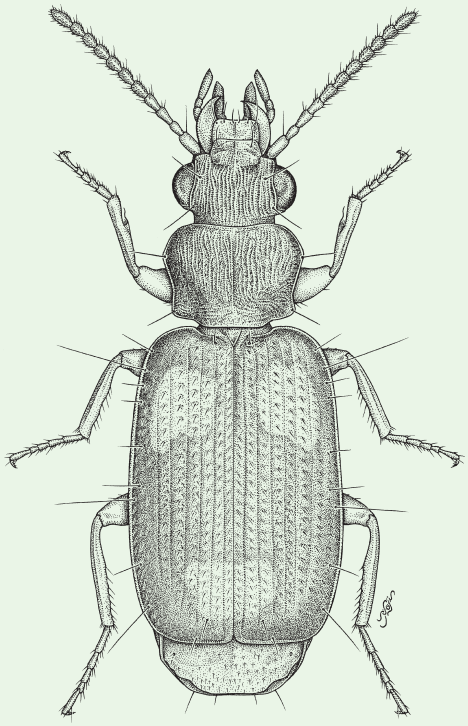

May 31 2010

日本鞘翅学会

THE JAPANESE SOCIETY OF COLEOPTEROLOGY
TOKYO

ELYTRA

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The Japanese Society of Coleopterology

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Elytra, *Tokyo*, **38**(1): 1–2, May 31, 2010

A Biological Note on *Bagous spiculatus* O'Brien et Morimoto (Coleoptera, Curculionidae)

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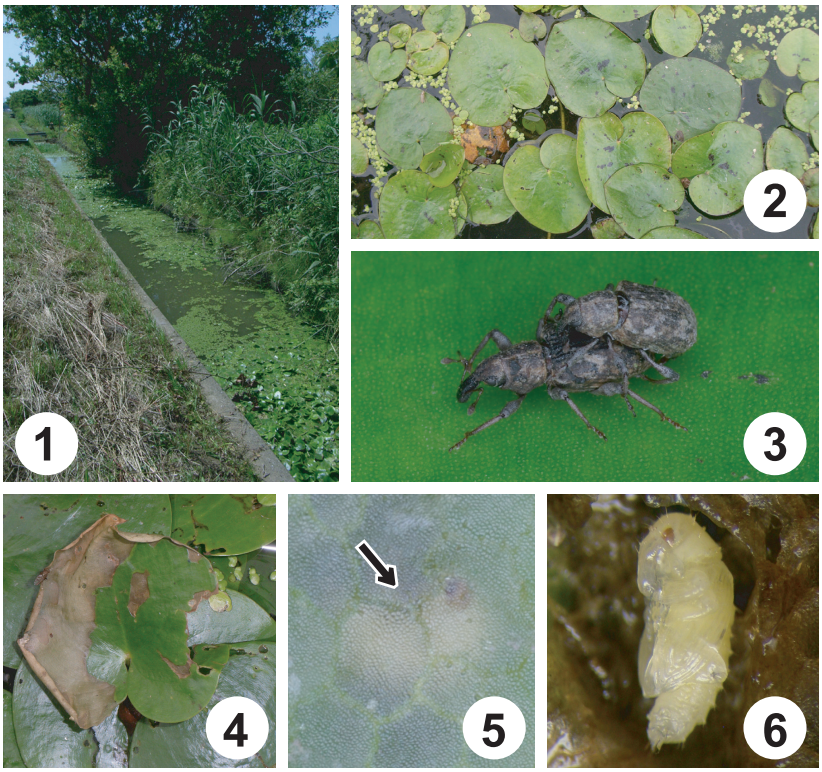
Bagous spiculatus O'Brien et Morimoto belonging to the subfamily Bagoinae is known to occur in Honshu and Shikoku, Japan (O'Brien & Morimoto, 1994). Although this species may feed on a certain aquatic or semi-aquatic plants as do other congeners, no information on its life



Figs. 1–6. *Bagous spiculatus*. —— 1, A habitat in Kasumigaura, Ibaraki, Japan; 2, the host plant, *Hydrocharis dubia*; 3, a pair of adults copulating on a leaf of *H. dubia*; 4, a leaf of *H. dubia* heavily infested by larvae; 5, a larva (arrow) mining a leaf of *H. dubia*; 6, a pupa in a leaf bladder of *H. dubia*.

history has been reported until now.

Through my observations from early to late June 2009 in Kasumigaura, Ibaraki Prefecture, Japan, I confirmed that *B. spiculatus* is associated with *Hydrocharis dubia* (BLUME) BACKER (Hydrocharitaceae). The host plant is a floating macrophyte that is distributed in Japan from Honshu to the Ryukyus, Korea, China, Southeast Asia, and Australia. It occurs mainly in shallow freshwater bodies such as swamps and ponds.

In Ushiwata, Kasumigaura, *H. dubia* grew gregariously in a narrow irrigation canal along a lotus paddy field (Figs. 1, 2) and a number of *B. spiculatus* adults were observed feeding and copulating on its leaves (Fig. 3). The adults lived mainly on the leaves of *H. dubia* above the water surface, but they actively crawl about on the underwater portions of the plant. Female adults laid their eggs into young leaves. Hatched larvae grew in and fed on the leaves and leaf petioles (Fig. 4), making many holes and conspicuous mines on the leaves (Fig. 5). They are often observed moving on the outside of the host plant from one to another both above and below the water surface when the plant was heavily infested. The fully matured larvae pupated in the leaf petioles or bladders (Fig. 6).

The collection data for specimens examined herein are: 60 exs. (Specimen Nos.: 24–0465000～24–0465059), Ushiwata, 36°03′42.4″N, 140°19′22.8″E, 8 m, Kasumigaura, Ibaraki, Honshu, Japan, 7–VI–2009, H. YOSHITAKE leg., on *H. dubia*; 32 exs. (Specimen Nos.: 24–0465060～24–0465091), same locality, 20–VI–2009, H. YOSHITAKE & S. R. DAVIS leg., on *H. dubia*.

All specimens were identified by the author and mostly preserved in the National Institute for Agro-Environmental Sciences (NIAES) and partially in his private collection. The host plant was identified by N. NAKAHARA (Tsukuba) and the voucher specimen was deposited at the NIAES. Plant nomenclature followed YONEKURA & KAJITA (2003).

I thank S. R. DAVIS (Kansas University) for his review of the draft and N. NAKAHARA for her identification of the plant.

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YONEKURA, K., & T. KAJITA, 2003. *BG Plants.* Available from: http//bean.bio.chiba-u.jp/bgplants/ylist_main.html (15 January 2010).

Elytra, *Tokyo*, **38**(1): 3–8, May 31, 2010

A New *Euryarthrum* (Coleoptera, Cerambycidae) from Sabah, East Malaysia

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Abstract *Euryarthrum assimile* sp. nov. is described from Sabah, East Malaysia, with habitus photograph and illustrations of the male terminalia. This new species is similar to *E. apicefasciatum* HÜDEPOHL in general appearance, but differs from the latter mainly by the entirely black antenna reaching elytral apices, more strongly convex pronotum, weakly convex metasternal process, longer hind femur, and shorter and more weakly incurved mid tibia in the male.

Introduction

A total nine species of the genus *Euryarthrum* BLANCHARD, 1845 have so far been recorded from Sabah, East Malaysia (YOSHITAKE & NIISATO, 2009). Judging from the remarkably rich entomofauna of this region, however, it is still expected that not a few *Euryarthrum* species will be discovered from Sabah. Recently, we had an opportunity to examine a specimen of an undetermined *Euryarthrum* species that was collected from Mt. Trus Madi, Sabah. Though the species in question was similar in general appearance to *E. apicefasciatum* HÜDEPOHL, 1988 described from the Malay Peninsula, we concluded that it is new to science on the basis of detailed morphological observations. In this paper, we describe the new species and illustrate its important taxonomic features.

Material and Methods

This study was based on specimens preserved in the National Institute for Agro-Environmental Sciences, Tsukuba (NIAES). The holotype of the new species described herein is deposited at NIAES.

External structures were observed under a Nikon SMZ1500 steroscopic microscope. Habitus photograph was taken with a Nikon D80 digital camera. Measurements of various body parts are coded as follows: LB＝length of body, from apical margin of clypeus to apices of closed elytra; WH＝maximum width of head across outer margin of an eye to that of the other; LG＝length of gena, from upper to lower margins; LL＝length of lower eye lobe, from upper to lower margins; WP＝maximum width of pronotum; LP＝length of pronotum, from base to apex along midline; WE＝maximum width of elytra; LE＝length of elytra, from basal margins to apices. All measurements are in mm.

To examine male terminalia, specimens were macerated in hot water and dissected under the stereoscopic microscope. The abdominal segment VIII was first removed from body, and then cleaned in hot 10% KOH solution for 5 to 10 minutes. Male terminalia extracted from abdominal segment VIII were mounted on slides with glycerol, and studied with a Leitz Orthoplan optical microscope, and drawn in detail through an attached camera lucida. Scale bars were calibrated using a Nikon objective micrometer. Verbatim label data indicated by quotation marks are provided for the holotype. Label breaks are indicated by a slash ("/").

Taxonomy

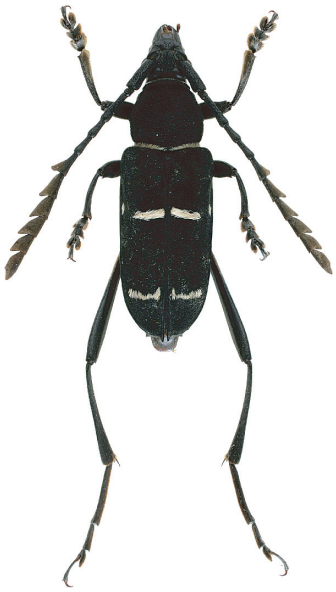
Euryarthrum assimile sp. nov.

(Figs. 1–8)

Description. M a l e. Dimensions: LB: 14.70. WH: 2.60. LG: 1.30. LL: 1.05. WP: 3.70. LP: 3.50. WE: 4.60. LE: 9.30. N＝1 for all measurements. Habitus as in Fig. 1.

Integument black. Body surface opaque; more or less shiny on legs and head except for vertex and occiput. Body medium-sized and stout.

Head covered with shiny light-colored hairs; occiput nearly glabrous, bearing three very long hairs along posterior margin of each eye; vertex moderately covered with long incurved hairs; frons with short sparse hairs; clypeus glabrous; genae moderately with short hairs; tempora densely with long incurved hairs; neck sparsely with short hairs; gula rather densely covered with long incurved hairs. Antennal segments I–V sparsely covered with light-colored minute hairs; segments VI–XI densely with darker minute hairs except for basal part of VI which is sparsely covered with light-colored minute hairs. Prothorax almost glabrous, provided with a pale yellow transverse band of dense stout hairs along basal margin; apical margin fringed with a row of short golden hairs; sides with a few fine long shiny hairs on basal half; prosternum rather densely with curved fine hairs, bearing a few fine long shiny hairs on apical third at each side. Scutellum glabrous. Elytra almost glabrous, minutely pubescent along external margins, divided into three uneven parts by two transverse bands of silky white stout hairs; antemedian band thick, broadly interrupted by submedian ridges; subapical band thinner. Legs moderately covered with minute light-colored hairs; mid coxae rather



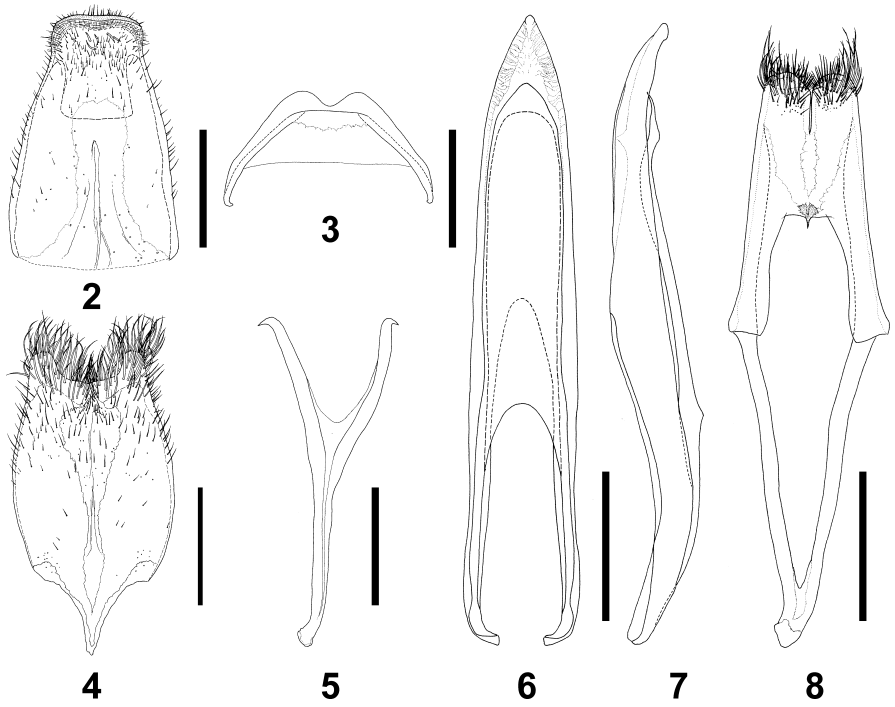
Figs. 1. *Euryarthrum assimile* sp. nov., holotype male.

densely with white hairs; hind coxae partially with darker hairs; mid femur almost glabrous on basal half of dorsal side; hind femur almost glabrous on basal half of dorsal side, fringed with suberect and subrecumbent setae on basal half along anterior margin; fore tibiae internally with light brown setae on dorsal side, the setae are suberect, becoming longer and denser apically; mid and hind tibiae fringed with silver setae along internal margins; hind tibiae sparsely mingled with longer subrecumbent setae. Mesosternum moderately covered with light-colored hairs; mesepisternum sparsely with stout white hairs on basal half, and densely with stout white hairs on apical half; mesepimeron almost glabrous, scattered with dark minute hairs. Metasternum moderately covered with fine dark and white hairs, rather densely with stout suberect light brown hairs on disc, bearing a pair of white transverse bands of long stout hairs along apical margin; metepisternum sparsely with minute dark hairs, scattered with longer light-colored hairs, densely covered with stout white hairs on apical part. Sternite I covered with hairs as those on metasternum, with a transverse band of stout white hairs along apical margin; sternite II more sparsely with minute hairs, with a transverse band of stout white hairs along apical margin; sternites III and IV sparsely with minute hairs, with a transverse band of stout white hairs along apical margins; sternite V rather densely with stout white hairs, except for basal half which is sparsely pubescent, scattered with long golden hairs along apical margin; apical margin of sternite V fringed with golden hairs, mingled with white hairs.

Head narrower than pronotum, WH/WP 0.70, with a distinct median sulcus extending from occiput to base of frons; occiput indefinitely punctured, narrowly

prominent along median sulcus; vertex finely rugosely punctured, simple, not carinate laterally; frons shallowly irregularly punctured; genae deeper than lower eye lobes, LG/LL 1.24; eyes large, rather strongly prominent. Antennae moderately slender, extending to elytral apices; scape moderate in length, nearly three times as long as wide, rugosely punctured; segments III–V weakly rugosely punctured; segment III slender, slightly shorter than scape; segment IV short, nearly half as long as III; segment V nearly as long as IV, simple, not projected externally near apex; segment VI gently externally widened from base to basal third, and then more strongly widened to apex, densely minutely punctured on apical half. Prothorax nearly as long as wide, WP/LP 1.06, reticulately punctured; punctures relatively large, more or less merged with each other; pronotum strongly convex, faintly rugged on interstices between punctures; sides gradually dilated from constricted base, widest at slightly produced middle, rather strongly convergent apically, and then constricted at apex; basal margin slightly bisinuate; prosternal process with a relatively large subconical tubercle at middle of apical part. Scutellum subtriangular, smooth, not punctured. Elytra relatively short, LE/WE 2.02, moderately wider than or nearly 2.7 times as long as pronotum, WE/WP 1.24, LE/LP 2.66, finely reticulately punctured; each puncture moderate in depth, opaque in bottom; disc faintly rugged on interstices between punctures, moderately flattened except evenly convex postscutellar prominence, with submedian ridges which are gradually narrowed from base to middle and then more weakly convergent to subapical band; suture bluntly projected at apex; apical projections moderate in length, curved dorsally in profile; sides widest behind humeri, gradually narrowed in basal half, more weakly narrowed to apical fourth, then gently convergent apicad; each epipleuron thick and armed with two obtuse triangular projections at apex. Mesosternal process evenly weakly convex, not depressed along midline; apical margin moderately emarginate in middle. Metasternum finely densely punctured; disc more densely punctured. Sterna finely punctured; sternites I–IV with a glabrous part along apical margin, respectively; sternite I densely punctured, weakly shiny, nearly as long as II and III combined; sternite II moderately punctured, shiny, nearly half as long as I, as long as III; sternites III and IV more sparsely punctured, shiny, subequal in length to each other; sternite V sparsely punctured on basal half, densely punctured on apical half, shiny, nearly as long as III and IV taken together. Legs slender; hind femur long, 1.43 times as long as hind tibia; fore tibia weakly dilated externo-apically, weakly incurved; mid tibia short, evenly strongly incurved, simple, not prolonged apically; external margin of fore and mid tibiae shallowly emarginate near apex.

Tergite VIII (Fig. 2) elongate, nearly twice as long as wide, strongly raised apically, scattered with short setae on basal 2/3, moderately setiferous on apical third, mingled with several long stout setae; sides weakly narrowed on basal 2/3, more strongly narrowed to apical fifth, thence slightly dilated apically, sparsely fringed with setae; apical margin truncate, moderately fringed with setae. Tergite IX (Fig. 3) widely deeply emarginate at apex; apical margin asetose. Sternite VIII (Fig. 4) longitudinal, nearly twice as long as wide, rounded laterally, scattered with short setae on basal half,



Figs. 2–8. Male terminalia of *Euryarthrum assimile* sp. nov., −2, Tergite VIII in dorsal view; 3, tergite IX in dorsal view; 4, sternite VIII in ventral view; 5, sternite IX in ventral view; 6, median lobe in dorsal view; 7, ditto, in lateral view; 8, tegmen in dorsal view. Scale bars = 1.00 mm.

moderately setiferous on apical half, entirely well-pigmented; basal apodemes short, acutely projected; ventral contour of body and apodemes continuous; apical margin broadly deeply concave, densely setiferous. Sternite IX (Fig. 5) Y-shaped, slender, slightly longer than sternite VIII, simple, not appendiculate. Median lobe (Figs. 6, 7) slender, thick in profile; ventral contour near apex dorsally raised in profile; median struts short, nearly half as long as median lobe, moderately curved in profile; dorsal plate relatively wide, apically triangularly projected, strongly bisinuate in apical part in profile; ventral plate with sides weakly gradually narrowed in basal 2/3, then apically more strongly convergent, bearing a small round projection at apex; median foramen located at apical third of median lobe. Tegmen (Fig. 8) slightly shorter than median lobe; lateral lobes densely covered with long setae near apices, stout, subcontiguous with each other, obliquely subtruncate at each apex, not attenuate, with external margins subparallel, not laminate; ring part much longer than lateral lobes.

F e m a l e. Unknown.

Type material. Holotype male (NIAES Type Specimen Code No. COL-266), "[EAST MALAYSIA] Sabah/Mt. Trus Madi, 1200–1500 m,/17.iv.1997, native collector"; "[HOLOTYPE] male/*Euryarthrum assimile*/YOSHITAKE & NIISATO, 2010"

(typed on red card); "NIAES COLLECTION" (typed on yellow card).

Distribution. Malaysia (Borneo).

Etymology. The species epithet refers to its similarity to *E. apicefasciatum*.

Notes. *Euryarthrum assimile* sp. nov. is similar to *E. apicefasciatum* HÜDEPOHL in having the second elytral band located on subapical part. However, *E. assimile* is readily distinguished from *E. apicefasciatum* mainly by the following points in the male: antennae entirely black, longer, reaching elytral apices; antennal segment V simple, not ecto-apically projected; pronotum more strongly convex; metasternal process weakly convex; hind femur longer; mid tibia shorter, more weakly incurved. In addition, *E. assimile* clearly differs from *E. apicefasciatum* by the male genital structures.

Acknowledgments

We thank N. NAKAHARA (Tsukuba) for her assistance in preparing figures. Our thanks are also due to N. KATSURA (Tokyo) for his help in obtainting the specimen used in this study.

要　　約

吉武　啓・新里達也: 東マレーシア・サバ州産 *Euryarthrum* 属（コウチュウ目カミキリムシ科）の 1 新種. —— 東マレーシア・サバ州の Trus Madi 山から *Euryarthrum assimile* sp. nov. を雄交尾器も含めて詳細に記載した. 本新種は *Euryarthrum apicefasciatum* HÜDEPOHL に似ているが, 触角が全体黒色で翅端に達することや前胸背板がより強く突出すること, 中胸腹板突起の突出が弱いこと, 後腿節がより長いこと, 中脛節がより短く湾曲が弱いことなどによって容易に識別可能である.

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Elytra, *Tokyo*, **38**(1): 9–10, May 31, 2010

Obrium obscuripenne takakuwai (Coleoptera, Cerambycidae) from Island of Sado off Eastern Honshu, Japan

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In a recent paper by the first author (NIISATO, 2006), *Obrium obscuripenne* PIC was carefully redescribed based on specimens from various localities of its almost entire distributional range from Russian Far East, Korea and Japan, and its geographical variation regarding the external and genital morphology discussed. However, regarding the slight geographical variations in several populations, *O. obscuripenne* is provisionally classified into two subspecies based mainly on their coloration: nominal subspecies from the continental area (including Tsushima Islands) and *O. o. takakuwai* NIISATO from the Japanese main islands (NIISATO, *op. cit*.).

Sado Island off eastern Honshu is one of the large accessory islands situated in the Japanese sea. The cerambycid fauna of the island almost agrees with that of eastern Honshu except for a few endemic races as *Pidonia telephia* KUBOKI, *P. sadoensis* KUBOKI, *Miccolamia glabricula sadoensis* HASEGAWA et N. OHBAYASHI and *Mesechthistatus binodosus insularis* HAYASHI (OHBAYASHI & NIISATO, 2007). A single record of *O. obscuripenne* from Sado Island was recognized in a brief description of the field guide edited by KEIHIN-KONCHÛ-DÔKÔKAI (1973). However, this record lacks the detailed collecting data as well as the description of the geographical variation of the species.

We had an opportunity to examine newly collected specimens of *O. obscuripenne* from Sado Island. In the following lines, we will present the geographical variation of the Sado population with detailed collecting data. We would like to thank Dr. Masatoshi TAKAKUWA, Messrs. Shigeo TSUYUKI and Hiroyuki SUDÔ for their kind suggestions and/or offer of the invaluable specimens used in this short paper.

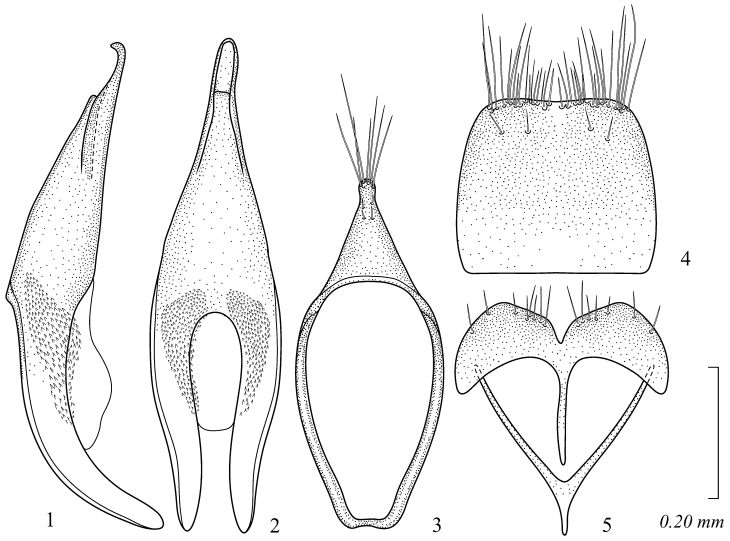
Obrium obscuripenne takakuwai NIISATO, 2006

(Figs. 1–5)

Obrium obscuripenne takakuwai NIISATO, 2006, Elytra, Tokyo, **34**, p. 383, figs. 6d-l, 7d-h, 8d-h, 9d-h; type locality: Hirakura, Mie of W. Honshu.

Body length 3.6–4.1 mm in ♂, 4.5–4.8 mm in ♀.

Colour dark reddish brown, with infuscate head and prothorax, and also usually infuscate in apical halves femora except for one male specimen examined, more or less matted in general. Standard ratios of body parts are as follows: HW/PW 1.16–1.31 (M 1.23) in ♂, 1.13–1.17 (M 1.15) in ♀; HW/PA 1.38–1.47 (M 1.41) in ♂, 1.38 in ♀; PL/PA 1.21–1.35 (M 1.27) in ♂, 1.34–1.35 (M 1.34) in ♀; PL/PW 1.05–1.15 (M 1.10) in ♂, 1.10–1.15 (M 1.13) in ♀; PB/PA 0.92 –1.04 (M 0.98) in ♂, 0.95–1.00 (M 0.98) in ♀; PW/EW 0.67–0.73 (M 0.70) in ♂, 0.69–0.72



Figs. 1–5. Male genital organs of *Obrium obscuripenne takakuwai* NIISATO, from Sado Island off eastern Honshu. —— 1, Median lobe, lateral view; 2, ditto, dorsal view; 3, tegmen, dorsal view; 4, 8th abdominal tergite, dorsal view; 5, 8th and 9th abdominal sternites, ventral view.

(M 0.70) in ♀; PL/EL 0.28–0.29 (M 0.29) in ♂, 0.30–0.31 (M 0.31) in ♀; EL/EW 2.59–2.72 (M 2.70) in ♂, 2.56–2.65 (M 2.60) in ♀; (abbreviations see NIISATO, 2006).

Male genital organs are very similar to those of the Sugadaira population except for the following: 1) Apical part of median lobe strongly elongate, slightly inclined to right; 2) 8th abdominal tergite gently emarginate near middle of apical margin.

Specimens examined. 1 ♂, 1 ♀, Mt. Donden-yama, Sado Is., off E. Honshu, Niigata Pref., Japan, emerged on 14–V–1998, from the freshly dead twig of *Fraxinus mandshurica* RUPR. var. *japonica* MAXIM., T. KINOSHITA leg.; 2 ♂♂, 1 ♀, Kamimura-ue, Sado Is., Sado C., Niigata Pref., 3–VI–2007, collected from the blossoms of *Castanopsis sieboldii* MAKINO, H. SUDÔ leg.

Distribution. Hokkaido, Honshu, Sado Is., Oki Is., Shikoku and Kyushu.

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OHBAYASHI, N., & T. NIISATO (eds.), 2007. Longicorn Beetles of Japan. 818 pp. Tôkai Univ. Press, Hadano.

Elytra, *Tokyo*, **38**(1): 11–17, May 31, 2010

Descriptions of Two *Catoptyx* Species (Coleoptera, Corylophidae) from Japan

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Abstract *Lewisium magnum* Nakane, 1963 is transferred to the genus *Catoptyx* Matthews, 1887 as *Catoptyx magnum* comb. nov., and redescribed based on the specimens of the Nakane collection and collected by myself in the Ryukyus, Japan. The lectotype is designated. A new species *C. ishigakiensis* collected from Ishigaki-jima Is. is described. Both the species are distinguished from *C. matthewsi*, which is the other species recorded in Japan, by the body size and the shape of spermatheca. *Catoptyx magnum* and *C. ishigakiensis* are very similar, but they are distinguished from each other by the shape of penis and metasternum of male and spermatheca of female.

Introduction

Genus *Catoptyx* Matthews, 1887 is characterized mainly by the pronotum with thickened edge and the ridge-like prosternum (Bowestead, 1999; 2003). In Japan, only *Catoptyx matthewsi* Bowestead, 2003 has been recorded as a member of this genus.

Recently I had an opportunity to examine the Nakane Collection (in The Hokkaido University Museum, Japan) including a specimen identified as *Lewisium magnum* Nakane, 1963 by T. Nakane himself [the genus *Lewisium* is a junior synonym of the genus *Gloeosoma* (Bowestead, 1999)]. The original description of this species was written in Japanese and has little information. As a result of my examination, I found that this species apparently belonged to the genus *Catoptyx*. In addition, by my research in Okinawa-jima Is., Ishigaki-jima Is. and Iriomote-jima Is., the Ryukyus in 2007 and 2009, I was able to collect a number of specimens of *C. magnum*. I also found a similar *Catoptyx* species in Ishigaki-jima Is. at that time.

In this paper, I am going to redescribe *Catoptyx magnum* and describe a new species under the name of *Catoptyx ishigakiensis* based on the specimens in the Nakane Collection and from the Ryukyus.

Descriptions

Catoptyx magnum (NAKANE) comb. nov.

[Japanese name: Ô-akamaru-mijin-mushi]

(Figs. 1 A, 2–3)

Lewisium magnum NAKANE, 1963, 215; SASAJI, 1985, 237.

Description. Male: length 1.52–1.74 mm, width 1.21–1.40 mm. Female: length 1.50–1.69 mm, width 1.16–1.35 mm. Body oval (Figs. 1 A, 2 A), strongly convex (Fig. 2 B). Dorsal surface uniformly red-brown to black-brown, usually pronotum slightly paler; ventral surface red-brown to yellow-brown with red-brown meso- and metasterna and middle part of 1st abdominal ventrite; antennae, mouthparts and legs yellow-brown.

Anterior margin of pronotum emarginated in frontal aspect and thickened ventrally. Punctures of pronotum dense and fine, with fine and short pubescence, in shallow depressions; interspace smooth and shining (Fig. 2 C). Scutellum transverse with slightly rounded side. Punctures of elytral disc also fine and dense, especially denser around scutellum, with fine and short pubescence, in shallow depressions; interspace smooth and shining (Fig. 2 C). Sutural stria extending to about 1/3 from elytral apex. Antennae 11-segmented (Fig. 2 E). Labrum trapeziform with anterior margin nearly straight. Apex of mandible bifid. Prosternal process absent; procoxae isolated only by a central ridge. Profemor of male distinctly emarginated at base (Fig. 1 F). Protibia of male with hook-like projection at apex (Fig. 1 F). Metasternum of male with longitudinally elongated median depression (Fig. 1 D). Hindwing present.

Penis as shown in Figs. 3 A, B; in ventral aspect, asymmetrical with extremely slender 1/3 part from apex, with rounded apex; in lateral aspect, weakly arched evenly, with pointed apex.

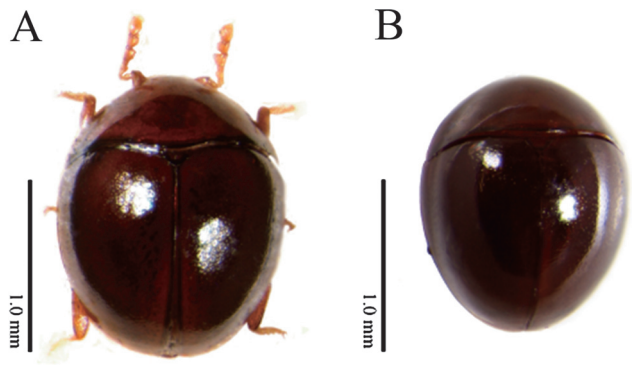

Fig. 1. *Catoptyx* spp. —— A, Habitus of *Catoptyx magnum* (NAKANE), dorsal view (lectotype); B, habitus of *Catoptyx ishigakiensis* sp. nov., dorsal view (holotype).

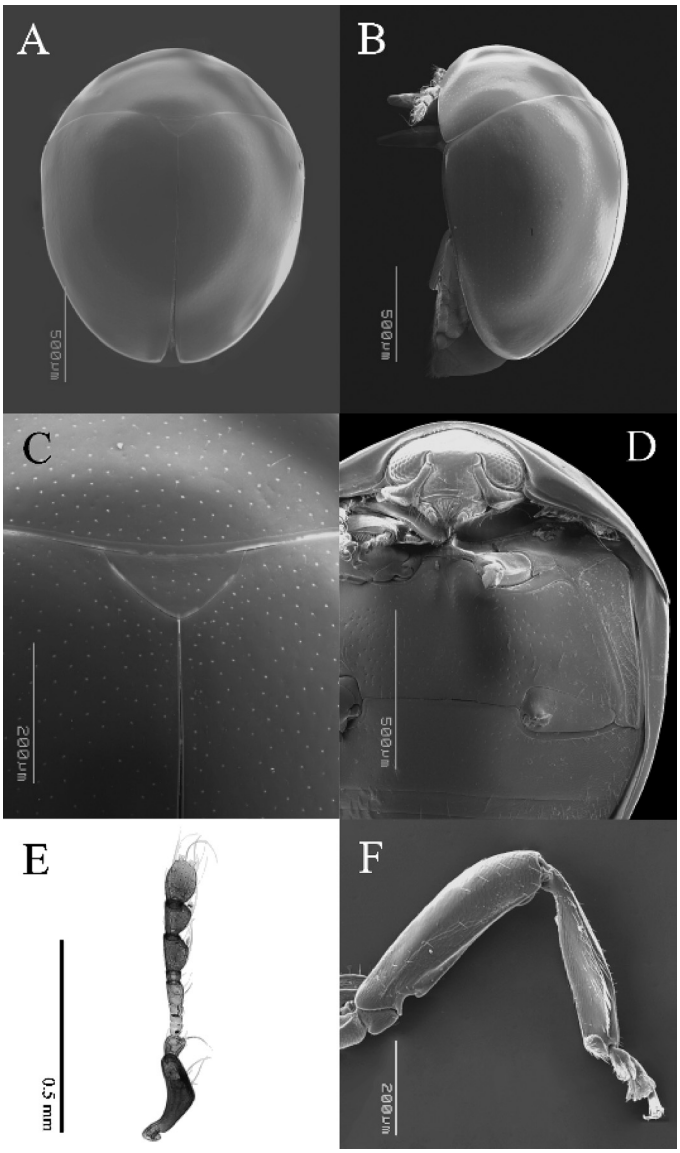

Fig. 2. *Catoptyx magnum* (NAKANE). —— A, Habitus, dorsal view; B, ditto, lateral view; D, microsculpture near scutellum; E, habitus of male, ventral view; F, antennae, ventral view; G, proleg of male, ventral view.

Spermatheca as shown in Fig. 3 C; body globose and annulate; gland duct lobe globose; apical lobe nearly parallel-sided, without apical sheath.

Type series. Lectotype: female. "Sata, Ohsumi"/"30.V.1952"/"T. Nakane"//

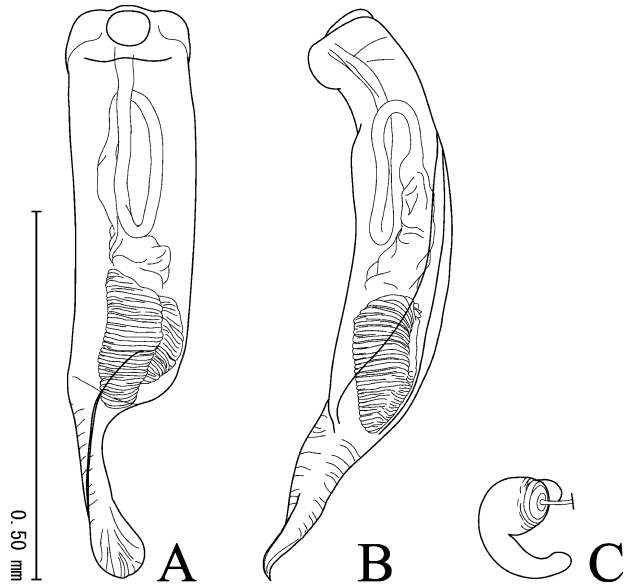

Fig. 3. *Catoptyx magnum* (NAKANE). —— A, Penis, ventral view; B, ditto, lateral view; C, spermatheca, dorsal view.

"*Lewisium magnum* Nak."/"Det. T. Nakane"//"108–7"//"NAKANE Coll."/"SEHU JAPAN"/"1999" (Systematic Entomology, Hokkaido University, Sapporo). NAKANE (1963) did not designate the holotype. I therefore designated here the specimen examined by NAKANE (1963) as the lectotype.

Further specimens examined. [Kyusyu] Miyazaki Pref.: 1 ex., Ôshima, 3–XII–1989, A. NAGAI leg. Kagoshima Pref.: 1 ex., Kirishima-Jingû, 9–V–1981, T. & T. NAKANE leg.; 2 exs., Ôdomari, 29–III–1982, T. & T. NAKANE leg. [The Ryukyus.] Amami-Ôshima Is.: 1 ex., Hatsuno, 28–VII–1962, J. NAGAO leg. Okinawa-jima Is.: 2 exs., Mt. Ishikawa-dake, 1–XII–2009, K. FURUKAWA leg. Ishigaki-jima Is.: 1 ex., Mt. Nosoko-dake, 13–XII–2009, K. FURUKAWA leg.; 9 exs., Mt. Omoto-dake, 13–XII–2009, K. FURUKAWA leg.; 2 exs., Mt. Banna-dake, 9–XII–2009, K. FURUKAWA leg. Iriomote-jima Is.: 20 exs., Mt. Komi-dake, 27–II–2007, K. FURUKAWA leg.; 12 exs., Mt. Komi-dake, 6–XII–2009, K. FURUKAWA leg.; 11 exs., Ôtomi, 7–XII–2009, K. FURUKAWA leg.

Diagnosis. In the genus *Catoptyx*, only one species, *C. matthewsi* BOWESTEAD, 2003 has been recorded from Japan. *Catoptyx magnum* is easily distinguished from *C. matthewsi* by the shape of spermatheca and the much larger size [*C. matthewsi* is 1.00 mm in size (BOWESTEAD, 2003)].

Distribution. Japan (Kyushu, the Ryukyus: Okinawa-jima Is., Ishigaki-jima Is., Iriomote-jima Is.). This species was also recorded from Shikoku, Tokunoshima Is., Tsushima Is. (SASAJI, 1985), although I cannot examine these specimens.

Biological Note. This species is captured mainly on dead leaves and branches.

Catoptyx ishigakiensis sp. nov.

[Japanese name: Ishigaki-akamaru-mijin-mushi]

(Figs. 1 B, 4–5)

Description. M a l e: length 1.48–1.60 mm, width 1.20–1.24 mm. F e m a l e: length 1.48–1.52 mm, width 1.20–1.22 mm. Body oval (Figs. 1 B, 4 A), strongly convex (Fig. 4 B). Dorsal surfaces uniformly red-brown, usually pronotum slightly paler; ventral surface red-brown to yellow-brown with red-brown meso- and metasterna and middle part of 1st abdominal ventrite; antennae, mouthparts and legs yellow-brown.

Anterior margin of pronotum emarginated in frontal aspect and thickened ventrally. Punctures of pronotum dense and fine, with fine and short pubescence, in shallow depressions; interspace smooth and shining (Fig. 4 C). Scutellum transverse with

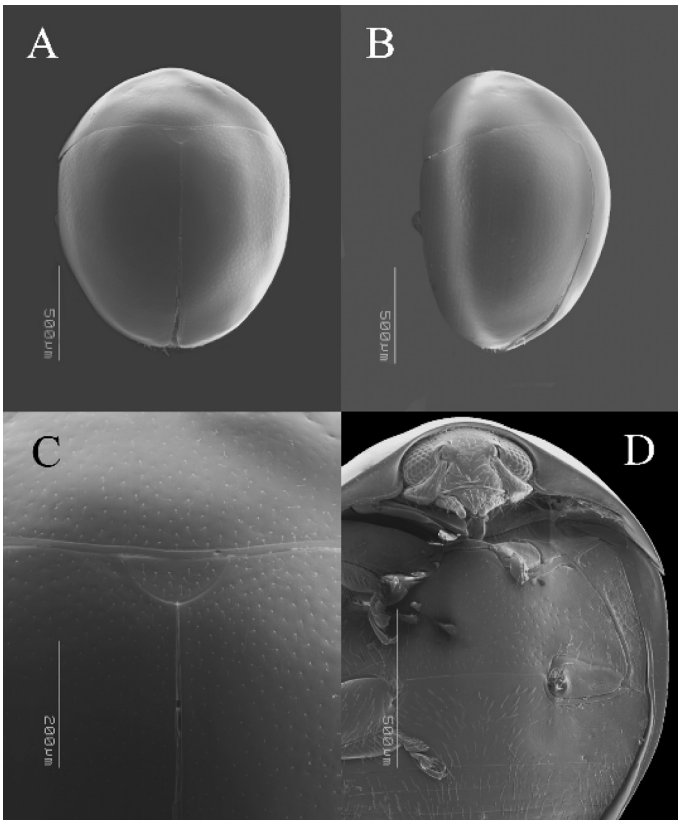

Fig. 4. *Catoptyx ishigakiensis* FURUKAWA, sp. nov. —— A, Habitus, dorsal view; B, ditto, lateral view; C, microsculpture near scutellum; D, habitus of male, ventral view.

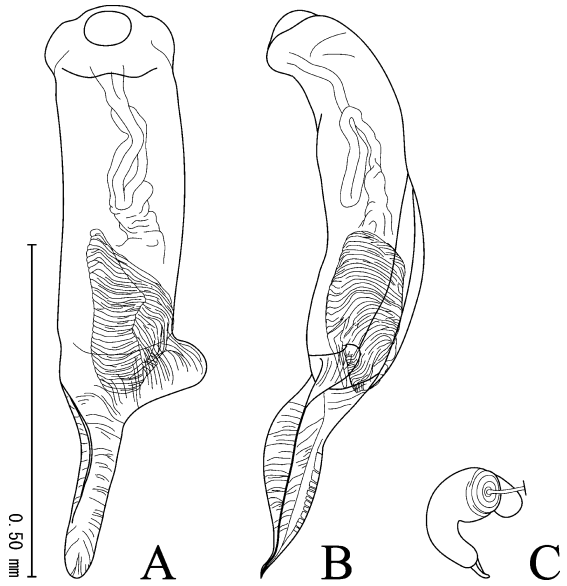

Fig. 5. *Catoptyx ishigakiensis* FURUKAWA, sp. nov. —— A, Penis, ventral view; B, ditto, lateral view; C, spermatheca, dorsal view.

slightly rounded side. Punctures of elytral disc also fine and dense, especially denser around scutellum, with fine and short pubescence, in shallow depressions; interspace smooth and shining (Fig. 4 C). Sutural stria extending to about 1/3 from elytral apex. Antennae 11-segmented. Labrum trapeziform with anterior margin nearly straight. Apex of mandible bifid. Prosternal process absent; procoxae isolated only by a central ridge. Profemur of male distinctly emarginate at base. Protibia of male with hook-like projection at apex. Hindwing present. Metasternum of both sexes without median depression (Fig. 4 D).

Penis as shown in Figs. 5 A, B; in ventral aspect asymmetrical with fin-like elaboration expanding laterally, with rounded apex; in lateral aspect, weakly arched evenly, with pointed apex.

Spermatheca as shown in Fig. 5 C; body globose and annulate; gland duct lobe globose; apical lobe with triangular apical sheaths.

Type series. Holotype: male, "Mt. Yarabe-dake"/"Ishigaki-jima Is."/"Okinawa Pref."/"10–XII–2009"/"K. FURUKAWA leg."//"*Catoptyx ishigakiensis*"/"K. FURUKAWA Det." (Systematic Entomology, Hokkaido University, Sapporo). Paratypes: 3 males, 2 females, same data as the holotype (Systematic Entomology, Hokkaido University, Sapporo). 1 male, 1 female, "Mt. Nosoko-dake"/"Ishigaki-jima Is."/"Okinawa Pref."/"13–XII–2009"/"K. FURUKAWA leg."//"*Catoptyx ishigakiensis*"/"K. FURUKAWA Det." (Systematic Entomology, Hokkaido University, Sapporo).

Diagnosis. This species is similar to *C. magnum*. In male, *C. ishigakiensis* is easily

distinguished from *C. magnum* by the characteristic penis with the fin-like elaboration expanding laterally in ventral view and the metasternum without the distinct elongate depression. In female, it is difficult to distinguish them by the external aspect. The apical lobe of the spermatheca with the sheath is a reliable character to identify this species.

Etymology. This species was named after the locality.

Distribution. Japan (the Ryukyus: Ishigaki-jima Is.)

Biological note. This species was captured on dead silver grasses.

Acknowledgements

I wish to express my cordial thanks to Dr. Shun-Ichi UÉNO (National Museum of Nature and Science, Tokyo) and Dr. Masahiro ÔHARA (Hokkaido University, Sapporo) for their careful reading of the manuscript, suggestions and advice. I also thank Mr. Tomoyuki TSURU, Mr. Yûsuke MINOSHIMA, and Dr. Norio KOBAYASHI (Hokkaido University, Sapporo) for their valuable advice.

要　　約

古川恒太：日本産 *Catoptyx* 属（コウチュウ目ミジンムシ科）の 2 種の記載．—— 中根コレクションと琉球諸島で採集された標本に基づき，これまでオオアカマルミジンムシ *Lewsium magnum* NAKANE, 1963 とされていた種を *Catoptyx* 属に移し，再記載し，そのレクトタイプを指定した．また，石垣島より採集された新種イシガキアカマルミジンムシ（新称）*C. Ishigakiensis* を記載した．両種は日本から記録されているマシューズマルミジンムシ（新称）*C. matthewsi* とは，体の大きさ，雌の受精嚢の形態によって容易に区別される．オオアカマルミジンムシとイシガキアカマルミジンムシは非常に類似しているが，雄の挿入器と後胸腹板，および雌の受精嚢の形態によって明瞭に区別される．

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Elytra, *Tokyo*, **38**(1): 18, May 31, 2010

New Record of *Donacia javana* (Coleoptera, Chrysomelidae) from Sarawak and Sabah, East Malaysia

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Donacia javana WIEDEMANN, 1821 is widely distributed in southeast Asia: India, Myanmar, Thailand, Laos, Vietnam, Cambodia, Peninsular Malaysia, Singapore, Philippines, Borneo, Sumatra, Java and Sulawesi (KIMOTO & GRESSITT, 1979; LAYS, 2000). However, the record from Borneo is probably based on those of GOECKE (1934, 1936), who plotted the recorded points of this species on his distribution map (p. 216 in 1934, and p. 288 in 1936). According to the map, the point from Borneo is situated on the Indonesian portion, so-called Kalimantan, though he did not mention the exact locality in that region. Probably therefore MOHAMEDSAID (2004) did not record this species from Borneo in his catalogue of the Malaysian Chrysomelidae.

In this short paper, we confirmed the occurrence of this species in the Malaysian part of Borneo as follows:

We thank Dr. T. ITIOKA and Ms. L. CHONG for their kind help in the field work.

Specimens examined. 1 ex., Lambir Hills National Park, Miri, Sarawak, Malaysia, 15–III–2008, H. KOJIMA leg. (deposited at Forest Research Centre, Kuching, Sarawak). 2 exs., Kg. Kibabaig, Penampang, Sabah, Malaysia, 20–III–2010, H. TAKIZAWA leg.; 1 ex., 3–IV–2010, H. TAKIZAWA leg. (deposited at Institute of Tropical Biology & Conservation, Univ. Malaysia Sabah).

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Elytra, *Tokyo*, **38**(1): 19–23, May 31, 2010

A New Species of the Genus *Ascetoderes* (Coleoptera, Bothrideridae) from Mt. Kôya-san, Central Japan

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Abstract A third Japanese species of the genus *Ascetoderes*, *A. koyasanus* sp. nov., is described from Mt. Kôya-san in Wakayama Prefecture of Central Japan. It is very similar to *A. popei* (NAKANE, 1967) known from the Bonin Islands, but is distinguishable from the latter by glossy body surface, shorter antennae with wider terminal antennomere, indistinct elytral sculpture and smoothly rounded posterior margin of ventrites. A key to the three Japanese *Ascetoderes* species is given.

In 1990, Mr. Isamu TANAKA (Nishinomiya City) collected a handsome bothriderid beetle of the genus *Ascetoderes* on Mt. Kôya-san of Central Japan. The author considered at first that it must be *A. takeii* NAKANE, 1968, which is known from the mainland of Japan. Contrary to his expectation, however, it is not identified with *A. takeii*, but is rather similar to *A. popei* NAKANE, 1978 from the Bonin Islands far distant from the mainland. It was doubtful if the two forms belonged to the same species, because their localities are far distant from each other and they are located in different climatic zones. Detailed comparison revealed that they were not identical at the species level. Thus, a new species is described below on the specimen from Mt. Kôya-san.

Ascetoderes koyasanus sp. nov.

(Figs. 1 & 2)

Body length: 4.2 mm.

Color:— Dark reddish brown, shining (Fig. 2A).

Head with anterior clypeal border truncated, beset with a row of short yellowish setae; clypeus finely punctate; interspace of eyes 2.5× as long as eye. Antennae (Figs. 1B & 2C) 11-segmented; antennomere III a little longer than wide; exposed parts of antennomeres IV–IX a little wider than long; exposed part of X 1.6× and XI 1.4× as wide as long; penultimate antennomere (X) 1.32× as wide as terminal one (XI).

Pronotum a little longer than wide, 1.1× as long as wide, widest near anterior border and narrowest at posterior border (the ratio 1.5 : 1.0); lateral margin nearly straight and emaginate; anterolateral corners each with projection rounded at tip; median part of pronotum showing an elongate linguiform depression constricted at middle; pronotal surface with elongate oval punctures.

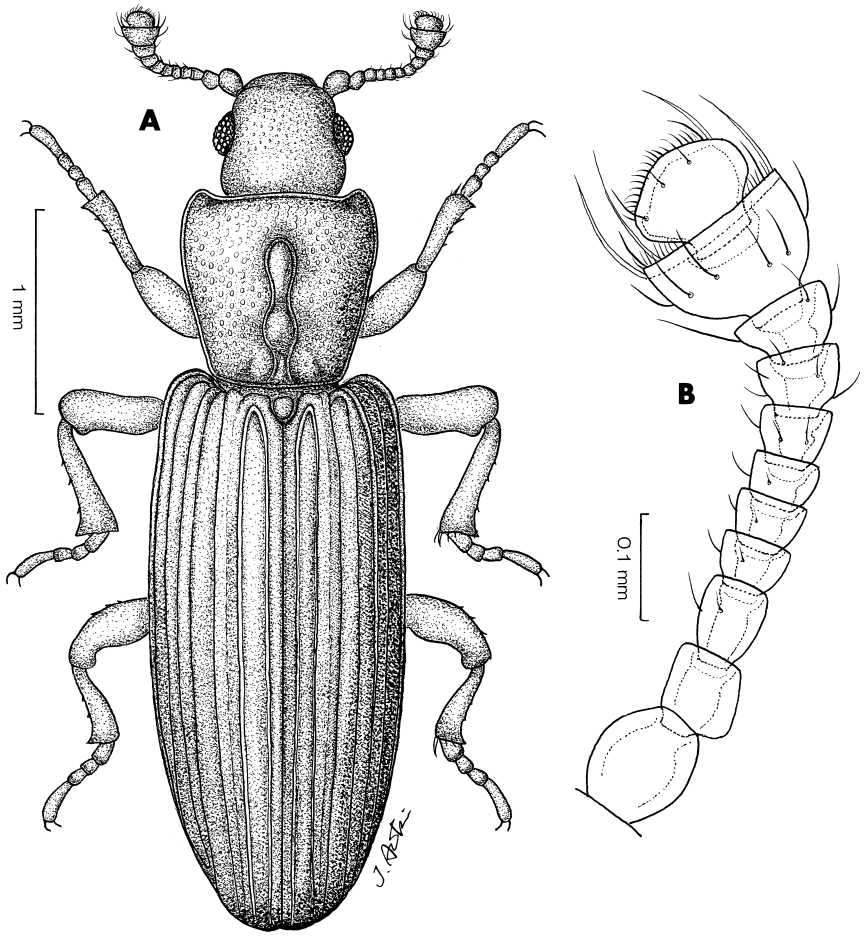

Fig. 1. *Ascetoderes koyasanus* sp. nov., holotype. —— A, Dorsal view; B, antenna (right side).

Elytra 2.3× as long as wide; each elytron provided with five strong longitudinal carinae; carinae III and IV fused together apically before connecting to carina V (Fig. 2E); round or polygonal sculptures on interspaces of carinae weakly developed (Figs. 2D & E), their number between carinae III and IV 71–73; elytral setae very minute and hardly visible.

Ventrites with oval or circular punctures, each accompanied by a fine seta inserted just on anterior margin of puncture; posterior margin of ventrite V smoothly rounded (Fig. 2F).

Holotype (NSMT–I–C-200138): ♀ Mt. Kôya-san, Wakayama Prefecture, Central Japan, 23–VII–1990, Isamu TANAKA leg. Deposited in the collection of the National Museum of Nature and Science, Tokyo (NSMT).

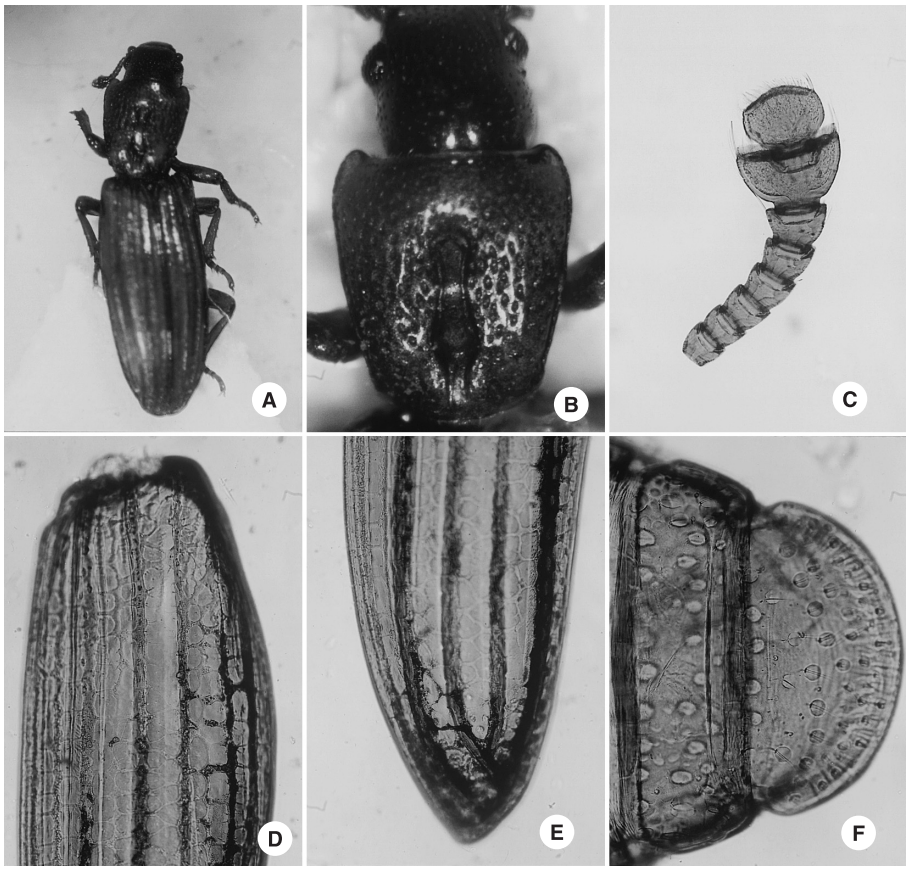

Fig. 2. *Ascetoderes koyasanus* sp. nov., holotype. —— A, Dorsal view; B, head and pronotum; C, antenna (right side, antennomeres I–III omitted); D, basal half of elytron (right side); E, apical half of elytron (right side); F, ventrites IV and V.

Ascetoderes popei NAKANE, 1978

(Fig. 3)

Ascetoderes popei NAKANE, 1978, p. 157, fig. 4A.
Ascetoderes sp.: NAKANE, 1977, p. 152.
Bothrideres sp.: NAKANE, 1970, p. 25.

A number of specimens were collected on the Bonin Islands (Chichijima and Hahajima Islands). Distinguishing characters between *A. popei* NAKANE and *A. koyasanus* sp. nov. are shown in Table 1 and the key.

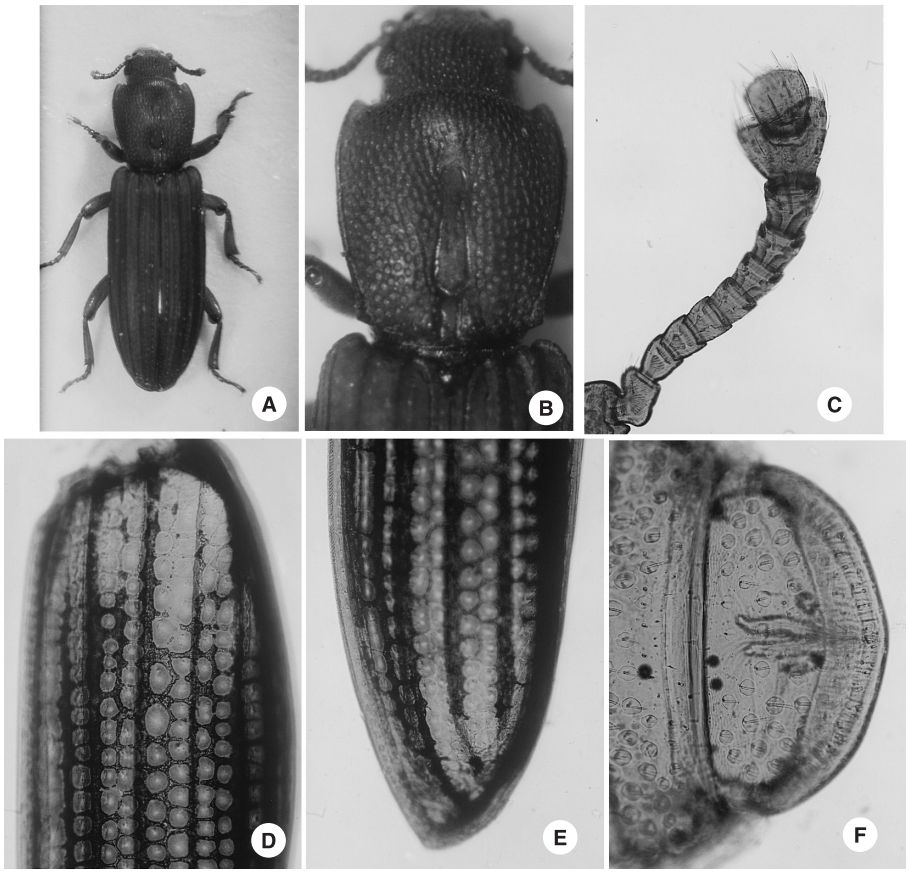

Fig. 3. *Ascetoderes popei* NAKANE. —— A, Dorsal view; B, head and pronotum; C, antenna (right side); D, basal half of elytron (right side); E, apical half of elytron (right side); F, ventrites IV and V. A and B, Fukurozawa, Chichijima Is., 11–VI–1976, T. NAKANE leg.; C–F, Mt Funaki, Hahajima Is., 25–X–2008, J. AOKI leg.

Key to the Three Japanese Species of *Ascetoderes*

1. Pronotum as long as wide; median depression on pronotum broad and nearly rectangular. ·····*A. tekeii* (NAKANE, 1967)
— Pronotum longer than wide; median depression on pronotum narrow and constricted at middle. ·····2
2. Body surface not shining; terminal antennomere (XI) distinctly narrower than penultimate one (X); posterolateral corners of pronotum angular. ·····
·····*A. popei* NAKANE, 1978
— Body surface shining; terminal antennomere (XI) a little narrower than penulti-

Table 1. Distinguishing characters between *A. popei* NAKANE and *A. koyasanus* sp. nov.

	A. popei NAKANE	*A. koyasanus* sp. nov.
Body length	3.0–6.5 mm	4.2 mm
Body surface	lusterless	lustrous (glossy)
Punctures on head	large and fused together longitudinally	small and clearly separated from one another
Antennomere XI	distinctly narrower than X	a little narrower than X
Antennomeres IV–IX	as long as wide	wider than long
Anterolateral projection of pronotum	angular	rounded at tip
Posterolateral corners of pronotum	angular	not angular
Number of polygonal sculptures on elytral carinae III and IV	56–58	71–73
Distribution (climatic zone)	the Bonin Islands (subtropical)	Honshu, C. Japan (cool-temperate)

mate one (X); posterolateral corners of pronotum not angular. ……
……*A. koyasanus* sp. nov.

要　　約

青木淳一：高野山から得られたスジホソカタムシ属の 1 新種（コウチュウ目ムキヒゲホソカタムシ科）．―― 日本産スジホソカタムシ属にはムネクボスジホソカタムシ *Ascetoderes takeii* (NAKANE) およびオガサワラスジホソカタムシ *A. popei* NAKANE の 2 種が知られているが，今回，和歌山県高野山から第 3 の種が発見され，新種とみなされたので，コウヤスジホソカタムシ *Ascetoderes koyasanus* sp. nov. として命名記載した．採集地の位置を考慮すると本州産のムネクボスジホソカタムシに近いと思われたが，意外なことに遠く離れた小笠原諸島のオガサワラスジホソカタムシによく似ている．しかし，体表につやがあり，前胸背板の凹孔がたがいに離れ，触角末端の 2 節が幅広く，上翅の点刻の数が多いことなどによって小笠原産の種と区別される．

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Elytra, *Tokyo*, **38**(1): 24–25, May 31, 2010

A New Record of *Aposericoderus immigrans* (Coleoptera, Corylophidae) from Japan

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Aposericoderus immigrans ISRAELSON, 1987 was described from the Canary Islands and recorded around the Mediterranean region (BOWESTEAD, 1999). In my research in Okinawa-jima Is., Ishigaki-jima Is. and Iriomote-jima Is., the Ryukyus, Japan, I collected a number of specimens of this species by beating *Pandanus odoratissimus*. The genus *Aposericoderus* PAULIAN, 1950 is recorded for the first time from Japan. The genus *Aposericoderus* is distinguished from the similar genus *Sericoderus* by the 2-segmented maxillary palpi, the relatively wider submentum, etc. *Aposericoderus immigrans* is identified mainly by the brown elytra with pale yellow-brown band and the spermatheca with long and 3-winding gland duct lobe.

Speciemens examined. Japan: the Ryukyus [Okinawa-jima Is.] 11 exs., Yomitani, 2–XII–2009, K. FURUKAWA leg. [Ishigaki-jima Is.] 9 exs., Sakieda, 14–XII–2009, K. FURUKAWA leg. [Iriomote-jima Is.] 18 exs., Uehara, 6–XII–2009, K. FURUKAWA leg.

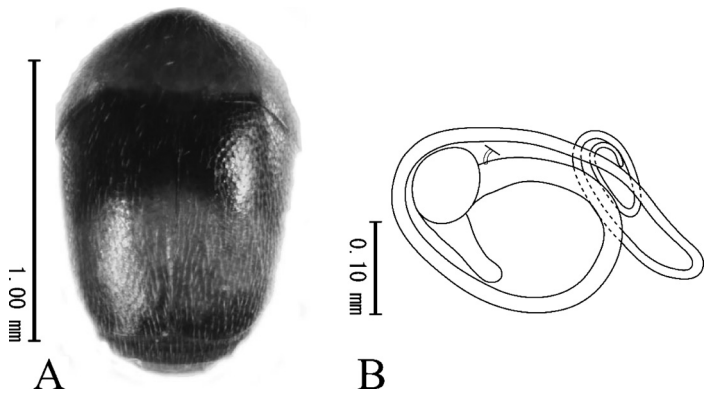

Fig. 1. *Aposericoderus immigrans* ISRAELSON. —— A, Habitus, dorsal view; B, spermatheca, dorsal view.

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Elytra, *Tokyo*, **38**(1): 25–26, May 31, 2010

A New Distributional Record of *Enochrus* (*Lumetus*) *bicolor* (Coleoptera, Hydrophilidae) from Osaka City, Honshu, Japan

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Enochrus (*Lumetus*) *bicolor* FABRICIUS, 1792 is widely distributed in the Palaearctic Region,

Fig. 1. Aedeagus of *Enochrus bicolor* from Osaka Nanko Bird Sanctuary. Photo by light microscope. Scale bar = 1.0 mm.

and is recorded, in Japan, from Kumamoto Prefecture, Kyushu and Tokushima Prefecture, Shikoku (MATSUI, 1994; SCHÖDL, 1998).

KAWAKAMI (2003) recorded *Enochrus japonicus* from artificial tidal flat at Osaka Nanko Bird Sanctuary in Osaka City from 2000 to 2002. Recently, we reexamined the specimens and concluded that it was a misidentification of *E. bicolor* (Fig. 1). This is the first record from Honshu, Japan.

We wish to express our gratitude to Mr. S. KIMURA and Mr. M. ISHII (Osaka Nanko Bird Sanctuary) for their kind support of our researches.

Specimens examined. 11 exs., Osaka Nanko Bird Sanctuary, Osaka City, Osaka Pref., Honshu, Japan, 2–VII–2000, Y. KAWAKAMI leg. 1 ex., ditto, 8–VII–2001. 7 exs., ditto, 26–VI–2002. It is interesting that *E. bicolor* lives in blackish environment at the site.

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Elytra, *Tokyo*, **38**(1): 27–28, May 31, 2010

New Records of Two Species of *Platambus optatus* Species-group (Coleoptera, Dytiscidae) from Hokkaido, Japan

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Platambus optatus species-group was redefined by Nilsson (1996) and four species, *P. ikedai*, *P. optatus*, *P. stygius* and *P. insolitus* have been recorded from Japan (Nilsson, 2003). Up to the present, only *P. stygius* has been known from Hokkaido (Mori & Kitayama, 2002). Recently, I found two species of this species-group, *P. ikedai* and *P. optatus*, from Oshima Peninsula, southwestern Hokkaido, Japan. In this paper, I record them for the first time from Hokkaido.

Before going further, I wish to express my hearty thanks to Naoyuki Hikida (Mito) for his identification of these species and valuable comments. Thanks also go to Dr. Hiroyuki Yoshitomi (Ehime University) for his valuable advice and critical reading of this manuscript.

Platambus ikedai (Nilsson, 1996)

(Fig. 1)

Agabus sp.: Ikeda, 1994, 38 [Mt. Chôkai].
Agabus ikedai: Nilsson, 1997, 684 [type locality: Mt. Chôkai, Honshu, Japan].
Platambus ikedai: Nilsson, 2000, 34.

Specimens examined. [Hokkaido] 1 ♂, 1 ♀, Zendana, Kaminokuni-chô, 28–IV–2007; 8 ♂♂, 3 ♀♀, same locality, 12–IX–2009; 1 ♂, 1 ♀, Yunotai, Kaminokuni-chô, 21–X–2007; 2 ♀♀, Himekawa, Otobe-chô, 29–IV–2008; 1 ♂, 1 ♀, Marunuma, Shikabe-chô, 13–VII–2008; 3 ♂♂, Ônuma, Shikabe-chô, 31–V–2009; 9 ♂♂, 11 ♀♀, same locality, 4–IX–2009. All specimons are collected by R. Okada.

Distribution. Japan: Hokkaido (new record), Honshu (Mt. Chôkai).

Notes. Diagnosis of this species by Nilsson (1996) is that the median lobe with slight subapical constriction and without or with less than two ventrodistal spiniform setae. In the specimens from Hokkaido, however, the median lobes of male genitalia are more weak subapical constriction and no setae.

Platambus optatus (Sharp, 1884)

(Fig. 2)

Agabus optatus Sharp, 1884, 445 [type locality: Kishu, Honshu, Japan]; Nilsson, 1996, 635

Figs. 1–2. Median lobes of male genitalia of *Platambus* spp. in lateral view. —— 1, *Platambus ikedai* from Ônuma, Shikabe-chô; 2, *Platambus optatus* from Yabuchi, Setana-chô. Scale: 0.5 mm.

[Honshu, Kyushu, Shikoku].

Platambus optatus: NILSSON, 2000, 34; KINO & HASEGAWA, 2001, 24 [Hachijô Is.]; NILSSON, 2003, 268 [Fujian and Jiangxi, China].

Specimens examined. [Hokkaido] 2 ♂♂, Uriya, Kikonai-chô, 28–IV–2007; 1 ♀, Tomisato, Assabu-chô, 19–VII–2007; 1 ♂, 1 ♀, Yunotai, Kaminokuni-chô, 21–X–2007; 2 ♂♂, 2 ♀♀, Katsuraoka, Kaminokuni-chô, 12–IX–2009; 1 ♂, 1 ♀, Yabuchi, Setana-chô, 26–IX–2009. All specimens are collected by R. OKADA.

Distribution. Japan: Hokkaido (new record), Honshu, Kyushu, Shikoku, Hachijô Is.; China: Fujian, Jiangxi.

Notes. This species shows geographical variation (NILSSON, 1996). The above specimens have a relatively slender median lobe in lateral view, and its feature is similar to those from Honshu (NILSSON, 1996: Fig. 20).

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Elytra, *Tokyo*, **38**(1): 29–34, May 31, 2010

Occurrence of *Cryptarcha kapfereri* REITTER in Japan, with Notes on *Cryptarcha inhalita* REITTER (Coleoptera, Nitidulidae)

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Abstract A nitidulid species currently treated as *Cryptarcha inhalita* REITTER, by HISASMATSU (1985) and many other Japanese coleopterists, is revealed to be a misidentification of *Cryptarcha kapfereri* REITTER. The distinction between them is discussed with illustrations of male genitalia and other important diagnosis of each species, and is shown in the key to the Japanese species of the genus *Cryptarcha*. *Cryptarcha kapfereri* REITTER is recorded for the first time from Japan.

The identity of "*Cryptarcha inhalita* REITTER, 1884" is well known for many Japanese coleopterists, because this species is iullustrated in the most popular Japanese illustrated book, "The Coleoptra of Japan in Color, Vol. III" by Sadanari HISAMATSU (1985). In the course of my study on the nitidulid fauna of Japan, I noticed that *Cryptarcha inhalita* REITTER (sensu HISAMATSU, 1985) was a misidentification of *Cryptarcha kapfereri* REITTER, 1913, which was described from Far Eastern Siberia, and unknown from any other areas besides the type locality. As a consequence of examination of Sadanari HISAMATSU's nitidulid collection preserved in Ehime University Museum (EUM), the specimens which should be identified as the true *Cryptarcha kapfereri* REITTER were already collected in several localities in Japan, but regarded as an intraspecific variation of *C. strigata* (FABRICIUS).

In the following lines, I will provide diagnostic characters of both the species with their salient figures, and a key to the species of Japanese *Cryptarcha*. The species, *Cryptarcha kapfereri* REITTER, is recorded here for the first time from Japan.

Cryptarcha kapfereri REITTER, 1913

[Japanese name: Chibi-ko'oni-keshikisui]

(Figs. 1, 3, 5, 7, 9, 11)

Cryptarcha (*Cryptarchula*) *Kapfereri* REITTER, 1913: 123 (type locality: Sotka-Gora, Ostsibirien).

Cryptarcha kapfereri: KIREJTSHUK, 1992: 203, pl. 96, figs. 6–8 [in key, figured].—JELÍNEK & AUDISIO, 2007: 468 [catalogued].

Cryptarcha inhalita: HISAMATSU, 1985: 195, pl. 31, fig. 27 [in key, photo], nec *Cryptarcha inhalita* REITTER, 1884.

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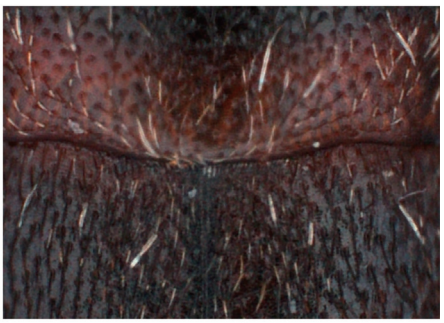

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Figs. 1–4. *Cryptarcha* spp. —— 1, 3, *Cryptarcha kapfereri* REITTER (♂, Chôjabaru, Ôita Pref.); 2, 4, *Cryptarcha inhalita* REITTER (♂, Takamine, kutchan, Hokkaido). —— 1, 2, Dorsal habitus; 3, 4, scutellum.

Diagnosis. Length 2.1–2.7 mm. Body brown. Each elytron always with two yellowish markings (Fig. 11), which are rarely connected with each other. Elytra about as long as wide, conjointly 0.96–1.04 times as long as wide (n＝5); pubescence dual, arranged in the same manner as those of the preceding species. Subsutural line (Fig. 11) moderate in length, 0.63–0.67 times as long as elytral length (n＝5). Scutellum (Fig. 3) moderate in size, distinctly visible from above. Male genitalia with tegmen (Fig. 5) gently narrowing in apical 3/7 to widely truncated apex; to the contrary, median lobe

(Fig. 7) abruptly narrowing to pointed apex in apical 2/7. Prosternal process (Fig. 9) subparallel-sided, apical margin truncated. Abdominal sternite VII of female simple.

Specimens examined. *JAPAN*: [HOKKAIDO] 1 ex., Sapporo, 3–VIII–1967, M. TOMOKUNI leg. [AOMORI] 6 exs., Tsubai, Fukaura-chô, 30–VIII–2007, A. & R. ABE leg. [GUNMA] 1 ♂, Mt. Tanigawa, 29–VIII–1963, S. HISAMATSU leg. [NAGANO] 1 ex., Karuizawa, 23–VII–1951, S. HISAMATSU leg. [GIFU] 2 exs., Mt. Kinka, 17–VI–1947, D. MATSUSITA leg.; 1 ex., 10–VI–1947, K. OHBAYASHI leg.; 1 ex., Mt. Kinkazan, 2–VI–1973, M. SAKAI leg.; 1 ex., Sakaguchi, 4–VI–1973, same collector as the preceding. [SHIMANE] 1 ex., Hoki-Daisen, 17–VII–1933, H. ARAKI leg. [EHIME] 1 ex., Saragamine, 22–VIII–1954, M. MIYATAKE leg.; 1 ex., same locality and collector as the preceding, 11–VII–1955. [TSUSHIMA Is.] 2 exs., Izuhara, Nagasaki Pref., 16～19–VII–1960, M. SATÔ leg. [ÔITA] 11 exs., Chôjabaru, Kuju-chô, 11–VII–1968, S. KINOSHITA leg.; 1 ex., Handa Highlands, Mt. Kujû, 25–V–1975, H. IRIE leg. [KUMAMOTO] 1 ex., Mt. Ichifusa, 3–VIII–1974, M. SAKAI leg.

Distribution. Russia (Far East) and Japan (new record).

Notes. As was mentioned above, many Japanese authors have regarded this species as "*Cryptarcha inhalita*". *Cryptarcha kapfereri* correctly identified is first recorded here from Japan.

Cryptarcha inhalita REITTER, 1884

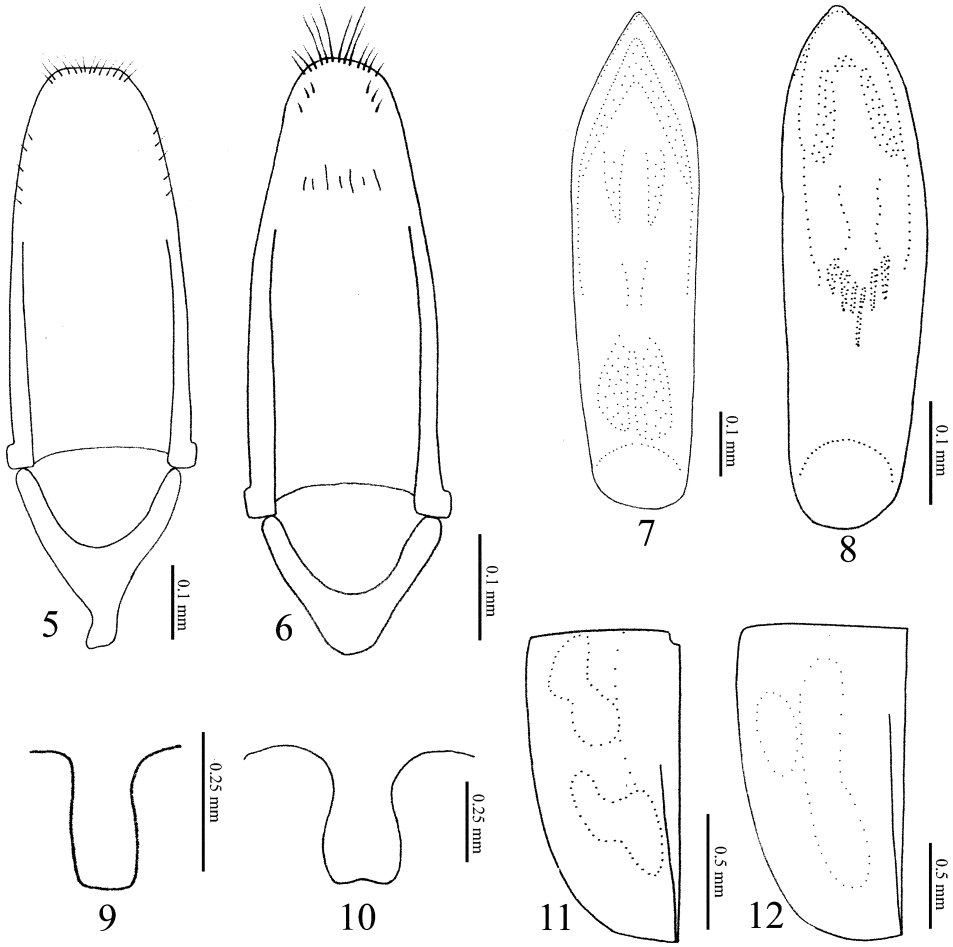
[Japanese name: Chairo-ko'oni-keshikisui]

(Figs. 2, 4, 6, 8, 10, 12)

Cryptarcha inhalita REITTER, 1884: 269 [in key] (type locality: Fukahori bei Nagasaki, Japan); 1985 a: 79 [described]; 1985 b: 175 [listed]; — KIREJTSHUK, 1987: 69, pl. 2, figs. 5–9 [redescribed, figured, in key]; 1992: 203, pl. 96, figs. 1–5 [in key, figured]; — JELÍNEK & AUDISIO, 2007: 468 [catalogued].

Diagnosis. Length 2.1–3.8 mm. Body brown, antennae and legs lighter. Each elytron usually with two vague, dark-brown markings (Fig. 12), of which one is very elongated, situated on the middle, the other is oval, situated at the outside of the former, though these markings occasionally disappeared completely. Elytra about as long as wide, conjointly 0.96–1.00 times as long as wide (n＝5); pubescence dual: suberect and setulose ones forming distinct rows, and fine and long ones occuring between setae. Subsutural line (Fig. 12) long, 0.71–0.84 times as long as elytral length (n＝5). Scutellum (Fig. 4) small, scarcely visible from above. Prosternal process (Fig. 10) moderately dilated to vaguely emarginated apex. Male genitalia with tegmen (Fig. 6) definitely narrowing to rounded apex in apical 3/7; median lobe (Fig. 8) indefinitely narrowing to apex in apical 2/7. Abdominal sternite VII of female simple.

Specimens examined. *RUSSIA*: 3 exs., Vladivostok, Primorskij Kray, 5–VII–1997, A. SAITO leg. *JAPAN*: [HOKKAIDO] 6 exs., Mt. Esan, 16–VII–1970, M. SAKAI leg.; 1 ♂, 1 ♀, Takamine, kutchan-chô, Abuta-gun, 27–V～3–VI–2009, banana trap, A.



Figs. 5–12. Body parts of *Cryptarcha* spp. —— 5, 7, 9, 11, *Cryptarcha kapfereri* REITTER (Chôjabaru, Ôita Pref.); 6, 8, 10, 12, *Cryptarcha inhalita* REITTER (6, 8, 10: Takamine, kutchan, Hokkaido; 12: Primorskij Kray, Russia). 5, 6, Tegmen; 7, 8, median lobe; 9, 10, prosternal process; 11, 12, left elytron.

KASHIZAKI leg.; 1 ex., same locality and collector as the preceding, 20～24–VI–2009. [AOMORI] 1 ex., Tsubai, Fukaura-chô, 30–VIII–2007, A. & R. ABE leg. [NIIGATA] 2 exs., Kurokawa, 12–VIII–1977, K. BABA leg. [SAITAMA] 1 ex., Urawa, 17–V–1953, H. KAJIMURA leg. [EHIME] 1 ex., Matsuyama City, 28–V–1973, K. ITO leg. [FUKUOKA] 1 ex., Jôyama, Munakata City, 9–VI–1985, K. KIDO leg. [KUMAMOTO] Kôshi-machi, Kikuchi-gun, 9–V–1987, K. FUJITA leg. [MIYAZAKI] 1 ex., Mt. Takachiho～Mt. Kirishima, 16–VII–1938, H. ARAKI leg.

Distribution. Russia (Far East), China (Shaanxi), Japan and Oriental Region.

Notes. In Sadanari HISAMATSU's nitidulid collection of EUM, some specimens of *C. inhalita* were found in a box mingling among the specimens sorted out as *C. strigata* (FABRICIUS). It is presumed that he erroneously recognized *C. inhalita* as one of the intraspecific variation of *C. strigata*.

Japanese species of *Cryptarcha* including these two species is keyed as follows:

Key to the Japanese Species of the Genus *Cryptarcha*

1. Elytra with rows of hairs. ……2
— Elytra without rows of hairs.……5
2. Elytra usually with infuscate dark markings, though occasionally wanting. Scutellum invisible from dorsal view. ……*C. inhalita* REITTER
— Elytra usually with distinct light markings, though rarely wanting. Scutellum visible from dorsal view. ……3
3. Prosternal process strongly dilated, with apex emarginated. Each elytron with or without yellowish markings, humeral one of which is 3-branched. Abdominal sternite VII of female with circular, impunctate area. …*C. strigata* (FABRICIUS)
— Prosternal process slightly dilated or parallel-sided, with apex truncated or vaguely emarginate. Each elytron always with distinct yellowish markings, with humeral one not 3-branched. Abdominal sternite VII of female without circular, impunctate area. ……4
4. Elytra 1.00–1.10 times as long as wide; each elytron with 6 oblong yellowish spots (posterior 3 spots rarely connected with one another). …*C. maculata* REITTER
— Elytra 0.96–1.04 times as long as wide; each elytron with 2 yellowish spots at the most. ……*C. kapfereri* REITTER
5. Dorsal surface of body feebly shiny. Abdominal sternite VII of female with a deep, circular impression at the middle. Distribution: Japan (Amami-Ôshima Is. and Okinawa Is.). ……*C. okinawensis* HISAMATSU
— Dorsal surface of body strongly shiny. Abdominal sternite VII of female with a longitudinal carination at the middle. Distribution: Japan (Honshû, Shikoku, Kyûshû), Russia (Far East), China (Fujian, Hebei, Yunnan), Taiwan and Korea. ……*C. lewisi* REITTER

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I wish to express my sincere gratitude to Prof. Dr. Masahiro SAKAI (EUM) for his critical reading of the manuscript. My hearty thanks are also due to Mr. Akira KASHIZAKI (Hokkaido), for donation of materials used for the present study.

要　　約

久松定智：　*Cryptarcha kapfereri* REITTER の日本からの記録，　ならびに *Cryptarcha inhalita*

REITTER についての覚書（コウチュウ目ケシキスイ科）．—— *Cryptarcha kapfereri* は，1913 年，REITTER によって東シベリアより記載され，以後他の地域からの記録はない．筆者は *Cryptarcha* 属の研究過程において，従来日本の研究者間でチビコオニケシキスイ “*Cryptarcha inhalita* REITTER” として扱われていた種は，実はこの *C. kapfereri* であり，一方，“真の” *C. inhalita* は，REITTER によって 1884 年，長崎から記載されて以後，これまで正しく図示されことのない種であることが分かった．筆者はこの機会に，両種の重要な識別点を明らかにするとともに，背面図，雄交尾器，前胸腹板突起などの図を添えて，簡潔に再記載した．*C. kapfereri* は日本からはじめて正式に記録される．また和名に関して，チャイロコオニケシキスイ（新称）を *C. inhalita* に，チチビコオニケシキスイを *C. kapfereri* にあてることを提唱する．

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Elytra, *Tokyo*, **38**(1): 35–41, May 31, 2010

A New Species of the Lampyrid Genus *Lamellipalpus* (Coleoptera, Lampyridae) from Myanmar, Indochina

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Abstract A new species of the lampyrid genus *Lamellipalpus* is described from Myanmar and illustrated under the name of *L. unicolor*.

Introduction

The genus *Lamellipalpus* was established by MAULIK (1921) for *Eugeusis nigripennis* PASCOE, 1887, from "Burmah", and contains six species distributed from Vietnam to India. The genus *Lamellipalpus* has been regarded as a member of the family Drilidae, and was inventoried twice as above family by OLIVIER (1910) and WITTMER (1944). In 2009, BRANCUCCI and GEISER (2009) revised the genus, recognized 12 species including 7 new species and 1 new subspecies, and in addition, provided a key to all the taxa including the new ones.

In this paper, I have provisionally regarded the genus *Lamellipalpus* as an independent genus of the family Lampyridae, by following the opinion of WITTMER (1979), LAWRENCE and NEWTON (1995) and BRANCUCCI and GEISER (2009). Adult males of this genus were remarkably characterized by the extraordinarily expanded terminal segments of both maxillary and labial palpi as in those of the genus *Lamellipalpodes* (MAULIK, 1921; WITTMER, 1979; 1995; KAWASHIMA, 2007).

In 2001, I was able to obtain from Myanmar specimens of the genus *Lamellipalpus*. After a careful examination, only one species was recognized as being new to science. It will be described and illustrated in this paper.

Material and Methods

The material and methods employed are the same as those noted in KAWASHIMA (2007). The abbreviations used herein are as follows: BL – length of body, from anterior margin of frons to elytral apices; HW – maximum width of head, including eyes; PL – length of pronotum, along mid-line; PW – maximum width of pronotum, across basal angles; EL – length of elytra; EW maximum width of elytra; EHW – humeral width of elytra; HTL – length of hind tibiae; NSMT – National Museum of Nature and Science, Tokyo. The symbols "/" in the data of holotype labels mean separate lines.

Description

Genus *Lamellipalpus* MAULIK, 1921

Lamellipalpus MAULIK, 1921. Proc. zool. Soc. Lond., **1921**: 579 (Type species: *Eugeusis nigripennis* PASCOE, 1887, from Burmah). —— PIC, 1930. Annls. Soc. ent. Fr., **99**: 322 (notes). —— WITTMER, 1944. Revta. Soc. ent. Arg., **12**: 210 (check-list). —— CROWSON, 1972. Revta. Univ. Madrid, **21**: 53, 57 (notes). —— WITTMER, 1979. Ent. Arb. Mus. Frey, **28**: 86 (key to the genera). —— LAWRENCE & NEWTON, 1995. *Biology, Phylogeny, and Classification of Coleoptera*, 859 (systematics). —— BRANCUCCHI & GEISER, 2009. Zootaxa, (2080): 1–20 (revision of the genus).

Notes. The female adults have never been discovered in all the known species of the genus *Lamellipalpus*. They may be wingless and larviform as in the lampylid genus *Stenocladius* and the rhagophthalmid genus *Rhagophthalmus* (cf. KAWASHIMA, 1998, etc.).

Lamellipalpus unicolor KAWASHIMA, sp. nov.

(Figs. 1–5)

Type material. Holotype: ♂, Lashio (alt. 1,000 m), Shan State, E. Myanmar, 13～17–VI–1995, Y. KUSAKABE leg. (lacking all the flagellar segments (3rd to 11th) in the left antenna/removed male genitalia by IK.) Attached labels are as follows: —— "Lashio, 1,000 m/Shan Sta./MYANMAR/13–17. VI. 1995/Y. Kusakabe leg. [white label]" "ITSURO KAWASHIMA/INSECT COLLECTION [white label]" "HOLOTYPE/*Lamellipalpus unicolor*/Kawashima, 2010 [pink label]".

Type depository. The holotype is deposited in the collection of the National Museum of Nature and Science, Tokyo.

M a l e. *Coloration*:— Body moderately shiny, unicolorous orange yellow, covered all over including appendages with similar ground coloration, and with golden or blackish subrecumbent pubescence (mainly on antennae).

Head:— Head capsule, antennal scape, maxillae and labium including each palpus orange yellow; eyes black; pedicel reddish brown; flagellum moderately frosted, blackish brown to black; mandibles dark reddish brown, paler towards the bases.

Thorax:— Pronotum, elytra, all legs and ventral side of thoraces orange yellow, but ground color of legs feebly paler than the body coloration; claws tinged with brown.

Abdomen:— Visible sternites constantly orange yellow; male genitalia moderately shiny, well-pigmented; external surface almost pale reddish brown.

Structure:— Body elongated-oval, subparallel-sided. Head:— Head capsule (Figs. 1, 3) relatively large, transverse and quadrate, almost exposed as a whole, never concealed under the anterior margin of pronotum, almost equal to the width or slightly narrower than the apical width of pronotum; dorsal surface constantly and minutely punctulate, semicircularly depressed and concaved above in frontal area. Labrum not recognized. Eyes simply globular, small but well projected laterad, separated from each other by 6.64 times the diameter of an eye in dorsal view. Antennae (Figs. 1, 2) 11-

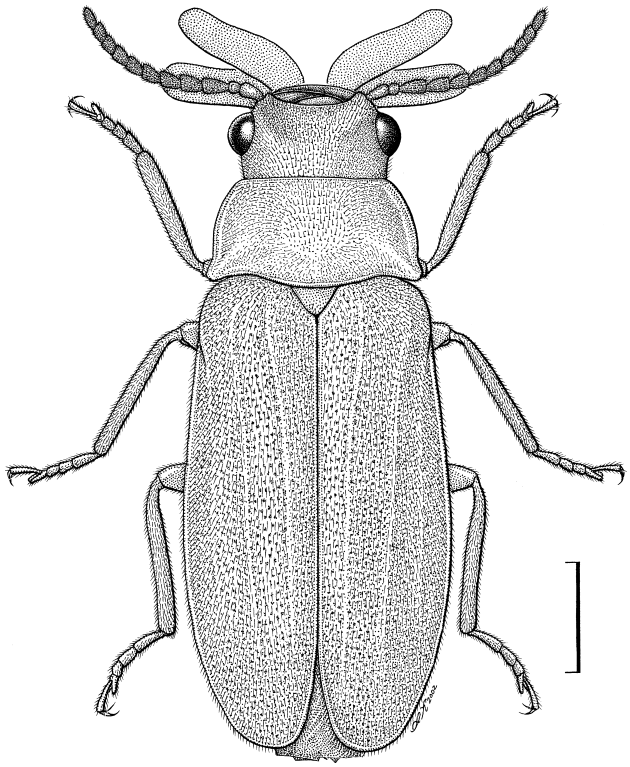
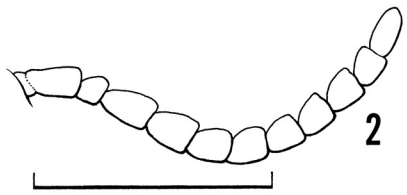


Fig. 1. *Lamellipalpus unicolor* sp. nov., from E. Myanmar, dorsal view. Scale: 1.0 mm.

segmented and rather short, barely reaching humeri of elytra only; the both antennal sockets evenly separated from each other; all flagellar segments moderately flattened dorso-ventrally and weakly serrate continuously; scape clavate, dilated towards the apex; pedicel the shortest; 3rd segment to 10th (flagellar 1st to 8th) thick and roundly triangular, dilated towards the apices; distal 11th (flagellar 9th) spindle-shaped; relative length of each segment from scape as follows:— 1.00 : 0.43 : 0.86 : 0.76 : 0.67 : 0.62 : 0.57 : 0.62 : 0.67 : 0.57 : 0.81. Mandibles large but slender, wholly seen from dorsal side, incurved and gradually tapered towards the acute apices. Both maxillary and labial palpi (Figs. 1, 3) with extraordinarily expanded lobes to distal segments, which look like remarkably large elongate elliptical lobes; both pairs of palpi almost the same in shape and size.

Thorax:— Pronotum (Figs. 1, 3) relatively large, transversely trapezoidal in dorsal view, widest at the level of basal protuberances; maximum width slightly narrower than the width of elytral humeri; anterior margin almost straight, very narrowly margined throughout; sides arcuate and weakly expanded laterad, narrowly margined throughout, slightly constricted at basal fourth, forming narrow reflexed areas throughout; basal



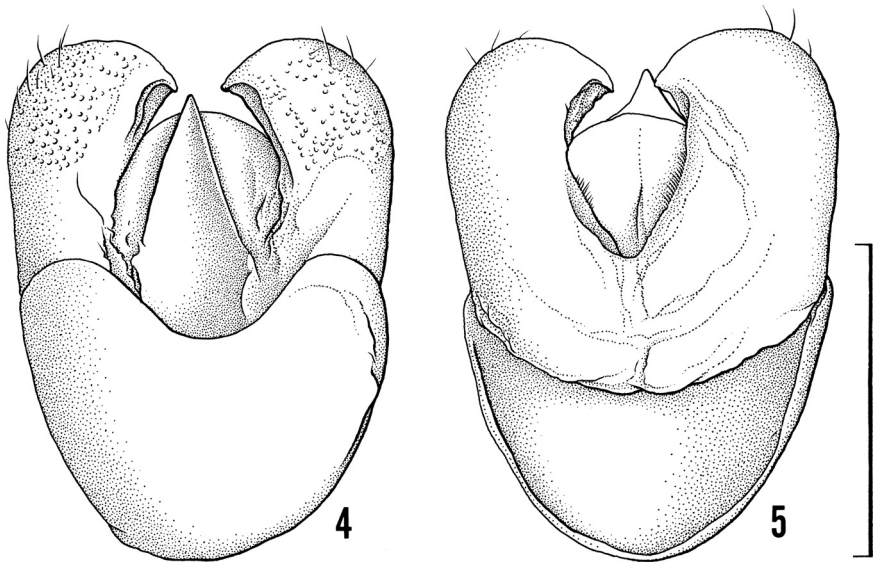
Figs. 2–3. *Lamellipalpus unicolor* sp. nov., from E. Myanmar, dorsal view: right antenna (2); holotype (3). Scale: 1.0 mm.

margin clearly bisinuate on both sides, and margined in central part; dorsal surface constantly and densely but shallowly punctate; disc weakly depressed; medio-longitudinal furrow not recognized. PW/HW 1.90; PW/PL 1.82; PL/PW 0.55; PW/EHW 0.95. Scutellum (Fig. 1) triangular with rather pointed apex, closely punctate on dorsal surface.

Elytra (Figs. 1, 3) fairly broad; sides widely arcuate, weakly divergent posteriad, widest just after the middle, and then convergent to rounded apices, dehiscent in apical portions, narrowly margined throughout including suture; margin concealed by humeri, which are weakly prominent antero-laterad; dorsal surface rugose, and moderately roughly punctate; each elytron with three vague costae, of which the innermost and middle ones are the longest and clearest, running almost all length of elytra, but these distal parts are more or less disappearing; exteriormost one the shortest, very weak and more obsolete, more or less disappearing near anterior fourth of elytra. EL/PL 3.95; EL/EW 1.74; EW/PW 1.25.

All legs (Figs. 1, 3) rather robust; femora fusiform; tibiae almost straight though weakly incurved at the bases; tarsal formula 5–5–5; tarsi relatively short as a whole; 1st tarsomeres usually the longest or almost the same in length as 5th; 4th bilobed. Claws simple.

Abdomen:— Abdomen broad and flattened dorso-ventrally, with seven visible segments in ventral view; sides almost parallel in basal two sternites, and then gradually convergent posteriad from 3rd or 4th segment to anal 7th; luminescent organs not recognized from outside.



Figs. 4–5. *Lamellipalpus unicolor* sp. nov., from E. Myanmar, male genitalia, ventral view (4); dorsal view (5). Scale: 0.25 mm.

Male genitalia as shown in Figures 4 & 5, well sclerotized and symmetrically trilobed, rather wide and rounded, weakly depressed dorso-ventrally; external surface generally smooth and glabrous, but the distal parts of parameres more or less punctate or scattered with sockets of minute setae on ventral side. Basal plate large, slightly narrower than the width of parameres, semicircular or cup-shaped, widely open on dorsum; distal margin on venter sinuate and widely concave at the centre; lateral sides arcuate, gradually narrowed towards the basal side, and continuing to the rounded basal margin. Aedeagus very wide and thick but rather short, clearly shorter than the lengths of parameres, oval as a whole; a longitudinally triangular elevated part with pointed apex recognizable on venter; only the pointed apex projected from the apex of ovate aedeagus itself. Parameres short and rather thick, embracing aedeagus from left and right, joining at the bases on basal side; both sides almost straight and subparallel, slightly divergent towards the distal side, and then, continuing towards evenly rounded apical parts which are provided with several thin setae; inner sides of the apex each with a small projection, and nearly approaching from each other; inner margins almost straight on dorsum, though arcuate on venter.

Measurements in mm. BL: 6.10; HW: 1.05; PL: 1.10; PW: 2.00; EL: 4.35; EW: 2.50; EHW: 2.10; HTL: 1.50.

F e m a l e. Unknown.

Immature Stages and Biology. Unknown.

Distribution. E. Myanmar (Lashio).

Notes. This new speecies is similar in general shape of body to other known species

of the genus, but is easily distinguished from them by the following characteristics:— 1) body including elytra unicolorous; 2) body rather small, 3) maxillary and labial palpi rather small and short, and 4) the shape of male genitalia clearly different.

Etymology. The specific name is derived from the unicolorous body.

Acknowledgements

I wish to express my cordial thanks to the late Dr. M. SATÔ (Nagoya) and Dr. M. TAKAKUWA (Kanagawa Prefectural Museum of Natural History, Odawara) for their critically reading the original draft, and to Dr. M. BRANCUCCI (Natural History Museum, Entomology, Basel), Mr. Y. SHIBATA (Machida), Mr. T. SHIMADA (Shizuoka), Mr. Y. MINOSHIMA (Hokkaido University, Sapporo), and Ms. M. ASANO (Tokyo University of Agriculture, Atsugi) for their help in various ways. My thanks are also due to Mr. Y. KUSAKABE (Yokohama) for his supplying with a valuable specimen.

要　　約

川島逸郎：ミャンマー産 *Lamellipalpus* 属（コウチュウ目ホタル科）の 1 新種の記載. —— *Lamellipalpus* 属は， MAULIK (1921) により Drilidae の一群として， ビルマ （現ミャンマー） 産 *Eugeusis nigripennis* PASCOE, 1887 を基準種として創設された．このたび，ミャンマー産の材料を検討した結果，1 種が未記載と判断されたため，*L. unicolor* と記載命名した．本属としては小型で，体色は単一の橙黄色といった点や，♂交尾器の形状などで，既知種から明瞭に区別される．所属については WITTMER (1979), LAWRENCE & NEWTON (1995) および BRANCUCCI & GEISER (2009) に従い，暫定的にホタル科に含めた.

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Elytra, *Tokyo*, **38**(1): 41–42, May 31, 2010

New Record of *Euryarthrum elegans* HAYASHI (Coleoptera, Cerambycidae) from East Kalimantan, Indonesia

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Euryarthrum elegans belonging to the subfamily Cerambycinae was described from the Malay Peninsula, West Malaysia (HAYASHI, 1977), and then additionally recorded from Borneo, East Malaysia (HEFFERN, 2005; YOSHITAKE & NIISATO, 2009). Recently, we had an opportunity to examine a male specimen of this species from East Kalimantan, Indonesia. The specimen examined from East Kalimantan shows no difference in external and genitalic features between the known localities from the Malay Peninsula and northern Borneo.

Euryarthrum elegans HAYASHI, 1977

(Fig. 1)

Euryarthrum elegans HAYASHI, 1977, 120 (type locality: Gap, Malaysia). —— HEFFERN, 2005, 19 (catalogued). —— YOSHITAKE & NIISATO, 2009, 202 (catalogued).

Specimen examined. 1 male, Mt. Bakayan, East Kalimantan, Indonesia, VI–2009, native collector leg. Preserved in the National Institute for Agro-Environmental Sciences under the specimen number 24–0465169.

Fig. 1. *Euryathrum elegans* HAYASHI, 1977, male from East Kalimantan.

Distribution. Malaysia (Malay Peninsula and Borneo), Indonesia (East Kalimantan). New to Kalimantan of the territory of Indonesia.

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Elytra, *Tokyo*, **38**(1): 43–52, May 31, 2010

Four New Species of the *Holotrichia constricta* Group (Scarabaeidae, Melolonthinae, Melolonthini) from the Philippines

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Abstract Four new species of the genus *Holotrichia* belonging to the *H. constricta* group, are described from the Philippines under the following names: *H. bicallosicephala*, *H. mindoroensis*, *H. malindangensis*, and *H. tenuitibialis*.

Up to date, I have had opportunities to report on the *Holotrichia constricta* group including descriptions of new species and comments for the known species(Itoh, 2003 a, b; Matsumoto, 2008). As the result, the species group is now composed of thirty-three species in total. Of these, the members from the Philippines are twenty-five species and those from Indonesia are eight. A reliable estimate of the total number of the species of the genus *Holotrichia* is rather enormous and is presumed to attain to more than 240.

At this time, I have found four unknown species of the *H. constricta* group in the collections of two Philippine native collectors, and under a close examination they proved to be new species. I am therefore going to describe the four species herein.

The discovery of the four new species owes to two collectors' hard work for collecting beetles, namely, Messrs. Danny MOHAGAN and his younger brother, Noel MOHAGAN, who collected various beetles not only in their residential lands but also in other lands including those of other islands. Four new species were obtained in the course of their feverish activities. Before going further, I would like to express my heartfelt gratitude to them for their sending me the material and for giving me the opportunity of reporting on their material.

Abbreviations used herein are as follows: HW – head width; IN – interocular distance; PW – pronotal width; PL – pronotal length; PH – pronotal height; FL – metafemoral length; FW – metafemoral width; TA – protibial length; TB – distance between the base and the third denticle of protibia; M – arithmetic mean; OMNH – Osaka Museum of Natural History, Osaka; CA – author's collection.

Holotrichia bicallosicephala MATSUMOTO, sp. nov.

(Figs. 1, 6, 10)

Description. Length: 22.3–26.5 mm.

M a l e. Body long. Head, mouth parts, pronotum, scutellum, pro- to metasterna, coxae and legs except for femora dark brown, elytra, pygidium and abdomen brighter brown. Dorsal surface weakly shining.

Clypeus bilobed, rounded at each antero-lateral corner, distinctly emarginate at the middle of anterior margin, with distinct transverse ridge near base; frons rough, coarsely and rugosely punctate, with a pair of distinct callosities medially; vertex relatively sharply ridged; occiput sparsely with coarse punctures behind vertex, thence densely with fine punctures beyond the level of posterior margin of eye. Antennal club short, shorter than five preceding segments together.

Pronotum gently produced laterad, weakly compressed near base and having a slightly constricted appearance; anterior angle blunt, the apex gently rounded, neither produced nor lobed; posterior angle blunt, close to 135° in lateral view; lateral margin almost straight in both anterior and posterior halves; posterior margin rimmed throughout; disc coarsely and relatively densely punctate, the surroundings of punctures feebly concave. Scutellum about 2.2 times as wide as long.

Elytra coarsely and slightly rugosely punctate, the surroundings of punctures rather distinctly concave; sutural costa distinctly raised, 2nd one weakly raised and much widened toward apex, 4th faint, distinct only in small range of median portion, 5th vestigial or vanished. Pygidium slightly convex, sparsely and coarsely punctate.

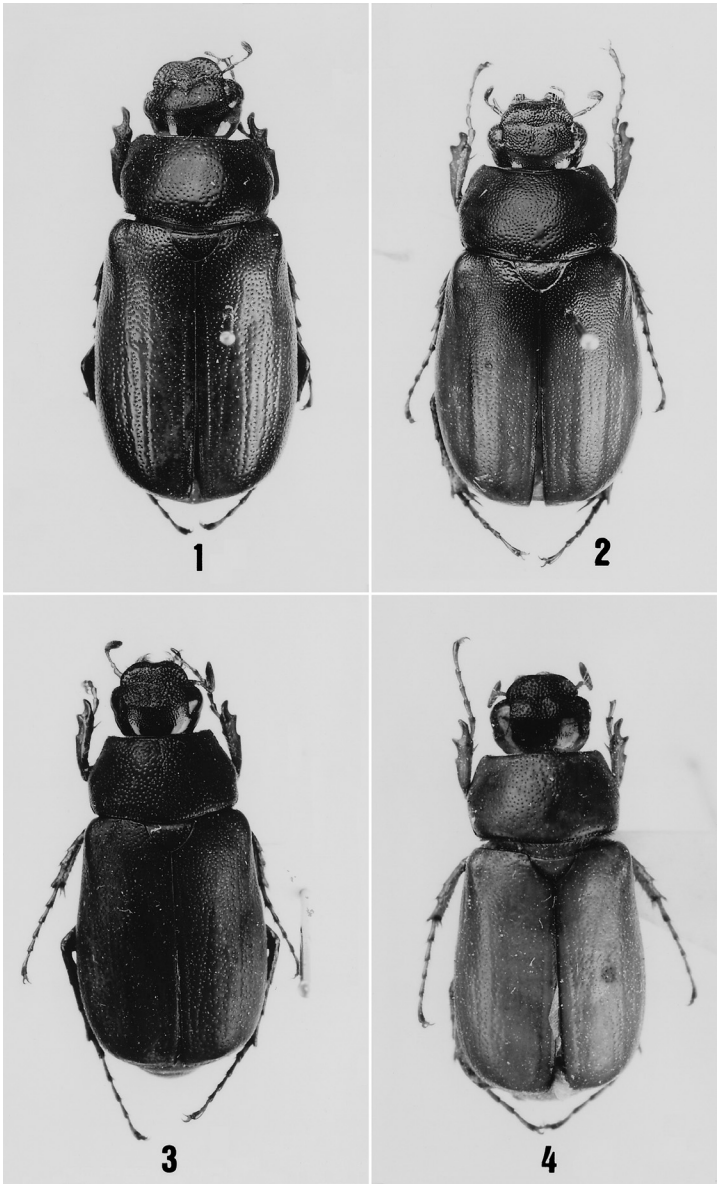
Prosternum with feebly raised, hill-shaped postcoxal process. Abdomen shining in central portion and on the 6th sternite, opaque in moderately large to rather large lateral portions, sparsely covered with short to longer hairs in the random manner; 2nd sternite more densely and widely with longer hairs in the lateral areas; 3rd to 5th sternites each with some long recumbent hairs in opaque latero-basal transverse portions; 5th sternite declivous toward apical 1/3, thence flattened in apical 1/3.

Metafemur stout, sparsely and coarsely punctate, with a row of relatively long hairs on surface, which are about 0.55 times as long as the metafemoral width; meso- and metatibiae with some sharp serrations on upper sides, average seven serrations on both tibiae; metatibia clearly longer than metatarsus, longer one of metatibial apical spurs far longer than 1st metatarsal segment, which is as long as the 2nd; claws each strongly bent, with sharp, small denticle near base; denticle of outer claw of metatarsus feebly smaller than that of inner claw.

Parameres of male genitalia subparallel toward apex in dorsal view, widened toward apical 1/3, loosely truncate at apex and having a sharp deflexed projection, respectively in lateral view; temones forming an apical sclerite, with a pair of vertically developed parts near apex, the apex gradually widened and emarginate at the middle.

F e m a l e. Antennal club as long as or shorter than five preceding segments together. Elytra distinctly rugose in the middle. Mesotibia with average six serrations on upper side, metatibiae with average seven; metatibia clearly longer than metatarsus. Coxite of female genitalia with normally slender frame on upper side and well sclerotized thick frame on lower half.

Arithmetic data. HW/PW ♂: 0.64–0.67 (M 0.66, n=2), ♀: 0.62–0.66 (M 0.64, n=



Figs. 1–4. Habitus of *Holotrichia* spp. — 1, *Holotrichia bicallosicephala*; 2, *H. malindangensis*; 3, *H. tenuitibialis*; 4, *H. mindoroensis.*

2); IN/HW ♂: 0.69–0.70 (M 0.70, n=2), ♀: 0.67–0.68 (M 0.68, n=2); PH/PW ♂: 0.50–0.51 (M 0.51, n=2), ♀: 0.51–0.52 (M 0.52, n=2); PL/PW♂: 0.60–0.61 (M 0.61, n=2), ♀: 0.58–0.61 (M 0.60, n=2); FW/FL ♂: 0.33–0.35 (M 0.34, n=2), ♀: 0.40

(M 0.40, n＝3); TB/TA ♂: 0.50–0.51 (M 0.51, n＝2), ♀: 0.48–0.50 (M 0.49, n＝3).

Distribution. Mindoro Island (the Philippines).

Type series. Holotype: ♂, Mt. Halcon, Mindoro, Philippines, VII–2007 (OMNH TI-395). Paratypes: 2 ♀♀, same data as for the holotype; 1 ♂, Mt. Halcon, Mindoro Is., Philippines, III–1998; 1 ♀, Mindoro Is., Philippines, 2001. The holotype is deposited in OMNH and the paratypes are housed in CA.

Etymology. This species was named after the presence of a pair of callosities on the frons.

Holotrichia mindoroensis MATSUMOTO, sp. nov.

(Figs. 4, 7, 11)

Description. Length: 12.0–15.5 mm.

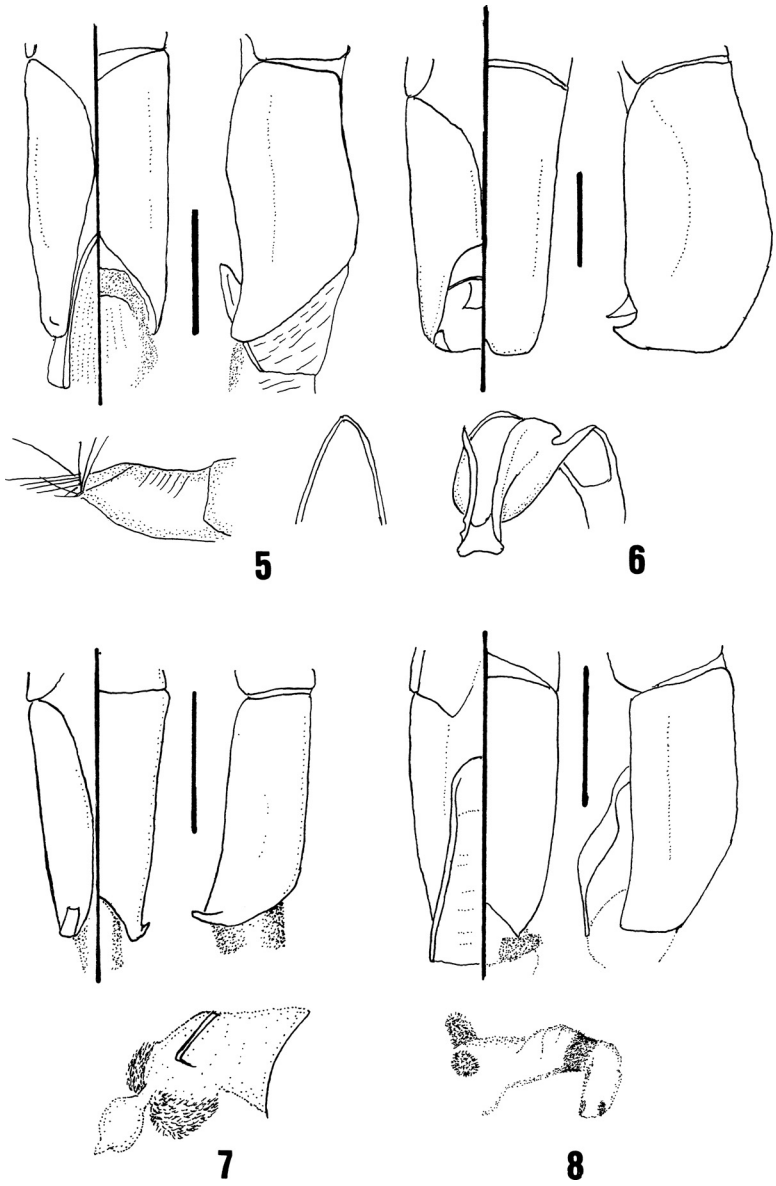
M a l e. Body elongate oval. Head blackish, pronotum, prosternum, mouth parts and protibia dark reddish brown, elytra, femora, meso- and metasterna and metacoxa pale to dark brown, abdomen and pygidium yellowish brown, but the body color sometimes darkened. Dorsal surface weakly shining.

Clypeus very feebly emarginate at the middle of anterior margin, much rounded at each antero-lateral corner and coarsely punctate; frons rough, coarsely punctate, with a pair of faint elevations; eyes not conspicuously prominent; vertex relatively sharply ridged; occiput shining and impunctate behind vertex, with an arcuate band of dense or sparse punctures at the position of posterior margin of eye; labrum with relatively distinct longitudinal ridge on each lobe; antennal club approximately as long as six preceding segments together.

Pronotum convex, smooth, moderately produced laterad and slightly compressed basad; anterior angle subrectangular, sharp and not produced forward; posterior angle distinct, 135° in lateral view; lateral margin straight both in anterior and posterior halves, sharply curved past the middle; posterior margin arranged with punctures throughout, not rimmed; disc smooth, sparsely and coarsely punctate, the surroundings of punctures not or hardly concave, without any impressions near lateral angle. Scutellum about 1.9 times as wide as long. Elytra smooth, with five costae; sutural and 5th costae conspicuous, 3rd and 4th often faint, 2nd usually conspicuous but sometimes faint.

Prosternum with narrow, distinctly raised and flattened postcoxal process. Metasternum shining and glabrous in central rhomboidal portion, opaque and haired in the remaining lateral portion; the hairs short to semilong and distributed mainly in basal portion. Abdomen shining, glabrous and sparsely and coarsely punctate in almost all central area; 2nd to 5th sternites opaque in latero-basal transverse portions, respectively; 2nd sternite sparsely with short hairs in lateral portions, 3rd to 5th more sparsely haired laterad; 3rd to 5th sternites also with some long recumbent hairs in latero-basal transverse portions, respectively.

Metacoxa rectangular at the postero-lateral corner, not produced posteriorly, with



Figs. 5–8. Male aedeagus [ventral (left half), dorsal (right half) and lateral views, scale: 1 mm] with internal sac and temones. — 5, *H. tenuitibialis*; 6, *H. bicallosicephala*; 7, *H. mindoroensis*; 8, *H. malindangensis*.

lateral margin feebly arcuate or straight; metafemur relatively stout, sparsely and coarsely punctate, metafemoral hairs on surface at most 0.2 times as long as metafemoral width; meso- and metatibiae with a few inconspicuous serrations on upper sides, 0 or 1 serration on mesotibia and 1–2 on metatibia; metatibial apical spurs sharp, far longer than 1st metatarsal segment, which is shorter than the 2nd; metatarsus distinctly longer than metatibia. Claws each gently bent, with sharp denticle near base; the denticle of outer claw of metatarsus feebly smaller than that of inner claw.

Parameres of male genitalia slender and feebly swollen in the middle, poorly sclerotized on ventral side, with each apex bent outward and sharply pointed; temones becoming thinner apically, narrowly connected with each other at apex; internal sac bearing a portion annularly covered with remarkably dense short and thick hairs, which are developing especially on the ventral surface.

F e m a l e. Antennal club as long as six preceding segments together. Scutellum about 1.9 times as wide as long. Metafemur stout; metafemoral hairs on surface at most 0.33 times as long as metafemoral width; meso- and metatibiae with average two serrations, respectively; metatibial apical spurs slender leaf-shaped, curved and distinctly longer than 1st metatarsal segment, which is shorter than the 2nd as in male; metatarsus about as long as metatibia. Coxite of female genitalia quadrate, with anterior margin straight and narrowly sclerotized.

Arithmetic data. HW/PW ♂: 0.65–0.67(M 0.66, n=4), ♀: 0.64–0.66 (M 0.65, n=3); IN/HW ♂: 0.64–0.68 (M 0.66, n=4), ♀: 0.67–0.68 (M 0.67, n=3); PH/PW ♂: 0.46–0.49 (M 0.48, n=4), ♀: 0.48–0.53 (M 0.50, n=3); PL/PW♂: 0.60–0.65 (M 0.62, n=4), ♀: 0.59–0.63 (M 0.61, n=3); FW/FL ♂: 0.32–0.33 (M 0.32, n=4), ♀: 0.38–0.39 (M 0.38, n=3); TB/TA ♂: 0.45–0.49 (M 0.47, n=4), ♀: 0.45–0.48 (M 0.46, n=3).

Distribution. Luzon, Mindoro, Palawan Islands (the Philippines).

Type series. Holotype: ♂, Mt. Halcon, Is. Mindoro, V–1998 (OMNH TI-396). Paratypes. **[Mindoro]** 3♂♂, Mindoro Is., 2001; 4♀♀, same data as for the holotype. **[Palawan]** 4♂♂, Mt. Mantalingjan, Is. Palawan, III–1996, D. MOHAGAN leg. **[Luzon]** 2♀♀, Mt. Banahao, Quezon, C. Luzon, 3–IV–2003. The holotype is deposited in OMNH and the remaining paratypes are housed in CA.

Etymology. This species was named after one of its localities, Is. Mindoro.

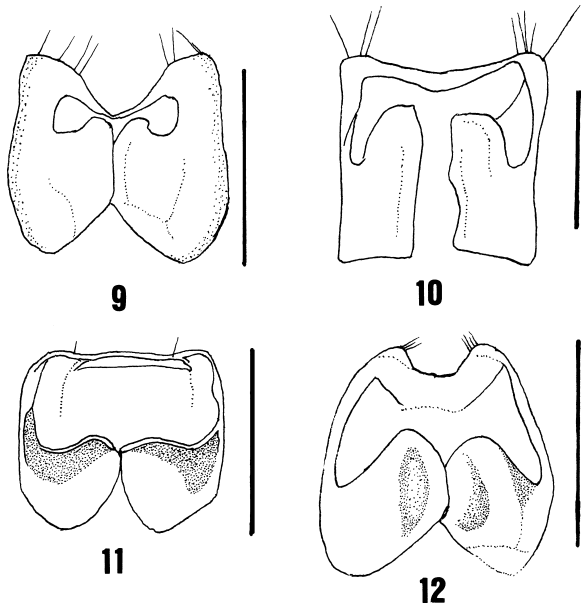
Holotrichia malindangensis MATSUMOTO, sp. nov.

(Figs. 2, 8, 12)

Description. Length: 18.4–20.6 mm.

M a l e. Head, mouth parts, pronotum and scutellum almost blackish, antennae, elytra, pygidium, prosternum, legs and abdominal 6th sternite reddish brown, meso- to metasterna and metacoxa dark brown, abdomen yellowish brown. Dorsal surface weakly shining.

Clypeus gently bilobed, with antero-lateral corners rounded; basal portion transversely and weakly raised; frons rough, coarsely punctate, very weakly concave in



Figs. 9–12. Coxite of female genitalia (scale: 1 mm). — 9, *H. tenuitibialis*; 10, *H. bicallosicephala*; 11, *H. mindoroensis*; 12, *H. malindangensis*.

median portion; occiput coarsely punctate, the punctures extending beyond the level of posterior margin of eye; antennal club about as long as six preceding segments together.

Pronotum convex, well produced laterad, slightly compressed near base; anterior angle obtuse, not produced, the apex sharp; posterior angle blunt, about 135° in lateral view; lateral margin straight both in anterior and posterior margins; posterior margin rimmed throughout; disc densely and coarsely punctate, the surroundings of punctures distinctly concave, sometimes with an oblique concavity in each latero-posterior portion. Scutellum about 2.2 times as wide as long. Elytra feebly darker in basal portion; sutural to 3rd costae clear; 4th recognizable, 5th greatly reduced or vanished. Pygidium feebly convex.

Prosternum with a flattened postcoxal process. Metasternum shining in central rhomboidal portion, opaque in the remaining portions, covered with long hairs in almost all portions. Abdomen weakly shining in central portion, relatively widely opaque laterad, and sparsely haired in almost all area; 2nd to 5th sternites each with a transverse row of semilong hairs in central portion, 2nd relatively sparsely with short hairs laterad; 3rd to 5th each with a few long recumbent hairs in the opaque latero-basal transverse portion.

Metacoxa relatively deeply furrowed along the posterior margin, rectangular at the postero-lateral corner and feebly curved along lateral margin; metafemur rather strongly stout, coarsely and sparsely punctate, metafemoral hairs on surface long, approximately

half as long as metafemoral width or longer than this; meso- and metatibiae with some conspicuous serrations on upper sides, average seven serrations on mesotibia and average eight on metatibia; metatibial apical spurs sharp, longer one being longer than 1st metatarsal segment, which is about as long as the 2nd; metatarsus about as long as metatibia; claws each strongly bent, with sharp vertical denticle near base; both denticles of inner and outer claws of metatarsus of the same shape.

Parameres of male genitalia gradually tapering toward apex, loosely cut at apex in lateral view; suture between both parameres distinct in apical 2/5 only in dorsal view; temones forming a structure of ligula-shaped frame apically.

F e m a l e. Antennal club as long as five preceding segments together or shorter than six preceding ones together. Scutellum 2.1 times as wide as long. Meso- and metatibiae with about eight serrations on upper side. Metatarsus distinctly shorter than metatibia. Coxite of female genitalia with normally slender frame on upper half and well sclerotized, thick frame on lower half.

Arithmetic data. HW/PW ♂: 0.63–0.65 (M 0.64, n=4), ♀: 0.61–0.63 (M 0.62, n=4); IN/HW ♂: 0.66–0.67 (M 0.67, n=4), ♀: 0.66–0.69 (M 0.67, n=4); PH/PW ♂: 0.48–0.52 (M 0.49, n=4), ♀: 0.48–0.51 (M 0.50, n=4); PL/PW ♂: 0.58–0.60 (M 0.59, n=4), ♀: 0.58–0.62 (M 0.60, n=4); FW/FL ♂: 0.34–0.37 (M 0.36, n=4), ♀: 0.38–0.41 (M 0.40, n=4); TB/TA ♂: 0.47–0.51 (M 0.49, n=4), ♀: 0.45–0.47 (M 0.46, n=4).

Distribution. Mindanao Island in the western region (the Philippines).

Type series. Holotype: ♂, Mt. Malindang, Mindanao Is., Philippines, XI–2005, D. MOHAGAN leg. (OMNH TI-397). Paratypes: 4 ♂♂, 4 ♀♀, same data as for the holotype. The holotype is deposited in OMNH and the remaining paratypes are housed in CA.

Etymology. This species was named after the type locality, Mt. Malindang, which is located at the base of the Zamboanga Peninsula, Is. Mindanao.

Holotrichia tenuitibialis MATSUMOTO, sp. nov.

(Figs. 3, 5, 9)

Description. Length: 15.0–17.2 mm.

M a l e. Body almost dark blackish brown with head and pronotum completely blackish. Dorsal surface opaque.

Clypeus bilobed, gently rounded at each antero-lateral corner, feebly emarginate at the middle of anterior margin, coarsely and densely punctate, transversely and much weakly raised along fronto-clypeal suture; frons slightly rough, coarsely punctate, haired or not, with the surroundings of punctures largely concave; eyes slightly prominent; vertex distinctly ridged; occiput densely punctate, the punctures extending toward foramen beyond the posterior margin of eye; antennae with 3-segmented club approximately as long as six preceding segments together.

Pronotum convex, smooth, weakly produced laterad, feebly constricted basad; anterior angle almost rectangular, the apex not produced anteriorly; posterior angle blunt, sharper than 135° in lateral view; rim of anterior margin thin and distinct

throughout the margin; lateral margin very feebly sinuate in anterior half and straight in posterior half, serrate in anterior half only and not reflexed laterally in antero-lateral portion at all; posterior margin rimmed in central portion, the rim replaced by row of punctures in lateral portions; disc haired or not, coarsely and relatively densely punctate, the surroundings of punctures slightly concave, without a minute impression near each lateral angle. Scutellum wide, average 2.3 times as wide as long, sparsely and coarsely punctate.

Elytra relatively smooth, with five costae; sutural costa and 2nd one distinct, 3rd to 5th narrow and weakly raised, intermediate area between 2nd and 3rd costae and that between 3rd and 4th ones sometimes obscurely raised. Pygidium moderately convex and coarsely punctate.

Prosternum with hill-shaped postcoxal process. Metasternum covered with long hairs in whole area, shining in central rhomboidal portion and bearing a pair of weak oblique ridges in the shining area. Abdomen shining in relatively large, central rounded area and on 6th sternite, opaque in rather enlarged lateral areas; central principal area glabrous, 2nd sternite sparsely with short hairs laterad, 3rd to 5th sternites with some long recumbent hairs in latero-basal transverse portions, respectively.

Metacoxa bearing rectangular postero-lateral corner, which is not produced posteriorly; metafemur sparsely punctate, metafemoral hairs on surface about half to 0.75 times as long as metafemoral width; protibia slender and at most 0.25 times as wide as long; meso- and metatibiae with very sharp serrations on upper sides, average four on mesotibia and five on metatibia; metatibia approximately as long as metatarsus; metatibial apical spurs sharp, with longer one slightly longer than 1st metatarsal segment, which is approximately as long as the 2nd; claws each thick and strongly bent with sharp denticle near base; the denticles of outer and inner claws of metatarsus being of the same size.

Parameres of male genitalia obliquely truncate, widely cleft in about apical 1/3 in dorsal view; a pair of temones coalescent with each other at apex, giving an appearance of U-figured structure and not forming any other thickly sclerotized enlarged structure; internal sac with a bundle of many long hairs apically.

F e m a l e. Clypeus with obscure transverse ridge basally as in male; antennal club approximately as long as five preceding segments together. Scutellum about 2.2 times as wide as long. Legs more robust; protibia about 0.25 times as wide as long as in male, but the apex blunt and more rounded; metafemoral hairs on surface half as long as the metafemoral width; mesotibia with five serrations on upper side and metatibia with six, respectively; metatibia distinctly longer than metarsus; metatibial apical spurs narrow leaf-shaped and slightly widened in the middle. Coxite of female genitalia robust, bearing very thick frame, which is deeply and obliquely cut as a V-shape along anterior margin.

Arithmetic data. HW/PW ♂: 0.62–0.65 (M 0.64, n=5), ♀: 0.59–0.63 (M 0.61, n=3); IN/HW ♂: 0.68–0.69 (M 0.68, n=5), ♀: 0.68–0.72 (M 0.70, n=3); PH/PW ♂: 0.49–0.54 (M 0.51, n=5), ♀: 0.51 (M 0.51, n=3); PL/PW ♂: 0.57–0.63 (M 0.59, n=

5), ♀: 0.58–0.60 (M 0.59, n＝3); FW/FL ♂: 0.27 (M 0.27, n＝4), ♀: 0.34–0.36 (M 0.35, n＝2); TB/TA ♂: 0.51–0.55 (M 0.53, n＝5), ♀: 0.48–0.51 (M 0.50, n＝2).

Distribution. Mindoro Island (the Philippines).

Type series. Holotype: ♂, Mt. Halcon, Is. Mindoro, Philippines, IV–2007 (OMNH TI-398). Paratypes. 14 ♂♂, 1 ♀, same data as for the holotype; 1 ♀, same locality as for the holotype, III–2008; 1 ♀, same locality as for the holotype, V–1999; 3 ♂♂, same locality as for the holotype, V–2002. The holotype is deposited in OMNH and the remaining paratypes are housed in CA.

Etymology. This species is named after its slender protibia.

要　　約

松本　武：フィリピンのクロコガネ（コウチュウ目コガネムシ科）の 4 新種. —— 最近，筆者にもたらされたフィリピンからのクロコガネの中に，*Holotrichia constricta* 群に含まれるべき 4 種の不明種が見出されたので，それぞれ *H. bicallosicephala*（ミンドロ島），*H. mindoroensis*（ミンドロ島，パラワン島，ルソン島），*H. malindangensis*（ミンダナオ島西部），*H. tenuitibialis*（ミンドロ島）と命名した．*H. constricta* 群はこれでフィリピン産 29 種，インドネシア産 8 種の合計 37 種となり，約 240 種強がいると予想されるクロコガネ属の中でも，きわめて大きい種数を占める一群となった．

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A New Genus *Maajappia* and its New Species of the Subtribe Batrisina, Tribe Batrisini (Coleoptera, Staphylinidae, Pselaphinae) from Japan, with a Note on the Genus *Dendrolasiophilus*

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Abstract A definition of the new genus, *Maajappia* is given with a description of a new species, *M. omotonis* collected from Ishigakijima Is., the Ryukyus. A diagnosis of the genus *Dendrolasiophilus* NOMURA, 2008 is provided to make the name available.

The genus *Batristilbus* established by RAFFRAY (1909) was composed of two species-groups, the *politus* and the *concolor* groups. NOMURA (2008) separated these two groups at the genus level. He named a new genus, *Dendrolasiophilus* for the *concolor* group, and regarded the genus *Batristilbus* including the *politus* group as a junior synonym of the genus *Batrisus*.

Recently, Dr. Alfred NEWTON in Chicago (personal communication) suggested that the genus *Dendrolasiophilus* is lacking diagnosis or description in NOMURA (2008), and thus it is an unavailable name. The author is going to provide the diagnosis for this genus in the present study to make the name available.

In the course of the author's study, an undefined genus was discovered from Ishigakijima Is., the Ryukyus. It is considered to be allied to the genus *Dendrolasiophilus*. The author defines a new genus, *Maajappia* with the description of the type species.

Materials and Methods

For the SEM observation, the type specimen of *Maajappia omotonis* was dried and not metal-coated, and observed under a low accelerating voltage (AV) 0.9 kv by JEOL JSM-6380LV and was digital-micrographed from various angles. Measurements of the body and parts were made with a stereo microscope (Leica MZ Apo). The holotype specimen is preserved at the National Museum of Nature and Science, Tokyo (NSMT).

Genus ***Dendrolasiophilus*** nov.

[Japanese name: Kusaari-arizukamushi Zoku]

Dendrolasiophilus NOMURA, 2008, Elytra, Tokyo, **36**: 133–148 (unavailable name, no diagnosis or description).

Type species: *Batrisus concolor* SHARP, by original designation.

Diagnosis. Body middle-sized, thick and nearly cylindrical, smooth in dorsal surface, color reddish brown, shiny. Head wider than long, nearly quadrate; frons broad, slightly concave, smooth, very minutely pubescent or completely glabrous; vertex weakly convex, with a pair of dorsal tentorial pits; postgenae almost flat. Eyes small, each ovoid. Antennae long and slender, segment I subcylindrical, II to XI each ovoid.

Pronotum slightly wider than head, subglobose, smooth in dorsal surface, with a pair of basilateral foveae near base. Elytra weakly convex, widest near the middle, roundly expanded in humeri; each elytron with a basal fovea and an adsutural sulcus. Legs long and slender; mid tibia each with very short mucro at apex in male; hind trochanter short and nearly triangular, with a small denticle on posterior side in male.

Abdomen slightly smaller than elytra, rounded posteriorly, smooth on dorsal side, coarsely punctate on ventral side; tergite IV the largest, with three pairs of basal foveae, a pair of very short and triangular basimedian carinae and a pair of short and indistinct basilateral carinae. Male genitalia weakly sclerotized, asymmetrical; median lobe bulbous at base, with a large apical stalk on left side; dorsal apophysis hook-shaped or arcuate.

Remarks. As NOMURA (2008) suggested, the genus *Dendrolasiophilus* is a member of the genus-group of *Tribasodes*, but is very distinct in the *Tribasodes* group in having the smooth body surface and the subglobose pronotum.

Genus ***Maajappia*** nov.

[Japanese name: Mononoke-arizukamushi Zoku]

Type species: *Maajappia omotonis* sp. nov.

Etymology. The new generic name is derived from a local Japanese word in Ishigakijima Island, "Maajappi" meaning a child-like, red-faced dwarf; which is almost the same as "Kijimunaa (Kijimun)" or "Bunagaya" in Okinawa Island.

Body elongate and thick, weakly broadened in elytra and abdomen. Head quadrate, nearly parallel-sided, sparsely covered with short pubescence; frons broad, gently concave, with reverse U-shaped sulcus connecting dorsal tentorial pits; vertex slightly convex, with a pair of small dorsal tentorial pits and a median longitudinal carina; postgenae strongly angulate. Eyes developed, each semispherical. Antennae long and slender; segments IX to XI, each broadly limbate at base.

Pronotum slightly longer than head, subglobose, rounded on lateral sides, weakly convex and smooth on dorsal side, sparsely covered with short pubescence, with a pair of small basilateral foveae. Elytra widest near the middle, narrowed in basal half, with flat humeri, sparsely covered with pubescence and shallow punctures; each elytron with adsutural carina almost in its full length and a short and indistinct basal sulcus. Legs long and slender; hind trochanter short, with a short spine near apex on posterior side in male.

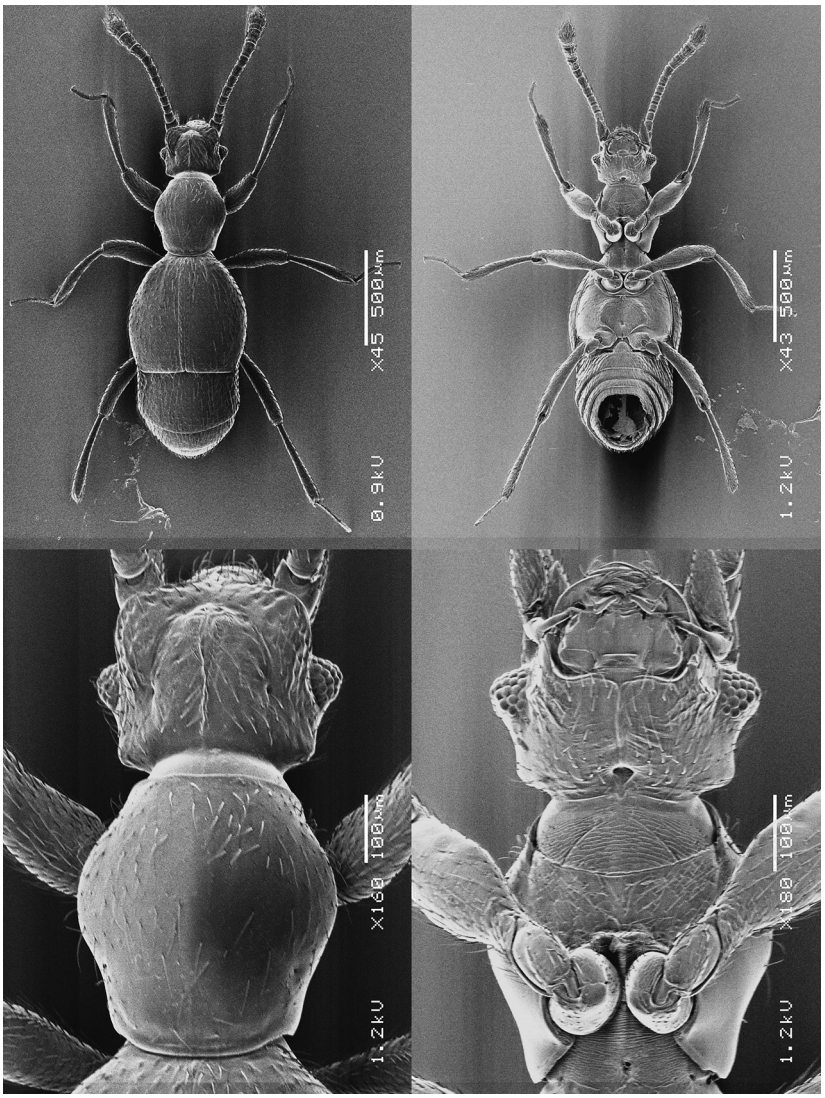

Fig. 1. *Maajappia omotonis* gen. et sp. nov., holotype. —— A, habitus in dorsal view; B, ditto, in ventral view; C, ditto, head and pronotum enlarged in dorsal view; D, ditto, in ventral view.

Abdomen shorter than elytra, slightly narrower than elytra, parallel-sided in basal part, narrowed and rounded at apical part, densely covered with pubescence and weak punctures; tergite IV the largest, with a pair of very short and triangular basimedian carinae and a pair of narrow lateral longitudinal carinae (tergo-paratergal suture in original) in its full length. Male genitalia weakly sclerotized; median lobe broadened at base, asymmetrical, with large and elongate apical stalk on left side; dorsal apophysis

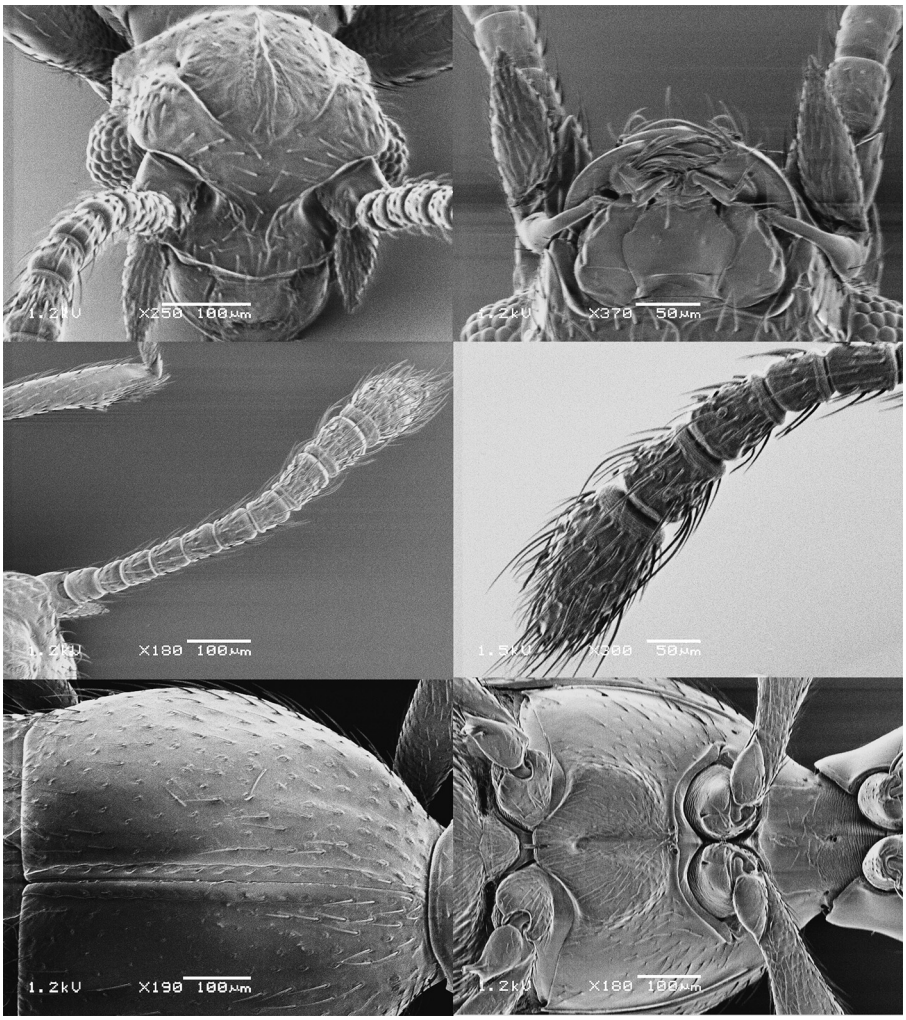

Fig. 2. *Maajappia omotonis* gen. et sp. nov., holotype. —— A, head in anterior view; B, ditto, in ventral view; C, left antenna; D, ditto, apical segments enlarged; E, elytra in dorsal view; F, meso- and metathoraces in ventral view.

indistinct.

Remarks. This new genus is closely allied to the genus *Dendrolasiophilus* in having the smooth and subglobose pronotum, the reduced basal fovea of the elytra and the asymmetrical male genitalia. But it is separable by the quadrate head with U-shaped sulcus and median longitudinal carina, each subcylindrical antennal segments II to X, the elytra completely lacking basal fovea, and the pubescent and punctate dorsal surface of the body except for pronotum.

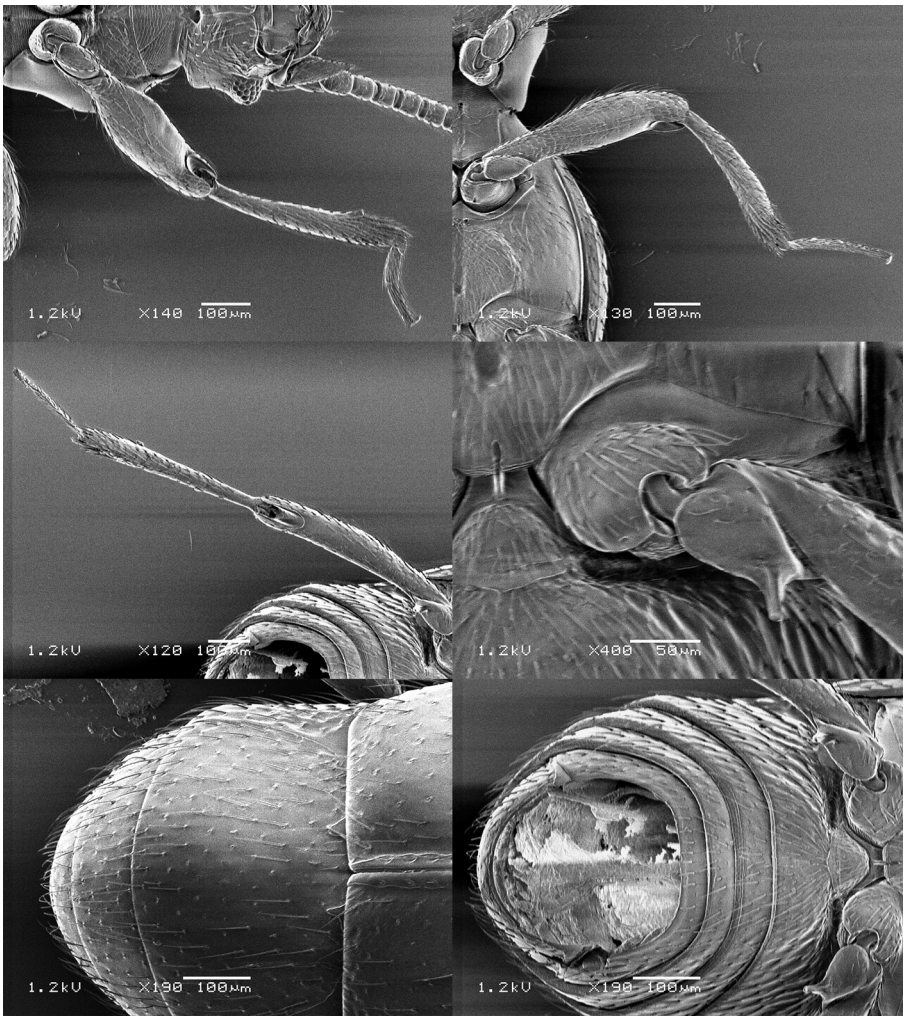

Fig. 3. *Maajappia omotonis* gen. et sp. nov., holotype. —— A, fore leg in ventral view; B, mid leg in ventral view; C, hind leg in ventral view; D, hind coxa and trochanter in ventral view; E, abdomen in dorsal view; F, ditto, in ventral view.

Maajappia omotonis sp. nov.

[Japanese name: Omoto-mononoke-arizukamushi]

(Figs. 1–4)

Holotype, male, St. 2, Mt. Omotodake (100 m), Ishigakijima Is., Yaeyama, Okinawa Pref., Ryukyus, Japan, 15–III–2004, S. NOMURA leg.

Description. M a l e. Body length 1.79 mm, width 0.64 mm, elongate, thick, color

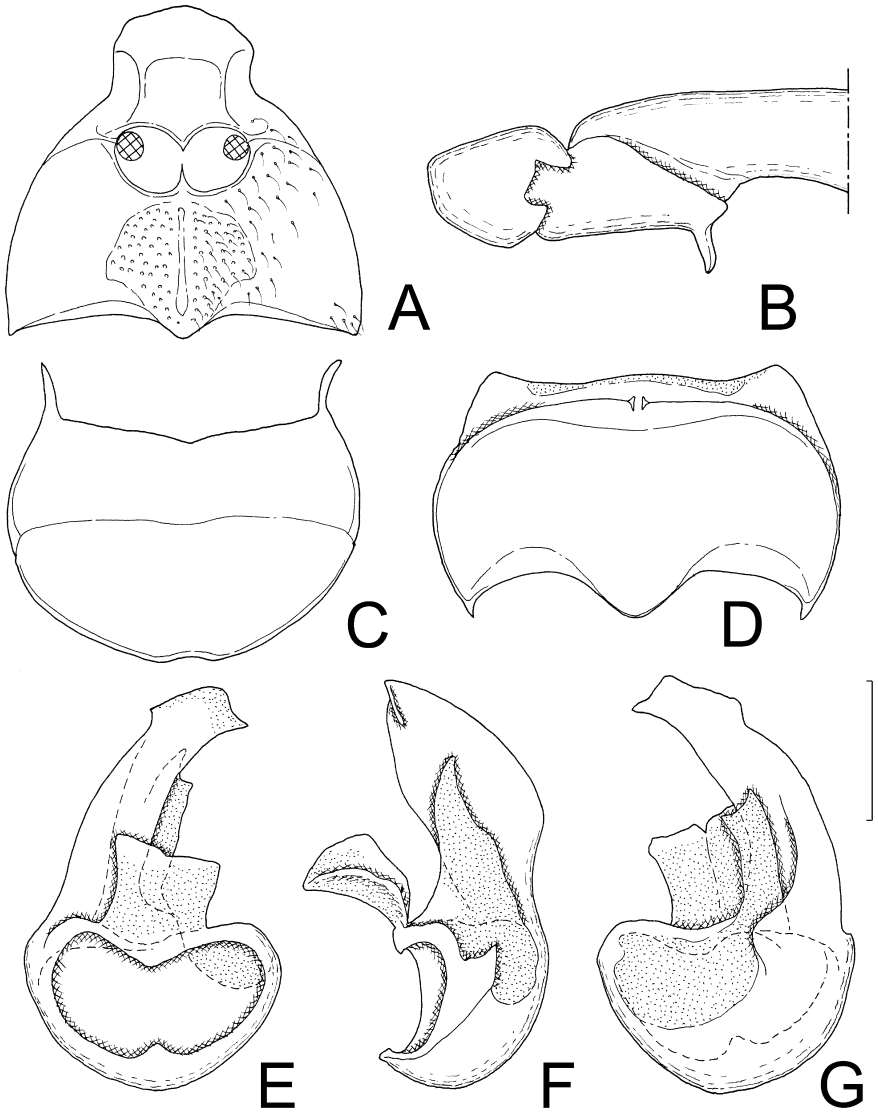

Fig. 4. *Maajappia omotonis* gen. et sp. nov., holotype. —— A, meso- and metasterna in ventral view; B, hind trochanter in ventral view; C, abdominal tergite VIII; D, sternite VIII; E, male genitalia in ventral view; F, ditto, in lateral view; G, ditto, in dorsal view. Scale: 0.1 mm.

reddish brown.

Head wider than long, nearly rectangular, slightly convex; clypeus very short, almost invisible in dorsal view; frons broad, sparsely covered with coarse punctures, with reverse U-shaped sulcus connecting dorsal tentorial pits; vertex weakly convex,

with a pair of dorsal tentorial pits between eyes, with median longitudinal carina in basal half of head; postgenae angulate posterolaterally. Eyes each ovoid, composed of about 20 facets. Maxillary palpi short; palpal segment IV the largest, nearly triangular, about as long as segments I to III combined. Antennae 0.73 mm in length, almost reaching posterior margin of pronotum, eleven-segmented and slender; segment I thick and tubular; II to VIII each short and subcylindrical; IX and X subequal in length, each large and subcylindrical; XI the largest, subcylindrical in basal half, subconical in apical half, densely covered with thick and long setae; relative length (width) of each segment to width of segment I from base to apex: 0.7 (1.0): 0.9 (0.8): 0.7 (0.8): 0.9 (0.8): 1.0 (0.8): 1.0 (0.9): 1.0 (0.9): 1.0 (1.0): 1.5 (1.2): 1.5 (1.4): 2.3 (1.8).

Pronotum slightly longer than wide, slightly longer than head, rounded on lateral sides, weakly convex and almost smooth on dorsal surface, sparsely covered with pubescence, with a pair of very small lateral foveae at posterior 1/3. Elytra large, shorter than head＋pronotum, slightly wider than long, rounded on lateral side, sparsely covered with coarse punctures and short pubescence; each elytron feebly convex on dorsal surface, with an almost complete adsutural sulcus. Metasternum broad, weakly convex, with broad, weak transverse nodule between mid- and hind coxae. Legs short and slender; fore tibia almost straight, with a very small denticle at apical 1/4 on inner side; hind trochanter very short, nearly triangular, with a short projection near apex on posterior side.

Abdomen shorter than elytra, slightly wider than long, parallel-sided in basal part, rounded posteriorly in apical part; tergite IV the largest, wider than long, weakly convex, with a pair of very short and triangular basimedian carinae on basal margin and a pair of weak and elongate paratergites in lateral sides; sternite IV short and transverse, flattened in median part. Abdominal segments V to VII each very short. Tergite VIII semicircular; sternite VIII wider than long, rounded on lateral sides, bisinuate on posterior margin.

Male genitalia weakly sclerotised; parameres lamellar and almost membranous; median lobe formed by basal bulb and apical stalk; basal bulb with a very large, transverse and cordiform basal foramen; apical stalk weakly narrowed apicad in dorsal and ventral views, with indistinct and membranous dorsal apophysis.

F e m a l e. Unknown.

Distribution. Japan (Ishigakijima Is.).

Remarks. This new species is easily separated from the other batrisine species known from Japan by the nearly quadrate head, the almost smooth pronotum and the elytra lacking basal fovea.

Acknowledgements

I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO for his critical reading of the manuscript. My cordial thanks are due to Dr. Alfred NEWTON, JR. in Chicago for his kind suggestion and continuous encouragements for my study.

要　　約

野村周平：ムネトゲアリヅカムシ亜族の新属 *Maajappia* とそのタイプ種の記載（コウチュウ目ハネカクシ科アリヅカムシ亜科）ならびに *Dendrolasiophilus* 属に関するノート．—— NOMURA (2008) の原記載において欠如していた *Dendrolasiophilus* 属の定義形質の記述を追加し，本名称を適格とした．これにより本属は以後，*Dendrolasiophilus* NOMURA, 2010 クサアリアリヅカムシ属とすべきである．本属は先の論文ですでに記述したとおり，*Tribasodes* 属群に含まれるが，背面平滑な体と亜球形の前胸をもつ点できわめて特異である．また石垣島から新属新種 *Maajappia omotonis* オモトモノノケアリヅカムシを記載した．*Maajappia* モノノケアリヅカムシ属は，背面平滑で亜球形の前胸や雄交尾器の構造の類似などにより，*Dendrolasiophilus* 属に近縁と考えられるが，頭部が四角形に角張り，背面に逆 U 字形の溝と正中隆起線を備える点，触角第 2〜10 節の各節が円筒形である点，上翅基部の孔点をまったく欠く点，前胸を除く体の背面に微毛や点刻を備える点などにより区別される．

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Elytra, *Tokyo*, **38**(1): 61–64, May 31, 2010

A Colluvial Slope as a Hibernating Habitat of Littoral Beetles in Eastern Hokkaido, North Japan

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Abstract A colluvial slope as a probable hibernating habitat of littoral beetles is discussed for further searches of ordinary habitat, on the bases of the topographical condition and the record of aggregated species.

Unusual microhabitats of Japanese littoral beetles have gradually been clarified in the passed several years (MARUYAMA, 2004; HAYASHI, 2007). However, their behaviors in a winter survival seem to be hardly known as yet in comparison with those in an active season. In mid September of 2008, I visited a seashore of Kushiro, the Pacific coast of eastern Hokkaido, in search for halophilous beetles, and found some littoral beetles from a colluvial slope, which is rather distant from their typical habitats hitherto known. As this peculiar condition seems to me to suggest seasonal change of their habitat for hibernation, I made this short report for further searches.

List of Species Collected

The collecting data are: Shiundai in Chiyo-no-ura beach [42°57′ N 144°23′ E], Kushiro-shi, eastern Hokkaido, North Japan, 13–IX–2008, M. NISHIKAWA leg.

Family **Agyrtidae**

Lyrosoma pallidum (ESCHSCHOLTZ, 1829); 1 ex.

Family **Staphylinidae**

Amblopusa magna ZERCHE, 1998; 1 ex.

Liusus humeralis (MATSUMURA, 1911); 1 ex.

Family **Curculionidae**

Emphyastes mannerheimi EGOROV et KOROTYAEV, 1976; 14 exs.

Thalasselephas major EGOROV et KOROTYAEV, 1976; 2 exs.

Thalasselephas maximus ZHERIKHIN, 1990; 2 exs.

Thalasselephas minor EGOROV et KOROTYAEV, 1976; 98 exs.

Summary of Topography and Habitat

The collecting site is situated outside the eastern end of Chiyo-no-ura fishing port,

which is formed on narrow shores between the breakwater of the port and the cliff of Shiundai hill (Fig. 1); there are several heaps of wrack near the shores. The microhabitat of the beetles recorded above is in the colluvial slope of the landward Shiundai at a distance of ca. 10 m from the nearest seashore via sand deposits (Fig. 2); the slope almost faces west, consisting of slate layers which have been weathered probably by a frost shattering with seeps of underground water, and have formed many irregular cracks (Fig. 3); the beetles dwell in the depths of these cracks under the eaves like clastic gravel deposits together with halophilous talitrids (Amphipoda) and terrestrial centipedes and mites.

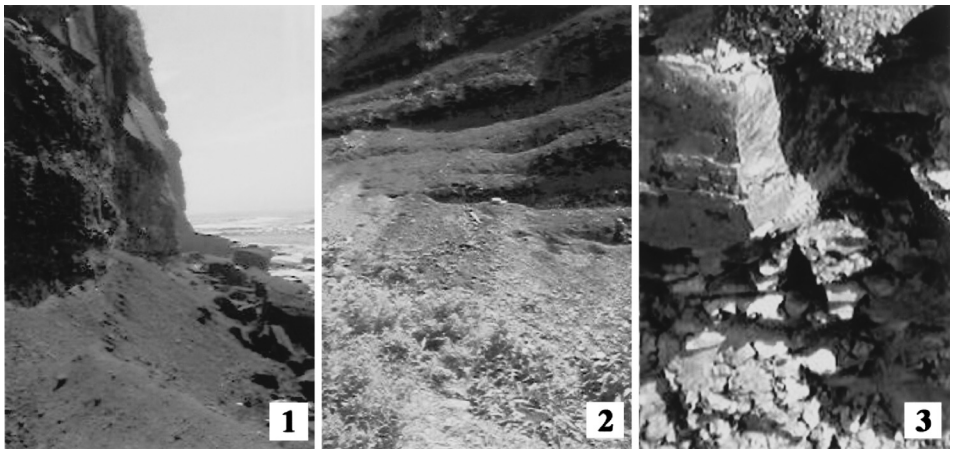
I searched for those animals by digging ca. 0.1 m in a range of ca. 0.5×0.5 m of the slope. On the other hand, no beetles were found under wrack and decayed sea algae in the supralittoral zone near the slope though some halophilous hydrophilids were found there.

Discussion

All the members of the agyrtid genus *Lyrosoma* have been known as littoral dwellers generally occurring under decayed sea algae (SCHAWALLER, 1998; MARUYAMA, 2004). The microhabitat of *Lyrosoma pallidum* recorded herein is very similar to that of *L. pallidum* and *L. opacum* in Hamanaka-chô, ca. 50 km east-northeast of Kushiro recorded by HORI (2001). *Lyrosoma pallidum* [=*L. chujoi* and *L. ituropense*; SCHAWALLER (1998)] has so far been obtained from April to June, and from August to September in Hokkaido; its newly-emerged adults seem to appear in the spring, and to estivate during the summer, since some teneral specimens have been obtained in May (HIRANO, 1971) and the adults disappear in the mid summer (HIRANO, 1971; NISHIKAWA, 1997); after estivation, they are active again to hibernation. However, their mating activity and larval stage have not yet been observed.

One of the two staphylinids, *Amblopusa magna*, has been known as an intertidal beetle. MARUYAMA (2002) surmised it as an upper hypogean dweller based on its habit and characteristic appearance. This species has been recorded from Hokkaido in April and July (AHN, MARUYAMA & ÔHARA, 1999). Another one, *Liusus humeralis*, is a regular member of supralittoral habitats mainly obtained in Hokkaido by sifting sea algae washed ashore, and has been recorded from July to August (NAOMI, 1982, as *L. hilleri* (WEISE); WATANABE, 1983; MARUYAMA, pers. comm.).

The species of the curculionid genera *Emphyastes* and *Thalasselephas* have been known as the supralittoral dweller. They are found ordinarily from seaweeds buried in sand and gravel in the daytime (EGOROV & KOROTYAEV, 1976; MORIMOTO, 1993; HORI, 1994; MARUYAMA, 2002, 2004), but are probably nocturnal since they are found on beach at night (KOJIMA, pers. comm.). MORIMOTO (1993) pointed out that their distribution is related to the occurrence of the eel grass genus *Zostera* species (Liliopsida). HORI (1994) empirically stated that small sandy beach following a promontory forming an inlet is a best collecting site of these curculionids, because wracks of



Figs. 1–3. Habitat of littoral beetles in the autumn of Kushiro, eastern Hokkaido. —— 1, Cliff of Shiundai in the seaward side; 2, colluvial slope of Shiundai in the landward side; 3, microhabitat of the beetles.

seaweeds are easily accumulated in such a beach, which is similar to those around Shiundai in topographical condition. The curculionids have been obtained from the spring until the autumn, though their previous records from Hokkaido are really scarce; they may hibernate probably in the adult stage, since the newly-emerged adults of *E. mannerheimi* appear at the end of August as observed by EGOROV and KOROTYAEV (1976) in the Russian Far East.

All the beetles recorded are flightless, with the exception of alate *L. humeralis*, and dwell constantly in the littoral zone in their active season. The aggregation of the beetle individuals is proper to consider that the majority of them migrated only crawling from the typical habitats, and aggregated to the colluvial slope for hibernation as the result, judging from the decreasing temperature of the eastern Hokkaido area in the mid September (HORI, 2001; KOJIMA, pers. comm.). At this point of view, the colluvial slope of Shiundai seems to be well suitable for their hibernation since it has a moderate humidity, and protects the aggregate against temperature fluctuations even in the real winter season, though it is exposed directly to sunlight (cf. DANKS, 1981). However, such slopes do not exist in all seashores where the beetles dwell. For instance, it is very likely that the upper hypogean zone distant landwardly from their typical habitats is ordinarily used for hibernation so far as the migratory beetles are concerned. In any case, direct observation of overwintering beetles at such sites is necessary to confirm this prediction.

要　　約

西川正明：北海道東部における海浜性甲虫の越冬場所としての崖錐. —— 北海道東部の釧路市

の海岸で，9月中旬に波打ち際から 10 m 程度離れた崖錐において，甲虫類 7 種が集合している状態が発見された．海浜性甲虫の活動期における生息場所は徐々に明らかになってきているが，越冬がどのような場所で行われているかについては情報が少ない．この論文では，そうした情報の蓄積を喚起するために，今回発見された甲虫類とそれらの越冬場所について論じた．

Acknowledgements

I thank Dr. Hiroaki KOJIMA of Tokyo University of Agriculture, Atsugi, and Dr. Munetoshi MARUYAMA of Kyushu University Museum, Fukuoka, for species determination of the Curculionidae and the Staphylinidae, respectively. Mr. Shigehisa HORI of the Historical Museum of Hokkaido, Sapporo, and Dr. Shun-Ichiro NAOMI of the Natural History Museum and Institute, Chiba, kindly gave me important information of halophilous beetles.

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Elytra, *Tokyo*, **38**(1): 65–70, May 31, 2010

Contributions to the Knowledge of the "*Staphylinus*-complex" (Coleoptera, Staphylinidae, Staphylinini) of China.

Part 23. The Genus *Ocychinus* SMETANA, 2003, Section 3

Aleš SMETANA

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Abstract *Ocychinus bohemorum* is described as new from specimens from western Sichuan. *Ocychinus nigrita* SMETANA, 2003 and *Ocychinus alpinus* SMETANA, 2003 are transferred to the genus *Sphaerobulbus* SMETANA, 2003 (comb. nov.). *Sphaerobulbus businskorum* SMETANA, 2005 is transferred to the genus *Ocychinus,* where it becomes a junior objective homonym of *Ocychinus businskorum* SMETANA, 2003; a new name, *Ocychinus businskius,* is provided for it. A checklist of the species of *Ocychinus* is provided.

Key words: Coleoptera, Staphylinidae, Staphylinini, Staphylinina, *Ocychinus, Sphaerobulbus*, Palaearctic, mainland China, taxonomy, new species, new name, new combinations, distribution.

Introduction

This is the third paper dealing with the species of the genus *Ocychinus* SMETANA, 2003. It contains a description of a new species from western Sichuan, the transfer of two species of *Ocychinus* to the genus *Sphaerobulbus* SMETANA, 2003*,* and the transfer of one species of *Sphaerobulbus* to *Ocychinus* with the necessity to provide a new name for it. A checklist of the species of *Ocychinus* is presented.

The acronyms used in text when referring to the deposition of the specimens are as follows:

ASC Collection of Aleš SMETANA, Ottawa, Canada
NMW Naturhistorisches Museum, Wien, Austria
VGC Collection of Volker GOLKOWSKI, Oelsnitz i. V., Germany

Account of Species

Ocychinus nigrita SMETANA

Ocychinus nigrita SMETANA, 2003: 104.

Comment. The species is here transferred to the genus *Sphaerobulbus* SMETANA,

2003 (comb. nov.), based mainly on the configuration of the aedoeagus.

Ocychinus alpinus SMETANA

Ocychinus alpinus SMETANA, 2003: 108.

Comment. The species is here transferred to the genus *Sphaerobulbus* SMETANA, 2003 (comb. nov.), based mainly on the configuration of the aedoeagus.

Ocychinus businskius nom. nov.

Sphaerobulbus businskorum SMETANA, 2005: 59.

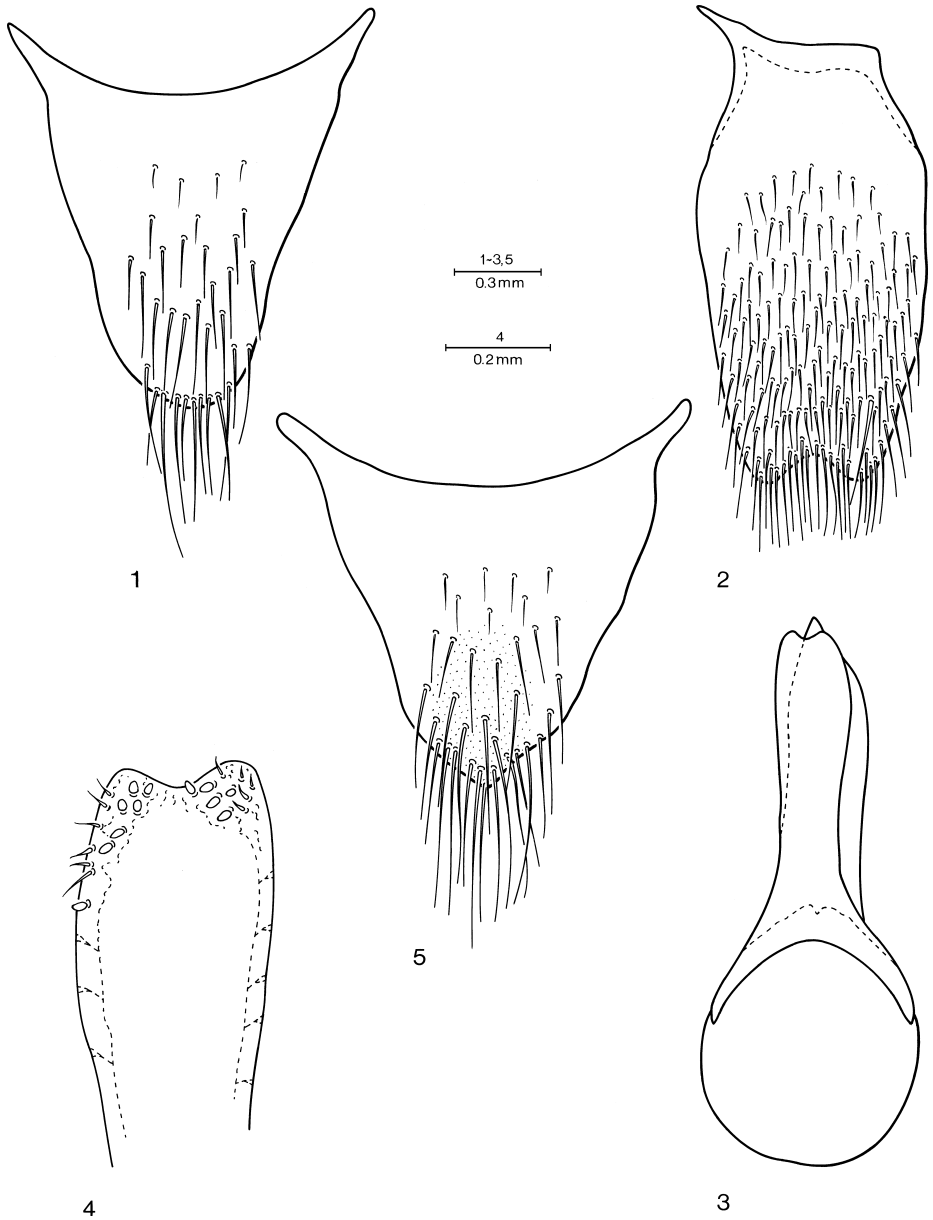
Comment. *Sphaerobulbus businskorum* SMETANA, 2005 is here transferred to the genus *Ocychinus* (comb. nov.), based mainly on the configuration of the aedoeagus. It becomes the junior homonym of *Ocychinus businskorum* SMETANA, 2003. The replacement name *Ocychinus businskius* is therefore provided for it.

New record. [Sichuan]: Sabde 29°04′N 101°25′E 3,400 m 25.6.2001 M. JANATA leg., 1 ♂ (ASC).

Ocychinus bohemorum sp. nov.

(Figs. 1–5)

Description. Black, fore body moderately shiny; visible abdominal tergites 4 and 5 each with patch of golden tomentose pubescence in middle; maxillary and labial palpi testaceous to testaceobrunneous, antennae dark brunneous, legs brunneous to rufobrunneous. Head of rounded quadrangular shape, with entirely rounded, non apparent posterior angles, wider than long (ratio 1.30), eyes small, rather flat, tempora considerably longer than eyes from above (index 1.83), dorsal surface of head densely, moderately finely punctate and pubescent, punctation becoming sparser and finer toward clypeus, but markedly denser toward posterior and lateral margins; rudimentary impunctate midline present on posterior half; interspaces between punctures with extremely fine, rudimentary microsculpture; dorsal side of neck with punctation similar to that on head. Antenna moderately long, segment 3 slightly longer than segment 2 (ratio 1.15), segments 4 to 8 longer than wide, gradually becoming shorter, segments 9 and 10 as long as wide, last segment shorter than two preceding segments combined. Pronotum about as long as wide with obtusely rounded base, narrowed anteriad, narrow marginal groove disappearing downward at about anterior third of pronotal length; disc of pronotum with entire impunctate midline; punctation and pubescence similar to those on head, gradually becoming denser toward posterior margin of pronotum, interspaces between punctures with microsculpture similar to that on head. Scutellum entirely, finely and densely punctate and pubescent, interspaces between punctures with rudimentary, extremely fine microsculpture. Elytra short, slightly widened posteriad, at suture



Figs. 1–5. *Ocychinus bohemorum*: 1, tergite 10 of male genital segment; 2, sternite 9 of male genital segment; 3, aedoeagus, ventral view; 4, apical portion of underside of paramere with sensory peg setae; 5, tergite 10 of female genital segment.

markedly shorter (ratio 0.73), at sides shorter (ratio 0.80) than pronotum at midline; punctation very fine and very dense, punctures slightly asperate, surface of elytra appearing rather dull; pubescence black, very dense. Wings each reduced to small, non-functional stump. Abdomen with fifth visible tergite without pale apical seam of palisade setae; tergite 2 (in front of first visible tergite) finely punctate and pubescent on entire surface; posterior basal line on first three visible tergites simple, slightly bisinuate; all tergites very finely and densely, evenly punctate and pubescent, punctation markedly finer than that on elytra, simple, gradually becoming somewhat sparser toward apex of abdomen; interspaces between punctures with very fine, dense meshed microsculpture that becomes rudimentary toward middle of each tergite.

M a l e. Sternite 8 with moderately wide and deep, obtusely triangular emargination. Male genital segment with tergite 10 moderately large, with arcuate apex bearing long apical setae, otherwise moderately densely setose (Fig. 1); sternite 9 short, with minute, sharp basal portion, apical portion widely emarginate apically (Fig. 2). Aedoeagus as in Figs. 3, 4; median lobe parallel-sided in middle portion, with asymmetrically located, sharply triangular apical portion; paramere situated on median lobe asymmetrically, with emarginate apex not quite reaching apex of median lobe; underside of paramere with numerous inconspicuous, not pigmented sensory peg setae on each side of medioapical emargination, and with several minute setae situated as in Fig. 4.

F e m a l e. Tergite 10 of genital segment pigmented medioapically, with numerous long setae at and near apical margin, otherwise rather sparingly setose (Fig. 5).

Length 16.0–19.0 mm (abdomen extended).

Type material. Holotype (male) and allotype (female): China: "CHINA: W-Sichuan, W of Zhier (Zi'er), 5.VI.2006 28°20.886′N 101°28.361′E R. Sehnal & M. Tryzna". Holotype in NMW, allotype in ASC.

Paratypes: [Sichuan]: same data as holotype, 9 ♂♂ (ASC, NMW); same data as holotype, but "4241 m W of Zi'er 5.6.2006 leg. R. Sehnal & M. Tryzna", 4 ♂♂, 2 ♀♀ (ASC, NMW, VGC).

Geographical distribution. *Ocychinus bohemorum* is at present known from the high elevation area of the mountain range west of Zi'er in western Sichuan.

Bionomics. Nothing is known about the habitat requirements of this species; however, judging from the elevation data on some of the labels, it most likely lives in the subalpine and alpine habitats above tree line.

Recognition and comments. *Ocychinus bohemorum* is the fourth species of the genus bearing spots of yellow or golden tomentose pubescence on the abdominal tergites. It is similar to *O. businskius*, but it differs by the paler appendages (see the description; in *O. businskius* the palpi are brunneous, the antennae piceous-black, and the legs are dark brownish to piceous-black with vaguely paler tarsi), by the on average shorter pronotum which is more distinctly narrowed anteriad, by the wider and deeper medioapical emargination of male sternite 8, and by the differently shaped paramere of the aedoeagus, which is slightly emarginate apically and bears more numerous not pigmented sensory peg setae (see the description; in *O. businskius* the paramere is evenly arcuate

apically, and bears only two not pigmented sensory peg setae on the underside near apex).

Etymology. The specific epithet is the plural genitive of the noun *Bohemi* (Czechs). It refers to the fact that the original series of this species was collected by two Czech coleopterists.

Checklist of the Species of the Genus *Ocychinus*

yeti (Dvořák, 2000)
Tibet
tibetanus Smetana, 2003
Tibet
capitalis Smetana, 2003
Yunnan
xizangensis Smetana, 2003
Tibet
sichuanensis Smetana, 2003
Sichuan
paramerosus Smetana, 2003
Sichuan (Gongga Shan)
frater Smetana, 2008
Sichuan
kalabi Smetana, 2006
businskorum Smetana, 2003
Tibet
kalabi Smetana, 2003
Sichuan
businskius Smetana, 2010 (nom. nov.)
Sichuan
businskorum Smetana, 2005 (from *Sphaerobulbus*)
bohemorum Smetana, 2010
Sichuan
meridionalis Smetana, 2003
Sichuan
monticola Smetana, 2003
Yunnan

要　　約

A. Smetana: 中国産ダイミョウハネカクシ属群（コウチュウ目ハネカクシ科）に関する知見. 23. *Ocychinus* 属の 3. —— *Ocychinus* 属の 1 種 *C. bohemorum* を中国四川西部から記載し，2 種 *O. nigrita* と *O. alpinus* を *Sphaerobulbus* 属に移動した．*Sphaerobulbus* 属からは *S. businskorum* を

Ocychinus 属に移動し，その結果異物同名が生じたため，新名 *O. businskius* を与えた．

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Elytra, *Tokyo*, **38**(1): 70–71, May 31, 2010

New Record of *Omineus humeralis* (Coleoptera, Mycteridae) from Taiwan

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Omineus humeralis (Fig. 1) was described on the basis of seven specimens collected at Nara Prefecture, Japan (LEWIS, 1895), and is distributed only in Honshû, Shikoku and Kyûshû, Japan (LÖBL, 2008; SASAJI, 1989; SAKAI & MIYATAKE, 2002).

Recently, we examined one specimen of this species collected from Taiwan, and record it for the first time from Taiwan as follows.

Specimen examined. 1 ♀, Lushan Wenchuan, Nantou Hsien, Taiwan, 6–VI–1976, H. MAKIHARA leg., preserved in Ehime University Museum.

Fig. 1. Habitus of *Omineus humeralis*.

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Elytra, *Tokyo*, **38**(1): 71–72, May 31, 2010

Records of Some Marine Beetles New to the Fauna of Sado Island, Central Japan

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Marine beetle fauna of Sado Island off Niigata Prefecture has been elucidated by several authors as a part of the faunal study of the prefecture (HISAMATSU, 1984; KUSUI, 1988; KAWAKAMI & HAYASHI, 2007, etc.). However, it is still insufficient in the status to clarify the fauna.

In the recent survey conducted at the two seashores of Sado-shi (Sawata and Futatsugame Beaches of Kubota and Washizaki Districts, respectively), we collected some marine beetles including those new to the island. We herein record them as follows:

We thank Mr. T. OKURA (TUA) for his arrangement of our trip.

Dytiscidae

1. *Allodessus megacephalus* (GSCHWENDTNER)
   3 exs., Washizaki, 5–VIII–2009.

Hydraenidae

2. *Neochthebius granulosus* (SATÔ)
   3 exs., Washizaki, 5–VIII–2009.

Hydrophilidae

3. *Cercyon aptus* SHARP
   11 exs., Kubota, 4～5–VIII–2009.
4. *Cercyon dux* SHARP
   1 ex., Kubota, 4–VIII–2009. 1 ex., Washizaki, 5–VIII–2009.

Histeridae

5. *Eopachylopus ripae* (LEWIS)
   6 exs., Kubota, 5–VIII–2009.

Ptiliidae

6. *Actinopteryx parallela* (BRITTEN)
   1 ex., Kubota, 4–VIII–2009.

Scarabaeidae

7. *Psammodius japonicus* HAROLD
   3 exs., Kubota, 4～5–VIII–2009.

Tenebrionidae

8. *Micropedinus pallidipennis* LEWIS
   41 exs., Kubota, 4～5–VIII–2009.

Curculionidae

9. *Isonycholips gotoi* CHÛJÔ et VOSS
   44 exs., Kubota, 4～5–VIII–2009.

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Elytra, *Tokyo*, **38**(1): 73–83, May 31, 2010

Lathrobium densum and its Two New Relatives (Coleoptera, Staphylinidae) from Western Honshu, Japan

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Abstract The staphylinid species *Lathrobium densum* BERNHAUER and its two new relatives are dealt with. Of these, the former is redescribed and the latter two are described as new species under the names *L. masatoi* and *L. izumoense*, both of which were obtained from Shimane Prefecture in western Honshu, Japan.

Lathrobium densum was described by BERNHAUER (1936, p. 307) on the basis of a female specimen obtained from Okayama of western Honshu, Japan. Since then, however, it has not been reported again from Japan. Through the courtesy of Mr. Masato MORI, I had an opportunity to examine some interesting specimens found in Ohara of Shimane Prefecture in western Honshu, Japan. These specimens were divided into two species, both of which were closely similar in colour and facies to *L. densum*. Therefore, I asked Dr. A. F. NEWTON, JR. of the Field Museum of Natural History, Chicago, for a loan of the type specimen of *L. densum* deposited in that museum for comparison with these two species.

As the result of comparison with them, it has become clear that both the two species may be new to science for reason of disagreement with the type specimen of *L. densum* in body size and external features. Threfore, they will be described together with a redescription of *L. densum* in the present paper.

Before going further, I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO, Visiting professor at Tokyo university of Agriculture, for his kind advice on the present study, to Dr. A. F. NEWTON, JR., Field Mus. Nat Hist., Chicago, and Dr. L. H. HERMAN, American Mus. Nat. Hist., New York, for the loan of the type specimen of *L. densum*. Deep gratitude is also due to Mr. Masato MORI, Nishinomiya-shi, for his kindness in giving me the specimens used in this study and Dr. Hiroaki KOJIMA, Mr. Junnosuke KANTOH, Laboratory of Entomology, Tokyo University of Agriculture, and Mr. Arata ISHIZUKA, Wildlife Research Center for their assistance in taking the photographs inserted in this paper.

Lathrobium (*Lathrobium*) *densum* BERNHAUER

[Japanese name: Hizen-kobane-nagahanekakushi]

(Figs. 1–4)

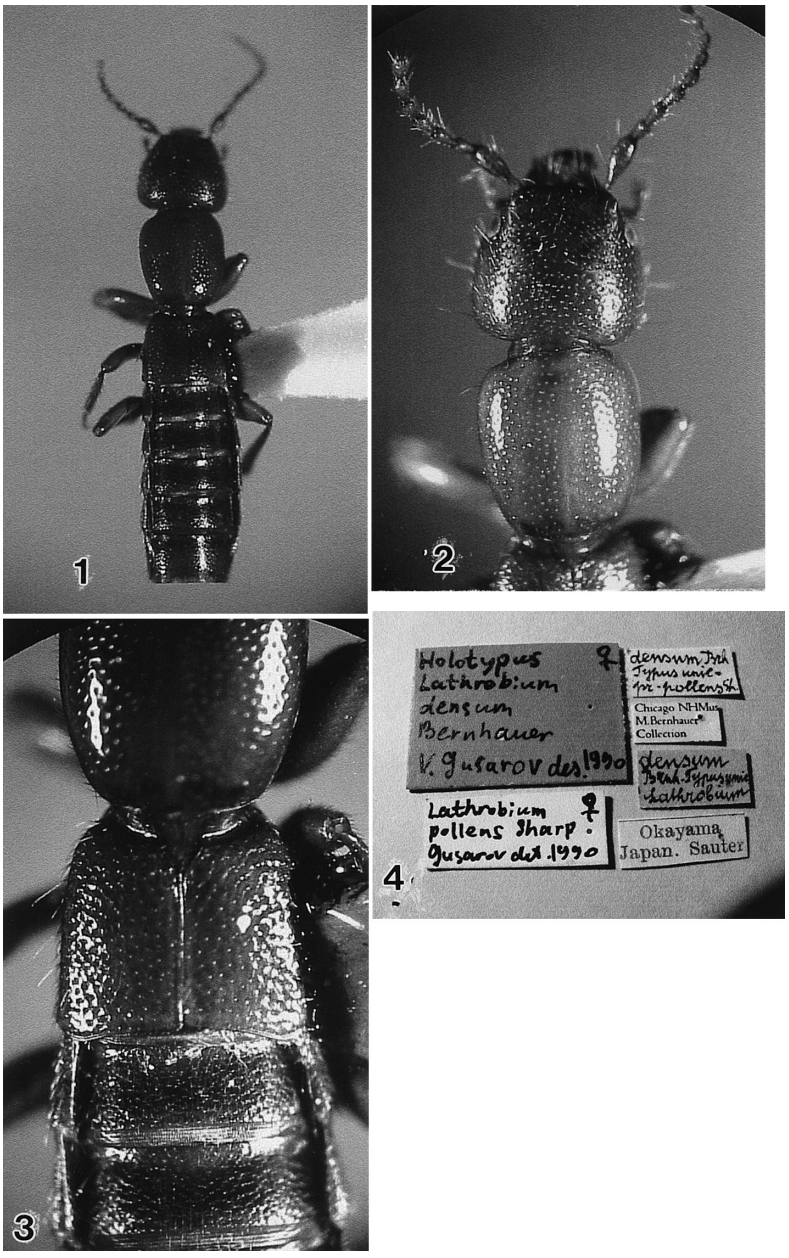
Lathrobium densum BERNHAUER, 1936, Pubbl. Mus. ent. Pietro Rossi, **1**: 307.
Lathrobium (*Lathrobium*) *densum*: SMETANA, 2004, Cat. Palaearct. Coleopt., **2**: 594.

Body length: 7.3 mm (from front margin of head to apical margin of 7th abdominal segment); 4.1 mm (from front margin of head to elytral apices).

Body elongate, subparallel-sided and somewhat depressed above. Colour brownish red and moderately shining, with abdomen somewhat darkened, and legs dark yellowish brown.

F e m a l e. Head subquadrate and somewhat depressed above, slightly narrowed anteriad, a little transverse (width/length＝1.13); lateral sides gently arcuate, frontal area between antennal tubercles transversely flattened and glabrous, provided with a large setiferous puncture inside each antennal tubercle; surface sparingly, distinctly and setiferously punctured, the punctures becoming closer in latero-basal parts than in medio-frontal part, and covered with extremely microscopic coriaceous ground sculpture only visible under high magnification; eyes small and flat, their longitudinal diameter shorter than one-fourth the length of postocular part. Antennae moderately long and somewhat slender, extending to near the middle of pronotum and not thickened towards the apical segment, three proximal segments polished, 4th subopaque and the remainings opaque, 6th to 10th more or less moniliform, 1st segment robust and apparently dilated apicad, more than twice as long as wide, 2nd to 4th equal in width to one another, 2nd constricted at the base, distinctly longer than wide (length/width＝1.43) but remarkably shorter (2nd/1st＝0.44) and narrower (2nd/1st＝0.70) than 1st, 3rd somewhat dilated apicad, apparently longer than wide (length/width＝1.79) and a little longer than 2nd (3rd/2nd＝1.25), 4th distinctly longer than wide (length/width＝1.43) but distinctly shorter than 3rd (4th/3rd＝1.43), 5th equal in length to though somewhat narrower than 4th (5th/4th＝0.89), 6th to 10th equal in both length and width to one another, each a little longer than wide (length/width＝1.20) and equal in width to 5th, 11th fusiform, apparently longer than wide (length/width＝1.80) and 1.5 times as long as 10th, subacuminate at the apex.

Pronotum convex medially and distinctly narrowed posteriad, somewhat longer than wide (length/width＝1.18), distinctly longer (pronotum/head＝1.27) but slightly narrower (pronotum/head＝0.96) than head; lateral sides gently arcuate, anterior margin very slightly emarginate at the middle, posterior margin truncate, anterior angles obtuse and invisible from above, posterior ones narrowly rounded; surface sparingly punctured, the punctures being closer and somewhat coarser than on medio-frontal part of head, bearing a narrow longitudinal smooth space along the median line through the length of pronotum. Scutellum small and subtriangular, provided with a few minute setiferous punctures near latero-posterior margin. Elytra subquadrate and somewhat



Figs. 1–4. *Lathrobium* (*Lathrobium*) *densum* BERNHAUER; habitus (1), head and pronotum (2), elytra and basal two abdominal segments (3), and type label (4).

dilated posteriad, a little transverse (width/length＝1.17), distinctly shorter (elytra/pronotum＝0.73) than though as wide as pronotum; lateral sides nearly straight, posterior margin broadly emarginate at the middle, posterior angles rounded; surface closely, roughly punctured and covered with fine brownish pubescence. Legs moderately long; profemora thickened though abruptly constricted near the apex; protibiae dilated apicad, hollowed in basal half on the inner face; meso- and metatibiae simple; 1st to 4th protarsal segments relatively widened; meso- and metatarsi thin.

Abdomen elongate, somewhat dilated from 3rd to 6th segments, 7th segment slightly narrower than 6th segment, 3rd to 7th tergites each shallowly, transversely depressed along the base, and closely, finely and superficially punctured, covered with fine brownish pubescence similar to those on elytra.

M a l e. Unknown.

Specimen examined. 1 ♀ (holotype), Okayama, Japan, SAUTER leg. (Field Mus., Chicago).

Distribution. Japan (Okayama, western Honshu).

Remarks. The holotype of *L. densum* is attached to the determination label inscribed *L. pollens* (SHARP, 1889, p. 254) by GUSAROV in 1990. *L. densum* is, however, different from *L. pollens* in details of external features as follows: head more transverse and less narrowed anteriad, lateral sides less arcuate, surface more closely punctured; pronotum slightly more closely and slightly more finely punctured; elytra slightly more transverse and more distinctly dilated posteriad, surface slightly more densely and slightly more coarsely punctured; abdominal tergites each more densely and more finely punctured.

Bionomics. Unknown.

Lathrobium* (*Lathrobium*) *masatoi Y. WATANABE, sp. nov.

[Japanese name: Masato-kobane-nagahanekakushi]

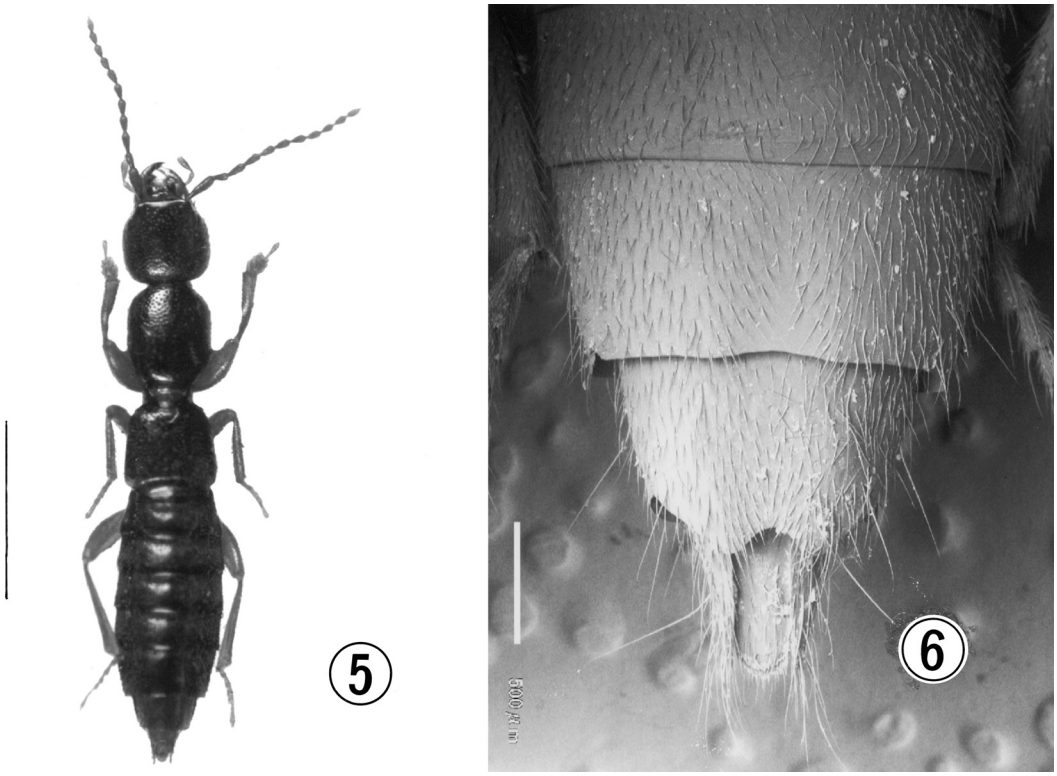
(Figs. 5–9)

Body length: 9.3–10.7 mm (from front margin of head to anal end); 4.6–4.8 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and subdepressed above. Colour brownish red to blackish brown and moderately shining, with palpi and legs brownish yellow, sutural, and sometimes also apical marginal areas and two last abdominal segments reddish brown.

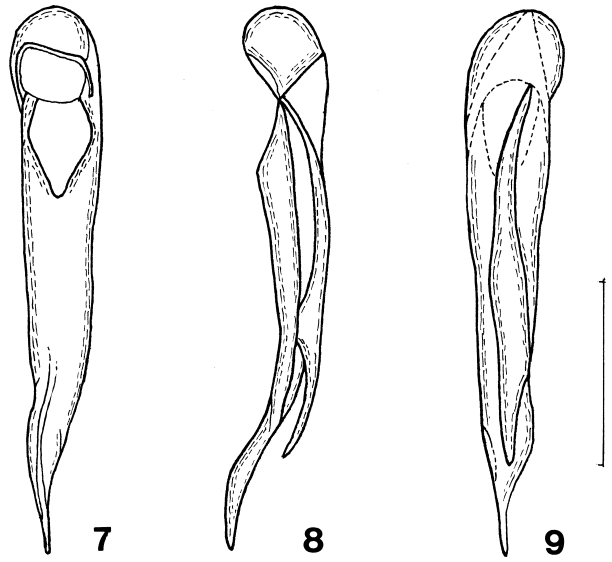
The present new species is similar in facies to the preceding species, but somewhat different from it in the larger body, and the following external features points:

M a l e. Head subquadrate and somewhat depressed above as in the preceding species though as long as wide or slightly transverse (width/length＝1.02), widest at about the middle and slightly more strongly narrowed anteriad than posteriad; lateral sides slightly arcuate; frontal area between antennal tubercles flattened and glabrous as



Figs. 5–6. *Lathrobium* (*Lathrobium*) *masatoi* sp. nov.; habitus (5), last three abdominal sternites in the male (6). Scale: 3.0 mm (5).

in the preceding species; surface coarsely, setiferously and slightly more sparingly punctured than in the preceding species except for smooth vertexal area, the punctures becoming closer and smaller in latero-basal areas, and covered with similar ground sculpture to that of the preceding species; eyes small and flat as in the preceding species. Antennae moderately long and somewhat slender, extending to the middle of pronotum and not thickened towards the extremity, 1st segment polished, 2nd subopaque and the remainings opaque, 6th to 10th somewhat moniliform as in the preceding species, 1st segment robust and dilated apicad, nearly three times as long as wide, 2nd constricted at the base, much longer than wide (length/width＝1.67), apparently shorter (2nd/1st＝0.43) and distinctly narrower (2nd/1st＝0.75) than 1st, 3rd obviously longer than wide (length/width＝2.33), apparently longer (3rd/2nd＝1.40) than though as wide as 2nd, 4th to 8th equal in both length and width to one another, each evidently longer than wide (length/width＝1.67), distinctly shorter (each of 4th to 8th / 3rd＝0.71) than though as wide as 3rd, 9th and 10th equal in both length and width to each other, each somewhat shorter (each of 9th and 10th / 8th＝0.90) than though as wide as 8th, 11th



Figs. 7–9. Male genital organ of *Lathrobium* (*Lathrobium*) *masatoi* sp. nov.; dorsal view (7), lateral view (8), and ventral view (9). Scale: 0.5 mm.

fusiform, twice as long as wide, distinctly longer (11th/10th = 1.33) than though as wide as 10th, subacuminate at the apex.

Pronotum subtrapezoidal and gently elevated medially as in the preceding species, a little longer than wide (length/width = 1.17), somewhat longer (pronotum/head = 1.13) but slightly narrower (pronotum/head = 0.97) than head, widest just behind anterior angles and more distinctly narrowed posteriad than anteriad; lateral sides almost straight except near anterior and posterior angles, anterior and posterior margins, anterior and posterior angles similar to those of the preceding species; surface much more sparingly and much more coarsely punctured than in latero-basal areas of head except for a narrow smooth median space through the length of pronotum. Scutellum subtriangular, provided with some minute setiferous punctures on the surface. Elytra subtrapezoidal, somewhat dilated posteriad and subdepressed above, a little transverse (width/length = 1.10), distinctly shorter (elytra/pronotum = 0.85) but a little wider (elytra/pronotum = 1.10) than pronotum; lateral sides, posterior margin and posterior angles as in the preceding species; surface somewhat more sparingly and slightly more roughly punctured than in the preceding species and covered with fine brownish pubescence. Hind wings reduced to minute pads. Legs moderately long; profemola, protibiae and protarsi similar in structure to those of the preceding species.

Abdomen elongate, gradually dilated from 3rd to 6th segments, and then abruptly narrowed towards the anal end; 3rd to 6th tergites each shallowly and transversely depressed along the base as in the preceding species, and somewhat more sparingly and more shallowly punctured than in the preceding species, and covered with fine brownish

pubescence similar to those on elytra; 7th and 8th tergites each more sparingly, more finely punctured and pubescent than in the preceding tergites; 8th sternite subtriangularly excised at the middle of posterior margin and somewhat longitudinally depressed before the excision, surface of the depression more closely clothed with fine dark brownish setae than in other parts; 7th sternite much more broadly and more shallowly emarginate at the middle of posterior margin than in 8th sternite, and shallowly, linguiformly depressed in front of the emargination, surface of the depression more sparingly setose than in other parts with exception of glabrous medio-apical area; 6th sternite simple.

Genital organ elongate and somewhat asymmetrical. Median lobe not extending beyond the apex of fused paramere, with ventral sclerite elongate, widest at about the middle and slightly more strongly narrowed basad than apicad, apex bluntly pointed. Fused paramere gradually narrowed to constricted part at apical two-fourths, and then more strongly so towards the apical part which is prolonged like a spear-head, surface provided with a pair of fine longitudinal carinae along the median line, and with a fine short carina just inside each lateral side before the spear-head part.

F e m a l e. Similar in general appearance to male, though the 8th abdominal sternite narrowed towards the broadly rounded apex, gradually in basal two-thirds and abruptly in apical third; 7th sternite simple.

Type series. Holotype: ♂, allotype: ♀, Ohara, Unnan-shi, Shimane Pref., Honshu, Japan, 3–VIII–2005, M. MORI leg. Paratypes: 2 ♂♂, 1 ♀, same data as for the holotype.

Type depository. All the type specimens are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. Japan. (Shimane Pref. in western Honshu).

Bionomics. The collected circumstance of this new species is unknown.

Lathrobium* (*Lathrobium*) *izumoense Y. WATANABE, sp. nov.

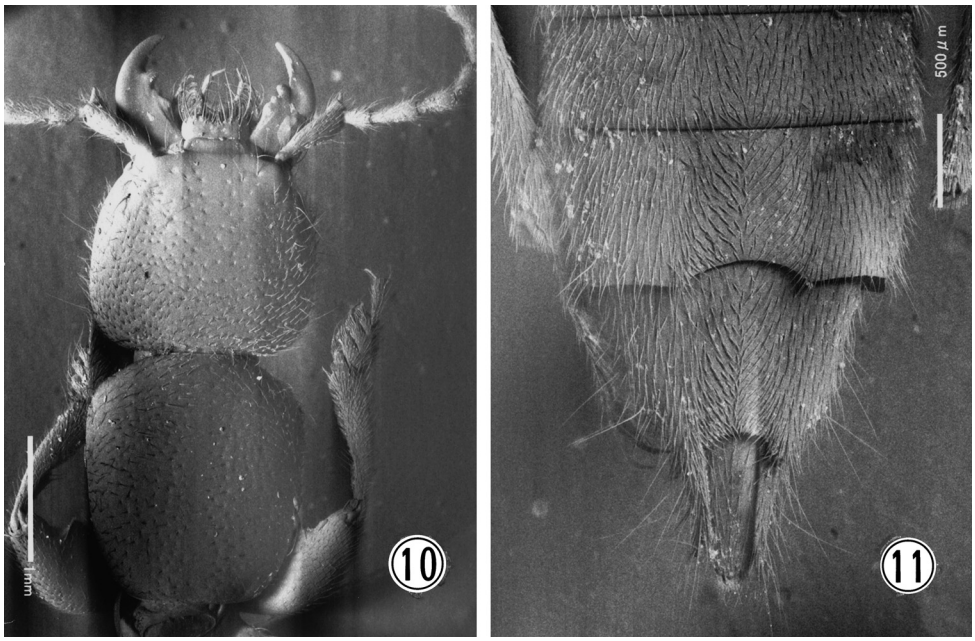
[Japanese name: Izumo-kobane-nagahanekakushi]

(Figs. 10–14)

Body length: 10.7 mm (from front margin of head to anal end); 4.8 mm (from front margin of head to elytral apices).

Similar in general appearance to *L. masatoi*, but differs from it in the body size, structure of secondary sexual characters of abdominal sternites and configuration of genital organ in the male, and the following points:

M a l e. Head feebly elevated medially and quadrate though slightly narrowed anteriad, slightly transverse (width/length = 1.06); lateral sides more feebly arcuate than in *L. masatoi*; surface more sparingly and much more finely punctured than in *L. masatoi*; eyes small and flat, their longitudinal diameter less than one-fourth the length of postocular part. Antennae moderately long and somewhat slender as in *L. masatoi*, two proximal segments polished, the remainings opaque, and similar articulation to

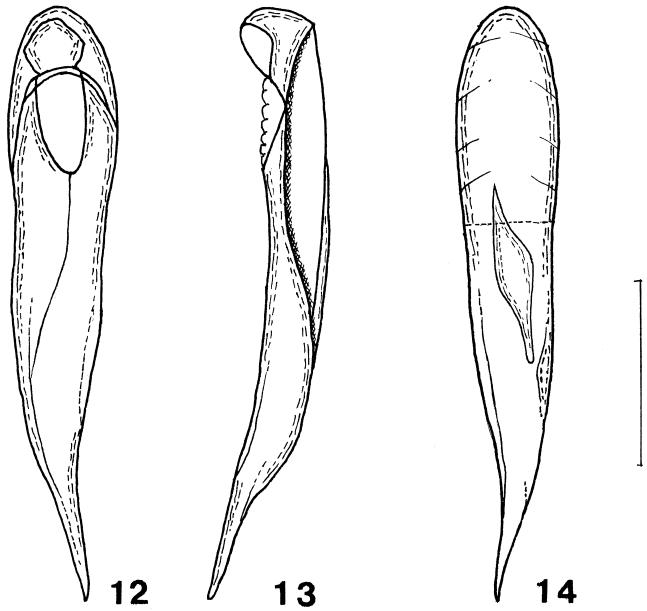


Figs. 10–11. *Lathrobium* (*Lathrobium*) *izumoense* sp. nov.; head and pronotum (10), last three abdominal sternites (11).

those in *L. masatoi*.

Pronotum subtrapezoidal, more strongly narrowed posteriad than in *L. masatoi*, somewhat longer than wide (length/width＝1.18), distinctly longer (pronotum/head＝1.18) but slightly narrower (pronotum/head＝0.94) than head; lateral sides feebly arcuate, anterior and posterior margins as in *L. masatoi* anterior angles more distinctly angulate than in *L. masatoi* though posterior angles are similar to those in *L. masatoi*; surface coarsely and slightly more closely punctured than in *L. masatoi* except for a narrow median smooth space. Scutellum subtriangular, surface provided with a few minute setiferous punctures. Elytra somewhat depressed above and subtrapezoidal, dilated posteriad, distinctly transverse (width/length＝1.20), apparently shorter (elytra/pronotum＝0.75) but slightly wider (elytra/pronotum＝1.06) than pronotum; lateral sides, posterior margin and posterior angles as in *L. masatoi*; surface closely and somewhat more roughly punctured than in *L. masatoi*. Legs moderately long, similar in structure to those of *L. masatoi*.

Abdomen elongate, slightly dilated from 3rd to 6th segments, and then abruptly narrowed towards the anal end as in *L. masatoi*; each tergite similarly punctured as in *L. masatoi* and covered with blackish brown pubescence; 8th sternite semicircularly excised at the middle of posterior margin and longitudinally depressed before the excision, surface of the depression more closely settled with blackish brown setae than



Figs. 12–14. Male genital organ of *Lathrobium* (*Lathrobium*) *izumoense* sp. nov.; dorsal view (2), lateral view (3); and ventral view (4). Scale: 0.5 mm.

in other parts; 7th sternite more broadly and more slightly shallowly emarginate at the middle of posterior margin than in 8th sternite and subtriangularly depressed in front of the emargination, surface of the depression more closely and more coarsely setose than in other parts; 6th sternite simple.

Genital organ elongate and somewhat asymmetrical. Median lobe with ventral sclerite widest at the middle and narrowed both basad and apicad, basal tip acutely pointed though apical tip narrowly rounded. Fused paramere gradually narrowed to apical fifth, and then abruptly so towards the pointed apex, apical fifth part curved to left side as seen from dorsal side, surface provided with an extremely fine carina which is straight in basal half at the middle and curved to right side in apical half.

F e m a l e. Unknown.

Type. Holotype: ♂, Ohara, Unnan-shi, Shimane Pref., Honshu, Japan, 3–VIII–2005, M. MORI leg.

Type depository. The holotype is deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. Japan (Shimane Pref. in western Honshu).

Bionomics. Unknown.

Etymology. The specific epithet of this new species is derived from "Izumo", which is an old name of the northern part of Shimane Prefecture.

要　　約

渡辺泰明: *Lathrobium densum* BERNHAUER の再記載および近縁の 2 新種（コウチュウ目ハネカクシ科）の記載. —— *L. densum* は “Okayama” で採集された 1♀に基づいて 1936 年に BERNHAUER によって記載されたのみでその後の報告はない．私は Field Museum (Chicago) に所蔵されている本種の基準標本を Dr. A. F. NEWTON, JR. および Dr. L. H. HERMAN 両博士のご配慮で検討することができたので再記載した．一方，森　正人氏から同氏が島根県雲南市で採集された本種に近縁と思われる 2 種を検討する機会を得た．その結果，これらの種は *L. densum* に類似しているが体が幾分大きいこと，頭部や鞘翅に差異が認められることによって区別することができ，未記載種と判定したので，マサトコバネナガハネカクシ *L. masatoi* およびイズモコバネナガハネカクシ *L. izumoense* と命名・記載した.

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Elytra, *Tokyo*, **38**(1): 82–83, May 31, 2010

New Records of Staphylinid Beetles (Coleoptera, Staphylinidae) from the Island of Tanegashima, Japan

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Narusedai 2–26–33, Machida-shi, Tokyo, 194–0043 Japan

Twenty-seven staphylinid species have hitherto been reported from the Island of Tanegashima in Kagoshima Prefecture by ADACHI (1957), WATANABE (1989, 1991), NAOMI and MARUYAMA (1997), and KISHIMOTO (2000). Examining the staphylinid beetles deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, I have found ten species not recorded from this island. They are recorded below with the collecting data.

1. *Bryoporus gracilis* (SHARP)
   1 ♂, Shogayama, 12–VI–1994, S. ONODA leg.
2. *Osorius angustulus* SHARP
   1 ♂, Manpa, 13–IV–1994, S. ONODA leg.; 1 ♂, Uchinoura, 16–V–1994, S. ONODA leg.; 2 ♂♂, Ooishino, 11–VI–1994, S. ONODA leg.; 3 ♂♂, 1 ♀, Shogayama, 12–VI–1994, S. ONODA leg.
3. *Anotylus japonicus* (CAMERON)
   1 ♂, Uchinoura, 16–V–1994, S. ONODA leg.
4. *Anotylus lewisius* (SHARP)
   3 ♀♀, Manpa, 13–IV–1994, S. ONODA leg.; 1 ♂, 2 ♀♀, Homan-jinja, 13–IV–1994, S. ONODA leg.; 2 ♂♂, 8 ♀♀, Ishinomine, 15–IV–1994, S. ONODA leg.; 2 ♂♂, Tashiro, 29–IV–1994, S. ONODA leg.; 4 ♂♂, 4 ♀♀, Uchinoura, 16–V–1994, S. ONODA leg.; 1 ♀, Shogayama, 12–VI–1994, S. ONODA leg.; 3 ♂♂, 2 ♀♀, An'nou, 19–VI–1994, S. ONODA leg.; 1 ♂, Noginodaira, 19–VI–1994, S. ONODA leg.
5. *Rugilus japonicus* Y. WATANABE
   1 ♂, Tashiro, 29–IV–1994, S. ONODA leg.; 3 ♀♀, An'nou, 19–VI–1994, S. ONODA leg.
6. *Sunesta setigera* (SHARP)
   1 ♂, Manpa, 13–IV–1994, S. ONODA leg.; 1 ♂, Ishinomine, 15–IV–1994, S. ONODA leg.; 6 ♂♂, 4 ♀♀, Tashiro, 29–IV–1994, S. ONODA leg.; 1 ♂, Ooishino, 11–VI–1994, S. ONODA leg.; 1 ♀, Shogayama, 12–VI–1995, S. ONODA leg.; 1 ♀, An'nou, 19–VI–1994, S. ONODA leg.
7. *Pinophilus lewisius* SHARP
   1 ♂, Ooishino, 11–VI–1994, S. ONODA leg.; 1 ♀, Ishinomine, 15–IV–1994, S. ONODA leg.; 1 ♀, An'nou, 19–VI–1994, S. ONODA leg.; 1 ♀, Noginodaira, 19–VI–1994, S. ONODA leg.; 1 ♀, Tashiro, 3–VII–1994, S. ONODA leg.
8. *Pinophilus punctatissimus* SHARP
   1 ♀, Shogayama, 16–X–1961, K. BABA leg
9. *Tympanopolus sauteri sauteri* BERNHAUER
   1 ♀, An'nou, 19–VI–1994, S. ONODA leg.
10. *Platydracus brevicornis* (MOTSCHULSKY)
    1 ♂, An'nou, 19–VI–1994, S. ONODA leg.

I thank the late Dr. Kintaro BABA, Kurokawa, and Mr. Shigeru ONODA, Kanoya-shi, for their kindness in providing me with the specimens.

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Elytra, *Tokyo*, **38**(1): 84–85, May 31, 2010

Records of *Eucurtiopsis ohtanii* (Coleoptera, Histeridae) from Tokushima Prefecture, Shikoku, Japan

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Eucurtiopsis ohtanii (K. SAWADA, 1994) was described from Mie, Honshu and Ôita, Kyushu, Japan, and additionally had been recorded from southwestern Honshu and Kyushu (*e.g.*, NISHIKAWA & MARUYAMA, 1993; ÔHARA, 1994,1999; INAHATA, 2004; NOMURA *et al*., 2006; YAMAMOTO, 2008), but not from Shikoku. Recently we have had an opportunity to examine specimens of this species on Shikoku. New to the fauna of the Island of Shikoku. We thank Mr. M. NISHIKAWA who gave us valuable comment and Mr. Y. KURODA for his kindness in submitting the valuable specimen to us for the study.

Eucurtiopsis ohtanii (K. SAWADA, 1994)

Eucurtiopsis sp.: NISHIKAWA & MARUYAMA, 1993, 230 & 246 [Honshu: Kanagawa].
Boreochlamydus ohtanii K. SAWADA, 1994, 359 [Kyushu: Ôita (type locality); Honshu: Mie].
Eucuritopsis (sic) *ohtanii*: ÔHARA, 1994, 78 [Honshu: Saitama, Shizuoka].
Eucurtiopsis ohtanii: ÔHARA, 1999, 79 [Honshu: Chiba]; INAHATA, 2004, 25 [Honshu: Hyôgo]; NOMURA *et al*., 2006, 194 [Honshu: Tokyo]; YAMAMOTO, 2008, 240 [Kyushu: Fukuoka]

Specimens examined. Japan: Shikoku [Tokushima Prefecture] 2 males, 1 female, Myôtai-san (alt. 770 m), Awa, 11 to 25–VII–2009, K. TANAKA, collected by a flight intercept trap. Same locality but different dates as follows: 1 female, 7 to 17–VI–2009; 2 females, 2 exs., 17 to 27–VI–2009; 2 exs., 27–VI to 11–VII–2009; also but different collectors and collecting method: 1 male, alt. 780 m, 9–V–2009, Y. KURODA & M. YOSHIDA, collected from leaf litter by trugllen's funnel.

Distribution. Japan (Honshu, Shikoku, Kyushu). New to Shikoku.

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Elytra, *Tokyo*, **38**(1): 85–86, May 31, 2010

Observation of the Respiratory Strategy of *Neohydrocoptus bivittis* (Coleoptera, Noteridae)

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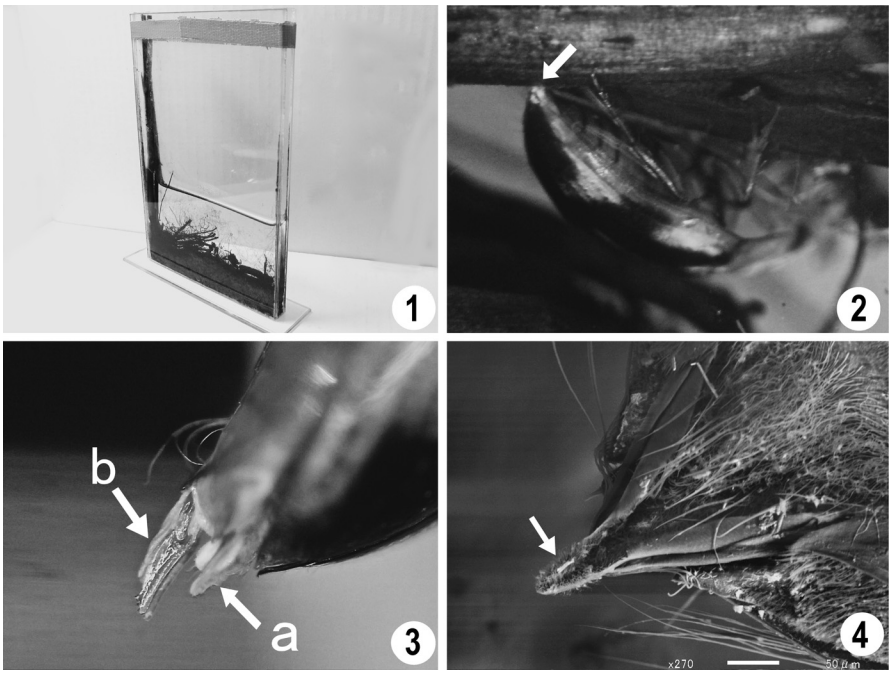
Some noterid larvae have been known to extract oxygen from water plants by using the last abdominal segment (BALFOUR-BROWN, F. & J., 1940; ROUGHLY, 2001; DETTNER, 2005). However, such habit has only been suggested in adults of the genera *Neohydrocoptus*, *Pronoterus*, and *Mesonoterus* due to the presence of the modified pygidial apex (MILLER, 2009). In this short paper we will report probable such habit in adult of *Neohydrocoptus bivittis* (MOTSCHULSKY, 1859) based on laboratory observation.

Hibernating adults of *N. bivittis* were collected at a water pond in Fukuoka Prefecture, western Japan on January 2nd, 2010. Nine adults were kept with detritus and rush (*Juncus* sp.) and observed in an acrylic case ($5 \times 100 \times 150$ mm) (Fig. 1).

The following behavior was observed in adult repeatedly: adult bites and bores a hole by the mouthparts on the root or stem of rush. Then, he/she turned around the body and inserted the apex of extended pygidium (usually retracted between elytra and abdominal ventrite) into the hole (Fig. 2). Adult was resting for a while (ca. 10 minutes) during the pygidium was inserting. The behavior was initially thought that of oviposition. But the gonocoxae had never been inserted and no egg was found in the root and stem, and the behavior was also observed in male. Therefore, we concluded that the behavior might be for respiration. The adult also uses air bubble attached to the surface of detritus and the root of the rush immersed in the water. Oxygen absorption from the water surface was also observed in adult as usual at the same time.

We thank Dr. Jun NAKAJIMA (Kyushu Univ.) and Dr. Shun-Ichi UÉNO (National Museum of Nature and Science, Tokyo) for their valuable comments.



Figs. 1–4. Observation acrylic case and *Neohydrocoptus bivittis*. —— 1, Acrylic case; 2, *N. bivittis* in breathing position; 3, abdominal tergum 8 (a) and gonocoxae (b); 4, SEM photograph of apical abdominal tergum, dorsal view (note the longitudinal depression and the pilose apex).

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Elytra, *Tokyo*, **38**(1): 87–93, May 31, 2010

A New Genus and Species of Lebiine Carabid Beetle (Coleoptera, Carabidae) from Kyushu, Japan

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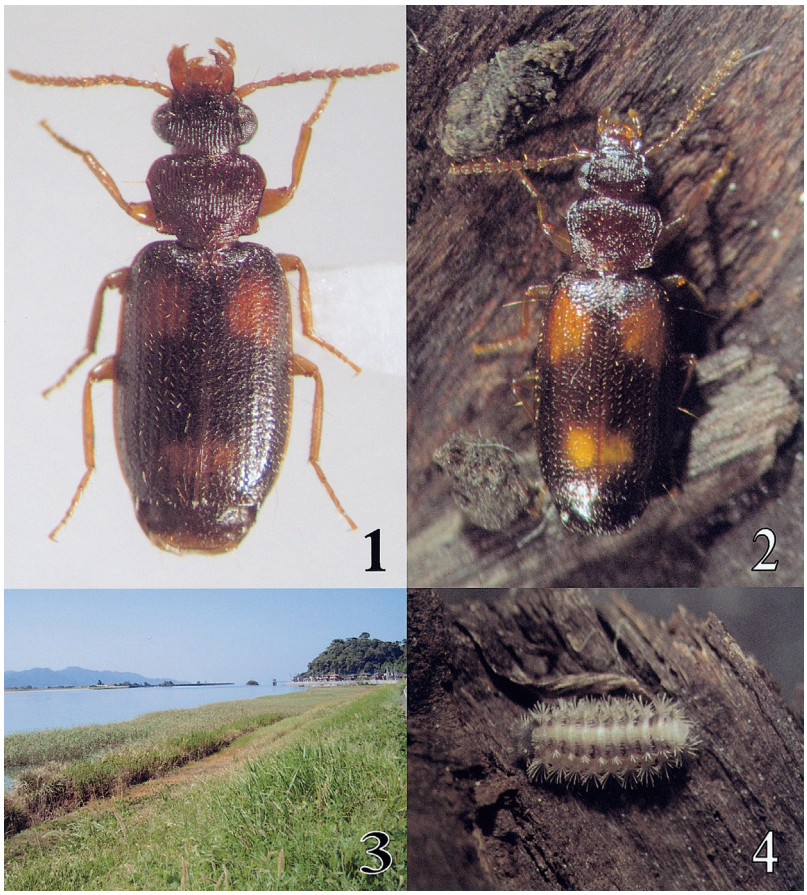
Abstract A new genus and species of lebiine carabid beetle is described from Kyushu, Japan under the name of *Imasakaia kidoi* gen. et sp. nov. It belongs to the subtribe Dromiina, and is distinguished from other genera by the coarsely rugose head and pronotum, the elytra with rows of minute hairs, and the stylus in female bearing many minute spines, a long hair and two spines.

Through the courtesy of Mr. Shôichi Imasaka, we were able to examine a strange lebiine carabid beetle found near the riverbed of the Kuma-gawa River in central Kyushu, Japan. At a glance, they look like certain species of the genus *Philorhizus* (Hope, 1838), but doubtless belong to a different genus. However, we soon found out that to erect a new genus for the species is not an easy task to do, for the species under consideration did not seem to have the necessary combination of characters to participate in the most recent key available to the lebiine genera of Japan (Habu, 1982, p. 111).

In order to obtain more material, the first author made a collecting trip to the riverbed last year, and succeeded in obtaining a long series of specimens of the beetle. At the same time, a very interesting observation was made on their habit, since the beetle usually coexists with the soft millipede, *Eudigraphis nigricans* (Diplopoda, Polyxenida).

Very recently, the same species was found from under the bark of a zelkova tree, *Zelkova serrata*, by Mr. Katsuya Kido, who submitted his collection to us for taxonomic study. Attempt to solve the problem led us to the study presented in the following pages.

The abbreviations used herein are as follows: L – body length, measured from apical margin of clypeus to apices of elytra; HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width



Figs. 1–4. *Imasakaia kidoi* ARAI et MORITA, gen. et sp. nov. —— 1. Holotype (♂); 2. *Imasakaia kidoi* ARAI et MORITA, gen. et sp. nov., living beetle at Sozô-machi; 3. Habitat (Sozô-machi); 4. *Eudigraphis nigricans* (MIYOSHI) (Diplopoda, Polyxenida).

of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; FL – length of metafemur; ML – length of metatrochanter; TLI – length of segment 1 of metatarsus; TLV – length of claw segment of metatarsus; M – arithmetic mean; NSMT – National Museum of Nature and Science, Tokyo.

Before going further, we wish to express our deep indebtedness to Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper. Hearty thanks are also due to Mrs. Shoichi IMASAKA and Katsuya KIDO for supplying us with important material.

Our thanks are also due to Dr. Martin BAEHR of Germany for giving advice.

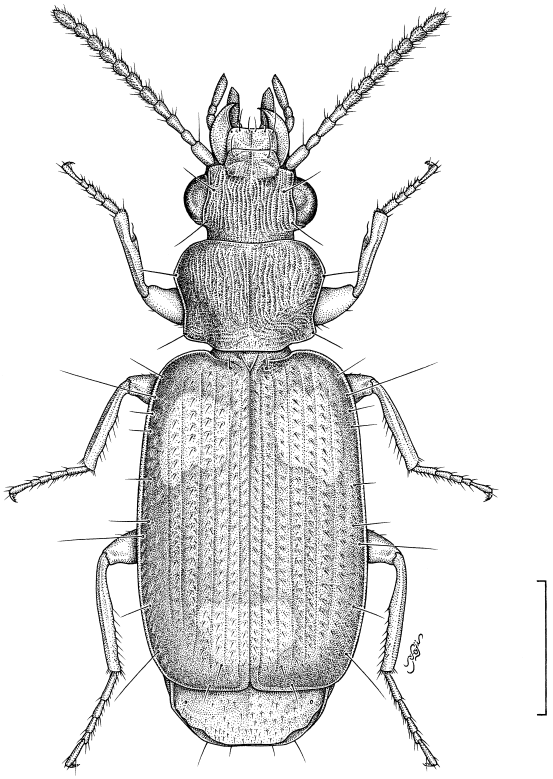


Fig. 5. *Imasakaia kidoi* ARAI et MORITA, gen. et sp. nov. (Scale: 1.00 mm.)

Genus ***Imasakaia*** nov.

[Japanese name: Shiwa-atokiri-gomimushi Zoku]

Type species: *Imasakaia kidoi* sp. nov.

Description. Body small and rather flat; body brown; elytra with spots.

Head rather flat; genae short and strongly convergent posteriad; neck short and wide (not constricted); surface coarsely and longitudinally rugose; frontal furrows indistinguishable; two pair of supraorbital pores present; posterior supraorbital pores situated near eyes; mentum tooth weakly porrect at the tip or almost lacking; clypeus with a longitudinal keel at middle; ligula wide, moderately emarginate at apex, and with a pair of setae; paraglossae smooth and extending beyond ligula; labrum with three pair of setae at apex; antennae short and moniliform; antennal segments from apex of IV to XI covered with pubescence; mandibles with narrow scrobe; apical segment of labial palpus fusiform; apical segment of maxillary palpus obliquely truncate.

Pronotum transverse; widest part obtusely angulate, with anterior marginal seta on

each side; hind angles with a postangular seta on each side; base widely and shortly pedunculate; surface densely covered with minute hairs, and strongly and longitudinally rugose.

Elytra elongate and gently convex; scutellar striole lacking; basal pore present on each side; intervals irregularly or transversely rugose and with longitudinal rows of minute hairs; interval III without dorsal pore; apical part with two pores (apical and subapical) on each side; apical three pores of marginal series on an almost straight line.

Hind wings fully developed.

Ventral surface almost smooth; sternites (I–V) with a pair of setae; anal sternite (VI) with two pair of setae in ♂ and ♀.

Legs rather short and thin; basal three segments of protarsus with adhesive hairs beneath in ♂; basal 3 or 4 segments of protarsus slightly wider in ♂ than in ♀; tibiae with short spines and apical spurs; segment 4 of tarsi not bilobed; claw serrate.

Aedeagus poorly sclerotized, short, not arcuate, and with very narrow basal part; apical orifice open at the dorsal side. Inner sac partially armed with many spines. Left paramere larger than the right one.

Apical styli in ♀ robust, straight and rather short; a long hair situated at apical 1/3; two short spines situated at apical 1/3; area of apical 1/3 covered with many minute spines.

Notes. This new genus is recognized on the following points: 1) head and pronotum coarsely rugose, 2) clypeus with a longitudinal keel at middle, 3) elytral intervals irregularly or transversely rugose and with rows of minute hairs, and 4) stylus in female with many minute spines, a long seta and two spines.

The generic name is given after Mr. Shôichi IMASAKA, who collected this interesting beetle.

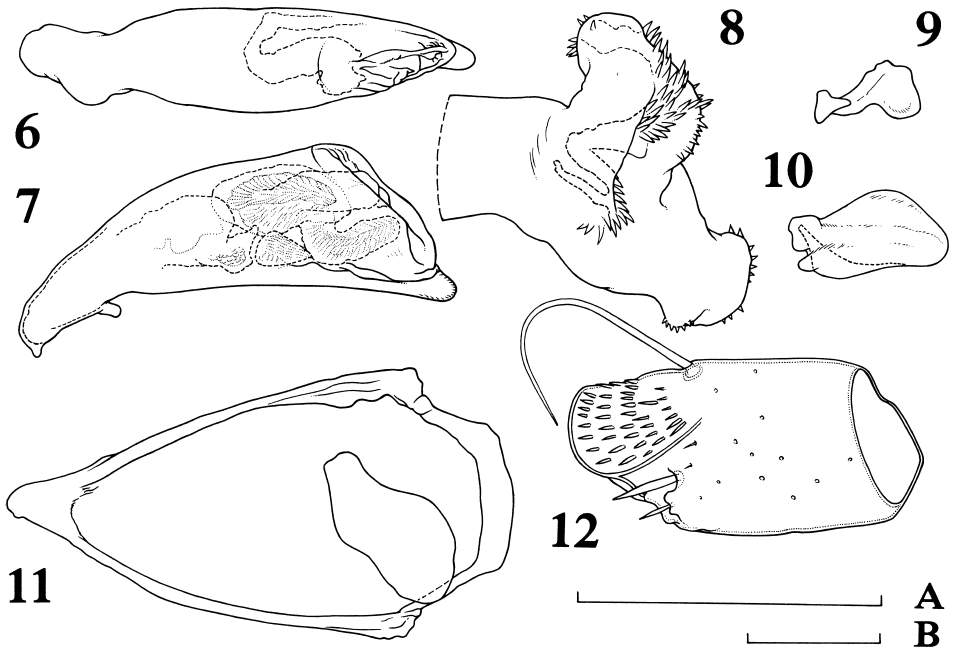
Imasakaia kidoi ARAI et MORITA, sp. nov.

[Japanese name: Mitsumon-shiwa-atokiri-gomimushi]

(Figs. 1–12)

Description. L: 3.70–4.11 mm. Body small and rather flat. Head and pronotum brown; elytra brown to dark brown, with three reddish brown spots; a pair of anterior spots situated at basal 1/10–2/5 and on intervals III–VII or VIII on each side; posterior spot situated at middle and at basal 7/10–9/10; ventral side brown; epipleuron usually brown, rarely partially dark brown; labrum and mandibles reddish brown; antennae, palpi and legs yellowish brown.

Head rather flat with prominent eyes; surface strongly and longitudinally rugose; anterior supraorbital pores situated at the level of basal 2/3 of eyes; posterior supraorbital pores situated at the post-eye level; microsculpture not sharply impressed; genae very short and oblique; labrum usually with longitudinal and very weak keel at middle, or rarely almost flat; apex of labrum variable in shape, usually weakly emarginate, rarely



Figs. 6–12. *Imasakaia kidoi* ARAI et MORITA, gen. et sp. nov. —— 6, Aedeagus, dorsal view; 7, same, left lateral view; 8, everted inner sac of aedeagus, dorsal view; 9, right paramere, left lateral view; 10, left paramere, left lateral view; 11, genital segment, ventral view; 12, apical stylus. (Scale: A, 0.5 mm for 6–11; B, 0.05 mm for 12.)

almost straight or weakly produced, and with three pair of setae at apex; antennae moniliform, short and reaching the basal part of elytra; antennal segment I with a long seta; segment II without seta; segment III with four or five setae; apex of segment IV to XI covered with pubescence; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.45 : 0.75 : 0.70 : 0.65 : 0.65 : 0.85.

Pronotum transverse, weakly convex and widest at about basal 3/5; sides very weakly arcuate from apical angles to the level of apical 1/8, almost straight or very weakly arcuate from that level to the widest part, almost straight behind, moderately sinuate at basal 1/4, and then very weakly divergent towards hind angles; apical angles not produced and widely rounded at the tips; apex almost straight and not bordered; median line vaguely impressed, reaching neither apex nor base; anterior transverse impression usually not clear; basal fovea very shallow; hind angles rectangular, and with obtusely rounded tip; base not bordered; PW/HW 1.10–1.15 (M 1.13) in ♂, 1.10–1.19 (M 1.15) in ♀; PW/PL 1.33–1.41 (M 1.36) in ♂, 1.32–1.41 (M 1.37) in ♀; PW/PA 1.39–1.55 (M 1.50) in ♂, 1.34–1.58 (M 1.49) in ♀; PW/PB 1.16–1.22 (M 1.20) in ♂, 1.16–1.21 (M 1.18) in ♀; PA/PB 0.75–0.88 (M 0.80) in ♂, 0.74–0.87 (M 0.80) in ♀; surface densely covered with minute hairs; disc strongly and longitudinally rugose, but

apical and basal parts disordered; microsculpture practically vanished.

Elytra elongate; EW/PW 1.51–1.75 (M 1.60) in ♂, 1.40–1.58 (M 1.51) in ♀; EL/EW 1.31–1.53 (M 1.43) in ♂, 1.44–1.64 (M 1.55) in ♀, widest at about middle; shoulders widely rounded; sides usually very feebly arcuate throughout; outer angles of apices widely rounded; suture slightly separated from each other at apex, with sutural angle rounded; striae shallowly and vaguely impressed and impunctate; basal pore situated on base of stria 1 or 2; microsculpture practically vanished though consisting of polygonal meshes; intervals weakly convex; marginal series of umbilicate pores nine in number; apical pore situated on apex of stria 3; subapical pore situated on the apical part of interval III.

Anal sternite (VI) trapezoidal, with moderately arcuate apex.

Legs rather short and thin; metatrochanter short, with rounded apex and a seta; ML/FL 0.49–0.55 (M 0.52) in ♂ and ♀; TLI/TLV 1.00–1.10 (M 1.05) in ♂, 1.00–1.10 (M 1.07) in ♀; claw segment of metatarsus with a pair of setae on ventro-lateral sides.

Genital segment triangular with short and narrow handle.

Aedeagus high at apical 1/3 of aedeagus in lateral view; basal part very narrow; viewed laterally, ventral side almost straight; apical lobe rather short, and with simply rounded apex. Inner sac partially armed with many spines. Right paramere small, with elongate basal part; left paramere with large basal part and arcuate apical part.

Apical styli in ♀ as described under the genus.

Type series. Holotype: ♂, Sozô-machi, Yatsushiro-shi, Kumamoto Prefecture, 20–IX–2009, K. Arai leg. (NSMT). Paratypes: 1 ♂, 1 ♀, Kongo, Yatsushiro-shi, Kumamoto Prefecture, 29–VIII–2005, S. Imasaka leg.; 4 ♂♂, 8 ♀♀, Sozô-machi, Yatsushiro-shi, Kumamoto Prefecture, 20–IX–2009, K. Arai leg.; 2 ♂♂, 11 ♀♀, Eta, Nagomi-machi, Kumamoto Prefecture, 6–II–2010, K. Kido leg.

Range. Kyushu, Japan.

Notes. As was already mentioned in the introduction of this paper, the collector observed that the beetles usually coexisted with a soft millipede, *Eudigraphis nigricans* (Diplopoda, Polyxenida) under the drift wood and stones. We considered that this beetle fed on the above millipede. In order to confirm this, alimentary canal of this beetle was dissected. After a careful examination, it was found out that the alimentary canal of this beetle contained characteristic hairs of the millipede.

The standard ratios of body parts shown in the descriptive part are those of 5 males and 9 females from Sozô-machi.

要　　約

新井浩二・森田誠司：九州産アトキリゴミムシの新属新種（コウチュウ目オサムシ科）．—— 熊本県から発見されたアトキリゴミムシ類の新属新種 *Imasakaia kidoi* シワアトキリゴミムシ属ミツモンシワアトキリゴミムシ（新称）を記載した．本種は，小型で，頭部と前胸背板の表面に縦皺を密にそなえ，上翅の間室に細毛列と，基部および先端近くに斑紋を有するなどの特徴をもつ．

第一著者の観察ならびに採集者の一人，城戸克弥氏からの情報をもとに，解剖を行った結果，本種は，軟体のヤスデ類イソフサヤスデを食べているという特異な性質が，明らかになった．

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Elytra, *Tokyo*, **38**(1): 93–94, May 31, 2010

Records of Some Nanophyid Weevils (Coleoptera, Nanophyidae) New to Laos, Part 2

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The nanophyid weevil fauna of Laos has poorly been studied and merely a total of two genera and three species are known from the country (KANTOH & KOJIMA, 2009 b). In this paper, two genera and four species are newly added to the fauna based on the recent survey conducted at rice paddy and its adjacent areas.

We thank Mr. H. WAKAHARA and his family for their arrangement of our trip. Thanks are due to Dr. S. OKAJIMA for his encouragement, and Ms. M. WATANABE, Messrs. T. BAN and G. OISHI for their help in the field. This study is supported by the KAKENHI (21405019, head investigator: S. OKAJIMA).

1. *Alonsiellus pubescens* (ROELOFS, 1874)

Specimen examined. 1 female, Ban Don (alt. ca. 1,100 m, rice paddy), Houapan Prov., 25–VIII–2009, G. OISHI leg.

Distribution. Japan, E. Siberia, Korea, Laos. New to Laos.

Weevils are associated with *Ludwigia epilobioides* (Onagraceae) inhabiting humid places and

make the stem gall in Japan (Y. SAWADA, pers. comm.).

2. *Nanophyes albovittatus* ROELOFS, 1874

Specimens examined. 1 male, Ban Don (alt. ca. 1,100 m, rice paddy), Houapan Prov., 16–VI–2009, T. BAN leg. 3 males and 1 female, Muang Kham Hot Spring (alt. 626 m), N 19°33′/E 103°26′, Xieng Khouang Prov., 20–VIII–2009, H. KOJIMA leg.

Distribution. Japan, Korea, Laos. New to Laos.

Weevils are associated with *Ludwigia epilobioides* and make the fruit gall in Japan.

3. *Nanophyes pallipes* ROELOFS, 1874

Specimens examined. Houapan Prov.: 2 males and 5 females, Ban Nasala (alt. ca. 1,300 m, rice paddy), 15–VI–2009, H. KOJIMA leg. 1 female, Ban Don, (alt. ca. 1,100 m, rice paddy), 25–VIII–2009, H. KOJIMA leg. Khammouan Prov.: 1 male, 7 km east from Thakhek (alt. 169 m), 18–II–2010, H. KOJIMA leg. 2 males and 1 female, 13 km east from Thakhek (alt. 188 m), 18–II–2010, H. KOJIMA leg.

Distribution. Japan (incl. Ryukyus), Laos. New to Laos.

Weevils are associated with *Rotala indica* (Lythraceae) and make the stem gall.

4. *Shiva trispinosus* PAJNI et BHATEJA, 1982

Specimens examined. Khammouan Prov.: 6 males and 6 females, Thakhek (alt. 185 m), 19–IX–2009, G. OISHI leg. (on flower of *Lagerstroemia* sp.). 2 males and 1 female, 7 km east from Thakhek (alt. 169 m), 18–II–2010, T. BAN, H. KOJIMA, M. WATANABE & J. KANTOH leg. Vientiane Dist.: 1 female, Tha Ngon (alt. 254 m), 29–IX–2009, H. WAKAHARA leg. Salavanh Prov.: 1 male, 94 km north from Pakse (alt. 182 m), 12–II–2010, H. KOJIMA leg.

Distribution. India, Indonesia (Bali), Laos. New to Laos.

Weevils are associated with crape myrtle, *Lagerstroemia* spp. (Lythraceae) (KANTOH & KOJIMA, 2009 a).

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KANTOH, J., & H. KOJIMA, 2009 a. Records of the nanophyid weevils (Coleoptera, Nanophyidae) from Bali, Indonesia. *Elytra*, *Tokyo*, **37**: 171–174.

———— 2009 b. Records of some nanophyid weevils (Coleoptera, Nanophyidae) new to Laos. *Ibid.*, **37**: 373–374.

Elytra, *Tokyo*, **38**(1): 95–97, May 31, 2010

Record of *Sugimotoa parallela* HABU (Coleoptera, Carabidae)

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Abstract Collecting data and habitat of *Sugimotoa parallela* are reported.

Sugimotoa parallela was described by HABU (1975, p. 79) from the Island of Ishigaki-jima, Southwest Japan. Although this species possesses two pair of supraorbital setae, HABU regarded it as a member of harpaline carabids with hesitation.

In 1984, KIKUTA briefly commented that this species may be placed in the tribe Pterostichini without clear reasoning. In his iconographical book, KASAHARA (1985, p. 150, pl. 27, fig. 31) showed a picture of the holotype at the end of the members of the subfamily Harpalinae.

BALL *et al.* (1995) redescribed this species based on two males and three females from the type locality, the Solomon and Vanuatu Archipelagoes, and concluded that this beetle is a sufficiently isolated lebiine. In addition, they suggested that it must be a "grass stem-inhabiting lebiine" and that the Japanese population was imported into Southwest Japan with a shipment of sugar cane from farther south.

The second author collected this species from the beach on the Island of Ishigaki-jima, but nothing is known about the habitat of this species. The collecting data are as given below.

Specimen examined. 1 ♀, Maezato, Ishigaki-shi, Okinawa Prefecture, 19–IV–2007, Y. HIRANO leg.

Notes. The specimen was found from under rubbish washed up by the waves onto a narrow sandy beach surrounded by reefs.

At present, we consider that the beetle inhabits sandy beach areas. According to HABU, the type series was collected with a *Cillenus*-like bembidiine, which is adaptive to intertidal life. Our data are supported by HABU's list.

Fig. 1. *Sugimotoa parallela* HABU from Maezato.

Needless to say, the data now available is based only on a single specimen, so that further investigation is needed. Incidentally, the distance between the collecting point and arable land is only about 400 m in a straight line.

We wish to express our deep gratitude to Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper.

要　　約

森田誠司・平野幸彦：スギモトゴモクムシ *Sugimotoa parallela* HABU（コウチュウ目オサムシ科）の記録．―― スギモトゴモクムシ *Sugimotoa parallela* HABU は，はじめゴモクムシ Harpalinae の一員として石垣島より記載された．その後，BALL らの詳細な研究からアトキリゴミムシの仲間とみなされ，サトウキビなどの葉上をすみかとする種ではないか，あるいは，南方よりわが国へ移入された可能性などを示唆されている．

筆者のひとり，平野は，本種を石垣島の海岸に打ち上げられたごみの下より採集した．わずか1頭の記録ではあるが，基準標本も潮間帯をすみかとするキバナガミズギワゴミムシの仲間とと

もに灯火に飛来したという事実からも，本種は海浜生の種であることが，示唆されている．

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Elytra, *Tokyo*, **38**(1): 97–98, May 31, 2010

Records of *Platylister* (*Popinus*) *unicus* (Coleoptera, Histeridae) from Danjo Islands, off Kyushu, and the Ryukyus, Japan

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Platylister (*Popinus*) *unicus* (BICKHARDT, 1912) was described from Taiwan, and additionally had been recorded from the Ryukyus, Japan (CHÛJÔ, 1971; HISAMATSU, 1981; ÔHARA & NAKANE, 1986; ÔHARA, 1999) and Nepal (MAZUR, 2008). Recently we have had an opportunity to examine specimens of this species on the Island of Oshima (32°02′31″N 128°24′00″E), Danjo Islands, about 150 km off western Kyushu, and also on some islands of the Ryukyus, Japan. New to the fauna of Danjo Islands. We thank Messrs. K. ADACHI, K. KAWADA, T. NAKATA and T. SHIMADA for offering materials.

Platylister (*Popinus*) *unicus* (BICKHARDT, 1912)

Platysoma (*Platysoma*) *unicum* BICKHARDT, 1912, 124 [Taiwan: Nantou: Chip-chip (=Chi Chi)]; 1913, 170 [Taiwan: Kaoshiung: Kosempo (=Ko-hiong, Chiasien)]; NAKANE, 1963, 69 [Ryukyus: Tokara-nakanoshima; Taiwan]; CHÛJÔ, 1971, 6 [Ryukyus: Iriomote-jima]; HISAMATSU, 1985, 229 [Ryukyus;

Taiwan]; ÔHARA and NAKANE, 1986, 96 [Ryukyus: Tokara-nakanoshima, Taketomi-jima, Ishigaki-jima; Taiwan: Nantou: Honbukei (=Pen bu chi); Taitong: Chipon; Pingtong: Ken chin (=Kenting)]; ÔHARA, 1999, 88 [Ishigaki-jima].

Eblisia unicum: MAZUR, 1999, 3.

Platylister (*Popinus*) *unicus*: MAZUR, 2007, 73 [Taiwan: Naontou]; 2008, 93 [Nepal].

Specimens examined. Japan: Nagasaki Pref. [Danjo Islands (=Danjo-guntô): Oshima] 1 male, 1 female, 4–V–2005, K. ADACHI. Ryukyus [Ishigaki-jima] 1 ex., Yarabu-dake, 19–IV–2001, T. NAKATA; 2 exs., 23–VIII–1997, K. KAWADA. [Iriomote-jima] 2 exs., Shirahama-rindô, 21–XI–1998, T. SHIMADA.

Distribution. Japan (Danjo Islands, Ryukyus: Tokara-nakanoshima, Ishigaki-jima, Iriomote-jima, Taketomi-jima), Taiwan (Nantou, Kaoshing, Pington, Taitong), Nepal. New to Danjo Islands.

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Elytra, *Tokyo*, **38**(1): 99–103, May 31, 2010

A New *Pterostichus* (Coleoptera, Carabidae) from Gifu Prefecture, Central Japan

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Abstract A new macrocephalic pterostichine carabid beetle, *Pterostichus kuraiyamanus* sp. nov., is described from Gifu Prefecture, Central Japan.

The purpose of this paper is to describe a new pterostichine carabid species discovered recently.

The abbreviations used herein are as follows: L – body length, measured from apical margin of clypeus to apices of elytra; HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; M – arithmetic mean; NSMT – National Museum of Nature and Science, Tokyo.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi Uéno of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper.

Pterostichus kuraiyamanus Morita et Ohkawa, sp. nov.

[Japanese name: Kuraiyama-ôzu-naga-gomimushi]

(Figs. 1–9)

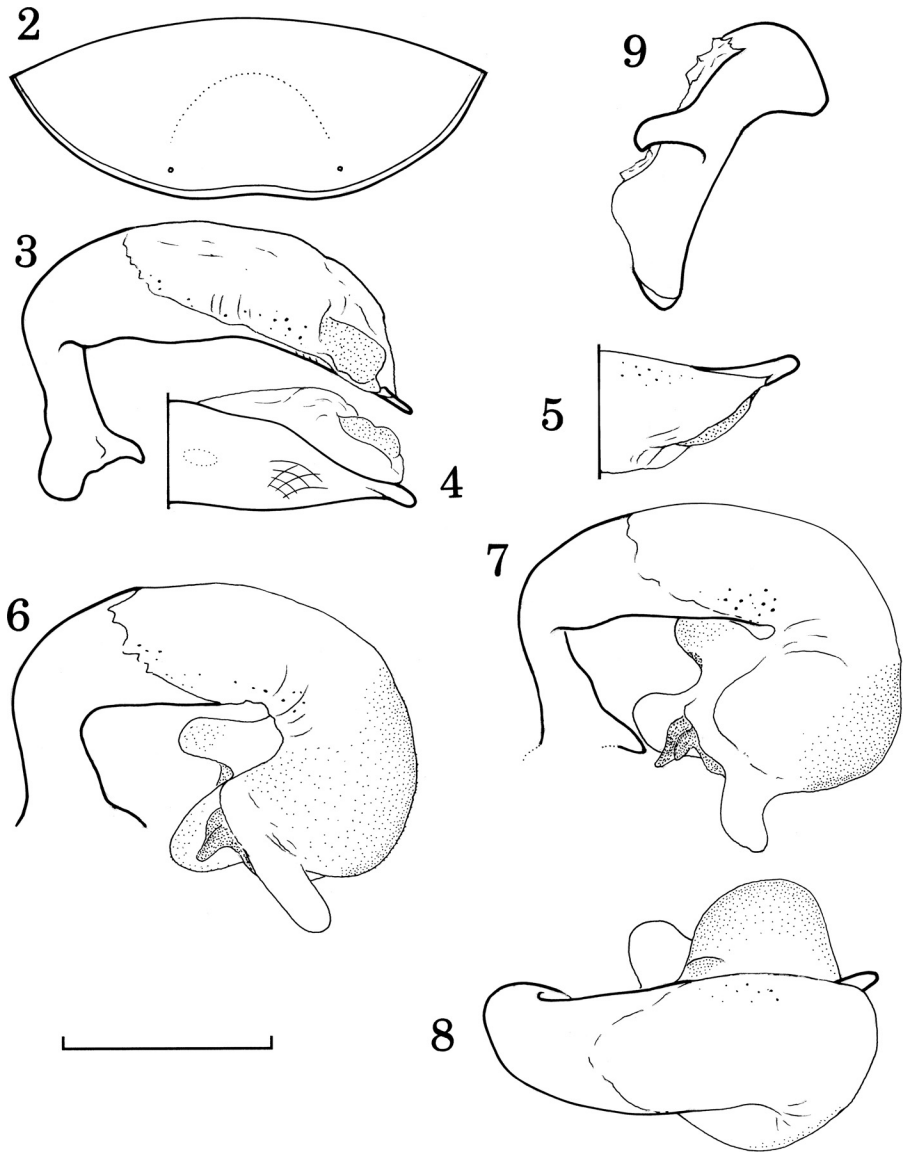
Diagnosis. A *Pterostichus* species with extremely large head and entirely flat eyes; body rather smooth; in ♂, anal sternite polished; aedeagal ventral side with a small tumor at apical half.

Description. L: 13.28–15.57 mm in ♂, 16.42–17.86 mm in ♀. Body flat. Colour brown to dark brown; appendages dark brown.

Fig. 1. *Pterostichus kuraiyamanus* MORITA et OHKAWA, sp. nov.

Head very large and convex; eyes entirely flat; frontal furrows shallow, short and almost parallel to each other or weakly curved inwards at the posterior ends; lateral grooves deep, straight, wide in front, becoming narrower towards posterior ends and reaching posterior supraorbital pore on each side; several additional grooves or oblique wrinkles situated a little outside lateral groove and convergent towards posterior end of lateral groove on each side; surface sparsely and very finely punctate; PW/HW 1.05–1.12 (M 1.09) in ♂, 1.00–1.03 (M 1.01) in ♀; genae strongly convex; microsculpture almost obliterated, partially consisting of wide meshes; mentum tooth stout and bifid; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.44 : 0.78 : 0.77 : 0.75 : 0.76 : 0.72 in ♂ and ♀.

Pronotum trapezoidal, weakly convex and widest at about apical 1/5 in ♂ (mea-



Figs. 2–9. *Pterostichus kuraiyamanus* MORITA et OHKAWA, sp. nov. —— 2, Anal sternite in ♂; 3, aedeagus, left lateral view; 4, apical half of aedeagus, ventral view; 5, apical part of aedeagus, dorsal view; 6, aedeagus, showing everted inner sac, slightly oblique left lateral view; 7, same, showing individual variation; 8, same, dorsal view; 9, right paramere, left lateral view. (Scale: 1 mm for Figs. 2–8; 2 mm for Fig. 9.)

sured along the median line), apical 1/10 in ♀; apex widely and moderately emarginate; PW/PL 1.49–1.54 (M 1.51) in ♂, 1.49–1.66 (M 1.56) in ♀; sides widely and weakly arcuate in front, and then shallowly sinuate at basal 1/5 in ♂ (measured along mid line), 1/5–1/4 in ♀, and weakly divergent towards hind angles; base moderately emarginate at median part, transverse or slightly oblique inside each hind angle; PW/PA 1.13–1.15 (M 1.14) in ♂, 1.07–1.11 (M 1.08) in ♀, PW/PB 1.23–1.29 (M 1.27) in ♂, 1.27–1.34 (M 1.31) in ♀, PA/PB 1.09–1.13 (M 1.11) in ♂, 1.18–1.22 (M 1.21) in ♀; apical angles strongly produced and simply rounded at the tips; hind angles sharp; anterior pair of marginal setae inserted at the widest part; posterior ones a little before and inside hind angles; anterior transverse impression very shallow at the median part and obliterated at the sides; median line moderately impressed between anterior and posterior impressions; basal foveae shallow, linear at the bottom, and sparsely and finely punctate; disc with fine and transverse wrinkles; microsculpture composed of fine and wide or transverse meshes in ♂, and of fine and transverse meshes in ♀; surface finely and very sparsely punctate; basal part between bottoms of basal foveae weakly wrinkled.

Elytra elongated ovate, very weakly convex and widest at about middle or a little behind the middle; EW/PW 1.19–1.21 (M 1.20) in ♂, 1.14–1.17 (M 1.15) in ♀, EL/EW 1.55–1.58 (M 1.57) in ♂, 1.59–1.68 (M 1.64) in ♀; shoulders square but the corners are rounded; sides very weakly arcuate, and then moderately arcuate at the apical parts, with shallow and narrow preapical emargination on each side; apices widely separated from each other, and sutural angle obtuse in ♂; apices usually weakly separated from each other and sutural angle rather sharp or dentate in ♀; in 1 ♀, apices conjoint each other; scutellar striole rather long, situated on interval I, and joining basal border which is weakly arcuate; striae very shallow throughout and smooth or very weakly crenulate; basal pore situated at base of stria 1 or at interval II and adjoining stria 1; two dorsal pores situated on interval III and adjoining stria 2; anterior dorsal pore situated at basal 3/7 to a little behind the middle; posterior dorsal pore situated at basal 4/5–17/20; intervals weakly convex, very sparsely and finely punctate; basal parts of intervals VII and VIII usually with transverse wrinkles; microsculpture rather coarsely impressed, composed of wide or polygonal meshes; inner plica visible; epipleuron gradually narrower towards apex; marginal series composed of 13–14 pores. TL/HW 0.94–1.00 (M 0.99) in ♂, 0.87–0.93 (M 0.90) in ♀.

Genae usually smooth on ventral side; prepisternum sparsely and finely punctate; mesosternum, mesepisternum, metasternum and sides of sternite 1 sparsely and finely punctate.

Anal sternite shallowly concave at median part, the concavity being smooth and polished, and very narrowly emarginate at apex in ♂; in ♀, anal sternite wide, narrowly depressed and obliquely wrinkled along the margin, and impressed with microsculpture of polygonal meshes.

Aedeagus elongate, strongly bent at basal third; basal part thin; viewed dorsally, apical lobe rather elongate, weakly inclined to the right and with simply rounded apex; ventral side with a small tumor at apical half. Inner sac composed of three small lobes

as in Figs. 6–8. Right paramere small and strongly bent at apical third and with obtuse apex; left paramere square.

Type series. Holotype: ♂, 23–IX～17–X–2009, H. OHKAWA leg. (NSMT). Paratypes: 1 ♂, 5 ♀♀, 19–VIII～23–IX–2009, H. OHKAWA leg.; 2 ♂♂, 2 ♀♀, 23–IX～17–X–2009, H. OHKAWA leg.; 3 ♂♂, 2 ♀♀, 17–X～15–XI–2009, H. OHKAWA leg.

Locality. Mt. Kurai-yama, Ichinomiya-machi, Takayama-shi, Gifu Prefecture, Central Japan.

Notes. This new species is closely allied to *Pterostichus shojii* SUGIMURA (2006, p. 34). It is, however, distinguished from the latter mainly by rather smooth surface, the polished anal sternite in ♂ and the aedeagus with a small tumor.

It is difficult to make a comparison in the illustrations of the aedeagus and right paramere given by the workers, including ourselves, because they are in different directions. Although the original description of *P. shojii* was given very carefully, the illustration of the aedeagus of that species is not the left lateral view, but the left ventro-lateral view.

The standard ratios of body parts shown in the descriptive part are those of 4 ♂♂ and 6 ♀♀.

要　　約

森田誠司・大川秀雄：岐阜県産オオズナガゴミムシ（コウチュウ目オサムシ科）の1新種. —— 岐阜県高山市から採集されたナガゴミムシを新種と認め，クライヤマオオズナガゴミムシ *Pterostichus kuraiyamanus* sp. nov. と命名記載した．この種は，岐阜県下呂市から知られているゲロオオズナガゴミムシ *P. shojii* SUGIMURA に近い種と思われるが，体表面の点刻が少なく，雄腹端節が，完全に滑沢であること，陰茎下面の状態などで識別される．

Reference

SUGIMURA, A., 2006. A new species of the genus *Pterostichus* (Coleoptera, Carabidae) from Mt. Shirakusa-yama in Gero-shi of Gifu Prefecture, Central Japan. *Elytra, Tokyo*, **34**: 33–39.

Elytra, *Tokyo*, **38**(1): 104, May 31, 2010

A Record of *Anisodactylus punctatipennis* MORAWITZ (Coleoptera, Carabidae) from the Island of Okinawa-hontô, Southwest Japan

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Recently, I examined four specimens of *Anisodactylus punctatipennis* MORAWITZ collected by Mr. KIMURA on the Island of Okinawa-hontô, Southwest Japan. I am going to record it for the first time from the Island.

Specimens examined. 1 ♂, 3 ♀♀, Ôura, Nago-shi, the Island of Okinawa-hontô, Okinawa Prefecture, 1–VII–2009, M. KIMURA leg.

According to the collector, the site is arable land, so that there is a possibility that the presence of this species in such a subtropical island is due to accidental introduction through the agency of man.

I wish to express my hearty thanks to Messrs. Masaaki KIMURA and Noboru ITO for their kind help.

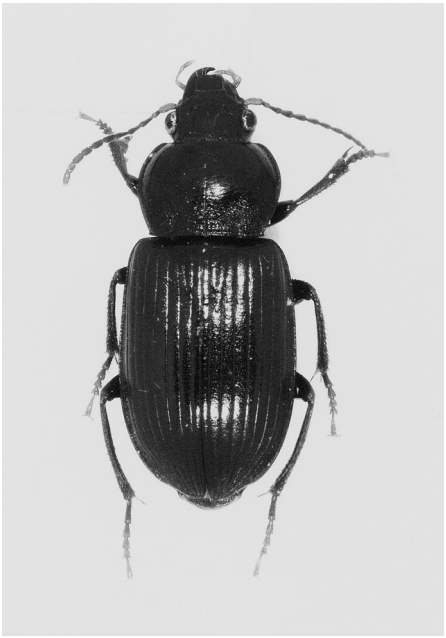

Fig. 1. *Anisodactylus punctatipennis* MORAWITZ from Ôura, Nago-shi.

Elytra, *Tokyo*, **38**(1): 105–124, May 31, 2010

Notes on the Pterostichine Subgenus *Eosteropus* (Coleoptera, Carabidae) from Japan

Part 4. Eight New Species of the *creper* Complex from Central Japan

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Abstract Eight new carabid species belonging to the subgenus *Eosteropus* are described from Central Japan. They are *Pterostichus* (*E.*) *hirasawai* sp. nov., *P.* (*E.*) *abensis* sp. nov., *P.* (*E.*) *ohkawai* sp. nov., *P.* (*E.*) *yoshizawai* sp. nov., *P.* (*E.*) *hidanus* sp. nov., *P.* (*E.*) *shimizui* sp. nov., *P.* (*E.*) *rengensis* sp. nov., and *P.* (*E.*) *hiramatsui* sp. nov.

Introduction

The pterostichine beetles belonging to the complex of *Pterostichus* (*Eosteropus*) *creper* are very closely similar to one another in general appearance as well as in genitalic features (Morita, 2007, p. 409). However, they can be classified with confidence on the basis of a combination of the shape of the hind angles of the pronotum, that of the anal projection and that of the right paramere of the male genital organ. These differences may suffice for the recognition of a specific level. Further, the coloration of the legs and the structure of the aedeagal surface are helpful for identification. In this paper, I will describe eight new species, which seem to be allopatric, with the exception of the case of the Kubiki Mountains, on the borders of Nagano and Niigata Prefectures, so that if any specimens are collected from a known locality, they can be determined with confidence. The descriptions are summaries of characteristics which are useful for species recognition. Three known species, *P.* (*E.*) *creper*, *P.* (*E.*) *sudai* and *P.* (*E.*) *karasawai* will be taken up separately in the next part of this study.

Abbreviations

The abbreviations used herein are as follows: L – body length, measured from apical margin of clypeus to apices of elytra; HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; WL – greatest length of hind wing; TL – length of hind tarsus; M – arithmetic mean; NSMT – National Museum of Nature and Science, Tokyo; NIAS – National Institute of Agro-environmental Sciences, Tsukuba. The PB value was

taken as the width between the roots of postangular setae. Besides, this root is regarded as an apex of hind angle of pronotum.

Complex of *Pterostichus* (*Eosteropus*) *creper*

L: 12.00–16.14 mm.

Colour. Black, shiny on dorsal side; legs blackish brown to brown; antennal segments dark brown to blackish brown, becoming lighter towards apices.

Head. The following cephalic characteristics vary individually within a species.

Head moderately convex, finely and sparsely punctate; eyes moderately convex or rarely weakly so; frontal furrows shallow to deep, usually a little divergent posteriad, rarely almost parallel to each other, and reaching the level of the anterior supraorbital pores; in 1 ♂ from Nakabusa Spa, Nagano Prefecture, an additional pore present between left supraorbital pores; genae short, oblique or weakly convex.

Pronotum. The shape of the sides and hind angles are important external characters for identification of a species. The apical gutters exhibit slight variation in depth within a species. The other characters are themselves variable.

Pronotum moderately convex; apex almost straight to moderately emarginate; sides usually moderately arcuate in front, moderately or weakly so, or straightly convergent towards hind angles, rarely very weakly sinuate just before hind angles; hind angles widely rounded or obtuse, or sharp in *P.* (*E.*) *creper*; basal fovea very shallow or flat, and densely punctate and wrinkled; median line finely impressed, neither reaching apex nor base, and with fine longitudinal wrinkles at the basal part; anterior and posterior transverse impressions vague or obliterated; apical gutters rather shallow to deep, situated along the inside of apical angles and free at the inner end.

Elytra. Each part of the elytra does not seem to show a sufficiently important character at a species level.

Elytra oblong-ovate, moderately convex, and widest at about middle or a little behind the middle; shoulders widely rounded; sides weakly arcuate from shoulders to the widest part and moderately so behind; apices separately rounded; preapical emargination shallow; striae deeply impressed and almost smooth or very weakly crenulate; scutellar striole adjoining stria 1; one basal pore present on each side; intervals moderately convex; three dorsal pores situated on interval III, the first pore adjoining stria 3, the second and third adjoining stria 2; one to three additional pores sometimes present on interval III, rarely intervals I or V; basal part of interval VIII usually with deep transverse wrinkles; epipleuron becoming narrower towards apex and truncate at apex in *P.* (*E.*) *creper* and *P.* (*E*) *sudai*, or rounded in other species in lateral view.

Hind wings. Hind wings reduced.

Anal sternite. The shape of anal projection is the most important external character for identification of a species.

In ♂, anal sternite with an anal projection or carina; anal projection triangular to elongate, and with transverse and oblique wrinkles at the sides; in ♀, anal sternite weakly

depressed and irregularly wrinkled along margin.

Microsculpture. Microsculpture of the elytra shows a slight difference in configuration at a species level.

Microsculpture of head consisting of isodiametric meshes; pronotum very finely and densely impressed with transverse meshes; microsculpture of elytra consisting of wide to transverse meshes, sometimes coarsely impressed.

Legs. Legs moderate; basal three segments of metatarsus externally sulcate; claw segment of metatarsus with several setae on ventro-lateral sides.

Aedeagus. The shape of the aedeagus is an important character for identification of a species. The presence or absence of the aedeagal fovea on the ventral side may suffice for the recognition of a species-group. Though the ventral side of several species described below possesses a strongly depressed area, I do not regard it as a fovea for the time being because of the absence of the edge of the fovea.

The form of the infolded inner sac affords excellent specific characters. However, this applies to carabid beetles in general, at present. Recognition within the *creper* complex can be made by the combination mentioned in the introduction of this paper.

Aedeagus robust and moderately bent at basal third; apical half of ventral side variable in structure, smooth, polished, or rugose, almost flat to strongly depressed, wrinkled or strongly impressed with microsculpture; apical part of left wall produced outwards; apical part of right wall usually heavily sclerotized and sometimes forming a ridge or carina. Inner sac mainly armed with rolled membraneous part (MORITA, 2007, p. 413).

Paramere. Shape of the right paramere is also an important character for identification of a species. There are different outlines in the right paramere between the dorsal and apico-dorsal views, so that careful examination is needed. For instance, the illustrations in Figs. 1–2 can be defined as a dorsal view (Figs. 1–a, 2–a) and apico-dorsal view (Figs. 1–c, 2–c), respectively.

Right paramere C-shaped or U-shaped; basal part always wide and usually poorly sclerotized; apical part compressed, flat or twisted inwards at apex, or concave at dorsal side; in lateral view, apex simply rounded, or curved inwards or forming a tooth. Left paramere square.

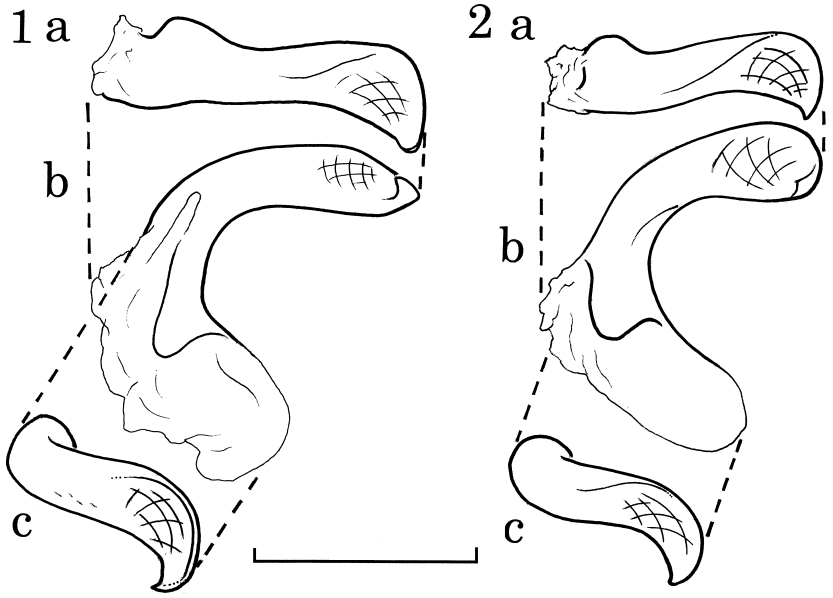
Pterostichus (*Eosteropus*) *hirasawai* MORITA, sp. nov.

[Japanese name: Hirasawa-kuronaga-gomimushi]

(Figs. 1, 3)

Diagnosis. Legs blackish brown. Sides of pronotum weakly arcuate posteriad; hind angles of pronotum rounded. Elytra strongly dilated towards the widest part in ♀. Anal projection usually elongate as in the top left of Fig. 3. Right paramere of male genitalia rather large and elongate; apical part of right paramere becoming narrower towards apex and strongly curved inwards and forming a tooth in lateral view.

Description. L: 14.14–15.20 mm. Body large; legs blackish brown. Head with deep



Figs. 1–2. Right paramere of *Pterostichus* (*Eosteropus*) spp. —— 1, *P.* (*E.*) *hirasawai* MORITA, sp. nov., from Utajuku; 2, *P.* (*E.*) *karasawai* TANAKA from Mt. Nyûgasa-yama, Nagano Prefecture. —— a, Dorsal view; b, left lateral view: c, apico-dorsal view. (Scale: 2 mm.)

frontal furrows; eyes moderately convex; PW/HW 1.39–1.44 (M 1.42) in ♂, 1.40–1.43 (M 1.42) in ♀; mentum tooth bifid and rounded at the tips; sides of gula usually with irregular wrinkles and fine punctures, rarely several transverse wrinkles; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.51 : 0.90 : 0.87 : 0.85 : 0.84 : 0.80.

Pronotum with moderately emarginate apex; PW/PL 1.26–1.29 (M 1.28) in ♂, 1.28–1.37 (M 1.33) in ♀; PW/PA 1.39–1.44 (M 1.41) in ♂, 1.36–1.39 (M 1.37) in ♀; PW/PB 1.44–1.48 (M 1.47) in ♂, 1.46–1.49 (M 1.47) in ♀; PA/PB 1.00–1.06 (M 1.04) in ♂, 1.04–1.09 (M 1.08) in ♀; sides moderately arcuate in front and weakly so posteriad; hind angles rounded; apical gutters long, shallow and situated along the margin; reflexed sides narrow throughout or becoming wider posteriad; anterior transverse impression vague; posterior transverse impression obliterated.

Elytral sides moderately arcuate from shoulders to the widest part (= at about middle) and moderately so posteriad in ♂; in ♀, sides weakly arcuate from shoulders to the widest part (= a little behind middle) and moderately so posteriad; EL/PW 1.22–1.26 (M 1.24) in ♂, 1.26–1.35 (M 1.31) in ♀; EL/EW 1.56–1.63 (M 1.59) in ♂, 1.44–1.50 (M 1.45) in ♀; preapical emargination shallow; basal part of interval VIII usually with transverse wrinkles though rarely lacking; the first pore situated at basal 1/7–1/4, the second at about the middle, and the third at 7/10–4/5, respectively; an additional

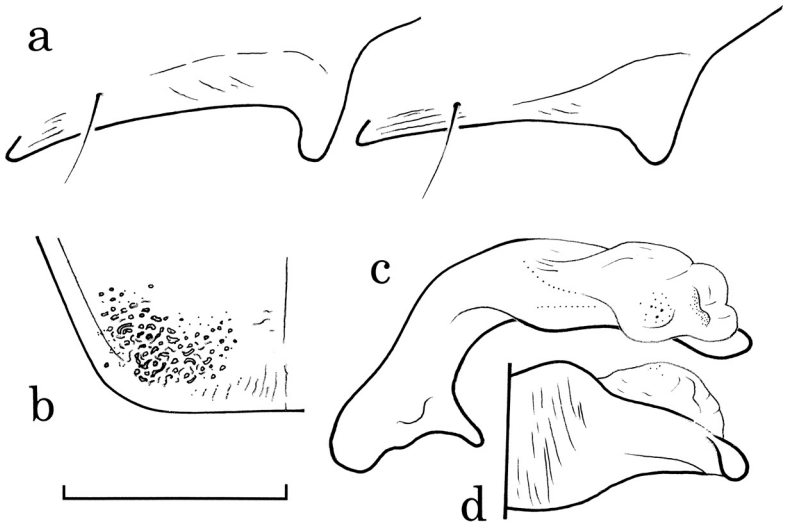


Fig. 3. *Pterostichus* (*Eosteropus*) *hirasawai* MORITA, sp. nov., from Utajuku. —— a, Anal sternite in right lateral view, showing individual variation; b, left hind angle of pronotum; c, aedeagus in left lateral view; d, apical part of aedeagus in ventral view. (Scale: 2 mm for a: 1 mm for b, c, d.)

pore rarely present and situated at basal 1/3; marginal series composed of 17–19 pores.

Anal projection usually elongate, rarely basal part wide (= triangular) in lateral view. TL/HW 1.39–1.43 (M 1.41) in ♂, 1.25–1.34 (M 1.30) in ♀.

Aedeagus elongate; apical part of ventral surface weakly depressed, and transversely and sparsely wrinkled; apical third of left wall produced outwards; apical third of right wall heavily sclerotized and smooth. Inner sac armed mainly with rolled membraneous part which is moderately sclerotized and is covered with minute spinules.

Right paramere U-shaped, rather large and elongate; apical part of right paramere usually narrow, rarely rather wide, and then strongly curved inwards and forming a tooth in lateral view.

Type series. Holotype: ♂, Utajuku, 5～8–VI–2000, H. HIRASAWA leg. (NSMT). Paratypes: 3 ♂♂, 1 ♀, Utajuku, 5～8–VI–2000, H. HIRASAWA leg.; 2 ♀♀, same locality, 26–V–2001, H. HIRASAWA leg.; 1 ♂, 2 ♀♀, same locality, 27–V–2001, H. HIRASAWA leg.; 3 ♂♂, 5 ♀♀, Karei, 20–VI–1998, H. HIRASAWA leg.

Localities. Utajuku and Karei, Hase-mura, Nagano Prefecture.

Notes. This new species seems closely allied to *P.* (*E.*) *karasawai* (TANAKA, 1958, p. 218). It is, however, distinguished from the latter mainly by the shape of the anal projection and of the apical part of the right paramere. To facilitate comparison, illustrations of the right paramere from the left lateral, dorsal and apico-dorsal views are prepared (Figs. 1–2).

The shape of the anal projection of this species exhibits slight variation in curvature

or size, but it is usually as in the top left of Fig. 3. The top right of Fig. 3 is an extreme variation. The standard ratios of body parts shown in the descriptive part are those of 4 ♂♂ and 4 ♀♀ from Utajuku.

Pterostichus (*Eosteropus*) *abensis* MORITA, sp. nov.

[Japanese name: Suruga-kuronaga-gomimushi]

(Fig. 4)

Diagnosis. Legs dark brown to blackish brown. Sides of pronotum strongly convergent posteriad, usually weakly sinuate before hind angles; hind angles of pronotum angulate or obtuse. Anal projection triangular in lateral view. Right paramere U-shaped; apical part of right paramere becoming narrower towards apex and strongly curved inwards and forming a tooth in lateral view.

Description. L: 12.00–14.43 mm. Legs dark brown to blackish brown. Head with convex eyes; genae short and convex in dorsal view; frontal furrows rather deep, liner, almost parallel to each other or weakly divergent posteriad and sometimes with short wrinkles at the posterior ends; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.50 : 0.89 : 0.89 : 0.91 : 0.91 : 0.87.

Sides of pronotum moderately arcuate in front, strongly convergent towards hind angles or weakly sinuate just before hind angles which are angulate or obtuse; PW/HW 1.37–1.42 (M 1.39) in ♂, 1.38–1.46 (M 1.41) in ♀; PW/PL 1.24–1.30 (M 1.28) in ♂, 1.30–1.39 (M 1.35) in ♀; PW/PA 1.38–1.52 (M 1.46) in ♂, 1.42–1.50 (M 1.45) in ♀; PW/PB 1.47–1.59 (M 1.54) in ♂, 1.48–1.66 (M 1.59) in ♀; PA/PB 0.97–1.11 (M 1.06) in ♂, 1.03–1.14 (M 1.09) in ♀; apex weakly to moderately emarginate; anterior transverse impression finely impressed or vague; posterior transverse impression obliterated.

Elytra rather narrow at basal part; EW/PW 1.20–1.33 (M 1.28) in ♂, 1.28–1.31 (M 1.29) in ♀; EL/EW 1.51–1.60 (M 1.58) in ♂, 1.45–1.56 (M 1.50) in ♀; shoulders obliquely and widely arcuate; sides almost straight from shoulders to the widest part, and moderately arcuate at apical parts, with shallow and narrow preapical emargination on each side; striae smooth or very weakly crenulate; basal part of interval VIII usually with several transverse wrinkles; marginal series composed of 17–18 pores; the first pore situated at basal 1/7–1/4 of elytra, the second one situated at about middle, and the third one situated at 3/4–4/5, respectively; additional pores rarely present, adjoining stria 2 or close to the stria and situated at basal 2/5, 3/5 and 7/10, respectively.

Anal projection triangular, low and with rounded apex in lateral view. TL/HW 1.46–1.58 (M 1.50) in ♂, 1.35–1.44 (M 1.39) in 2 ♀♀.

Aedeagus elongate, with slender basal part; viewed ventrally, apical third of ventral surface almost smooth, but the area between apical third and the mid-level of aedeagus is densely and finely wrinkled; apical third of ventral edge of right wall weakly advanced ventrad and strongly sclerotized. Right paramere U-shaped, rather large and elongate; apical part becoming narrower towards apex and strongly curved inwards and forming

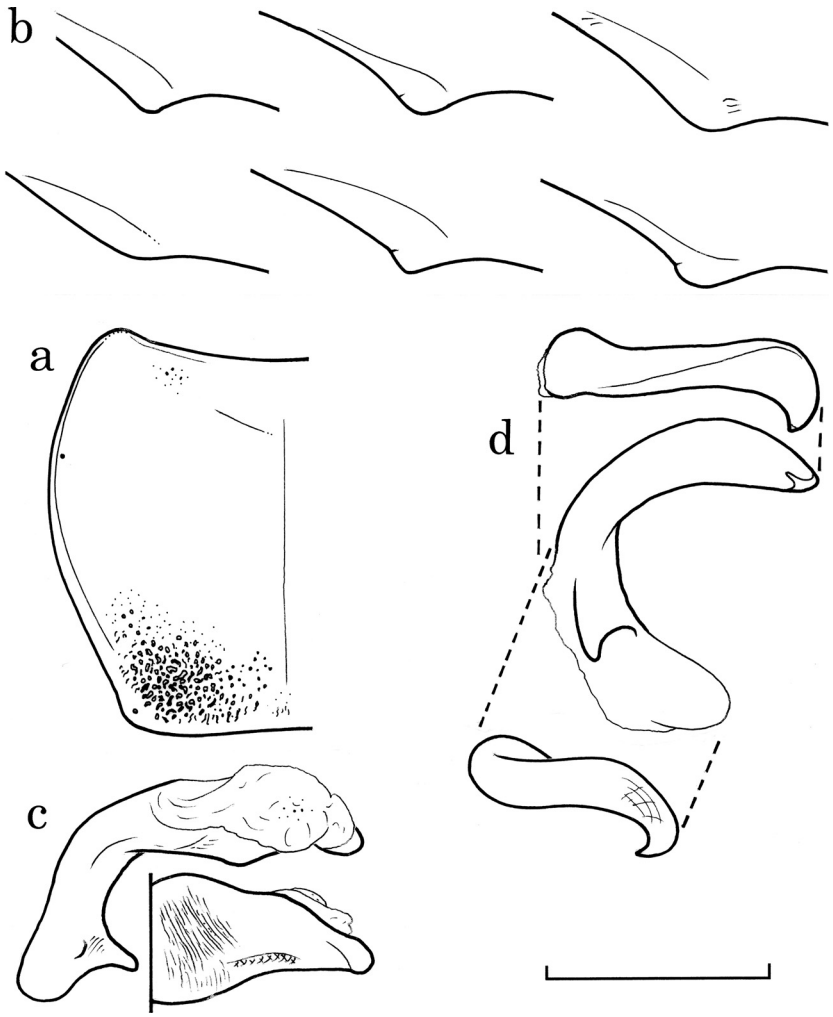


Fig. 4. *Pterostichus* (*Eosteropus*) *abensis* MORITA, sp. nov., from the Abe Pass. —— a, Left side of pronotum; b, anal sternite in right lateral view, showing individual variation; c, aedeagus in left lateral view and apical part of aedeagus in ventral view; d, right paramere in dorsal view, left lateral view and apico-dorsal view. (Scale: 2 mm for b, d: 1 mm for a, c.)

a tooth in lateral view.

Type series. Holotype: ♂, Abe Pass, 17–XI–1996, S. MORITA leg. (NSMT). Paratypes: 15 ♂♂, 7 ♀♀, Abe Pass, 17–XI–1996, S. MORITA leg.; 1 ♂, Mt. Yanbushi-dake, 3–VIII–1974, K. HIRAI leg.; 2 ♂♂, 29～30–V–1999, same locality, H. OHKAWA leg.; 1 ♂ (teneral), same locality, 25–VIII–2002, K. ONDA leg.

Localities. Abe Pass and Mt. Yanbushi-dake, Shizuoka Prefecture.

Notes. This new species seems closely allied to *P.* (*E.*) *karasawai*. It is, however, distinguished from the latter mainly by the following points: 1) sides of pronotum more strongly convergent towards hind angles, 2) elytral shoulders more oblique, 3) elytral microsculpture consisting of very fine and wide or transverse meshes, 4) anal projection triangular, and 5) apical part of right paramere becoming narrower towards apex.

Standard ratios of body parts shown in the descriptive part are those of 5 ♂♂ and 5 ♀♀ from Abe Pass.

Pterostichus* (*Eosteropus*) *ohkawai MORITA, sp. nov.

[Japanese name: Akaishi-kuronaga-gomimushi]

(Fig. 5)

Diagnosis. Tibiae and tarsi brown. Hind angles of pronotum rounded; anal projection elongate and curved in lateral view; right aedeagal wall with carina; right paramere C-shaped.

Description. L: 13.43–15.00 mm. Tibiae and tarsi brown. Head with rather strongly convex eyes; genae short and convex in dorsal view; frontal furrows usually rather deep, short, linear and divergent posteriad with wrinkles and punctures, rarely parallel to each other or smooth; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.50 : 0.90 : 0.92 : 0.90 : 0.90 : 0.90.

Pronotum rather large and wide; sides strongly and widely arcuate in front, moderately so towards hind angles; PW/HW 1.36–1.44 (M 1.41) in ♂, 1.38–1.45 (M 1.42) in ♀: PW/PL 1.27–1.33 (M 1.30) in ♂, 1.25–1.33 (M 1.29) in ♀; PW/PA 1.36–1.48 (M 1.45) in ♂, 1.35–1.47 (M 1.39) in ♀; PW/PB 1.40–1.49 (M 1.44) in ♂, 1.41–1.53 (M 1.49) in ♀; PA/PB 0.94–1.03 (M 0.99) in ♂, 1.01–1.11 (M 1.07) in ♀.

Elytra with rather narrow basal part; EW/PW 1.21–1.29 (M 1.25) in ♂, 1.26–1.38 (M 1.31) in ♀; EL/EW 1.47–1.57 (M 1.51) in ♂, 1.44–1.49 (M 1.47) in ♀; shoulders widely arcuate; sides almost straight from shoulders to the widest part, and moderately arcuate behind, with shallow and narrow preapical emargination on each side; striae smooth; basal part of interval VIII usually with several shallow and transverse wrinkles; marginal series composed of 16–18 pores; epipleuron becoming narrower towards apex and with rounded ventral corner; the first pore situated at basal 1/7–1/4 of elytra, the second one situated between 2/5 and a little behind the middle, and the third one situated at basal 7/10–4/5, respectively; additional pores rarely present, situated on interval III and adjoining stria 2. WL/EL 0.36 in 1 ♂.

Anal projection elongate, curved posteriad and usually as in the top left of Fig. 5–b. TL/HW 1.35–1.48 (M 1.42) in ♂, 1.29–1.34 (M 1.31) in ♀.

Aedeagus robust, with large basal part; apical part of ventral surface almost smooth or polished, and moderately to strongly depressed; apical third of ventral surface sparsely and obliquely wrinkled, partially irregularly wrinkled and impressed with microsculpture of isodiametric meshes; apical third of ventral edge of right wall strongly sclerotized.

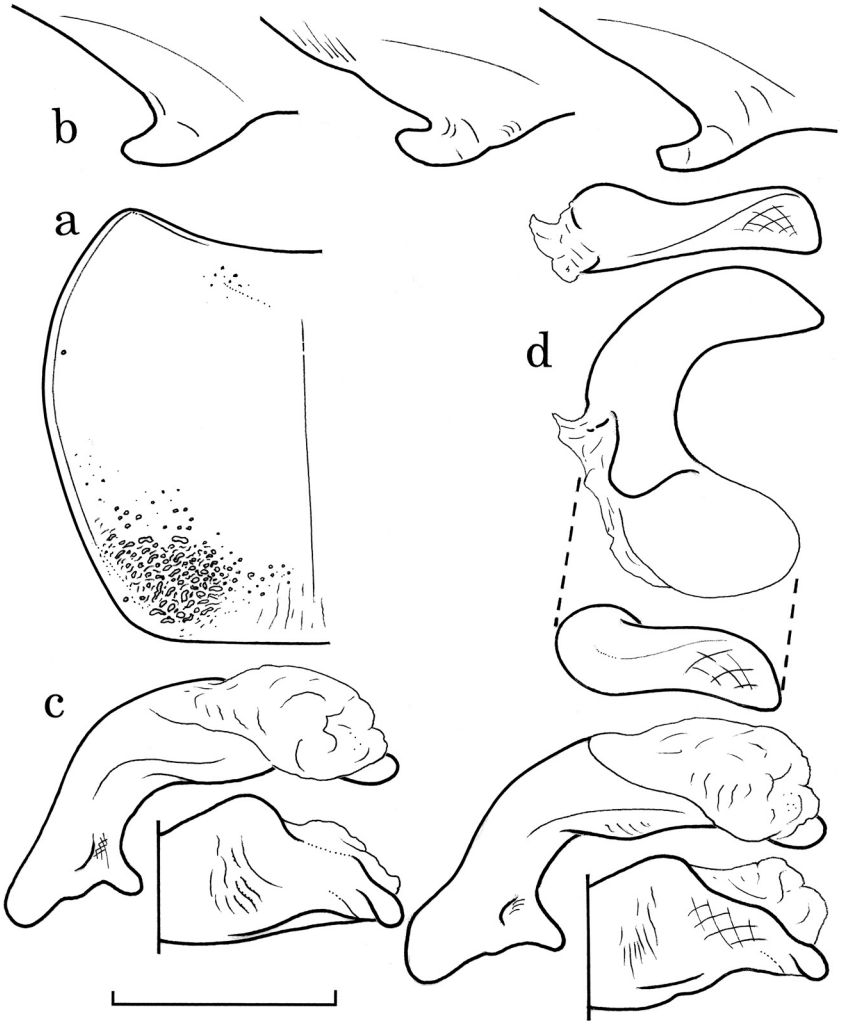


Fig. 5. *Pterostichus* (*Eosteropus*) *ohkawai* MORITA, sp. nov., from Shiokawa. —— a, Left side of pronotum; b, anal sternite in right lateral view, showing individual variation; c, aedeagus in left lateral view and apical part of aedeagus in ventral view, showing individual variation; d, right paramere in dorsal view, left lateral view and apico-dorsal view. (Scale: 2 mm for b, d: 1 mm for a, c.)

Right paramere C-shaped, robust and with simply rounded apex.

Type series. Holotype: ♂, Shiokawa, 15～17–VII–1977, S. MORITA leg. (NSMT). Paratypes: 3♂♂, 7♀♀, Shiokawa, 15～17–VII–1977, S. MORITA leg.; 1♀, same locality, 9–VIII–1993, H. HIRASAWA leg.; 1♂, same locality, 1–X–1995, H. YOSHI-

TOMI leg.; 3 ♂♂, same locality, 14–XI–1998, M. SUGIMURA leg.; 2 ♂♂, Mt. Torikura-yama, 1–X–1994, N. YOSHIZAWA leg.; 1 ♂, same locality, 16–X–1994, N. YOSHIZAWA leg.; 7 ♂♂, 1 ♀, same locality, 12–XI–2000, Y. HAMAOKA leg.; 9 ♂♂, 7 ♀♀, Sasayama, Mt. Kurokawa-yama, 19〜29–VIII–2007, H. OHKAWA leg.; 2 ♂♂, Mt. Toyoguchi-yama, 17–VI–2002, O. FURUTA leg.; 7 ♂♂, 1 ♀, Shirabiso Pass, 5〜19–IX–2007, H. OHKAWA leg.

Localities. Shiokawa, Shirabiso Pass, Mt. Torikura-yama, and Mt. Toyoguchi-yama, Ooshika-mura, Nagano Prefecture.

Notes. This new species seems closely allied to *P.* (*E.*) *karasawai*. It is, however, distinguished from the latter mainly by the shape of anal projection and right paramere.

The standard ratios of body parts shown in the descriptive part are those of 5 ♂♂ and 5 ♀♀ from Shiokawa. The standard ratios of body parts in the following specimens were measured and slight variation was found:— in total 4 ♂♂ from Mt. Torikura-yama; body larger; pronotum wider; genae less convex; aedeagal right wall strongly produced and forming a week carina; L: 14.71–16.14 mm; PW/HW 1.38–1.45 (M 1.42); PW/PL 1.29–1.38 (M 1.33); PW/PA 1.42–1.45 (M 1.44); PW/PB 1.38–1.53 (M 1.46); PA/PB 0.96–1.03 (M 1.01); EW/PW 1.18–1.27 (M 1.23); EL/EW 1.53–1.57 (M 1.56); TL/HW 1.35–1.42 (M 1.38); WL/EL 0.36, 0.37; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.51 : 0.88 : 0.89 : 0.87 : 0.87 : 0.80.

Pterostichus (*Eosteropus*) *yoshizawai* MORITA, sp. nov.

[Japanese name: Ena-kuronaga-gomimushi]

(Fig. 6)

Diagnosis. Tibiae and tarsi brown. Hind angles of pronotum rounded; anal projection elongate and weakly curved in lateral view; ventral side of right aedeagal wall with carina; right paramere U-shaped, almost straight in dorsal view and with concavity.

Description. L: 13.28–15.00 mm. Femora blackish brown; tibiae and tarsi brown; eyes weakly convex; genae weakly convex; PW/HW 1.35–1.41 (M 1.37) in ♂, 1.37–1.42 (M 1.39) in ♀; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.48 : 0.86 : 0.89 : 0.89 : 0.89 : 0.86.

Pronotum rather wide; sides strongly arcuate in front, and widely and moderately arcuate towards hind angles; apex usually weakly emarginate, rarely straight or moderately emarginate; apical gutters very short and shallow; PW/PL 1.20–1.39 (M 1.29) in ♂, 1.32–1.40 (M 1.35) in ♀; PW/PA 1.43–1.50 (M 1.46) in ♂, 1.42–1.49 (M 1.45) in ♀; PW/PB 1.48–1.60 (M 1.53) in ♂, 1.54–1.64 (M 1.61) in ♀; PA/PB 1.03–1.08 (M 1.05) in ♂, 1.09–1.14 (M 1.11) in ♀.

Elytra with narrow basal part; shoulders obliquely arcuate; sides weakly divergent or arcuate towards the widest part and moderately arcuate behind, and with rather deep preapical emargination on each side; the first pore situated at basal 1/5–3/10, the second at 2/5 to a little before the middle, and the third at 7/10–4/5, respectively; interval III rarely with an additional pore on one side; epipleuron becoming narrower towards apex

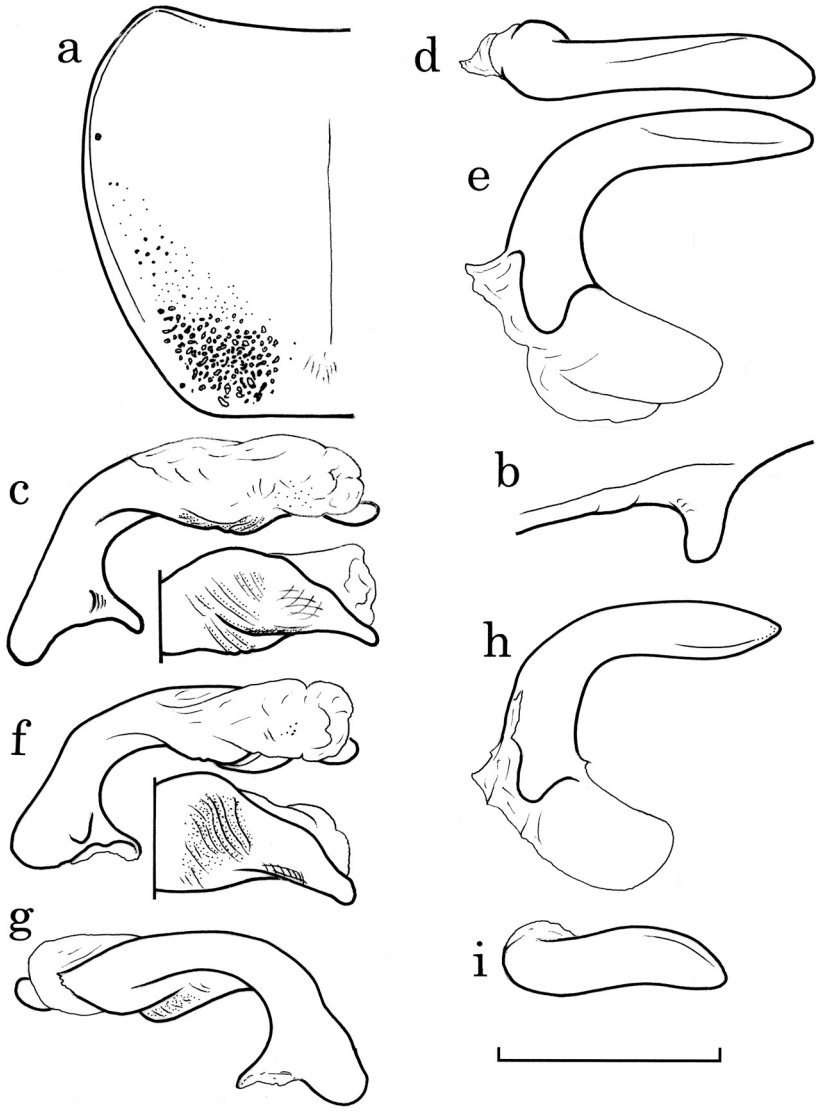


Fig. 6. *Pterostichus* (*Eosteropus*) *yoshizawai* MORITA, sp. nov. —— a–e, Specimen from Misaka Pass; f–i, specimen from Mt. Surikogi-yama. —— a, Left side of pronotum; b, anal sternite in right lateral view; c, aedeagus in left lateral view and apical part of aedeagus in ventral view; d, right paramere in dorsal view; e, same in left lateral view; f, aedeagus in left lateral view and apical part of aedeagus in ventral view; g, same in right lateral view; h, right paramere in left lateral view; i, same in apico-dorsal view. (Scale: 2 mm for b, d, e, h, i: 1 mm for a, c, f, g.)

and with very narrowly rounded apex; marginal series composed of 17–18 pores; EW/PW 1.24–1.33 (M 1.28) in ♂, 1.30–1.35 (M 1.32) in ♀; EL/EW 1.49–1.59 (M 1.53) in ♂, 1.44–1.51 (M 1.46) in ♀.

Anal projection elongate and weakly curved in lateral view. TL/HW 1.43–1.50 (M 1.46) in ♂, 1.34–1.40 (M 1.37) in ♀.

Aedeagus small and slender; apical third of left wall weakly produced in ventral view; right wall strongly sclerotized and forming a carina at apical 1/5–1/4 of aedeagus; ventral surface strongly and coarsely wrinkled.

Right paramere U-shaped and elongate; viewed dorsally, apical half almost straight, and becoming narrower towards apex; apical third of dorsal side concave.

Type series. Holotype: ♂, Misaka Pass, 6–IX–1997, K. SAKAGAMI leg. (NSMT). Paratypes: 1 ♂, 2 ♀♀, Misaka Pass, 26–VI–1994, S. MORITA leg.; 2 ♂♂, 1 ♀, same locality, 19〜26–VIII–1996, N. TODA leg.; 4 ♂♂, 5 ♀♀, same locality, 6–IX–1997, K. SAKAGAMI leg.; 5 ♂♂, 1 ♀, same locality, 14〜22–IX–2002, K. AKITA & T. KIMURA leg.; 5 ♂♂, 1 ♀, Mt. Surikogi-yama, 15–V–1993, T. YOSHIMURA leg.; 1 ♂, same locality, 8–IX–1994, N. YOSHIZAWA leg.; 1 ♀, Ôdaira Pass, 10–IX–1989, N. YOSHIZAWA leg.; 2 ♂♂, same locality, 6–V–1990, Y. OKUSHIMA leg.; 1 ♂, same locality, 28–V–1994, N. YOSHIZAWA leg.

Localities. Misaka Pass on the borders between Nagano and Gifu Prefectures; Ôdaira Pass and Mt. Surikogi-yama, Iida-shi, Nagano Prefecture.

Notes. This species is peculiar in the coloration of legs and the aedeagal structure. Standard ratios of body parts shown in the descriptive part are those of 5 ♂♂ and 4 ♀♀ from the Misaka Pass.

Pterostichus (*Eosteropus*) *hidanus* MORITA, sp. nov.

[Japanese name: Hida-kuronaga-gomimushi]

(Fig. 7)

Diagnosis. Legs blackish brown. Hind angles of pronotum rounded; apical gutters of pronotum long and shallow; reflexd lateral sides of pronotum very narrow throughout; elytral sides dilated to the widest part in ♀; anal projection triangular in lateral view; right paramere C-shaped, slightly reflexed at apex in left lateral view.

Description. L: 14.00–14.71 mm. Legs blackish brown. Head relatively narrow; frontal furrows usually shallow; PW/HW 1.41–1.47 (M 1.43) in ♂, 1.41, 1.43 (M 1.42) in ♀; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.52 : 0.91 : 0.93 : 0.93 : 0.93 : 0.87.

Pronotum with long and shallow apical gutters on each side; sides moderately arcuate in front and usually weakly so towards hind angles, sometimes moderately arcuate throughout; hind angles rounded; reflexed lateral sides very narrow throughout; PW/PL 1.26–1.34 (M 1.31) in ♂, 1.27, 1.29 (M 1.28) in ♀; PW/PA 1.41–1.48 (M 1.45) in ♂, 1.41, 1.43 (M 1.42) in ♀; PW/PB 1.45–1.48 (M 1.49) in ♂, 1.45, 1.53 (M 1.49) in ♀; PA/PB 0.98–1.08 (M 1.02) in ♂, 1.02, 1.09 (M 1.06) in ♀.

Elytra oblong-ovate in ♂; in ♀, sides dilated to the widest part, and then moderately arcuate towards apices; preapical emargination wide and shallow; EW/PW 1.23–1.29 (M 1.25) in ♂, 1.36, 1.39 (M 1.38) in ♀; EL/EW 1.40–1.60 (M 1.50) in ♂, 1.36, 1.39 (M 1.38) in ♀; the first pore situated at basal 1/6–1/5, the second at 2/5–3/5, and the third at 7/10–9/10 respectively; epipleuron beoming narrower towards apex, with very narrowly rounded apex; marginal series composed of 18–19 pores; WL/EL 0.36 in 1 ♂.

Anal sternite triangular, with rounded apex in lateral view. TL/HW 1.35–1.40 (M 1.39) in ♂, 1.26 in 1 ♀.

Aedeagus robust with thick basal part; apical half of ventral surface polished, widely and weakly depressed, and sparsely and finely wrinkled; ventral edges of right and left walls weakly produced. Right paramere C-shaped, slightly reflexed at apex in left lateral view; viewed dorsally, apical part wide.

Type series. Holotype: ♂, Mt. Nabekanmuri-yama, alt. 1,500 m, 10–IX–2005, H. WATANABE leg. (NSMT). Paratypes: 5 ♂♂, 2 ♀♀, Mt. Nabekanmuri-yama, alt. 1,500

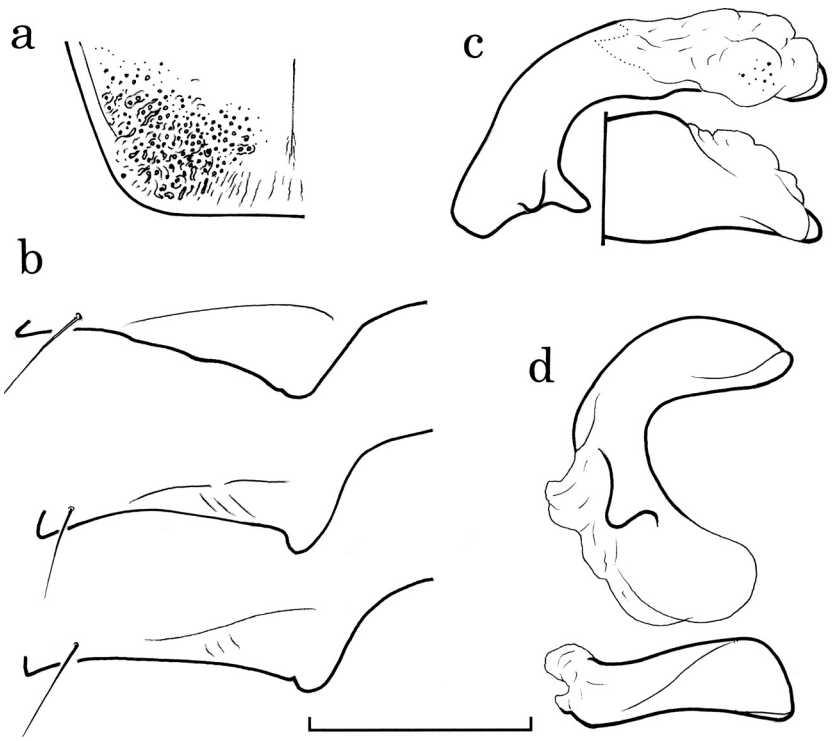


Fig. 7. *Pterostichus* (*Eosteropus*) *hidanus* MORITA, sp. nov., from Mt. Nabekanmuri-yama. —— a, Left hind angle of pronotum; b, anal sternite in right lateral view, showing individual variation; c, aedeagus in left lateral view and apical part of aedeagus in ventral view; d, right paramere in left lateral view and dorsal view. (Scale: 2 mm for b, d: 1 mm for a, c.)

m, 10–IX–2005, H. WATANABE leg.; 1 ♀, Nakabusa Spa, 8–VIII–1984, M. NISHIKAWA leg.; 2 ♂♂, same locality, 14–V–1994, H. HIRASAWA leg.; 1 ♂, same locality, 23–VI–1994, H. HIRASAWA leg.; 1 ♂, same locality, 18–V–2001, H. HIRASAWA leg.

Localities. Mt. Nabekanmuri-yama, alt. 1,500 m, Horigane-mura: Nakabusa Spa, Nagano Prefecture.

Notes. Elytral chaetotaxy of this species from Mt. Nabekanmuri-yama is unstable: in 1 ♂ and 1 ♀, an additional pore present on one side; in 2 ♂♂, additional pore present on each side, situated at basal 3/10 or 2/5; in 1 ♂, an additional pore on the interval I and situated at basal 1/3. Standard ratios of body parts shown in the descriptive part are those of 5 ♂♂ and 2 ♀♀ from Mt. Nabekanmuri-yama.

The standard ratios of body parts in the following specimens were measured and the slight differences were found:— in total 3 ♂♂ and 1 ♀ from Nakabusa Spa: PW/HW 1.37–1.41 (M 1.39), 1.36; PW/PL 1.18–1.29 (M 1.24), 1.28; PW/PA 1.38–1.43 (M 1.41), 1.43; PW/PB 1.46–1.60 (M 1.54), 1.38; PA/PB 1.04–1.12 (M 1.09), 0.97; EW/PW 1.26–1.31 (M 1.28), 1.37; EL/EW 1.55–1.57 (M 1.56), 1.43; TL/HW 1.38–1.44 (M 1.40), 1.24; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI≒1 : 0.51 : 0.87 : 0.87 : 0.87 : 0.88 : 0.78; ventral side of aedeagus rather sparsely wrinkled and more strongly depressed.

Pterostichus (*Eosteropus*) *shimizui* MORITA, sp. nov.

[Japanese name: Ontake-kuronaga-gomimushi]

(Fig. 8)

Diagnosis. Legs blackish brown to black; hind angles of pronotum widely rounded; anal projection triangular in lateral view; aedeagus elongate in lateral view; ventral edge of left wall produced; right paramere U-shaped and elongate.

Description. L: 12.64–14.00 mm. Legs blackish brown to black. Head usually with deep frontal furrows; PW/HW 1.35–1.42 (M 1.39) in ♂, 1.36–1.48 (M 1.42) in ♀; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI≒1 : 0.51 : 0.85 : 0.87 : 0.87 : 0.89 : 0.81.

Pronotum with shallow and long apical gutters; apex moderately emarginate; sides widely and moderately arcuate in front and widely arcuate or sometimes rather moderately so towards hind angles; hind angles widely rounded; reflexed lateral sides narrow throughout; PW/PL 1.22–1.33 (M 1.27) in ♂, 1.29–1.38 (M 1.34) in ♀; PW/PA 1.37–1.50 (M 1.43) in ♂, 1.39–1.47 (M 1.43) in ♀; PW/PB 1.46–1.53 (M 1.50) in ♂, 1.43–1.60 (M 1.53) in ♀; PA/PB 1.00–1.07 (M 1.05) in ♂, 0.99–1.12 (M 1.07) in ♀.

Elytra oblong-ovate in ♂; in ♀, sides dilated to the widest part, and moderately arcuate towards apices; preapical emargination wide and shallow; EW/PW 1.28–1.33 (M 1.31) in ♂, 1.27–1.38 (M 1.32) in ♀; EL/EW 1.45–1.56 (M 1.51) in ♂, 1.40–1.50 (M 1.45) in ♀; the first pore situated at basal 1/7–1/5, the second at 3/7–3/5, and the third at 7/10–4/5, respectively; additional pores situated at 1/10, 1/3, 2/5 respectively

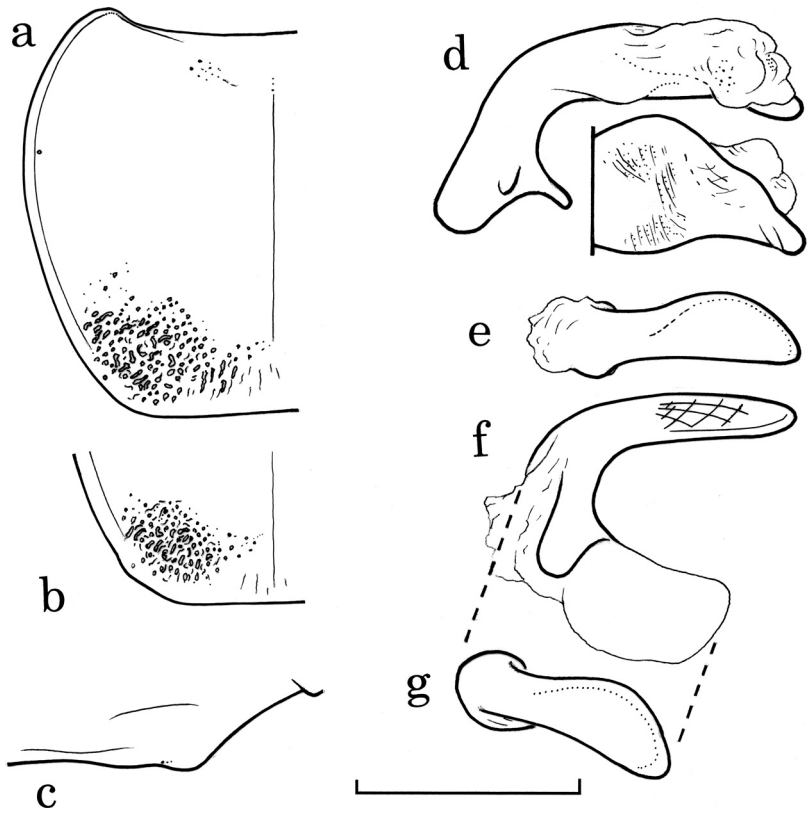


Fig. 8. *Pterostichus* (*Eosteropus*) *shimizui* MORITA, sp. nov., from Mt. Ontake-san. —— a, Left side of pronotum; b, left hind angle of pronotum, showing individual variation; c, anal sternite in right lateral view; d, aedeagus in left lateral view and apical part of aedeagus in ventral view; e, right paramere in dorsal view; f, same in left lateral view; g, same in apico-dorsal view. (Scale: 2 mm for c, e, f, g: 1 mm for a, b, d.)

and usually adjoining stria 2, rarely on intervals III or V; epipleuron becoming narrower towards apex and with very narrowly rounded apex; marginal series composed of 15–17 pores; basal part of interval VIII usually weakly wrinkled, rarely smooth; microsculpture consisting of close and transverse meshes. WL/EL 0.35 in 1 ♂.

Anal sternite triangular and low in lateral view. TL/HW 1.37–1.50 (M 1.43) in ♂, 1.16–1.35 (M 1.30) in ♀.

Aedeagus robust with thick basal part; ventral surface of apical part rather deeply depressed and polished at apical 1/3, sparsely and rather deeply wrinkled at apical 2/3 and impressed with microsculpture of wide or isodiametric meshes; ventral edge of left wall strongly produced. Right paramere U-shaped and elongate; apical part flat in lateral view and wide in dorsal view.

Type series. Holotype: ♂, near Tanohara, Mt. Ontake-san, 15–VIII–2001, S. SHIMIZU leg. (NSMT). Paratypes: 8 ♂♂, 19 ♀♀, Mt. Ontake-san, 15–VIII–2001, S. SHIMIZU leg.; 3 ♀♀, Tanohara, 17–VIII–1984, S. MORITA leg.; 4 ♀♀, Mt. Ontake-san, 24–VIII–2003, H. OHKAWA leg.; 2 ♂♂, Mt. Ontake-san, 1–VI–2004, H. OHKAWA leg.; 1 ♂, 2 ♀♀, Mt. Hakkai-san, 22–VIII–1988, K. ITO leg.

Type locality. Mt. Ontake-san, on the borders between Nagano and Gifu Prefectures.

Notes. Standard ratios of body parts shown in the descriptive part are those of 4 ♂♂ and 5 ♀♀.

Pterostichus (*Eosteropus*) *rengensis* MORITA, sp. nov.

[Japanese name: Renge-kuronaga-gomimushi]

(Fig. 9)

Diagnosis. Legs black; sides of pronotum straightly convergent or very weakly arcuate from basal 3/8 to hind angles; hind angles obtuse; anal projection triangular and with produced apical part in lateral view; apical half of aedeagus weakly depressed and polished in ventral view; right paramere C-shaped.

Description. L: 13.85–14.29 mm. Legs black. Head with weakly convex eyes; PW/HW 1.37–1.47 (M 1.40); relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.51 : 0.91 : 0.89 : 0.90 : 0.89 : 0.90.

Pronotum with rather long and straight apical gutters on each side; apex moderately emarginate; sides moderately arcuate in front and straightly convergent or very weakly arcuate from basal 3/8 to hind angles; hind angles obtuse; PW/PL 1.23–1.34 (M 1.29); PW/PA 1.37–1.45 (M 1.41); PW/PB 1.45–1.56 (M 1.50); PA/PB 1.03–1.09 (M 1.06).

Elytral sides weakly arcuate from shoulders to the widest part, moderately so behind and with narrow preapical emargination; the first pore situated at about basal 1/5, the second between 2/5 and a little behind the middle, the third at 7/10–4/5, respectively; interval III rarely with one or two additional pores; epipleuron becoming narrower towards apex, with very narrow apex and rounded ventral corner; microsculpture consisting of fine transverse meshes; EW/PW 1.24–1.35 (M 1.29); EL/EW 1.43–1.58 (M 1.54).

Anal projection trianglar and with produced apical part in lateral view. TL/HW 1.34–1.39 (M 1.37).

Aedeagus robust with thick basal part; apical half of ventral surface weakly and widely depressed and polished. Right paramere U-shaped, with almost straight or slightly reflexed apex in lateral view; in dorsal view, apical part narrow and rather flat, not concave.

Type series. Holotype: ♂, Renge Spa～Mt. Shirouma-dake, [24–0008456], 17–VIII–1967, K. BABA leg. (NIAS). Paratypes: 1 ♂, Renge Spa～Mt. Shirouma-dake, [24–0008452], 17–VIII–1967, K. BABA leg. (NIAS); 1 ♂, Renge Spa～Mt. Shirouma-

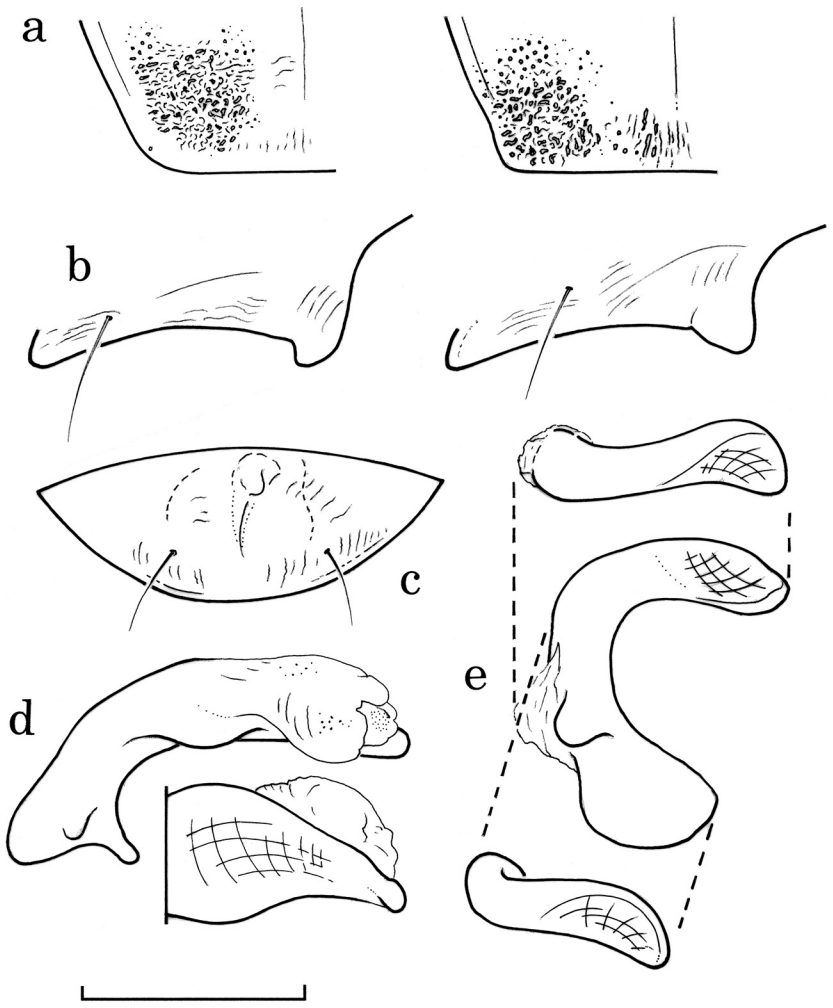


Fig. 9. *Pterostichus* (*Eosteropus*) *rengensis* MORITA, sp. nov., from Renge Spa. —— a, Left hind angle of pronotum, showing individual variation; b, anal sternite in right lateral view, showing individual variation; c, same in ventral view; d, aedeagus in left lateral view and apical part of aedeagus in ventral view; e, right paramere in dorsal view, left lateral view and apico-dorsal view. (Scale: 2 mm for b, e : 1 mm for a, c, d.)

dake, [24–0008453], 22–VIII–1968, K. BABA leg. (NIAS); 1 ♀, Renge Spa, 21～22–VIII–1988, Y. UCHIYAMA leg.; 1 ♂, Renge Spa, 12–VII–2008, S. MORITA leg.

Type locality. Renge Spa～Mt. Shirouma-dake, Itoigawa-shi, Niigata Prefecture.

Notes. This new species seems closely allied to *P.* (*E.*) *creper*. It is, however, distinguished from the latter mainly by the following points: 1) hind angles of pronotum

obtuse, 2) apex of epipleuron narrowly rounded, 3) aedeagal ventral surface smooth and 4) apical part of the right paramere narrow in lateral view.

Standard ratios of body parts shown in the descriptive part are those of 4 ♂♂.

Pterostichus (*Eosteropus*) *hiramatsui* MORITA, sp. nov.

[Japanese name: Hakusan-kuronaga-gomimushi]

(Fig. 10)

Diagnosis. Legs black to blackish brown; sides of pronotum straightly convergent or very weakly arcuate from basal 1/3 to hind angles; hind angles obtuse; anal projection triangular, with rounded apex in lateral view; apical 1/4 of aedeagus strongly depressed. Right paramere U-shaped, with apical part straight or very slightly curved dorsad.

Description. L: 13.57–14.57 mm. Legs black to blackish brown. Head usually very sparsely and finely punctate; PW/HW 1.35–1.41 (M 1.39) in ♂, 1.39, 1.41 (M 1.40) in ♀; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.52 : 0.93 : 0.94 : 0.92 : 0.91 : 0.86.

Pronotum with deep and straight apical gutters which are inwardly distant; sides moderately arcuate in front, strongly convergent towards hind angles or weakly sinuate just before hind angles; PW/PL 1.31–1.34 (M 1.33) in ♂, 1.32, 1.39 (M 1.36) in ♀; hind angles obtuse; PW/PA 1.40–1.46 (M 1.44) in ♂, 1.41, 1.46 (M 1.44) in ♀; PW/PB 1.50–1.55 (M 1.52) in ♂, 1.46, 1.50 (M 1.48) in ♀; PA/PB 1.04–1.07 (M 1.06) in ♂, 1.00, 1.06 (M 1.03) in ♀.

Elytral sides rather widely arcuate from shoulders to the widest part and moderately so behind; the first pore situated at basal 1/5–1/4, the second at about middle, the third at 3/4–4/5, respectively; in 1 ♀, four additional pores present, two pores adjoining stria 3 and situated at 1/7 and 1/3 from base on the left elytron, the remaining two pores adjoining striae 2 and 3, and situated at 1/3 and 7/10 on the right, respectively; marginal series composed of 17–19 pores; EW/PW 1.27–1.33 (M 1.29) in ♂, 1.35, 1.36 (M 1.36) in ♀; EL/EW 1.48–1.55 (M 1.52) in ♂, 1.44, 1.44 (M 1.44) in ♀; epipleuron becoming narrower towards apex, with very narrow apex and rounded ventral corner; microsculpture consisting of fine transverse meshes; WL/EL 0.36 in 1 ♂.

Anal projection triangular, low in lateral view, and stable in the shape; apex always rounded. TL/HW 1.39 in 1 ♂, 1.26, 1.27 (M 1.27) in 2 ♀♀.

Aedeagus robust with thick basal part; apical third of ventral side strongly depressed and polished, but middle of ventral side is finely wrinkled; left wall strongly produced; right wall strongly sclerotized and produced. Right paramere U-shaped; apical part almost straight or weakly curved dorsad, and rather flat, not concave.

Type series. Holotype: ♂, Mt. Kuchisanpou-dake, Kawachi-mura, 2–VI–2002, S. HIRAMATSU leg. (NSMT). Paratypes: 2 ♂♂, Mt. Kuchisanpou-dake, Kawachi-mura, 2–VI–2002, S. HIRAMATSU leg.; 1 ♂, same locality, 13–X–2002, S. HIRAMATSU leg.; 2 ♂♂, 1 ♀, Mt. Chûgû-san, Yoshinodani-mura, 25–VI–2005, S. HIRAMATSU leg.; 1 ♀, Nakahanba, Shiramine-mura, 3–IX–1999, S. HIRAMATSU leg.; 1 ♂, Mt. Haku-san, 17–

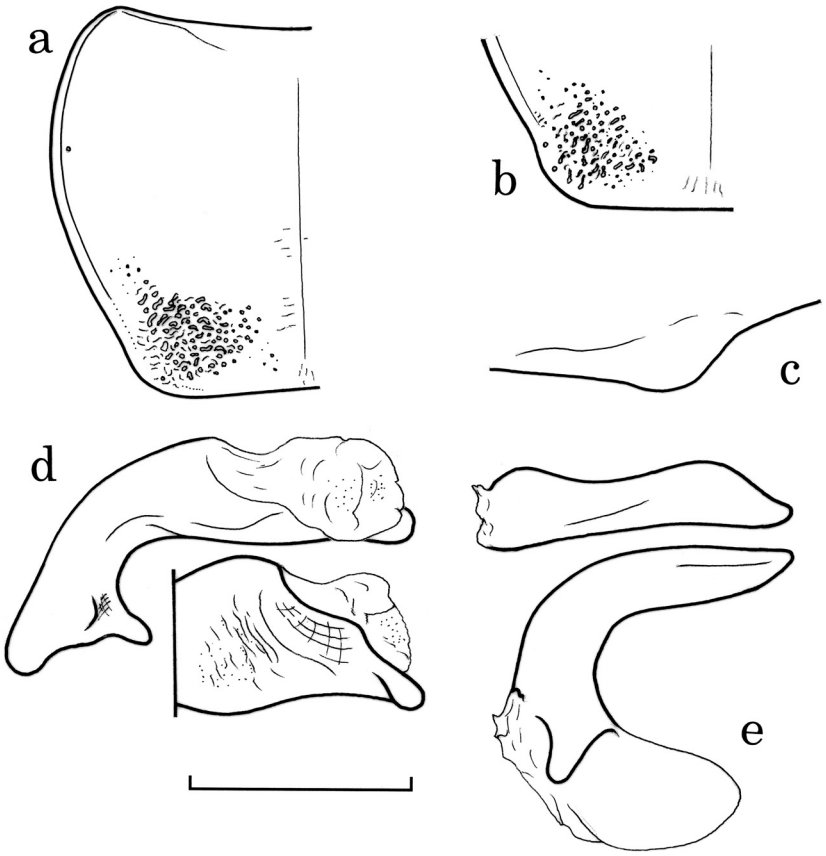


Fig. 10. *Pterostichus* (*Eosteropus*) *hiramatsui* MORITA, sp. nov., from Mt. Kuchisanpou-dake. —— a, Left side of pronotum; b, left hind angle of pronotum; c, anal sternite in right lateral view; d, aedeagus in left lateral view and apical part of aedeagus in ventral view; e, right paramere in dorsal view and left lateral view. (Scale: 2 mm for c, e: 1 mm for a, b, d.)

VIII–1991; 1 ♂, 1 ♀, Mt. Nagakura-yama, 1,630 m alt., Ozo, 27–VI–2009, S. HIRAMATSU leg.

Localities. Mt. Kuchisanpou-dake, Kawachi-mura; Mt. Chûgû-san, Yoshinodani-mura; Nakahanba, Shiramine-mura; Mt. Nagakura-yama, Hakusan-shi; Ishikawa Prefecture.

Notes. The shape of anal projection is stable. Standard ratios of body parts shown in the descriptive part are those of 4 ♂♂ and 2 ♀♀ from Mt. Kuchisanpou-dake, Mt. Chûgû-san and Nakahanba.

Acknowledgements

I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper.

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The standard ratios of body parts were checked by Miss Naoko JÔGASAKI. I thank her for her corrections.

要　　約

森田誠司：日本産クロナガゴミムシ（コウチュウ目オサムシ科）の研究．4．中部地方産の 8 新種．—— 中部地方から採集された標本をもとに 8 新種を記載し命名した．それらは，*Pterostichus* (*Eosteropus*) *hirasawai*, *P.* (*E.*) *abensis*, *P.* (*E.*) *ohkawai*, *P.* (*E.*) *yoshizawai*, *P.* (*E.*) *hidanus*, *P.* (*E.*) *shimizui*, *P.* (*E.*) *regensis*, *P.* (*E.*) *hiramatsui* である．これらの種はたがいによく似ているが，おもに前胸背板の側縁と後角の形，雄の腹端節の突起，雄交尾器の右側片の形状の組み合わせで，識別される．

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Elytra, *Tokyo*, **38**(1): 125–129, May 31, 2010

A New Species of the Genus *Stomis* (Coleoptera, Carabidae) from Kyushu, Japan

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Abstract A new species of the genus *Stomis* is described from Ôita Prefecture, Kyushu, Japan, under the name of *S.* (*Stomis*) *miyakei*.

Three species belonging to the genus *Stomis* have hitherto been known from Japan (TANAKA, 1985). Of these, *S. zaonus* HABU is known from northern and central Honshu, *S. prognathus* BATES from central Honshu, and *S. japonicus* STRANEO from central Honshu and Shikoku.

However, there still remains unclarified subject on the relationship between *S. prognathus* and *S. japonicus*. HABU (1981) regarded the latter as a subspecies of the former. Recently, I had an opportunity to examine a new remarkable species of the genus from Kyushu through the courtesy of Mr. MIYAKE. Therefore, I am going to describe it under the name of *Stomis miyakei* from Kyushu, as a fourth species.

The abbreviations used herein are as follows: L – body length, measured from apical margin of clypeus to apices of elytra; HW – greatest width of head; GL – length of gena, measured parallel with the mid-line; eL – length of eye, measured parallel with the mid-line; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; M – arithmetic mean; H – holotype (male); P – paratype (female); NSMT – National Museum of Nature and Science, Tokyo.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper. Hearty thanks are also due to Mr. Takeshi MIYAKE for supplying me with important material.

My thanks are also due to Dr. Paolo NERI, Mr. Ken ITO and Mr. Takayoshi HADA for their kind help.

Stomis (*Stomis*) *miyakei* MORITA, sp. nov.

[Japanese name: Ôita-kibanaga-gomimushi]

(Figs. 1–5)

Diagnosis. Body of moderate size; eyes convex; genae convex; pronotum strongly

and coarsely punctate, and strongly sinuate at basal 1/5; elytral striae strongly crenulate; dorsal side of aedeagal apex carinate.

Description. L: 10.43–11.29 mm. Body of moderate size. Colour black to blackish brown; dorsal surface slightly shiny; ventral side black to blackish brown; elytral epipleuron, labrum, mandibles, antennae and legs dark brown to brown; in H, dorsal side slightly lighter.

Head moderately convex; eyes small, but evidently convex outside of genae; frontal furrows linear, very deep, strongly divergent posteriad, and reaching a little before the anterior supraorbital pore in H, or reaching that level in P; lateral grooves deep, wide and weakly bent at apical 1/6 of eyes, and extending beyond the post eye in H, almost straight in P; anterior supraorbital pore situated a little before the mid-eye level; posterior one apart from the post-eye level; frons sparsely and very finely punctate; PW/HW 1.32, 1.33; genae convex and arcuate; GL/eL 0.62, 0.62; microsculpture vanished; antennae long and reaching beyond the middle of elytra; antennal segments 4–11 pubescent; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≒ 1 : 0.36 : 0.64 : 0.84 : 0.71 : 0.69 : 0.64 in H, ≒ 1 : 0.36 : 0.69 : 0.93 : 0.73 : 0.30 : 0.64 in P; right mandible without notch.

Pronotum moderately convex; apex almost straight; PW/PL 1.17, 1.11; sides strongly arcuate in front, deeply sinuate at about basal 1/5, and slightly divergent towards hind angles; base straight, not bordered; PW/PA 1.42, 1.44; PW/PB 1.68, 1.59; PA/PB 1.18, 1.10; apical angles very weakly produced and narrowly rounded at the tips; hind angles rather sharp, with a seta on each side; anterior pair of marginal setae inserted a little before the widest part; anterior transverse impression vanished, and sparsely and coarsely punctate; median line clearly impressed, reaching neither apex nor base, and with several punctures at basal part; basal foveae deep, linear at the bottom, and with coarse punctures; microsculpture consisting of fine transverse meshes.

Elytra ovate, convex, and widest at about the middle; basal part rather narrow in H, rather wide in P; basal border deep and moderately curved and obtusely joining side; EW/PW 1.38, 1.43; EL/EW 1.57, 1.55; shoulder not dentate, oblique and widely arcuate in H, obtuse in P; sides moderately arcuate, with very shallow and wide preapical emargination; apices rather strongly produced and sutural angle rounded; striae strongly crenulate; stria 1 adjoining basal border; basal pore situated at interval II and close to stria 2 on the right elytron, adjoining stria 2 on the left elytron in H; in P, basal pore of the right elytron situated on stria 2; intervals moderately convex; microsculpture not clearly impressed, but consisting of fine transverse meshes; marginal series composed of 15 pores.

Ventral surface coarsely punctate, but the gula, hypomeron, median part of metasternum, coxae, metepimera, median part of sternite 3, and sternites 4–6 (anal sternite) smooth; in ♀, anal sternite with two pair of setae which are on a shallow arc open anteriorly.

Legs very slender; claw segment of metatarsi with three pair of setae on lateral side; TL/HW 1.40, 1.34.

Fig. 1. *Stomis miyakei* MORITA, sp. nov.

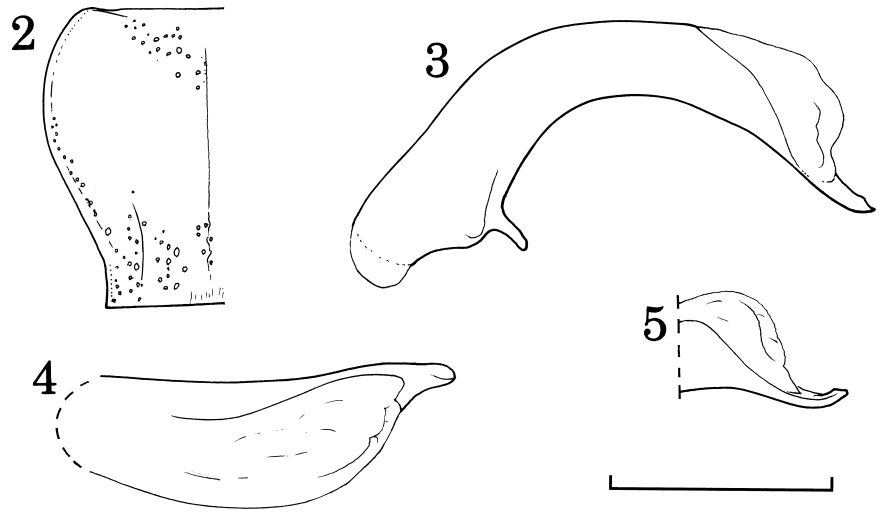
Aedeagus elongate, moderately arcuate from base to basal 3/4, but the apical part is weakly curved dorsad in lateral view; viewed dorsally, apical part moderately produced with the left side shallowly sinuate; dorsal side of apex longitudinally convex and forming a carina; right paramere elongate, with elongate apical part; left one square.

Type series. Holotype: ♂, the entrance to the limestone cave called Hitoboshi-dô, 29–XI–2009, T. HADA leg. (NSMT). Paratype: 1 ♀, Himé-daké, Kamiaoé, 9–X–2007, T. MIYAKE leg.

Localities. The entrance to the limestone cave called Hitoboshi-dô, at Miyamoto of Higashikôno in Usuki-shi, and Himé-daké, Kamiaoé, in Tsukumi-shi; Ôita Prefecture, Southwest Japan.

Specimens compared. In my collection, there are more than 200 specimens of the genus *Stomis* of Japan. As space is limited, the records based on only three specimens of related species are given below. *Stomis* (*Stomis*) *japonicus* STRANEO (STRANEO, 1953, p. 3; TANAKA, 1985, p. 107): 2 ♂♂, 1 ♀, Tsuchigoya, Mt. Ishizuchi-san, Ehime Pref., 5–IX–1980, S. MORITA leg.

Notes. This new species is closely allied to *Stomis japonicus* STRANEO. It is, however, distinguished from the latter by the following points: 1) body elongate with



Figs. 2–5. *Stomis miyakei* MORITA, sp. nov. — 2, Left side of pronotum; 3, aedeagus, left lateral view; 4, same, dorsal view; 5, apical part of aedeagus, oblique left ventro-lateral view. (Scale: 2 mm for Fig. 2; 1 mm for Figs. 3–5.)

slender appendages, 2) eyes more convex, 3) genae larger and more convex (GL/eL 0.62), 4) pronotum strongly sinuate at basal 1/5, 5) pronotum strongly punctate, 6) elytral shoulders obtuse, 7) elytral striae more strongly crenulate, and 8) dorsal surface of aedeagal apex with carina. [In the specimens of *S. japonicus* from Mt. Ishizuchi-san, L: 9.14–10.29 mm; genae short and weakly convex; GL/eL 0.33–0.38; pronotum less punctate; anterior transverse impression vanished, with several fine punctures; sides of pronotum sinuate at basal 1/7; elytral shoulders oblique and widely arcuate; dorsal side of aedeagal apex bordered (HABU, 1981, p. 34).]

The standard ratios of body parts shown in the descriptive part are those of the holotype and paratype, respectively.

要　　約

森田誠司：九州から発見されたキバナガゴミムシ（コウチュウ目オサムシ科）の1新種．——大分県から発見されたキバナガゴミムシ属の1新種を記載した．本種は，体が細く，前胸背板は強く波曲しより広く強く点刻され，上翅の条線はより強く刻まれ，陰茎先端部背面が竜骨状となるため容易に識別される．和名は，大分県の特産種とみなされるので，オオイタキバナガゴミムシと命名した．

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Elytra, *Tokyo*, **38**(1): 129–130, May 31, 2010

A New Distributional Record of *Habronychus miyatakei* (Coleoptera, Cantharidae)

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Habronychus miyatakei ISHIDA, 1986, was described from Yaku Island, off the southern part of Kyushu. It seems so far endemic to the island, and no collecting record for its distribution has ever been reported from other islands. We will record this species also from Kuchinoerabu Island, lying nearby Yaku Island, for the first time in this short report.

Habronychus (*Habronychus*) *miyatakei* ISHIDA, 1986

[Japanese name: Miyatake-higenaga-jôkai]

(Figs. 1–2)

Habronychus miyatakei: M. SATÔ, 1985, 111, pl. 18, fig. 4 (nomen nudum). —— ISHIDA, 1986, 218, figs. 11–15 (original description). —— TAKAHASHI, 1998, 37 (in list).
Macrohabronychus (*Habronychus*) *miyatakei*: BRANCUCCI, 2007, 55 (in list). —— KAZANTSEV & BRANCUCCI, 2007, 254 (in list). —— N. TAKAHASHI, 2008, 71 (in list).

Specimens examined. 1 ♂, 1 ♀, (Mt.) Shin-dake, Kuchinoerabu Island, Kagoshima Pref., Kyushu, Japan, 13–V–2006, T. YAMAUCHI leg. (preserved in the collection of N. TAKAHASHI).

Figs. 1–2. *Habronychus* (*Habronychus*) *miyatakei* ISHIDA, from Kuchinoerabu Is.; 1, male; 2, female. Scales: 1.0 mm.

Distribution. Japan: Kyushu [Yaku Is., Kuchinoerabu Is. (new record)].

Notes. The generic and subgeneric assignment of this species follows KOPETZ (2008). In comparison with material collected from Yaku Island, the specimens recorded above are somewhat pale in colour, especially on pronotum and scutellum.

We wish to express our gratitude to Dr. Yûichi OKUSHIMA (Kurashiki Museum of Natural History) for his review of the manuscript. This work was supported in part by Global COE Program (Center of excellence for Asian conservation ecology as a basis of human-nature mutualism), MEXT, Japan.

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Elytra, *Tokyo*, **38**(1): 131–136, May 31, 2010

Occurrence of a New *Uozumitrechus* (Coleoptera, Trechinae) in the Shimané Peninsula, West Japan

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Abstract A new blind trechine beetle of the subgenus *Uozumitrechus* is described from an abandoned adit of an old copper mine in the Shimané Peninsula, West Japan, under the name of *Rakantrechus* (*Uozumitrechus*) *notsui* S. UÉNO. With the discovery of this new species, the distributional range of *Uozumitrechus* extends northeastwards along the coast of the Sea of Japan for about 98 km.

Introduction

Uozumitrechus S. UÉNO (1958 a, p. 50) is a relatively small group of blind trechine beetles hitherto known from only the westernmost part of the Chûgoku District in West Japan, particularly from the karstic areas embracing the Akiyoshi-dai Plateau. In general appearance, it is most closely similar to *Izushites* S. UÉNO (1982, p. 67) from northwestern Shikoku, but is evidently different from it by the presence of distinct transverse depression on the basal peduncle of elytra, completely glabrous disc of pronotum, and the narrowly prolonged apical lobe of male genitalia that are devoid of sclerotised copulatory piece. In configuration of male genitalia, it looks like *Pilosotrechiama* S. UÉNO (1958 b, p. 199; 2008 a; UÉNO & NAITÔ, 2008, pp. 220–224), but is distinguished from it by the absence of sclerotised copulatory piece inside the inner sac. It is different from *Paratrechiama* S. UÉNO (1959, p. 37) in many peculiarities, above all, in the presence of only one setiferous dorsal pore on the 5th elytral stria, and slender apical lobe of the aedeagus. In short, *Uozumitrechus* is isolated from all the other groups of the *Rakantrechus* complex both taxonomically and zoogeographically.

As was mentioned elsewhere, *Uozumitrechus* was first brought to light from caves of the Akiyoshi karstic area, and later found out from caves in the northeastern and eastern parts of Yamaguchi Prefecture, and western part of Hiroshima Prefecture. Occurrence of its members in the southwestern part of Shimané Prefecture was suggested by the discovery of a specimen of *Uozumitrechus* from a heap of vegetable debris washed up by a flood at the estuary of the Misumi-gawa River (at Miho of Misumi-chô; now called Minatoura of Misumi-chô in Hamada-shi). This specimen was described later under the name of *Rakantrechus mukaibarai* S. UÉNO (1958 a, p. 59, fig. 13), and was considered to be a proof of northeastward dispersal of *Uozumitrechus*

along the coast of the Sea of Japan, though this supposition was not verified for more than fifty years.

At last in the summer of 2008, four specimens of a *Uozumitrechus* were unexpectedly caught by Yutaka NOTSU in an abandoned adit of an old copper mine lying at the westernmost part of the Shimané Peninsula (cf. UÉNO, 2008 b, pp. 1–2). Since then, the adit has been repeatedly examined by several entomologists, both by naked eyes and by baited traps, and has yielded five additional specimens of *Uozumitrechus*. At the same time, the upper hypogean zone in nearby places was also examined carefully, though nothing of interest was found out from this subterranean environment. In view of the zoogeographical importance, the new species of *Uozumitrechus* will be described in the present paper under the new name *Rakantrechus* (*Uozumitrechus*) *notsui*. The abbreviations employed herein are the same as those explained in previous papers of mine.

Before going further, I wish to express my deep indebtedness to Dr. Yoshiaki NISHIKAWA, and Messrs. Hiroshi MIYAMA, Yutaka NOTSU and Takao NAITÔ for their unfailing support in field works.

Rakantrechus* (*Uozumitrechus*) *notsui S. UÉNO, sp. nov.

(Figs. 1–3)

Length: 5.00–5.60 mm (from apical margin of clypeus to apices of elytra).

Closely similar to *R.* (*U.*) *mukaibarai*, but the head is more parallel-sided, the pronotal sides are more strongly and less widely arcuate in front, the elytra are a little more elongate, with less widely arcuate humeri and nearly straight prehumeral margins; the antennae and legs are more or less slenderer than in *R. mukaibarai*; the male genitalia are also slenderer than in the latter species.

Colour light reddish brown, shiny, faintly iridescent in basal areas of elytra; palpi pale; antennae, legs and venter lighter in coloration than dorsums of head amd prothorax. Microsculpture very fine, mostly consisting of transverse lines and meshes, and largely obliterated on elytra.

Head subquadrate, slightly longer than wide, with the sides nearly straight in front, subparallel and slightly convergent anteriad; genae slightly convex at the posterior parts, each provided with several short hairs; frontal furrows deeply impressed in front, widely divergent behind towards neck constriction, which are shallow but distinct; neck wide; frons and supraorbital areas gently convex, the latter bearing two pair of supraorbital setae on lines convergent posteriorly; mandibles fairly stout, with acute incurved apices: antennae slender, reaching apical two-fifths of elytra, pedicel the shortest, a half as long as antennomere 3 or 4, antennomeres 3–6 each more than 4.5 times as long as wide, 6–10 gradually decreasing in length towards terminal antennomere which is as long as antennomere 7.

Pronotum cordate, much wider than head, about as wide as or slightly wider than long, widest at about two-thirds from base, and a little more contracted towards base than towards apex; PW/HW 1.34–1.41 (M 1.38), PW/PL 0.93–1.11 (M 1.01), PW/PA

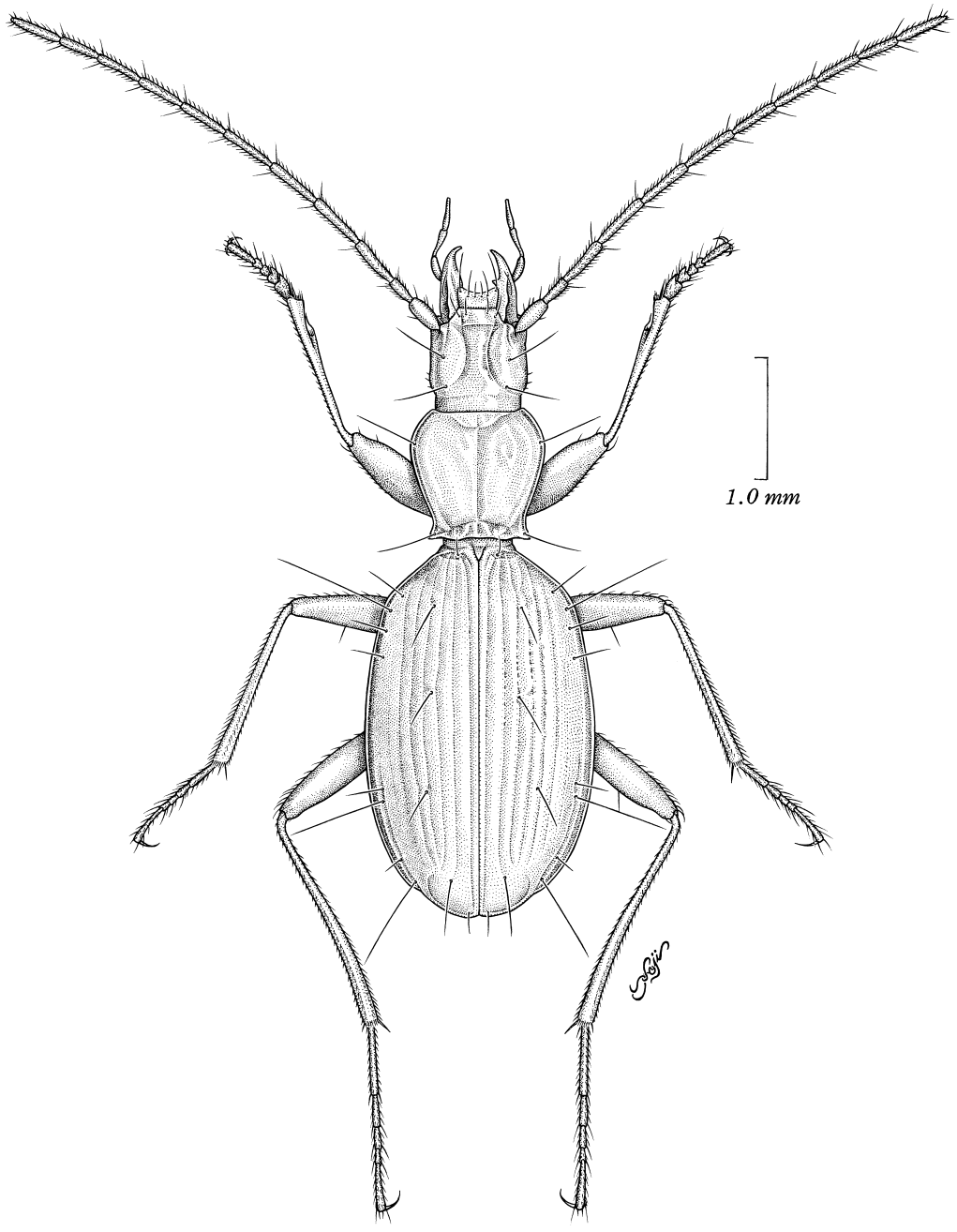
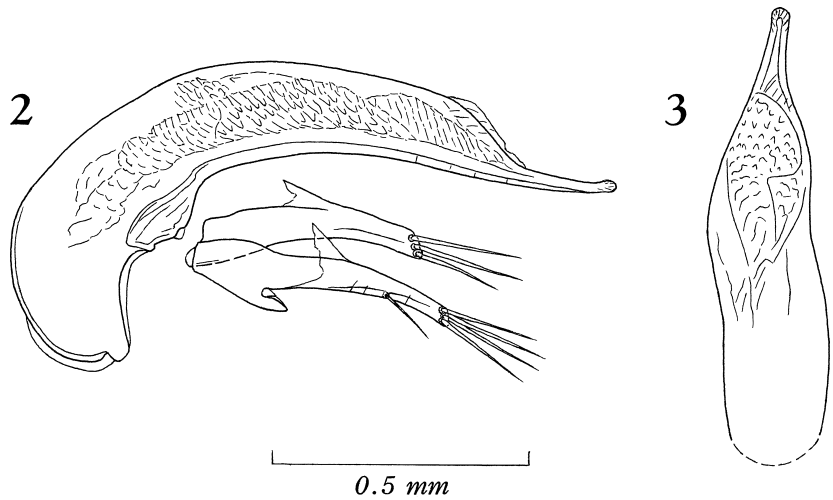


Fig. 1. *Rakantrechus* (*Uozumitrechus*) *notsui* S. UÉNO, sp. nov., ♂, from Sagi Dôzan in Taisha-chô.



Figs. 2–3. Male genitalia of *Rakantrechus* (*Uozumitrechus*) *notsui* S. UÉNO, sp. nov., from Sagi Dôzan in Taisha-chô; left lateral view (2), and apical part of aedeagus, dorso-apical view (3).

1.42–1.55 (M 1.48), PW/PB 1.37–1.47 (M 1.42); sides narrowly bordered at front angles, then moderately bordered to hind angles, moderately arcuate in apical halves, obviously less so behind, and very briefly sinuate just before hind angles, which are small and postero-laterally denticulate; apex nearly straight or very slightly emarginate, slightly narrower than base, PB/PA 1.03–1.20 (M 1.08); front angles slightly advanced and rounded; base slightly emarginate at middle and briefly sinuate on each side just inside hind angle; apical transverse impression vague, basal one mal-defined and uneven; basal foveae fairly deep though small, extending anteriorly parallel to side borders; basal area narrow, longitudinally strigose.

Elytra oblong-oval, widest at about middle and equally narrowed towards bases and towards apices; EW/PW 1.65–1.76 (M 1.71), EL/PL 2.63–2.99 (M 2.83), EL/EW 1.64–1.81 (M 1.72); shoulders very obtuse and somewhat rounded, with prehumeral margins nearly straight; sides moderately bordered, very feebly arcuate from behind shoulders to the level of 7th umbilicate pore of the marginal series; dorsum relatively flat, steeply declivous at lateral sides and apical areas; striae almost entire, rather deeply impressed and nearly impunctate on the disc, becoming shallower at the side, striae 1–6 distinct, 7 faint, 8 deeply impressed behind the level of 7th pore of the marginal series; scutellar striole short though clear, apical striole distinct, well curved, and directed to stria 5; stria 3 with two setiferous dorsal pores at 1/7–1/6 and about 2/5 from base, respectively, stria 5 with a single setiferous dorsal pore behind middle at about 2/3 from base; preapical pore located at the apical anastomosis of striae 2 and 3, and more distant from apex than from suture; marginal series of umbilicate pores nearly aggregated, though pore 1 of the humeral set does not adjoin marginal gutter and pore 4 is a little more distant from the proximal two (pores 2 and 3).

Ventral surface glabrous and smooth; anal and paramedian setae on ventrites as usual. Legs slender; protibiae straight, gradually dilated towards apices; mesotibiae also straight, about two-fifths as long as elytra; metatibiae about four-sevenths as long as elytra, and slightly outcurved in apical halves; tarsi thin, mesotarsi about a half as long as mesotibiae, metatarsi about four-fifths as long as metatibiae; modification of male protarsi as in other congeners.

Male genital organ very small and rather lightly sclerotised. Aedeagus two-sevenths as long as elytra, slenderer and more strongly arcuate in proximal half than in *R. mukaibarai*, highest just behind middle, and gradually narrowed towards apex in lateral view, with narrowly produced apical lobe slightly reflexed at the apex; basal part strongly bent ventrad, with vertical basal orifice whose sides are deeply emarginate; sagittal aileron very narrow and hyaline though distinct; viewed dorsally, apical part fairly wide at the sides of apical orifice, and rapidly narrowed towards the base of apical lobe whose tip is blunt; ventral margin feebly but widely emarginate at middle in profile. Inner sac wholly covered with scales, which are moderately sclerotised and compactly, almost imbricately arranged at the median part, but hardly sclerotised and rather irregular at both proximal and apical parts. Styles narrow, particularly at the apical parts, left style longer than the right, each bearing three or four apical setae, which are sometimes supplemented by a shorter subapical seta on the ventral margin.

Type series. Holoype: ♂, allotype: ♀, 9–VIII–2008, Y. Notsu leg. (found in baited traps set by Y. Notsu on 4–VIII–2008). Paratypes: 2 ♂♂, 9–VIII–2008, Y. Notsu leg. (found in baited traps set by Y. Notsu on 4–VIII–2008); 1 ♀, 29–XI–2008, H. Miyama leg. (found in a baited trap set by S. Uéno & Y. Nishikawa on 27–X–2008); 1 ♂, 1 ♀, 16–III–2009, H. Miyama leg. (found in baited traps set by H. Miyama on 29–XI–2008); 1 ♂, 1 ♀, 17–VI–2009, H. Miyama leg. (found in baited traps set by H. Miyama on 16–III–2009). All deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo.

Type locality. Abandoned adit of the copper mine called Sagi Dôzan, 30 m in altitude, at Sagiura of Taisha-chô in Izumo-shi, Shimané Prefecture, on the Japan Sea side of western Honshû, West Japan.

Notes. A brief account of Sagi Dôzan, the type locality of *R.* (*U.*) *notsui*, was already given in the introduction of my paper dealing with *Stygiotrechus izumonis* (Uéno, 2008 b, p. 2). It is therefore useless to repeat it. Anyway, all the known specimens of *R. notsui* were caught by traps baited with silkworm powder and set in a small inclined room at the highest point of the adit.

要　　約

上野俊一: 島根半島で発見されたアキヨシメクラチビゴミムシ亜属の 1 新種. —— アキヨシメクラチビゴミムシ亜属 *Uozumitrechus* のチビゴミムシ類は，秋吉台を中心とする山口県西部の石灰洞に広く分布し，既知の分布域の東限が広島県西部と島根県南西部とを結ぶ地域に到達してい

る．しかし，石見地方中央部より北東方向の日本海沿いの地域では，この仲間の見つかったことがなく，亜属の分布域は山陰地方西部でそれほど拡がっていないのではないかというのが，これまでの推察だった．ところが，2008 年の夏になって，島根半島の西端部近くに位置する銅鉱山の古い廃坑から数種のチビゴミムシが発見され，そのうちのひとつが，意外にもアキヨシメクラチビゴミムシ亜属の新種だと判定されたので，発見者に因んでノツメクラチビゴミムシ ***Rakantrechus* (*Uozumitrechus*) *notsui*** **S. UÉNO** という新名を与えて，この論文に記載した．

この新種が，陸伝いに拡散してきた祖先に由来するものか，それとも河川の洪水と海流に運ばれた祖先に由来するものかを判定するのはむずかしいが，近縁のミスミメクラチビゴミムシ ***R.* (*U.*) *mukaibarai*** **S. UÉNO** が，三隅川河口部に漂着したごみの中から見つかったという事実は，後者の可能性を示唆する一例なのかもしれない．

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