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Two New Genera of the Tribe Ochyromerini (Coleoptera, Curculionidae) with Five Segments in the Funicle[1,2)]

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Abstract In the fifth part of our systematic study on the tribe Ochyromerini from East Asia, two new genera and four new species are described as *Heterimerodes* gen. nov., *H. johkii* sp. nov. from East Malaysia, *H. karubei* sp. nov. from West Malaysia, *Eugryporrhynchus* gen. nov., *E. kinabalensis* sp. nov. from East Malaysia and *E. malayanus* sp. nov. from East and West Malaysia. The former genus is close to *Imerodes* MARSHALL and the latter to *Gryporrhynchus* ROELOFS, but both the genera are easily discriminated from the known genera of this tribe by the antennae, which have five segments in the funicle instead of six or seven in the other genera.

In the greatest number of species in the Curculionidae the funicle is composed of six or seven segments, and that with five-segments is much less numerous and known only in the following taxa: *Mecinus* (Mecininae), Gymnetrinae, Cioninae, *Ergania* (Curculioninae), *Cylindrotrypetes* and *Edaphotrypetes* (Phoenicobatinae) and some genera of the Cossoninae. These facts suggest that the reduction of the number of segments occurs parallel in different taxa from the plesiomorphic condition with six or seven segments in the funicle.

In the continuation of our systematic studies on the tribe Ochyromerini of the subfamily Tychiinae, two new genera with five segments in the funicle are discovered for the first time, whereas all the known genera of the tribe have six or seven segments in the funicle. Both the new genera may have a close relationship with *Gryporrhynchus* ROELOFS, *Imerodes* MARSHALL, *Lepidimerodes* KOJIMA et MORIMOTO and *Heterochyromera* KOJIMA et MORIMOTO (*in press*) rather than the other genera in having the following common features: eyes widely separated and not close to each other on frons, antennal scape not touching eye in repose, elytra separately rounded at the apex, pygidium broadly exposed and nearly vertical in male, and front coxae located close to the base of prothorax.

Before going further, we express our gratitude to Mr. H. HATA, Dr. Y. JOHKI, Mr. H. KARUBE and Dr. T. YASUNAGA for their kind offer of materials for our study.

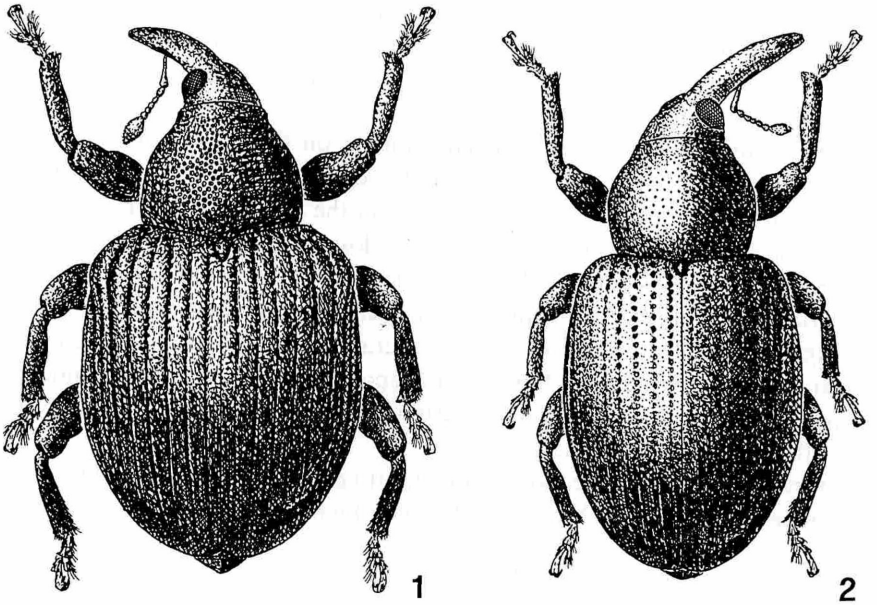
1) Study on the tribe Ochyromerini (Coleoptera, Curculionidae) from East Asia V.

2) Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 4, No. 103).

Heterimerodes gen. nov.

Type species: *Heterimerodes johkii* sp. nov.

Description. Head faintly constricted just behind eyes; forehead between eyes a little narrower than the base of rostrum. Eyes distant from each other, not convex from temples, ovate and large in lateral view. Rostrum parallel-sided, tapered dorso-ventrally to the apex in lateral view, without distinct groove or carina; antennal scrobes running obliquely to beneath the base of rostrum, dorsal edge almost reaching the ventral corner of eye. Antennae inserted at about the middle of rostrum; scape short, robust and not reaching eye; funicle five-segmented; club compact, first segment at least as long as the remaining segments combined. Prothorax with subapical constriction weak. Scutellum evident. Elytra with oblique shoulders, separately rounded at the apices, with ten regular striae, ultimate stria weakened behind the middle, tenth interval carinate. Pygidium broadly exposed, almost vertical. Legs with femora unarmed, clavate, front femora as great as posteriors; tibiae uncinate from inner angle; tarsi robust, third segment a little wider than the preceding, bilobed; claws moderately divergent, each with broad, flat basal process. Prosternum with coxae located close to the base. Metasternum with a medial sulcus extending close to anterior margin. Venter with posterior margin of second ventrite more broadly curved posteriorly at sides than third and fourth ventrites, first ventrite behind coxae and second to fourth ventrites each subequal in length, fifth ventrite shorter than third and fourth ventrites combined.



Figs. 1–2. Habitus of *Heterimerodes* spp. —— 1, *H. johkii* sp. nov.; 2, *H. karubei* sp. nov.

Phylogenetic consideration. This new genus is closely related to *Imerodes* MARSHALL in having thinly clothed derm with setae, unarmed femora, and broadly curved second ventrite at the sides, but is distinctive from all the genera of this tribe by the following points: rostrum tapered apically, antennal scrobe running obliquely towards beneath the base of rostrum, antennae inserted at about the middle of rostrum, scape short and robust, and funicle with five segments. The head of this genus is similar to that of a species of the Tychiini.

Heterimerodes johkii sp. nov.

(Figs. 1, 3–5, 7–9)

Male. Derm black, dull, antennae and tarsi dark brown, unci of tibiae and claws brownish.

Head densely with fine punctures; forehead between eyes a little narrower than the base of rostrum. Rostrum as long as pronotum, parallel-sided on basal half, thence slightly narrowing to the apex; dorsum with dense punctures, which are more or less confluent longitudinally on basal half, and become smaller and thinner on apical half; antennal scrobes shortly extending anteriorly beyond antennal insertion. Antennae inserted at the middle of rostrum; scape as long as basal four segments of funicle combined; funicle with first segment robust, a little longer than broad, nearly as long as second, third and fouth subequal in length, 2/3 times as long as second, fifth just a little longer than fourth; club with vesture almost of the same color as derm on basal half, grayish on distal half from apical margin of first segment to apex.

Prothorax 1.2 times as wide as long, widest at the base, slightly narrowing to apical one-third, thence rapidly narrowing to weak subapical constriction; dorsum densely and reticulately punctured, the punctures becoming smaller in anterior area. Scutellum tongue-shaped. Elytra broadly ovate, about 1.2 times as long as wide, each elytron with a faint callus on declivity; intervals wider than striae, flat, densely punctate, clothed with fine recumbent dark setae, seventh and eighth intervals with small protuberances at the base; striae sulcate, with large punctures, which become smaller towards the apex. Propygidium with its apical margin narrowly exposed. Pygidium flat, densely with fine punctures, rugulose. Legs clothed with fine recumbent dark setae; tibiae dilated internally behind the middle.

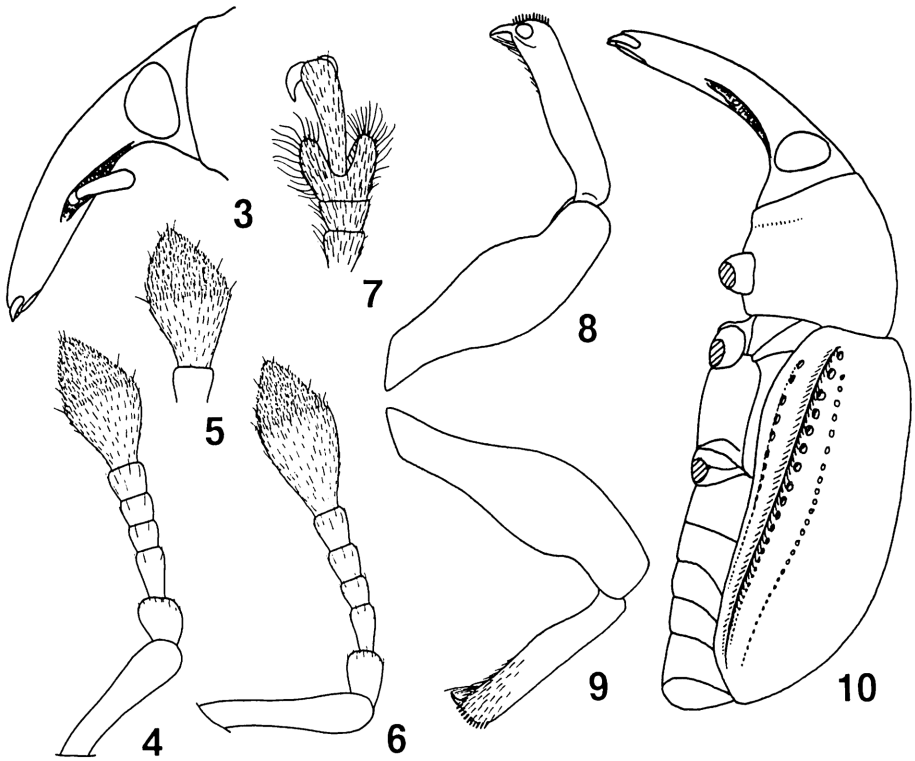
Underside clothed with fine recumbent dark setae. Prosternum with the distance between the coxa and submarginal sulcus greater than that between this sulcus and anterior margin. Mesosternal process a half as wide as a coxa. Venter with first ventrite flattened in the middle.

Female. Unknown.

Length. 4.0 mm.

Type series. Holotype: ♂ (Type No. 3015, Kyushu Univ.), Keningau, Sabah, East Malaysia, 6–VI–1981, Y. JOHKI leg.

Distribution. East Malaysia (Sabah).



Figs. 3–5, 7–9. *Heterimerodes johkii* sp. nov.; 6, 10, *H. karubei* sp. nov. —— 3, Head, lateral view; 4–6, antenna (5, club, lateral view); 7, tarsus; 8, 9, femur and tibia (8, front leg; 9, hind leg); 10, habitus, lateral view.

Remarks. This large species is similar to a large weevil of *Sphincticraeropsis* VOSS at first sight, but the funicle is different.

Heterimerodes karubei sp. nov.

(Figs. 2, 6, 10)

Male. Derm shiny black, underside and legs dark brown, antennae and tarsi dark brown to brownish, unci of tibiae and claws brownish.

Head with fine and separate punctures; forehead between eyes 7/10 times as wide as the base of rostrum. Rostrum faintly widened at antennal insertion and apex; dorsum with small punctures, which are dense and longitudinally confluent at the base, and become finer and thinner apically; antennal scrobes shortly extending anteriorly beyond antennal insertion. Antennae inserted a little behind the middle of rostrum; scape as long as basal four segments of funicle combined; funicle with first segment 1.5 times as long as wide, nearly as long as second, third to fourth subequal

in length, 2/3 times as long as second, fifth just a little longer than fourth; club with first segment more than a half the length of club, with grayish vesture on apical margins of basal two segments and whole apical segment.

Prothorax 1.2 times as wide as long, widest in front of the middle, weakly curved at sides, slightly narrowing to the base; dorsum separately provided with small punctures, their interstices about as wide as diameters, punctures becoming denser anteriorly and laterally. Scutellum tongue-shaped, flat, coriaceous. Elytra 1.3 times as long as wide, widest at the middle, each elytron without callus on declivity; intervals about as wide as striae, each interval with fine punctures, each of which bears fine seta, arranged irregularly on basal half and regularly in a row on apical half; striae with large punctures, septa almost of the same height as interval on basal half, punctures becoming smaller to the apex.

Legs clothed with fine, short recumbent pale setae; tibiae weakly dilated internally behind the middle.

Underside clothed with fine recumbent pale setae. Prosternum with the distance between the coxa and submarginal sulcus greater than that between this sulcus and anterior margin. Mesosternal process one-third as wide as coxa. Venter with first ventrite flattened in the middle.

Female. Unknown.

Length. 3.1 mm.

Type series. Holotype: ♂ (Type No. 3016, Kyushu Univ.), Templer Park, nr. Kuala Lumpur, West Malaysia, 10–III–1989, H. KARUBE leg.

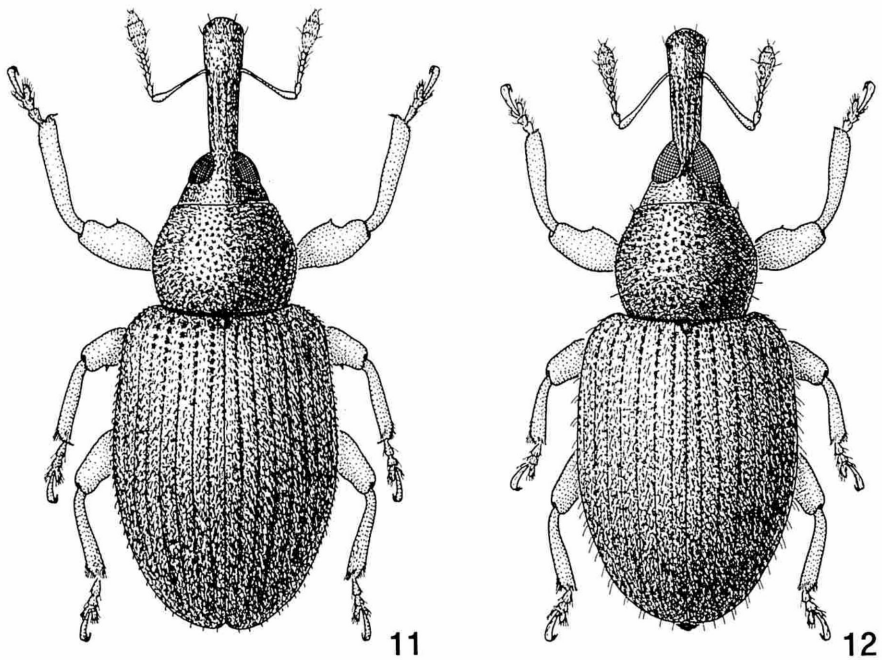
Distribution. West Malaysia.

Remarks. This is easily separable from *H. johkii* sp. nov. by the shiny and distantly punctate derm, and oblong ovate body.

Eugryporrhynchus gen. nov.

Type species: *Eugryporrhynchus kinabalensis* sp. nov.

Description. Body oblong ovate. Head not constricted behind eyes. Eyes weakly convex from temples, distant from each other. Rostrum weakly widening before antennal insertion; antennal scrobe with two dorsal carinae, upper carina distinct, directing to the middle part of eye, lower carina indistinct, directing to the lower part of eye, ventral carina running to beneath the base of rostrum; scape retracted between lower dorsal carina and ventral carina and not touching eye. Antennae with funicle five-segmented; club normal, visibly three-segmented, first segment shorter than the rest. Prothorax truncate at anterior margin, weakly arched posteriorly at the base, rounded laterally, weakly constricted at the apex, often with erect setae on anterior and lateral margins. Scutellum evident. Elytra with rounded shoulders, with ten regular striae, ultimate stria weakened behind the middle, interval with a row of suberect or erect setae or scales. Apical half of pygidium exposed and almost vertical in the male or oblique in the female. Legs with femora dentate, teeth of middle and hind femora



Figs. 11–12. Habitus of *Eugryporrhynchus* spp. —— 11, *E. kinabalensis* sp. nov.; 12, *E. malayanus* sp. nov.

a little smaller than those of front femora; front and middle tibiae uncinate from inner angle, but those of hind pairs not uncinate; tarsal claws moderately divergent, each with a sharp tooth and fine seta. Prosternum with coxae located near the base. Venter with the posterior margin of second ventrite more broadly curved than third and fourth ventrites, first ventrite behind coxae and second to fourth ventrites each subequal in length, fifth ventrite shorter than third and fourth ventrites combined.

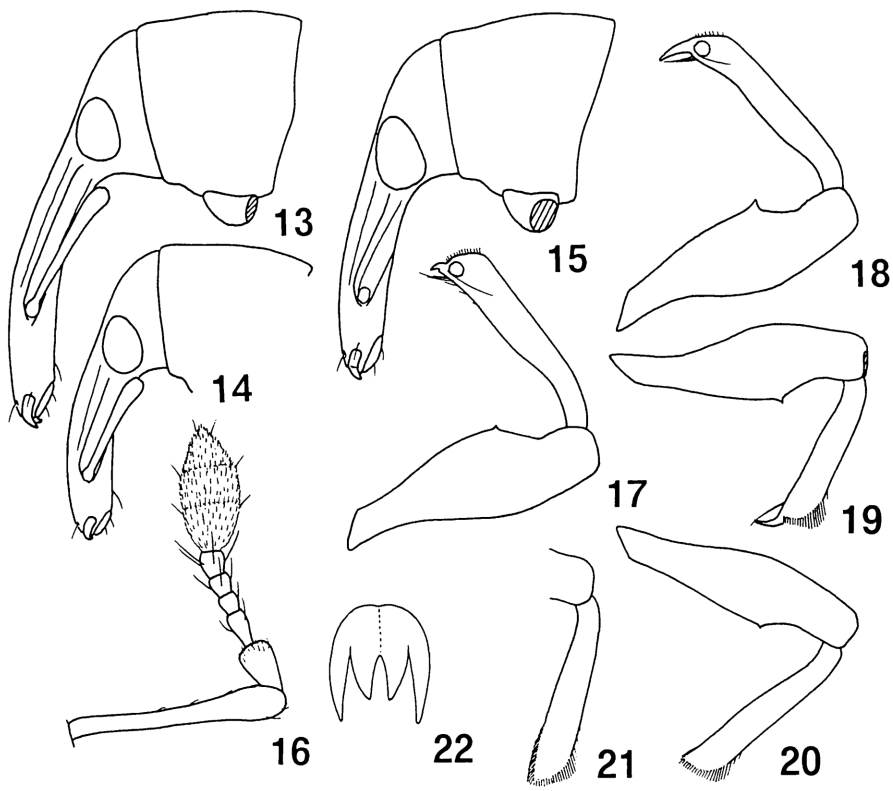
Phylogenetic consideration. This genus is closely related to *Gryporrhynchus* ROELOFS in having suberect or erect setae or scales on the elytra, and to *Lepidimerodes* KOJIMA et MORIMOTO on the narrow body and long rostrum, but the five-segmented funicle and sharp tooth at the base of each claw are characteristic. The latter character is unique in this tribe, which is broad and flat in the other known genera, but appears in the taxa of such out-groups as *Lignyodes* of the Lignyodini and most of the Tychiini. Consequently, this condition can be regarded as plesiomorphic.

Eugryporrhynchus kinabalensis sp. nov.

(Figs. 11, 13, 14, 16, 18–22)

Male and female. Derm blackish, antennae and legs light reddish brown.

Head densely punctured, each puncture with a pale recumbent seta; forehead



Figs. 13–14, 16, 18–22. *Eugryporrhynchus kinabalensis* sp. nov.; 15, 17, *E. malayanus* sp. nov. —— 13–15, Head and prothorax, lateral view; 16, antenna; 17–21, femur and tibia (17, 18, front leg; 19, middle leg; 20, hind leg, female; 21, ditto, male); 22, claws.

between eyes a little narrower than the base of rostrum, wrinkled. Eyes weakly convex from temples. Rostrum a little longer than (male) or much longer than (3 : 2, female) pronotum, weakly curved; dorsum parallel-sided, confluently punctured, with an indefinite median and two rows of carinae on each side behind the antennal insertion, thence weakly widening, and punctures becoming smaller to the apex. Antennae inserted at apical one-third (male) or before the middle (female) of rostrum; scape reaching anterior part of eye (male) or not reaching eye (female), longer than funicle; funicle with first segment 3/5 times as wide as long, a little longer than second, third and fourth subequal in length, fifth just a little longer than fourth.

Prothorax 1.3 times as wide as long, widest at the middle, rounded laterally, subapical constriction weak; dorsum strongly punctured, clothed with recumbent pale setae, without suberect or erect setae. Scutellum rounded, as long as wide, clothed with recumbent pale setae. Elytra 1.38 times as long as wide, widest at the middle; each interval clothed with recumbent pale setae and medially a row of suberect short

pale scales. Legs clothed with pale recumbent setae; femora each with a small tooth, of which the front pair is a little larger than that of the posteriors; front and middle tibiae each with a large uncus, each tibia weakly dilated internally a little behind the middle, hind tibiae densely fringed internally with short hairs at apical part in male.

Underside thinly clothed with pale recumbent setae. Prosternum with distance between the coxa and submarginal sulcus greater than that between this sulcus and anterior margin. Venter with first ventrite flattened in the middle in male.

Length. 2.3–2.6 mm.

Type series. Holotype: ♂ (Type No. 3017, Kyushu Univ.), Kinabalu P. H. Q., Sabah, Borneo Is., East Malaysia, 16～18–III–1993, H. KOJIMA leg. Paratypes: 2♂♂ and 1♂, same data as holotype.

Distribution. East Malaysia (Sabah).

Remarks. This is characteristic in having short suberect scales of the elytra and large unci of the front and middle tibiae.

Eugryporrhynchus malayanus sp. nov.

(Figs. 12, 15, 17)

Male. Derm dark brown, rostrum and elytra a little lighter, pronotum darker, scape and funicle of antennae and legs reddish brown.

Head finely and separately punctured, each puncture with a pale recumbent seta; forehead between eyes a half as wide as the base of rostrum, strongly punctured. Eyes subtriangular, slightly convex from temples. Rostrum as long as pronotum, slightly curved; dorsum parallel-sided, confluently punctured, with five rows of carinae behind antennal insertion, of which the median one does not reach antennal insertion and bears a short groove at this point, thence weakly widening to the apex and punctures becoming smaller. Antennae inserted a little before the middle of rostrum; scape reaching the median part of eye, longer than funicle; funicle with first segment 2/3 times as wide as long, a little longer than second, third and fourth subequal in length, fifth just a little longer than fourth.

Prothorax 1.2 times as wide as long, widest at the middle, weakly rounded laterally, subapical constriction weak; dorsum strongly punctured, punctures becoming smaller towards anterior margin, clothed with recumbent pale setae, with a few erect setae on lateral and anterior margins. Scutellum rounded, clothed with pale recumbent setae. Elytra 1.38 times as long as wide, widest at the middle; each interval clothed with pale recumbent setae and medially a row of long erect setae. Pygidium exposed, oblique, emarginate at the apex. Legs clothed with pale recumbent setae; front femora each with a minute tooth, tooth of middle and hind femora vestigial; tibiae narrowed at the base, slightly dilated internally near the middle, thence weakly widening to the apex, front and middle tibiae each with a small uncus.

Underside thinly clothed with pale recumbent setae. Prosternum with the distance between the coxa and submarginal sulcus greater than that between this sulcus and

anterior margin. Venter with fifth ventrite bisinuate at the apex, strongly produced in the middle in correspondence with the emargination of pygidium.

Female. Unknown.

Length. 1.6–1.8 mm.

Type series. Holotype: ♂ (Type No. 3018, Kyushu Univ.), 19 miles from Tapha, Malaysia, 9–IV–1976, M. HATA leg. Paratypes: 1♂, Mamut, Sabah, East Malaysia, 11～14–VIII–1981, K. MORIMOTO leg.; 1♂, Bukit Larut, Malaysia, 14–VII–1989, T. YASUNAGA leg.; 1♂, Kinabalu P. H. Q., Sabah, Borneo Is., East Malaysia, 16～18–III–1993, H. KOJIMA leg.

Distribution. East Malaysia (Sabah), West Malaysia.

Remarks. This is easily separable from the previous species by the small-sized body, narrower forehead, subtriangular eyes, long erect setae of the elytra, and small unci of the front and middle tibiae.

要　約

小島弘昭・森本　桂：触角中間節が5節からなるアシブトゾウムシ族の2新属．——ゾウムシ科甲虫の触角中間節は通常6節か7節からなり，5節からなるものは非常に限られていて，ゾウムシ科のいくつかの異なる系統において平行的にでてくる特徴である．東アジア産のアシブトゾウムシ族を研究していく過程で，触角中間節が5節からなるゾウムシが見つかった．これは本族はもちろんのこと，近縁な族においても今までに知られていなかった特徴である．これらは，触角中間節の形態以外にも，いくつかの重要な形態的特徴で，今までに知られている本族の属とは識別できる2属が含められていることがわかったので，*Heterimerodes*属と*Eugryporrhychus*属を新設して，それぞれに2新種を記載した．*Heterimerodes*属は，*Imerodes*属に近縁であるが，触角中間節以外に，口吻が先に向かって細まること，触角溝が眼の下側に向かうことなどの特徴で識別できる．本属には*johkii*（東マレーシア），*karubei*（西マレーシア）の2新種を含めた．*Eugryporrhynchus*属は，上翅各間室に直立，あるいは半直立した一列の毛，あるいは鱗片を持つことから，おそらく*Gryporrhynchus*属に近縁のものと思われるが，触角中間節以外に，爪が大きくは分岐せず，内側に鋭い歯を持つことで識別できる．本属には*kinabalensis*（東マレーシア），*malayanus*（西，東マレーシア）の2新種を含めた．

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Occurrence of *Derelomus bicarinatus* (Coleoptera, Curculionidae) in Japan and Taiwan

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Derelomus bicarinatus was described by MARSHALL (1928) from India, and VOSS (1953, 1958) recorded it from China (Fukien). Many specimens of the genus *Derelomus* were collected from Japan (Ryukyus) and Taiwan, and identified with *D. bicarinatus* from the original description, though the broad dark brown median stripe of the pronotum is absent in our materials.

Specimens examined. [JAPAN: RYUKYUS] 24 exs., Shuri, Okinawa Is., 17–V–1989, Y. HIRANO leg.; 33 exs., Ishigaki Is., 4–V–1984, K. IHA leg.; 1 ex., Mt. Omoto, Ishigaki Is., 14–X–1963, K. MORIMOTO leg.; 4 exs., 18～21–VI–1991, K. MORIMOTO leg.; 2 exs., 19–IV–1992, H. KOJIMA leg.; 12 exs., Mt. Bannadake, Ishigaki Is., 20–IV–1992, H. KOJIMA leg.; 6 exs., Arakawa, Ishigaki Is., 22–IV–1992, H. KOJIMA leg.; 100 exs., Hateruma Is., 16～17–IV–1993, H. KOJIMA leg.; 41 exs., Otomi, Iriomote Is., 24–IV–1969, H. MAKIHARA leg.; 4 exs., Kubura-Hikawa, Yonaguni-jima Is., 21～22–IV–1993, H. KOJIMA leg.; 3 exs., Mt. Kuburadake, Yonaguni-jima Is., 22–IV–1993, H. KOJIMA leg.; 8 exs., Mt. Inbidake, Yonaguni-jima Is., 23–IV–1993, H. KOJIMA leg. [TAIWAN] 33 exs., Wu Lai, nr. Taipei, Formosa, 27–V–1965, K. MORIMOTO leg.; 2 exs., Pen Puchi, Formosa, 27–IV–1965, T. SHIRÔZU leg.

Distribution. Japan (Ryukyus: Okinawa-hontô, Ishigaki-jima, Hateruma-jima, Iriomote-jima, Yonaguni-jima Isls.) (new record); Taiwan (new record); China (Fukien); India.

Biology. Weevils were captured on the flower of *Arenga engleri* (Kurotsugu in Japanese) of the family Palmae on Ishigaki-jima and Hateruma-jima Islands in April.

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The Anthribid Beetles of the Tribe Apolectini (Coleoptera, Anthribidae) from the Malay Peninsula[1)]

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Abstract Eleven species of the anthribid tribe Apolectini are recorded from the Malay Peninsula. One of them is newly described from Pahang, Malaysia, under the name of *Apolecta fuscata*. Of the remaining four, *Apolecta aspericollis*, *A. transversa*, *A. crux* and *Apolectella frontalis* are newly recorded from Thailand. The genus *Apolectella* is a new record from Thailand.

The Anthribidae is classified into two subfamilies, Choraginae and Anthribinae, mainly on the difference in the position of antennal insertion (cf. VALENTINE, 1960, p. 48; CROWSON, 1967, p. 161; MORIMOTO, 1972, p. 37). Because of the feature that the antennae are inserted on the dorsal surface of the rostrum, the tribe Apolectini consisting of the two genera *Apolecta* PASCOE, 1859, and *Apolectella* JORDAN, 1924, is currently placed in the subfamily Choraginae. Apart from this character state, however, anthribids of the Apolectini agree with the members of the Anthribinae, especially in the thick ovipositor, whose stylus is finger-shaped, not spine-like as in the other tribes of the Choraginae. In the present paper, therefore, the tribe is regarded as belonging to the subfamily Anthribinae.

Up to the present, nine species of the tribe Apolectini, *Apolecta aspericollis* KIRSCH, *A. latipennis* JORDAN, *A. dilopha* JORDAN, *A. transversa* (OLIVIER), *A. crux* JORDAN, *A. malayana* JORDAN, *A. gemina* JORDAN, *A. puncticollis* JORDAN, and *Apolectella minor* (JORDAN), have been known from the Malay Peninsula. Two species are added in the present paper to the fauna of the peninsula, and four of the eleven are newly recorded from Thailand.

Before going further, I wish to express my sincere gratitude to Professor Y. WATANABE of the Laboratory of Entomology, Tokyo University of Agriculture, and Professor K. MORIMOTO of the Entomological Laboratory, Kyushu University, for their constant guidance and encouragement. I am much indebted to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and for reading the original manuscript of the present paper, and to Dr. A. LEWVANICH

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Subfamily Anthribinae

Tribe Apolectini

Apolectides LACORDAIRE, 1866, Gen. Coléopt., **7**: 554.
Apolectini MORIMOTO, 1972, Bull. Gov. For. Exp. Stn., (246): 37.

Body oblong. Antennae filiform, longer than the length of body in both sexes, inserted on the dorsal surface of rostrum. Labium with concave anterior margin. Hind wing broad in basal half. Ovipositor thick, stylus finger-shaped, not spine-like.

Genus *Apolecta* PASCOE, 1859

Apolecta PASCOE, 1859, Ann. Mag. nat. Hist., (3), **4**: 431 (type species: *Mecocerus parvulus* THOMSON, by original designation).

Body length 7 to 20 mm. Eyes circular. Rostrum protrudent obliquely forwards. Antennae long, 2 to 5 times as long as the length of body in both sexes. Pronotum wholly depressed; dorsal transverse carina arcuate. Elytra gradually slanting downwards in apical third in lateral view. Mesosternum with a transverse groove on the neck-like portion concealed by prothorax; mesosternal process linguiform. Legs slender.

Notes. This genus is closely allied to the African genus *Anacerastes* LABRAM et IMHOFF, 1842, but can be easily distinguished from the latter by the long tenth segment of the antennae, which is at least one-third the length of the eleventh.

The males of most species of this genus as well as of the genus *Anacerastes* bear a pair of tubercles or short keels at the middle of the first sternite.

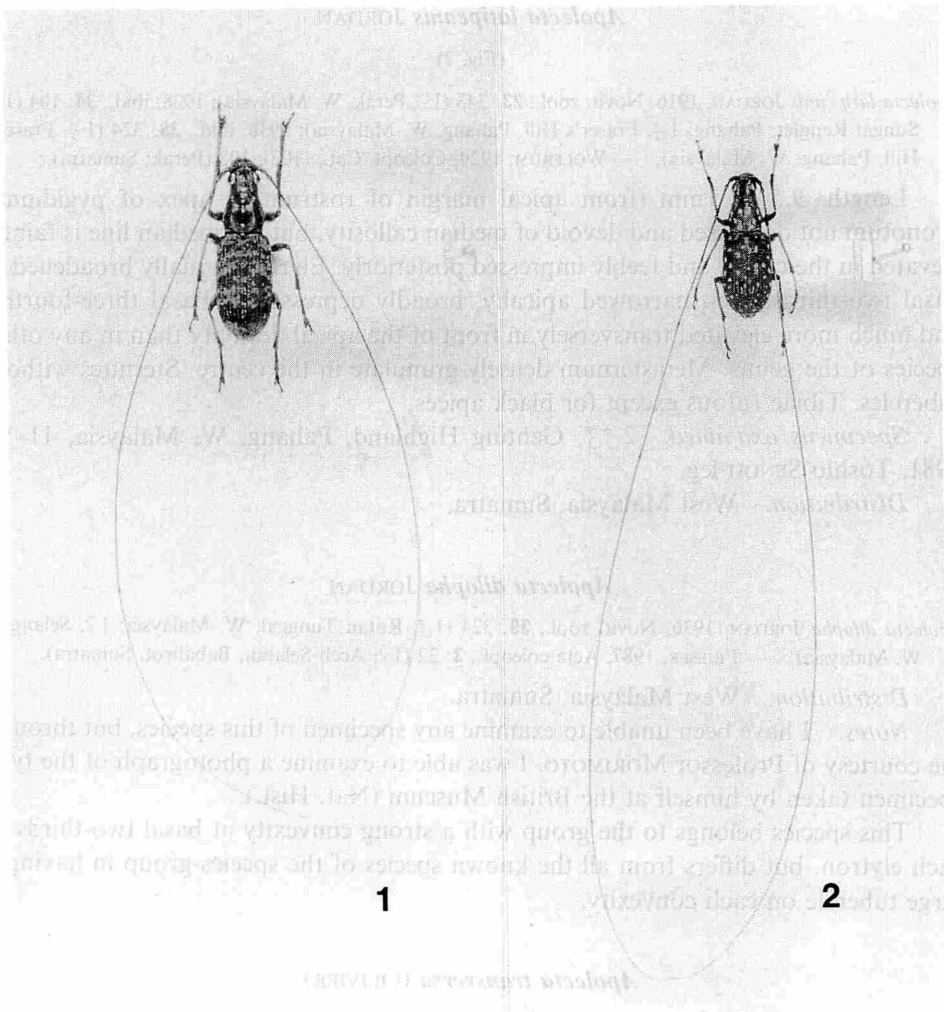
Apolecta aspericollis KIRSCH

(Fig. 1)

Apolecta aspericollis KIRSCH, 1875, Mitt. zool. Mus. Dresden, **1**: 55 (Malacca).——JORDAN, 1916, Novit. zool., **23**: 347 (Malay Pen., Singapore, Sumatra); 1928, ibid., **34**: 103 (1♂, Pahang; 1♀, Senyum, Kotu Tongkat, Pahang).

Length: 9–13 mm (from apical margin of rostrum to apex of pygidium). Pronotum punctate except for the middle; elytra broadly depressed in basal three-fourths and elevated in front of the apical declivity. Pro-, meso- and metasterna distinctly punctate. First sternite provided with a pair of tubercles at the middle in male.

Specimens examined. 4♂♂, 4♀♀, 3–4 miles from Tapah, Cameron's Highlands, Perak, W. Malaysia, 1～10–VI–1981, Toshio SENOH leg.; 1♂, 3–4 miles from Tapah, Cameron's Highlands, Perak, W. Malaysia, 19–V–1983, Toshio SENOH leg.; 1♂, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 13–VIII–1993, Toshio SENOH leg.; 1♂,



Figs. 1-2. —— 1. *Apolecta aspericollis* KIRSCH, ♂, from South Thailand. —— 2. *A. latipennis* JORDAN, ♂, from Pahang, West Malaysia.

1♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 14～16–IX–1993, Toshio SENOH leg.; 2♂♂, 1♀, Nam Tok Sairung, Trang, S. Thailand, 9～11–XII–1993, Toshio SENOH leg.

Distribution. South Thailand (new record), West Malaysia, Singapore, Sumatra.

Apolecta latipennis JORDAN

(Fig. 2)

Apolecta latipennis JORDAN, 1916, Novit. zool., **23**: 343 (1♀, Perak, W. Malaysia); 1928, ibid., **34**: 104 (1♂, Sungai Renglet, Pahang; 1♂, Fraser's Hill, Pahang, W. Malaysia); 1936, ibid., **39**: 324 (1♂, Fraser's Hill, Pahang, W. Malaysia). —— WOLFRUM, 1929, Coleopt. Cat., (102): 102 (Perak; Sumatra).

Length: 9.5–12.5 mm (from apical margin of rostrum to apex of pygidium). Pronotum not depressed and devoid of median callosity, but the median line is faintly elevated in the centre and feebly impressed posteriorly. Elytra gradually broadened in basal two-thirds, then narrowed apically, broadly depressed in basal three-fourths, and much more elevated transversely in front of the apical declivity than in any other species of the genus. Metasternum densely granulate in the centre. Sternites without tubercles. Tibiae rufous except for black apices.

Specimens examined. 2♂♂, Genting Highland, Pahang, W. Malaysia, 11–V–1981, Toshio SENOH leg.

Distribution. West Malaysia, Sumatra.

Apolecta dilopha JORDAN

Apolecta dilopha JORDAN, 1936, Novit. zool., **39**: 324 (1♂, Rotan Tunggal, W. Malaysia; 1♀, Selangor, W. Malaysia). —— FRIESER, 1987, Acta coleopt., **3**: 32 (1♀, Aceh-Selatan, Babahrot, Sumatra).

Distribution. West Malaysia, Sumatra.

Notes. I have been unable to examine any specimen of this species, but through the courtesy of Professor MORIMOTO, I was able to examine a photograph of the type specimen taken by himself at the British Museum (Nat. Hist.).

This species belongs to the group with a strong convexity at basal two-thirds of each elytron, but differs from all the known species of the species-group in having a large tubercle on each convexity.

Apolecta transversa (OLIVIER)

(Fig. 3)

Macrocephalus transversus OLIVIER, 1795, Entomologie, Paris, **4**: 10. —— SCHÖNHERR, 1833, Gen. Spec. Curc., **1**(1): 184.

Nessiara transversa: LACORDAIRE, 1866, Gen. Coléopt., **7**: 538. —— GEMMINGER & HAROLD, 1872, Cat. Coleopt., (9): 2735. —— JORDAN, 1894, Novit. zool., **1**: 630. —— BOVIE, 1906, Annls. Soc. ent. Belg., **49**: 257.

Apolecta gracillima PASCOE, 1859, Ann. Mag. nat. Hist., (3), **4**: 431 (Singapore). —— JORDAN, 1895, Stett. ent. Ztg., **56**: 80. —— BOVIE, 1906, Annls. Soc. ent. Belg., **49**: 317 (Singapore, Sumatra).

Apolecta transversa: JORDAN, 1916, Tydschr. Ent., **59**: 162 (Tjigembong, Java); 1916, Nivit. zool., **23**: 347 (Perak, Sumatra, Borneo, Java); 1933, ibid., **39**: 88 (Java). —— FRIESER, 1987, Acta coleopt., **3**: 32 (5♂♂, 5♀♀, Aceh-Selatan, Babahrot, Sumatra).

Length: 5–7.5 mm (from apical margin of rostrum to apex of pygidium), relatively small species. Eyes strongly expanded latero-posteriad. Prothorax densely granulate

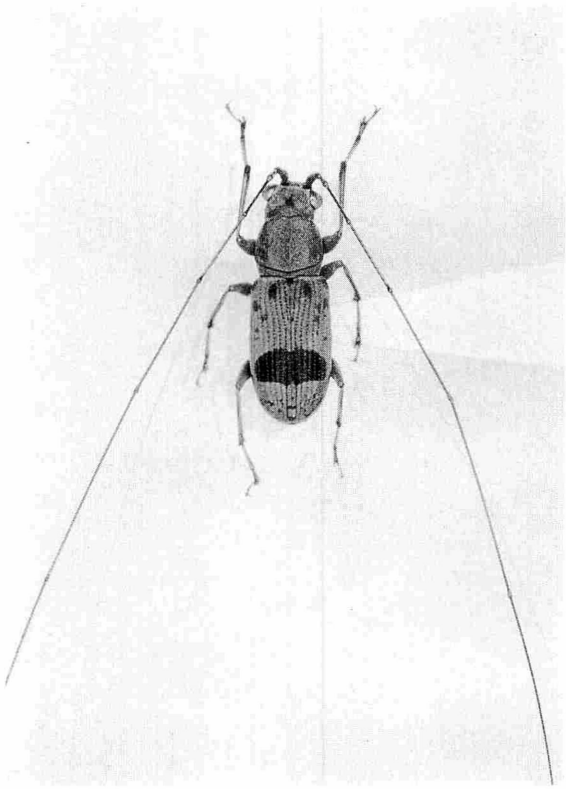


Fig. 3. *Apolecta transversa* (OLIVIER), ♂, from South Thailand.

in lateral parts. First sternite with a pair of short keels at the middle in male.

Specimens examined. 8♂♂, 9♀♀, 3–4 miles from Tapah, Cameron's Highlands, Perak, W. Malaysia, 1～10–VI–1981, Toshio SENOH leg.; 1♀, Ban Lamo, Trang, S. Thailand, 15～19–VI–1981, Toshio SENOH leg.; 2♂♂, 2♀♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 13～15–VIII–1993, Toshio SENOH leg.; 4♂♂, 9♀♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 14～17–IX–1993, Toshio SENOH leg.

Distribution. South Thailand (new record), West Malaysia, Sumatra, Java, Borneo.

Apolecta crux JORDAN

(Fig. 4)

Apolecta crux JORDAN, 1916, Novit. zool., **23**: 345 (1♀, Hili Madjedja, N. Nias).

Length: 5.5–7.5 mm (from apical margin of rostrum to apex of pygidium), relatively small species. Eyes strongly expanded laterad. First sternite with a pair of short keels at the middle in male.

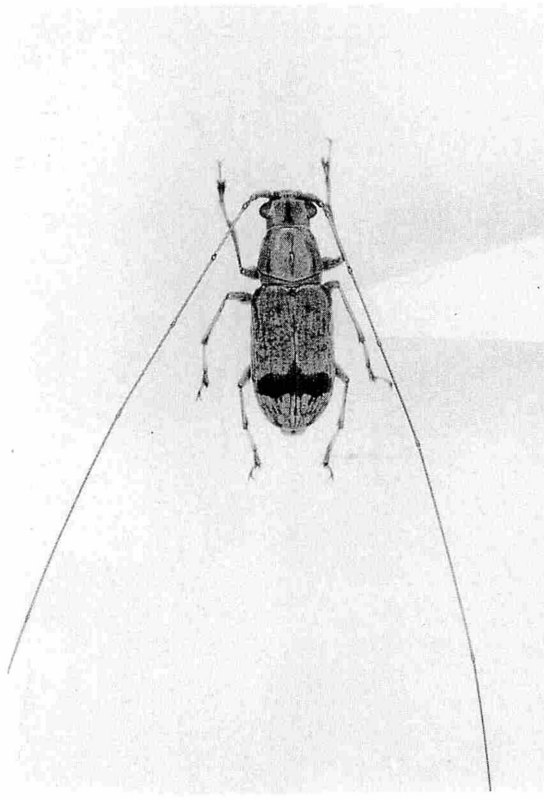


Fig. 4. *Apolecta crux* JORDAN, ♂, from South Thailand.

Specimens examined. 2♂♂, 1♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 13～15–VIII–1993, Toshio SENOH leg.; 1♂, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 16–IX–1993, Toshio SENOH leg.

Distribution. South Thailand (new record), Nias.

Apolecta malayana JORDAN

Apolecta malayana JORDAN, 1936, Novit. zool., **39**: 324 (1♀, Cameron's Highlands, Pahang, W. Malaysia).

Brown median stripe of pygidium thin though widened at the apex.

Distribution. West Malaysia.

Notes. I have been unable to examine any specimen of this species, but have seen a photograph of the type specimen through the courtesy of Professor MORIMOTO.

Apolecta gemina JORDAN

Apolecta gemina JORDAN, 1916, Novit. zool., **23**: 344 (1♂, 1♀, Perak, W. Malaysia).

Distribution. West Malaysia.

Notes. No specimen of this species has been available for my study.

According to the original description (JORDAN, 1916a, pp. 344, 346), the prothoracic stripes are not interrupted; there is a rather large black elongate spot on the basal callosity of the elytra. The pronotum is only depressed in front of the carina. The meso- and metasterna are not distinctly punctured.

Apolecta puncticollis JORDAN

Apolecta puncticollis JORDAN, 1895, Stett. ent. Ztg., **56**: 179 (1♀, Borneo); 1916, Novit. zool., **23**: 349 (Borneo, Perak).

Distribution. West Malaysia, Borneo.

Notes. I have been unable to see any specimen of this species, but have examined a photograph of the type specimen through the courtesy of Professor MORIMOTO. According to JORDAN (1916 a, p. 342), this species lacks tubercles on the first sternite, but its mesosternal process is raised into a round tubercle.

Apolecta fuscata SENOH, sp. nov.

(Fig. 5)

Length: 12 mm (from apical margin of rostrum to apex of pygidium).

Female. Colour entirely black. Pubescence dense, yellowish brown and blackish brown; antennae and legs with no rings; blackish brown hairs of head and pronotum forming a linear patch from between antennal scrobes to subbasal part of pronotum, the patch widespread at occiput, apical fourth and basal fourth of pronotum; yellowish brown and blackish brown hairs of elytra forming irregular tessellated patches all over. Pygidium with a longitudinal black patch from base to apex, and with an oblong one at the basal part of both sides. Posterior femur with a black triangular patch in middle; apical parts of all tibiae with black hairs; each of 1st to 4th visible sternites with a black transverse patch on both sides.

Head robust, and with a Y-shaped keel from between eyes to apical margins of antennal scrobes; eyes moderately large, hemispherical, and relatively estranged from each other; rostrum short, widest at the bases of mandibles, strongly emarginate at the middle of anterior margin; maximum width of rostrum about 1.7 times as large as the shortest distance between eyes. Antennae long, about 2.5 times as long as the length of body, scape relatively long, about twice as long as pedicel, proportions in length from 2nd to 11th about 9 : 50 : 58 : 64 : 79 : 85 : 80 : 70 : 23 : 38, apical third of 9th, 10th and 11th forming a very slender club.

Pronotum robust, about 1.2 times as wide as long, widest at about basal third; disc covered with obscure granules except for mesial part, convex above at the centre,

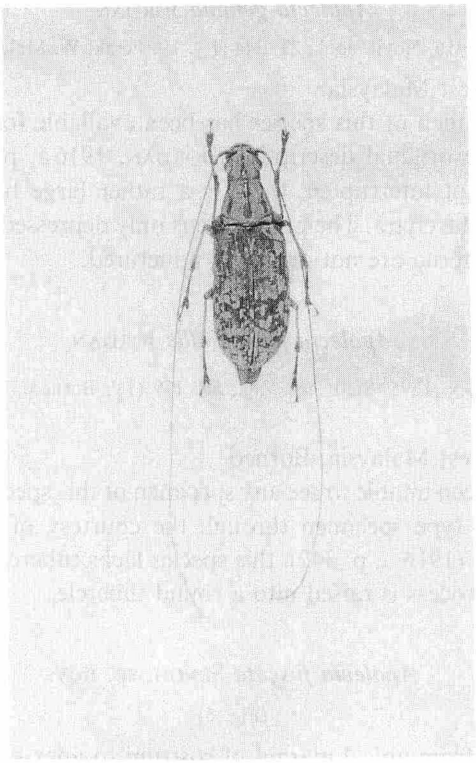


Fig. 5. *Apolecta fuscata* SENOH, sp. nov., ♀, from Pahang, West Malaysia.

with a pair of depressions before the convexity and transversely depressed just in front of dorsal transverse carina; dorsal transverse carina broadly rounded at the middle, touching the base of pronotum at the middle, and roundly connected with each lateral carina, the latter declivous, extending to the middle of side margin; carinula obscure. Scutellum linguiform. Elytra oblong and thick, about 1.8 times as long as wide, parallel-sided in basal three-fourths, then narrowed posteriorly; disc with a pair of round subbasal swellings and with a pair of longitudinal ones in middle; strial punctures very small but distinct, distance between them nearly as large as their diameter and distinctly smaller than the widths of intervals. Pygidium linguiform, extending backwards, nearly as long as wide, and narrowed towards broadly rounded and depressed apex.

Prosternum with a longitudinal keel between coxal cavities, strongly depressed in front of coxal cavities; mesosternal process linguiform, narrowed apically, depressed at the apex; metasternum sparsely covered with obscure granules; 1st to 5th visible sternites conjointly almost horizontal in lateral view. Legs moderately long and thin; anterior femur shorter than the median which is shorter than the posterior; anterior tibia longer than the median which is a little longer than the posterior; anterior tarsus

longer than the median which is a little longer than the posterior.

Male. Unknown.

Holotype. ♀, Mt. Jasar, Cameron's Highlands, Pahang, West Malaysia, 23–V–1981, Toshio SENOH leg. The holotype is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Distribution. West Malaysia.

Notes. In the peculiar markings of the pronotum, this species resembles *Apolecta malayana* JORDAN (1936, p. 324) described from the same locality, Cameron's Highlands, West Malaysia, but can be distinguished from the latter by the absence of a pair of black round patches on the elytra, and by the large size of its body.

Genus *Apolectella* JORDAN, 1916

Apolectella JORDAN, 1916, Novit. zool., **23**: 349 (type species: *Apolecta minor* JORDAN, by original designation).

Body length 4 to 6 mm. Eyes oval, the upper edges a little closer to each other than to the lower. Rostrum directed downwards. Antennae nearly as long as the length of body in both sexes. Pronotum wholly convex above; dorsal transverse carina subparalell to the base of pronotum. Elytra convex above, gradually slanting downwards from near bases to apices. Mesosternal process broadly truncate. Legs thick.

Apolectella minor (JORDAN)

(Fig. 6)

Apolecta minor JORDAN, 1895, Stett. ent. Ztg., **56**: 181 (1♂, 2♀♀, Perak, W. Malaysia).

Apolectella minor: JORDAN, 1916, Novit. zool., **23**: 349 (Perak, Singapore, Sarawak). —— FRIESER, 1987, Acta coleopt., **3**: 32 (15♂♂, 18♀♀, Aceh-Selatan, Babahrot, Sumatra).

Length: 4–5.5 mm (from frons to apex of pygidium).

Specimens examined. 3♂♂, 3♀♀, 3–4 miles from Tapah, Cameron's Highlands, Perak, W. Malaysia, 1 ~ 10–VI–1981, Toshio SENOH leg.

Distribution. West Malaysia, Singapore, Sumatra, Sarawak.

Notes. This is the type species of *Apolectella*. Each tibia bears a brown median ring.

Apolectella frontalis JORDAN

Apolectella frontalis JORDAN, 1916, Novit. zool., **23**: 349 (1♀, S. Palawan). —— FRIESER, 1987, Acta coleopt., **3**: 32 (7♂♂, 6♀♀, Aceh-Selatan, Babahrot, Sumatra).

Length: 4–4.5 mm (from frons to apex of pygidium).

Specimens examined. 2♀♀, Kanchanaburi, W. Thailand, 31–V–1962, ANAN & AROON leg.; 3 exs., same data as above.

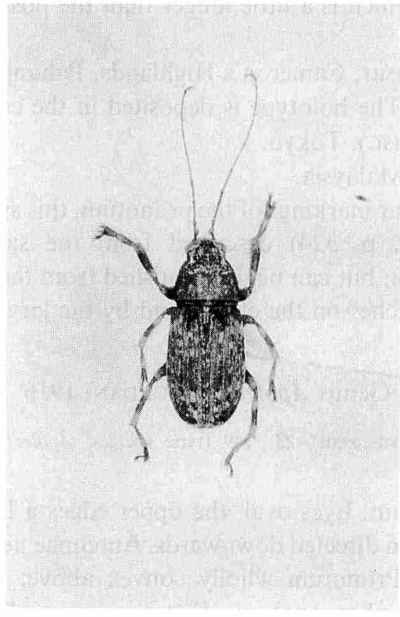


Fig. 6. *Apolectella minor* (JORDAN), ♂, from Pahang, West Malaysia.

Distribution. South Palawan, West Thailand (new record), Sumatra.

Notes. In general appearance, this species is very close to *A. minor*, but the eyes are larger, more strongly convex laterad, the frons is much more elevated posteriorly and almost forming a right angle with the occiput in lateral view, the pronotum is more evenly convex above, and the tibiae lack brown median ring.

Through the courtesy of Dr. LEWVANICH and Mrs. CHUNRAM of the Entomology and Zoology Division, Ministry of Agriculture and Cooperatives, Thailand, I was able to examine five specimens of this species collected at Kanchanaburi, West Thailand, at the very base of the Malay Peninsula.

要　　約

妹尾俊男：マレー半島に分布するApolectini族（ヒゲナガゾウムシ科）の種．——マレー半島に分布するApolectini族に属するヒゲナガゾウムシは，現在までに*Apolecta aspericollis* KIRSCH, *A. latipennis* JORDAN, *A. dilopha* JORDAN, *A. transversa* (OLIVIER), *A. crux* JORDAN, *A. malayana* JORDAN, *A. germina* JORDAN, *A. puncticollis* JORDAN, *Apolectella minor* (JORDAN) の9種が知られている．

これまでに筆者が採集した標本の検討およびタイ国の昆虫類の研究機関に所蔵されているコレクションの調査により，マレー半島からApolectini族に含まれるヒゲナガゾウムシの11種を確認した．マレーシアのパハン州から採集された*Apolecta*の1種は新種であったので，*Apolecta fuscata*と命名して記載した．残りのうちの*Apolecta aspericollis* JORDAN, *A. transversa* (OLIVIER), *A. crux* JORDAN, *Apolectella*

frontalis JORDANの4種は，タイ国から新記録であることが判明した．また*Apolectella*属はこれまでタイ国から記録がなかった．

なお，Apolectini族をヒゲナガゾウムシ亜科Anthribinaeに含まれるものとして取り扱った．

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Elytra, Tokyo, **23** (2): 153–154, November 15, 1995

A New Record of *Cedus cephalotes* (Coleoptera, Anthribidae) from South Thailand

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Cedus cephalotes (PASCOE, 1860) was originally described from Borneo under a new genus, *Byastus* PASCOE (1860, p. 38). The genus *Byastus* was later regarded as a synonym of the genus *Cedus* PASCOE (1860, p. 37) by GEMMINGER and HAROLD (1872, p. 2728).

Up to the present, this species has been recorded from West Malaysia, Borneo, Java and

the Philippines, and has not been recorded from Thailand.

From April 1993 to March 1994, I was able to make several long collecting trips in the territory of Thailand through the courtesy of the Study Leave System for Teachers of Chuo University High Schools. During the period, I collected some *Cedus cephalotes* in South Thailand. I am going to record this species as being new to the anthribid fauna of Thailand.

Cedus cephalotes (PASCOE, 1860)

Byastus cephalotes PASCOE, 1860, Ann. Mag. nat. Hist., (3), **5**: 38.

Cedus cephalotes: GEMMINGER & HAROLD, 1872, Cat. Coleopt., (9): 2728. —— BOVIE, 1906, Annls. Soc. ent. Belg., **49**: 243. —— JORDAN, 1915, Tydschr. Ent., **58**: 46; 1916, ibid., **59**: 160. —— WOLFRUM, 1929, Coleopt. Cat., (102): 30. —— SHIBATA, 1979, Ent. Rev. Japan, **33**: 107. —— FRIESER, 1987, Acta coleopt., **3**: 23.

Specimens examined. 4♂♂, 2♀♀, Nam Tok Pliw, near Thung Song, Nakhon Si Thammarat Prov., S. Thailand, 13～14–VIII–1993, T. SENOH leg.; 4♂♂, 2♀♀, Nam Tok Pliw, near Thung Song, Nakhon Si Thammarat Prov., S. Thailand, 14～17–IX–1993, T. SENOH leg.; 10♂♂, 4♀♀, Nam Tok Pliw, near Thung Song, Nakhon Si Thammarat Prov., S. Thailand, 9–II–1994, T. SENOH leg.; 1♂, 1♀, Mt. Khao Phanom, Krabi Prov., S. Thailand, 4–XII–1993, T. SENOH leg.

Distribution. Thailand (new record), West Malaysia, Java, Borneo, the Philippines.

Note. This species is peculiar in having the antennae shorter than the length of body in both sexes. In the other species of *Cedus*, the male antennae are distinctly longer than the body.

I wish to express my hearty thanks to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for kindly reading the original manuscript of this brief paper.

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Elytra, Tokyo, **23** (2): 155–158, November 15, 1995

New Synonyms of *Phymatodes infasciatus* (Coleoptera, Cerambycinae)

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Abstract *Phymatodes vandykei* and *P. ussuricus* are treated as junior synonyms of *P. infasciatus*.

Phymatodes infasciatus is a small species with reddish brown unicolored body, and has so far been known to occur in East China. It has been little known except for the brief original description (PIC, 1935) and an additional record (GRESSITT, 1951). Its close relative, *P. vandykei*, has been known as an endemic to the Japanese Islands since the original description (GRESSITT, 1935), though it was rather recently recorded from the Kurils (TSHEREPANOV, 1981) and the Korean Peninsula (LEE, 1982). *Phymatodes vandykei* is discontinuously distributed in the Japanese Islands, and shows slight geographical variation in the body size, coloration and antennal length. The western Japanese population is smaller in size on an average, and usually has bright coloration (especially on the basal third of elytra) and shorter antennae. In my recent investigation, I was able to make comparison of the above two species, and concluded that *P. vandykei* was identical with the Chinese species. The female specimen of *P. infasciatus* presently examined showed no difference from that of *P. vandykei* at least at the species level, and was particularly close to its western population in bright coloration and short antennae.

On the other hand, *Phymatodes ussuricus* PLAVILSTSHIKOV is most probably a junior synonym of *P. infasciatus*. According to TSHEREPANOV (1981), the two species (though he used the name *P.* '*vandykei*' for *P.* '*infasciatus*') are almost indistiguishable from each other except for such minor differences as the shape of adult eyes. Although he described and illustrated the larval structure of the two species, and pointed out some differences in the dorsal locomotory ampullae of larval abdominal tergite IV, width of larval maxillary palpi, and width of abdominal tergite VII of pupae, they may be weak variations either geographical or individual. The so-called two species are completely allopatric, *P. ussuricus* on the continental side of the Russian Far East and *P. vandykei* in the Japanese Islands including the Kurils, and they agree completely in the life histories including host plants. After all, my inference was supported by recent examination of the newly collected material of *P. ussuricus* from the vicinity of Vladivostok taken by a Russian collector. The male specimen examined perfecty

agreed with *P. infasciatus* as well as the western population of *P. vandykei*.

In the following lines, I will treat *P. ussuricus* and *P. vandykei* as junior synonyms of *P. infasciatus*, since the last-named one has the priority over the others. Both *P. infasciatus* and *P. vandykei* were described in 1935, but the date of publication of the former is "September 12" and that of the latter is "October 14".

I wish to express my cordial thanks to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for critically reading the manuscript of this short report and his constant guidance. Thanks are also due to Prof. L.-Z. HUA of Zhongshan University, Guangchou, Dr. N. OHBAYASHI of Ehime University, Messrs. T. ARAI of Tokyo and K. ADACHI of Fukuoka for providing me with the material used for the present study.

Phymatodes (Phymatodellus) infasciatus (PIC, 1935)

[Japanese name: Chairochibi-hirata-kamikiri]

(Fig. 1)

Poecilium infasciatum PIC, 1935, Mél. Exot. Ent., **66**, p. 36; type locality: Shanghai.

Phymatodes (Poecilium) infasciatus: GRESSITT, 1951, Longicornia, **2**, p. 229.——HUA, 1982, Check-List Longicorn Beetles China, Guangchou, p. 45.

Phymatodes vandykei GRESSITT, 1935, Kontyû, Tokyo, **9**, pp.172–173; type locality: Sapporo, Hokkaido.——KOJIMA & HAYASHI, 1969, Ins. Life Japan, Osaka, **1**, p. 73, pl. 22, fig. 10.——LEE, 1982, Korean J. Ent., Seoul, **12**, p. 68; 1987, Longic. Beetl. Korean Pen., Seoul, pl. 12, figs. 120, 120 a, b.—— HAYASHI, 1984, Coleopt. Japan Col., Osaka, **4**, p. 63, pl. 13, fig. 2. [*Syn. nov.*]

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Phymatodes (Phymatodellus) ussuricus PLAVILSTSHIKOV, 1940, Fauna SSSR, **22**(2), pp. 318–320, figs. 164–165.——GRESSITT, 1951, Longicornia, **2**, p. 228. [*Syn. nov.*]

Phymatodes ussuricus: TSHEREPANOV & TSHEREPANOV, 1974, Usachi vinograda amurskogo, pp. 26–30.——TSHEREPANOV, 1981, Usachi Severnoi Azii (Cerambycinae), pp. 245–249, figs. 107–109.

Specimens examined. [China] 1♀, "CHINE, Prov. KIANGSU, Shanghai, MUSEE HEUDE" / "29. 5. 30, A. SAVIO coll." / "*Phymatodes infasciatum* PIC, J. L. GRESSITT Det. 1949". [Russian Far East] 1♂, nr. Vladivostok, Primorye, 12–VI–1993. [Japan] 〈Hokkaido〉 3♂♂, 1♀, Mt. Moiwayama, Sapporo-shi, 11～13–VII–1976, T. NIISATO leg.; 1♂, Usubetsu, Sapporo-shi, 13–VII–1976, same collector; 8♂♂, 4♀♀, Maruseppu-machi, Monbetsu-gun, 26–V–1983, emerged out from dead vines of *Ampelopsis brevipedunculata* (MAXIM.), K. YOSHIKAWA leg. 〈Honshu〉 1♂, Yamagata-mura, Tsugaru Pen., Aomori Pref., 24–VI–1940, K. SHIMOYAMA leg. 〈Kyushu〉 1♂, Mt. Hiko, Fukuoka Pref., Kyushu, 14～29–V–1975, emerged out from a dead vine of *A. brevipedunculata*, S. OGATA leg. 〈Tsushima〉 1♀, Mt. Ohboshiyama, Nagasaki Pref., 30–VI–1974, K. ADACHI leg.

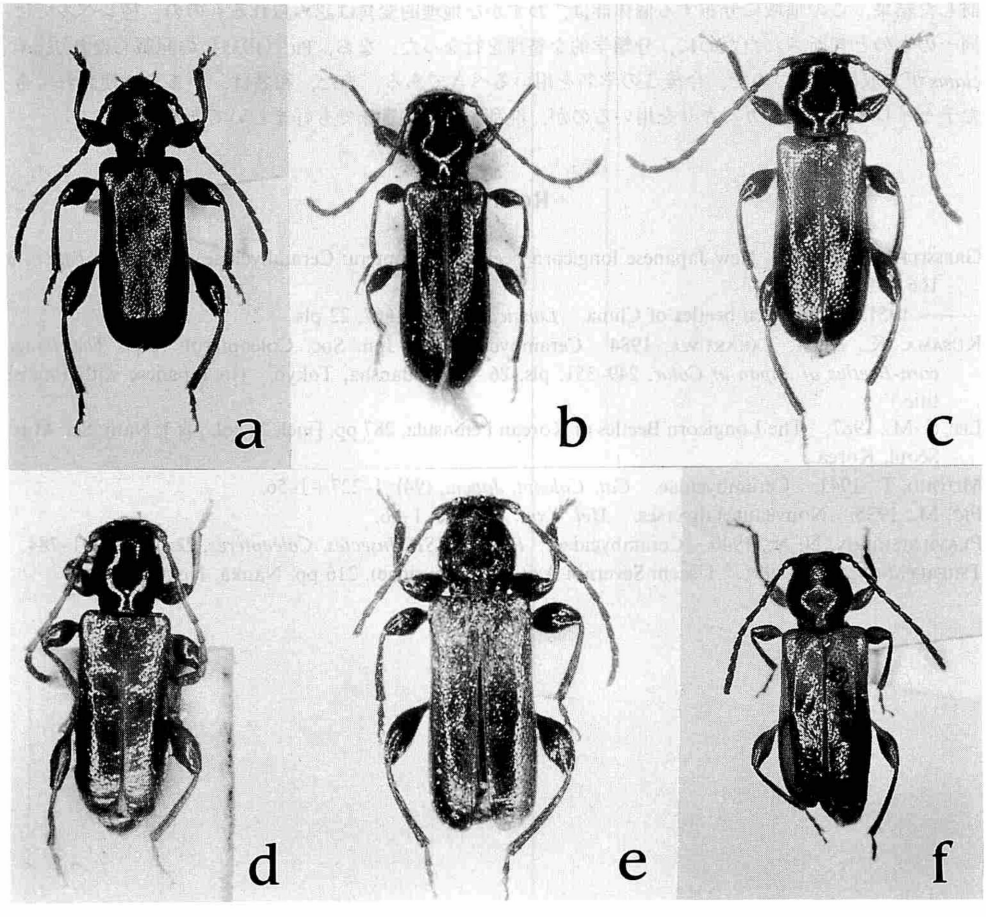

Fig. 1. *Phymatodes* (*Phymatodellus*) *infasciatus* (PIC, 1935); a, ♂ from Sapporo, Hokkaido; b, ♂ from Tsugaru, Aomori; c, ♂ from Mt. Hiko, northern Kyushu; d, ♀ from Tsushima off northern Kyushu; e, ♂ from Vladivostok, Russia; f, ♀ from Shanghai, China.

Distribution. China: Jiangxi, Fujian, Shanghai; Russia: Ussuri–Primorye; Korea; Japan: (Kurils, Hokkaido, Rishili Is., Honshu, Shikoku, Kyushu, Tsushima).

要　　約

新里達也：チャイロチビヒラタカミキリの同物異名．―― チャイロチビヒラタカミキリ *Phymatodes vandykei* は，札幌の標本に基づいて記載されてから比較的近年まで，日本列島に固有の種とされていたが，TSHEREPANOV（1981）が千島より，LEE（1982）が朝鮮半島より記録したことによって，日本の周辺地域にも分布することがわかってきた．一方，本種に近縁の *P. infasciatus* と *P. ussuricus* の2種が大陸側から記録されていたが，*P. vandykei* を含めたこれら3種の類縁関係については未検討のままであった．このたび，3種の分布域を網羅した日本列島および周辺地域の標本を比較検

討した結果，この地域に分布する個体群は，わずかな地理的変異は認められるものの，種レベルでは同一のものと判断されたために，分類学的な整理を行なった．なお，PIC（1935）の記載した*P. infasciatus*が先取権をもつので，今後この学名を用いるべきである．また，和名は，いままで使われてきたチャイロチビヒラタカミキリを用いるのが，混乱を避ける意味でも好ましいであろう．

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Elytra, Tokyo, **23** (2): 159–165, November 15, 1995

Cerambycid Beetles (Coleoptera, Cerambycidae) from Northern Vietnam

I. A New Species of the Genus *Pidonia* (Lepturinae)[1)]

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Abstract A new species of the cerambycid genus *Pidonia* is described from Mt. Phang Si Pang in Lai Chau Province of northern Vietnam, under the name of *Pidonia* (*Cryptopidonia*) *insperata*. The genus *Pidonia* is recorded for the first time from Indochina, and this is a third species belonging to the subgenus *Cryptopidonia* from the Asian Continent.

The second entomological expedition to northern Vietnam, which was organized by Dr. S.-I. UÉNO and Dr. M. OWADA of the National Science Museum, Tokyo, was made in the spring of 1995. Participating in this expedition, I succeeded in obtaining many cerambycid specimens from various parts of northern Vietnam. It was the best season for collecting beetles, especially for those gathering on tree flowers. I found some plants with good blossoms, which attracted many cerambycid beetles at some places of northern Vietnam. In the first part of this series of papers, I am going to describe one new species belonging to the subgenus *Cryptopidonia* of the lepturine genus *Pidonia*, which was collected from a meagre flower on the highest mountain of Vietnam.

Recently, many species of the genus were described from South China (HOLZSCHUH, 1991 a, b, 1992), mostly from Sichuan and one from Yunnan. Their subgeneric assignment was not made in their original descriptions, but judging from HOLZSCHUH's accounts, none of them seem to belong to *Cryptopidonia*. After all, this is the first record of *Pidonia* from Indochina, and this is a third species of the subgenus *Cryptopidonia* from the Asian Continent, which follows *Pidonia maai* GRESSITT, 1951, and *P. aenipennis continentalis* (TIPPMAN, 1955).

The type locality, Mt. Phang Si Pang, the highest mountain in Indochina, belongs to the Hoang Lien Son Mountains stretching from northwest to southeast near the northwestern border of the country. The *Pidonia* specimens were obtained in a valley on the northern ridge of the mountain near the pass "Deo Tram Ton", which is a

1) This study is supported by the Grant-in-aid No. 0641116 for Field Research of the Monbusho International Scientific Research Program, Japan.

little less than 2,000 m in height. The valley was to some extent deforested, but we were unable to approach the higher zones of the mountain because of impenetrable bush. It is possible that some other new *Pidonia* species inhabit the good natural forest at higher places, though it appeared very difficult to find good blossoms there.

Before going further, I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kind reading and criticizing the original manuscript of this paper, and also to all the members of the expedition 1995 for their kind support of my study. Deep gratitude is due to Dr. Tatsuyuki OHBA of the Natural History Museum and Institute, Chiba, who identified the plant bearing flowers.

Pidonia (*Cryptopidonia*) *insperata* A. SAITO, sp. nov.

(Figs. 1–14)

Length: male 6.1–8.0 mm, female 6.8–8.2 mm (from mandibular tip to elytral apex). Breadth: male 1.7–2.1 mm, female 2.0–2.4 mm (between humeral angles of elytra).

Male. Head entirely testaceous, with mouth-parts testaceous except for blackish brown apex of each mandible; eyes black. Antennae testaceous to blackish brown, 1st and 2nd segments entirely testaceous, 3rd and 4th segments testaceous sometimes darkened towards apices, 5th to 7th segments blackish brown, 8th to 10th segments brown, 11th segment brown in basal two-thirds.

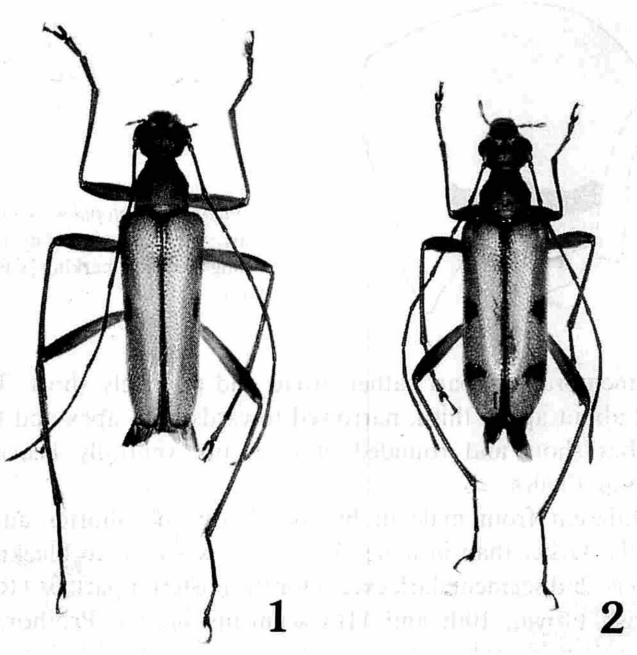
Prothorax testaceous; pronotum testaceous, with a small but remarkable black marking at each lateral margin (Fig. 3); prosternum entirely testaceous; ventral surfaces of meso- and metathoraces testaceous; scutellum brown to black; anterior margins of metasternum and metepisternum black.

Legs testaceous, with tarsi and claws dark brown to black; dorsal side of each femur dark brown to black in apical half; front femora paler than the other parts; front tibiae darkened at apical parts; middle tibiae brown to black except for apical parts; hind tibiae brown to black sometimes except for under surface of apical third.

Elytra almost yellowish brown, paler than head and prothorax, each elytron provided with three black markings at side; first and second markings oval at basal fourth and before the middle; third marking transverse and lying at three-fourths from base, usually indistinct, frequently vanished; apex of elytron black, which sometimes linearly extends forwards along lateral margin of elytron; elytral suture black.

Abdomen bicoloured; 1st and 2nd sternites dark brown, 3rd sternite dark brown in basal half or at basal edge and sometimes entirely testaceous, 4th and 5th sternites testaceous.

Head subrectangular, broader across eyes than length (1.5–1.6 : 1); surface densely covered with coarse punctures and short testaceous pubescence, with one or two pairs of rather long and thin setae postero-internal to eyes, which are directed backwards; an obscure median longitudinal line extending from frons to vertex; eyes prominent



Figs. 1–2. *Pidonia* (*Cryptopidonia*) *insperata* sp. nov.; 1, holotype, male [NSMT]; 2, allotype, female [NSMT].

laterally. Antennae slender, extending beyond elytral apex at the base to the middle of 9th segment; length order of antennal segments roughly measured as follows: 5th > 3rd > 6th ≧ 7th ≧ 4th > 1st ≧ 9th ≧ 8th > 11th > 10th > 2nd.

Pronotum slightly longer than width at the middle (1.1–1.2 : 1), swollen laterally and constricted both anteriorly and posteriorly; disc convex above, surface covered with slightly denser and finer punctures and pubescence than those on head; scutellum triangular in the visible area, a little longer than width and covered with short testaceous pubescence.

Legs elongate, densely covered with fine testaceous pubescence.

Elytra 2.3–2.5 times as long as width between humeral angles, with the disc slightly but widely depressed at middle; surface covered with sparser and larger punctures and longer testaceous pubescence than those on pronotum; apex of each elytron subtruncate with rounded outer angle.

Abdomen gradually narrowed towards apex, densely pubescent throughout; last abdominal sternite and tergite, and 8th abdominal tergite as shown in Figs. 4–6. Median lobe of genitalia (Fig. 7) ventrally curved throughout, very gradually narrowed towards apex; median struts narrowed towards bases, somewhat curved dorsally at each base. A pair of sclerites irregularly falcate (Fig. 8). Internal sac (Fig. 9) moderately sclerotized at the subapical part, which is sinuately and obtusely ridged on each side,

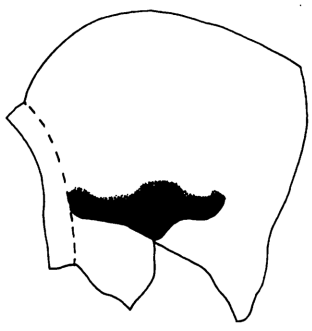


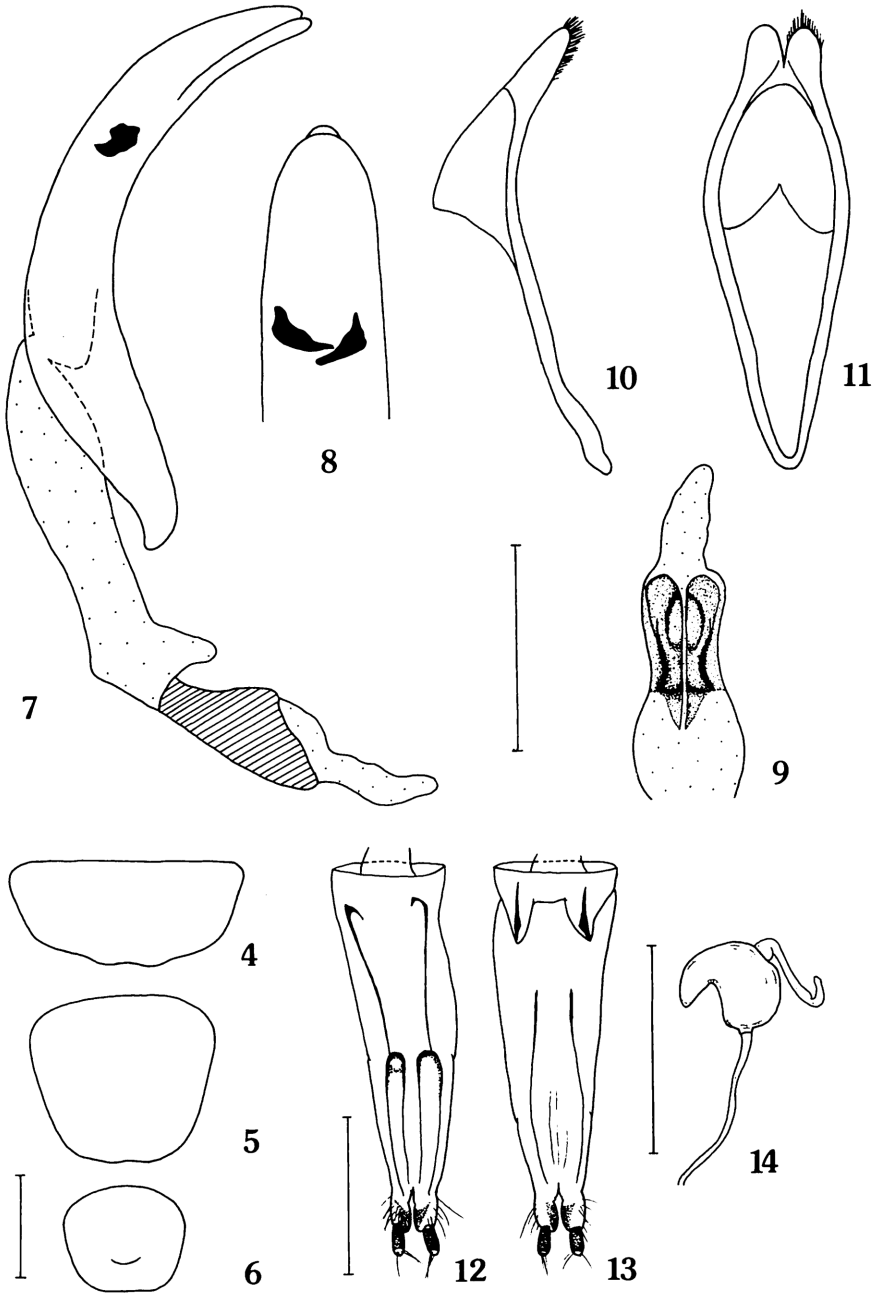
Fig. 3. *Pidonia* (*Cryptopidonia*) *insperata* sp. nov.; left lateral view of prothorax, showing the black marking [CBM-ZI 33966].

with the apical membranous part rather broad and relatively short. Tegmen (Figs. 10–11) widest at about apical third, narrowed towards both apex and base in dorsal view; lateral lobes short and rounded at each tip, ventrally bearing short but conspicuous terminal hairs.

Female. Different from male in broader body and shorter antennae. Head testaceous, slightly darker than in male. Antennae testaceous to blackish brown, 1st segment testaceous, 2nd segment dark except for the posterior part, 3rd to 9th segments brown to blackish brown, 10th and 11th segments brown. Prothorax testaceous, somewhat darker than in male, with a small but remarkable black marking at each lateral margin of pronotum; scutellum dark brown. Legs testaceous, dorsal side of each femur dark brown in apical half. Elytra testaceous, a little darker than in male; second marking larger than in male, third marking usualy oblong and connected with lateral margin, though sometimes rudimentary. Abdominal sternites entirely testaceous.

Head broader across eyes than length (1.5–1.6 : 1). Antennae shorter than in male, extending beyond elytral apex at the end of 9th segment to the base of 10th; length order of antennal segments roughly measured as follows: 5th > 3rd ≧ 6th > 7th ≧ 4th > 9th ≧ 8th > 11th ≧ 1st ≧ 10th > 2nd. Pronotum slightly longer than width at the middle (1.1 : 1). Elytra 2.2–2.3 times as long as width between humeral angles. Abdomen gradually narrowed towards apex. Ninth abdominal segment (ovipositor) (Figs. 12–13) short; paraproct short, with a pair of baculi; basal part of coxite gradually narrowed towards apical part; coxite lobes broad with rounded apices; stylus large, articulated to the apex of coxite lobe. Spermatheca (Fig. 14) weakly sclerotized, well constricted at base, broad at basal two-thirds, narrowed and abruptly bent at apical third, with spermathecal gland at the outer side of the middle, the part continuing to spermathecal gland somewhat depressed; spermathecal duct rather thick, short and simple.

Fig. 4–14. *Pidonia* (*Cryptopidonia*) *insperata* sp. nov. —— 4, Last abdominal sternite; 5, last abdominal tergite; 6, 8th abdominal tergite; 7, median lobe in lateral view; 8, apex of median lobe in dorsal view; 9, apex of inner sac in dorsal view; 10, tegmen in lateral view; 11, same in dorsal view; 12, ovipositor in ventral view; 13, same in dorsal view; 14, spermatheca in lateral view. 4–11, Paratype, male [CBM-ZI 33966]; 12–14, paratype, female [CBM-ZI 33968]. (Scales: 0.5 mm.)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Type series. Holotype: ♂, Hoang Lien Son Mts., northern ridge of Mt. Phang Si Pang, 1,950 m in altitude, in Lai Chau Province, 17–V–1995, A. SAITO leg. [NSMT]. Allotype: ♀, same locality as for the holotype, 13–V–1995, A. SAITO leg. [NSMT]. Paratypes: 2♂♂, 1♀ [NSMT], 6♂♂, 1♀ [CBM–ZI 33961–33967], same data as for the holotype; 4♂♂ [NSMT], 1♀ [CBM–ZI 33968], same data as for the allotype.

The holo- and allotypes are preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo [NSMT]. The paratypes are preserved in the above collection and the collection of the Natural History Museum and Institute, Chiba [CBM].

Notes. All the specimens examined were collected on the blossoms of *Berchemia floribunda* (WALL.) BRONGN. (Rhamnaceae), which were by no means conspicuous. At the time of collecting, the weather was rather good, but as the plant in question was growing at the bottom of a narrow valley, the sunlight did not appear to be so strong.

At first sight, this new species resembles pale individuals of *Pidonia* (*Cryptopidonia*) *masakii* HAYASHI, 1955, and males of *P.* (*C.*) *oyamae* (OYAMA, 1908), from Japan, but can be readily distinguished from the latter two by the presence of lateral markings of the pronotum and the black dorsal side of each femur.

As was already mentioned in the introduction, this is a third species of *Cryptopidonia* to be recorded from the Asian Continent, though the subgenus flourishes in Japan and also in Taiwan. As was already reported in a previous paper of mine (SAITO, 1989), some subgeneric characters appear in the features of the ovipositor. Characteristic features of *Cryptopidonia* are as follows: the paraproct is very short, the coxite lobes are broad with rounded apices, and each stylus is large and articulated to the apex of the coxite lobe. All features of the ovipositor possessed by *Pidonia insperata* conform to those of the other species of the subgenus, with the exception of the *oyamae* group whose ovipositor differs in the length of paraproct. It is, however, not clear from the features of the ovipositor to which species of the subgenus the new species is most closely related. On the other hand, the spermatheca of the present species is unique in general configuration and has nothing in common with those of any other species of *Cryptopidonia*, since its capsule is broad and well constricted at the base. It is of considerable interest to note that a similar conformation of spermatheca is widely found in the members of the subgenus *Pidonia*.

Being restricted to East Asia, the subgenus *Cryptopidonia* has a distributional range narrowly stretching from Hokkaido and the southern Kurils in the northeast to northern Vietnam in the southwest. Until now, only two species, *P. maai* and *P. aenipennis continentalis* have been known from the Asian Continent, both from Fukien (=Fujian) Province of southeastern China, and the nominotypical subspecies of the latter is endemic to Taiwan. These Fujianese species of *Cryptopidonia* have metallic elytra, which are markedly different from the ordinarily non-metallic ones in the present species. All these facts seem to suggest that *P. insperata* is an isolated species, which belongs to a lineage hitherto unknown to the science.

要　約

斉藤明子：北ベトナムのカミキリムシ類．I. *Pidonia*属の1新種．—— 1995年に実施された学術調査によって，ベトナム北部の中国国境に近いインドシナ最高峰のファン・シ・パン山で，*Pidonia*属のハナカミキリの一種が採集された．この種は，体形や雌の産卵管の形態などから*Cryptopidonia*亜属に含まれるもので，一見，日本の*Pidonia masakii*の黄色個体または*P. oyamae*の雄個体に似ている．この亜属の種は，これまでアジア大陸では*Pidonia maai*と，基亜種が台湾に生息する*P. aenipennis continentalis*の2種が，いずれも中国の福建省から記録されているにすぎない．原記載によると，これらのいずれもが上翅に金属光沢をもつものであり，今回獲られた種は明らかに新種であることがわかったので，*Pidonia* (*Cryptopidonia*) *insperata*と命名して，ここに記載した．

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Elytra, *Tokyo*, **23** (2): 166, November 15, 1995

Trichodesma kirishimana NAKANE (Coleoptera, Anobiidae), New Record from Tsushima Island, Japan

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A beautiful anobiid, *Trichodesma kirishimana*, was described by NAKANE (1978) based on two females collected at Kirishima, Kagoshima Prefecture, and probably has a restricted distribution in Kyushu.

Through the courtesy of Messrs. Shusei SAITO and Hiroshi MAKIHARA, I was able to examine many *Trichodesma* specimens from Tsushima Island lying between Kyushu Proper and Korea. In studying external characteristics, I found that all the specimens from Tsushima correctly agree with the original description and the type specimen of *Trichodesma kirishimana*.

Trichodesma kirishimana NAKANE

Trichodesma kirishimana NAKANE, 1978, 133.

Specimens examined. 31 exs., Izuhara, Tsushima Is., Nagasaki Pref., 24～27-VII-1985, H. MAKIHARA & S. SAITO leg.

No male specimen was found, though nearly twenty individuals were dissected for examination of the sex. Judging from external features of the remainings, I consider all the specimens above to be females.

Distribution. Japan (Kyushu, Tsushima Is.–*hab. nov.*).

Notes. The specimens from Tsushima Island have a definite corneous process near the elytral apex. I confirmed the presence of this process also in the paratype from Kirishima, though it was not mentioned in the original description.

My thanks are due to Messrs. Shusei SAITO and Hiroshi MAKIHARA for submitting the material to my study, and to Dr. T. NAKANE for his kind loan of a type specimen of *T. kirishimana* in his collection.

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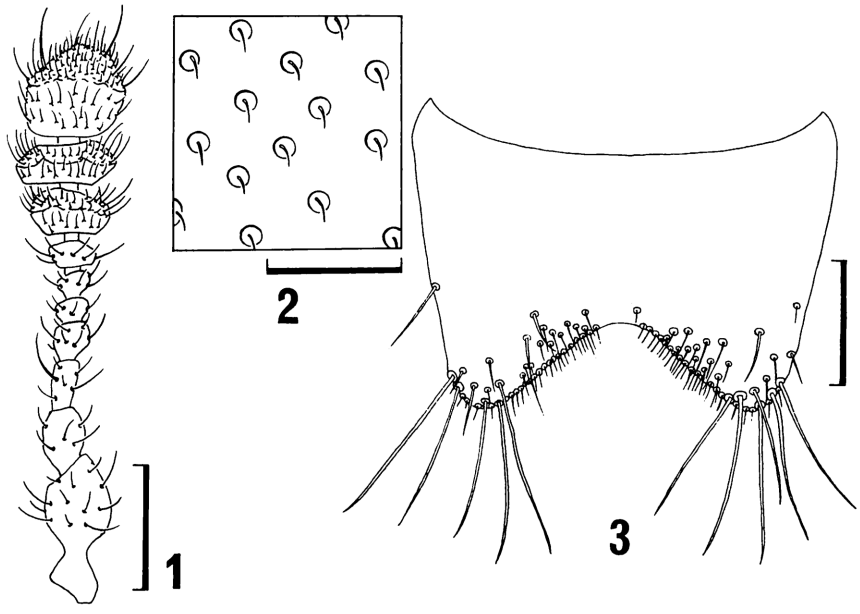


Figs. 1–3. *Nipponapterocis brevis* MIYATAKE. —— 1, Antenna; 2, surface on elytra; 3, eighth abdominal sternite of male. Scales for Figs. 1 & 2: 0.1 mm; for Fig. 3: 0.05 mm.

Shikoku.

Male (n = 15)	Female (n = 15)
TL (mm): 1.28–1.55 (1.41 ± 0.09)	TL (mm): 1.28–1.68 (1.39 ± 0.1)
EW (mm): 0.73–0.85 (0.8 ± 0.04)	EW (mm): 0.73–0.94 (0.8 ± 0.05)
TL/EW: 1.69–1.82 (1.76 ± 0.04)	TL/EW: 1.72–1.8 (1.76 ± 0.02)
PL/PW: 0.77–0.85 (0.82 ± 0.02)	PL/PW: 0.8–0.86 (0.83 ± 0.02)
EL/EW: 1.02–1.1 (1.06 ± 0.02)	EL/EW: 1.04–1.09 (1.05 ± 0.01)
EL/PL: 1.45–1.59 (1.51 ± 0.04)	EL/PL: 1.43–1.56 (1.5 ± 0.04)

Specimens examined. [Honshu] 〈Osaka Pref.〉 1 ex., Minoo, 4–IV–1960, K. UEDA leg. 〈Tottori Pref.〉 5 exs., Mt. Daisen, 26 ~ 27–VII–1989, M. KAWANABE leg. [Shikoku] 〈Ehime Pref.〉 5 exs., Omogokei, 1–IV–1954, M. MIYATAKE leg. (holotype and paratypes); 1 ex., same locality, 2–V–1954, M. MIYATAKE leg. (paratype); 1 ex., same locality, 5–VIII–1966, M. MIYATAKE leg.; 1 ex., same locality, 18 ~ 19–V–1969, M. MIYATAKE leg.; 84 exs., same locality, 26 ~ 27–V–1989, M. KAWANABE leg.; 11 exs., Mt. Omogosan, 23–VII–1989, M. KAWANABE leg.; 2 exs., Mt. Ishizuchisan, 22–VII–1958, M. MIYATAKE leg.; 8 exs., Mt. Saragamine, 8–VII–1989, M. KAWANABE leg.; 4 exs., Kuromori-tôge, Onsen-gun, 18–VI–1955, M. MIYATAKE leg.; 3 exs., Mt. Takanawasan, 23–X–1954, K. MORIKAWA leg.; 4 exs., Mt. Narabarasan, 23–XI–1968, K. ISHIKAWA leg.; 3 exs., Odamiyama, 19–VI–1989, M. KAWANABE leg. 〈Tokushima

Pref.〉 1 ex., Mt. Shôsanjisan, 20–X–1968, M. YOSHIDA leg. [Kyushu] 〈Ôita Pref.〉 8 exs., Mt. Sobosan, 18～19–VII–1989, M. KAWANABE leg. 〈Fukuoka Pref.〉 3 exs., Mt. Hikosan, 6–VII–1957, M. MIYATAKE leg.; 1 ex., Hisayama, 12–V–1977, S. TANAKA leg. 〈Miyazaki Pref.〉 1 ex., Kirishima-araso, 21–IV–1977, S. TANAKA leg.

Distribution. Honshu, Shikoku, Kyushu.

Host fungi. Fomes fomentarius (L.: FR.) FR. (Tsuriganetake in Japanese), *Elfvingia applanata* (PERS.) KARST. (Kofuki-sarunokoshikake in Japanese), *Daedalea dickinsii* (BERK. ex CKE.) YASUDA (Hôrokutake in Japanese), *Inonotus mikadoi* (LLOYD) IMAZEKI (Kawausotake in Japanese) and *Inonotus xeranticus* (BERK.) IMAZEKI et AOSHIMA (Daidaitake in Japanese). This species is often extracted from litter by using Berlese's funnel.

Nipponapterocis inermis sp. nov.

[Japanese name: Togenashi-daruma-tsutsukinokomushi]

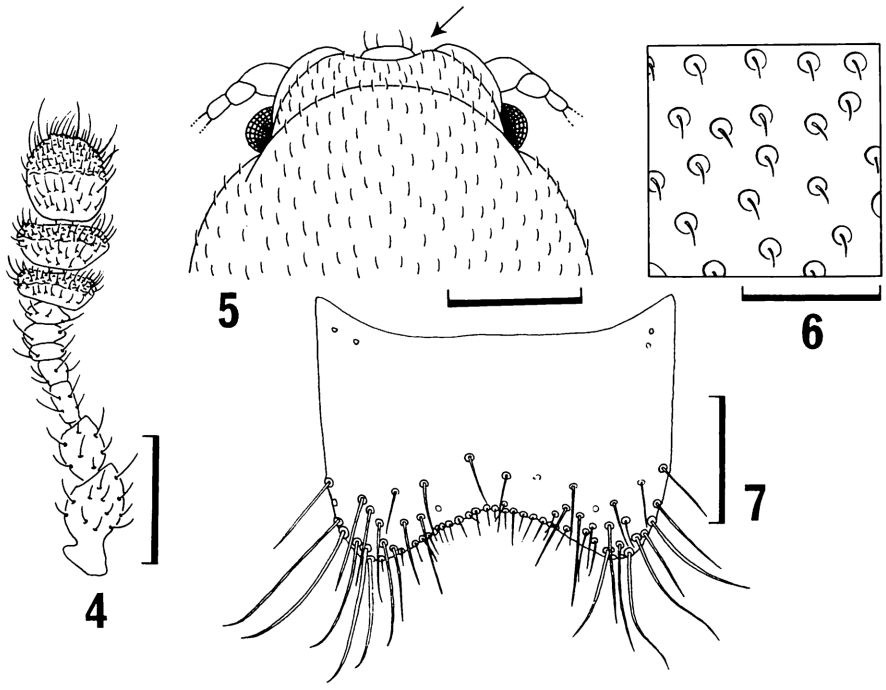
(Figs. 4–7)

Holotype (*Male*). Body length (excluding head): 1.21 mm; greatest width of elytra: 0.71 mm.

Body oval, shiny on dorsum, 1.69 times as long as elytral width, strongly convex. Color blackish brown; elytra dark reddish brown; mouthparts and antennae deep yellowish brown, legs reddish brown and tarsi yellowish brown. Punctures on dorsum each bearing a fine, short and inconspicuous hair.

Head somewhat strongly convex, very finely and conspicuously reticulate, closely and irregularly punctate; punctures shallow; fronto-clypeal ridge narrowly margined and very slightly produced at each side, devoid of conical projections. Third antennal segment 1.5 times as long as 4th.

Pronotum 0.8 times as long as broad; anterior margin not ridged, gently rounded; anterior corners angulate, nearly rectangular in lateral view; lateral margins narrowly ridged, somewhat crenulate, barely visible from above, nearly subparallel in basal halves, then somewhat arcuately convergent apicad in dorsal view; basal margin narrowly ridged, and slightly sinuate; hind angles obtusely angulate in lateral view; dorsum weakly shiny, irregularly, distinctly and closely punctate; punctures uniform in size and shape, deep and clear, larger than those on head; each puncture bearing a short, fine and decumbent hair; interstices between punctures feebly and finely reticulated. Scutellum not visible from above. Elytra 1.02 times as long as broad, 1.54 times as long as pronotum, and broadest at the middle; sides weakly divergent from base to basal half, then gradually convergent apicad; external margin invisible from above; disc strongly shiny, irregularly and rather closely punctate; punctures deep but obscure in outline, subequal to or somewhat larger than those on pronotum, separated by a distance equal to 0.5 to 2 diameters, appearing to form longitudinal rows in some places, especially along suture and sides, each bearing a short and fine hair which is somewhat longer than those on pronotum, 0.2 times as long as the diameter of eye;



Figs. 4–7. *Nipponapterocis inermis* sp. nov. —— 4, Antenna; 5, head of male; 6, surface on elytra; 7, eighth abdominal sternite of male. Scales for Figs. 4 & 6: 0.1 mm; for Fig. 5: 0.2 mm; for Fig. 7: 0.05 mm.

suture not or very narrowly margined.

Prosternal disc in front of coxae very strongly tumid medio-longitudinally, transversely and conspicuously depressed just before each coxa; prosternal process rather stout, somewhat tapered behind, and on the same level as the base of prosternum, 1.22 times as long as prosternal disc in front of coxae, and 0.5 times as broad as procoxal cavity. First abdominal sternite with a large, circular and marginally pubescent fovea at the middle.

Eighth abdominal sternite with the apical margin moderately emarginate at the middle, armed with long hairs on the lateral projections and with short ones at the bottom of the emargination.

Female. First abdominal sternite devoid of pubescent fovea.

Variation in the type specimens.

Male (n = 3)	Female (n = 13)
TL (mm): 1.17–1.22 (1.2 ± 0.02)	TL (mm): 1.26–1.46 (1.35 ± 0.15)
EW (mm): 0.71–0.73 (0.72 ± 0.01)	EW (mm): 0.75–0.83 (0.79 ± 0.03)
TL/EW: 1.64–1.69 (1.67 ± 0.02)	TL/EW: 1.62–1.79 (1.71 ± 0.05)

PL/PW: 0.78–0.8 (0.79±0.01)	PL/PW: 0.74–0.84 (0.79±0.03)
EL/EW: 1.0–1.02 (1.01±0.01)	EL/EW: 0.98–1.08 (1.04±0.03)
EL/PL: 1.54–1.57 (1.56±0.01)	EL/PL: 1.48–1.64 (1.55±0.04)

Type series. Holotype: ♂, Nakanokawa near Mt. Kasugayama, Nara City, Nara Pref., 10–VIII–1989, M. KAWANABE leg. Paratypes: 4♂♂, 5♀♀, same data as holotype.

Distribution. Central Honshu (Kinki District).

Host fungi. Inonotus xeranticus (BERK.) IMAZEKI et AOSHIMA (Daidaitake in Japanese) and *Phellinus gilvus* (SCHW.: FR.) PAT. (Nendotake in Japanese).

Remarks. All the known species of the genus *Nipponapterocis* are closely allied to one another. This new species is separated from *N. brevis* by the denser punctures on elytra, the fronto-clypeal ridge in male without conical projections and weak emargination of eighth abdominal sternite in male. This new species is also allied to *N. hirsutus* sp. nov. in the feature of elytral punctation, but in the latter the fronto-clypeal ridge in male is armed with conical projections, the hairs on dorsum are rather distinct and the emargination of the eighth abdominal sternite in male is much shallower.

Nipponapterocis hirsutus sp. nov.

[Japanese name: Keba-daruma-tsutsukinokomushi]

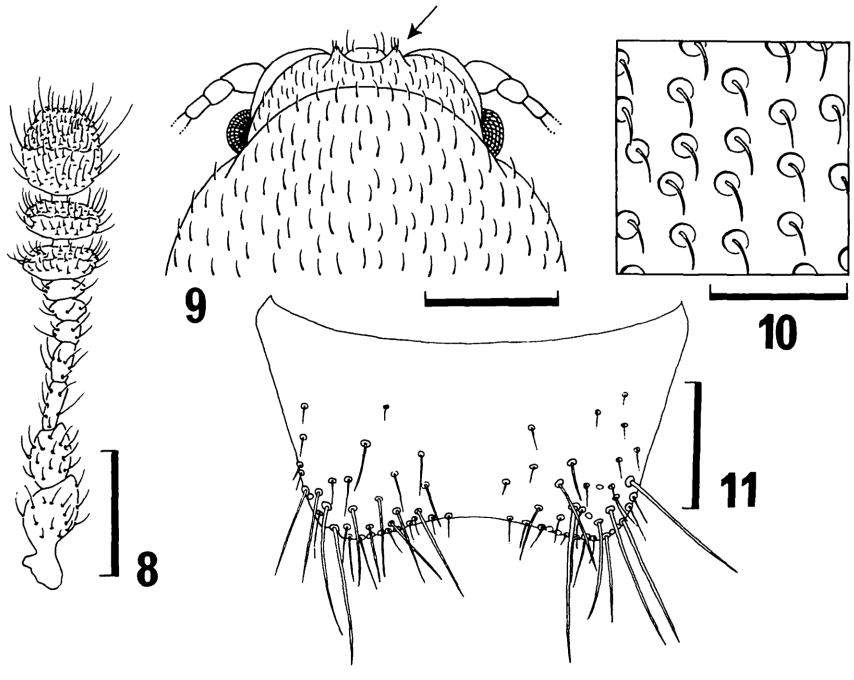
(Figs. 8–11)

Holotype (*Male*). Body length (excluding head): 1.38 mm; greatest width of elytra: 0.75 mm.

Body oval, shiny on dorsum, 1.84 times as long as elytral width, strongly convex. Color blackish brown; mouthparts, antennae and legs reddish brown; tarsi yellowish brown. Punctures on dorsum each bearing a fine, short but rather conspicuous hair.

Head somewhat strongly convex, weakly concave in the middle of frons, very finely and conspicuously reticulate, closely and irregularly punctate; punctures shallow; fronto-clypeal ridge narrowly margined and very slightly produced at each side, armed with two small but conspicuous conical projections. Third antennal segment 1.3 times as long as 4th.

Pronotum 0.77 times as long as broad; anterior margin not ridged, gently rounded; anterior corners obtusely angulate in lateral view; lateral margins narrowly ridged, somewhat crenulate, barely visible from above, nearly subparallel or very slightly divergent in basal halves, then somewhat arcuately convergent apicad in dorsal view; basal margin narrowly ridged, and slightly sinuate; hind corners obtusely angulate in lateral view; dorsum weakly shiny, irregularly, distinctly and closely punctate; punctures uniform in size and shape, deep and clear, larger than those on head; each puncture bearing a short, fine and decumbent hair; interstices between punctures feebly and finely reticulated. Scutellum not visible from above. Elytra about 1.16 times as long as broad, 1.7 times as long as pronotum, and broadest at the middle; sides weakly



Figs. 8–11. *Nipponapterocis hirsutus* sp. nov. —— 8, Antenna; 9, head of male; 10, surface on elytra; 11, eighth abdominal sternite of male. Scales for Figs. 8 & 10: 0.1 mm; for Fig. 9: 0.2 mm; for Fig. 11: 0.05 mm.

divergent from base to the middle, then gradually convergent apicad; external margin invisible from above; disc strongly shiny, irregularly and rather closely punctate; punctures deep but obscure in outline, subequal to or somewhat larger than those on pronotum, separated by a distance equal to 0.5 to 2 diameters, somewhat confluent in some places on basal portion and appearing to form longitudinal rows along suture and sides, each bearing a short, suberect, fine but conspicuous white hair which is somewhat longer than those on pronotum, 0.4 times as long as the diameter of eye; suture not or very narrowly margined.

Prosternal disc in front of coxae very strongly tumid medio-longitudinally, transversely and conspicuously depressed just before each coxa; prosternal process rather stout, subparallel-sided, 1.0 times as long as prosternal disc in front of coxae, and 0.33 times as broad as procoxal cavity, and on the same level as the base of prosternum. First abdominal sternite with a large, circular and marginally pubescent fovea at the middle.

Eighth abdominal sternite with the apical margin weakly emarginate at the middle, armed with long hairs on the lateral projections and sparsely with short ones at the bottom of the emargination.

Female. Fronto-clypeal ridge without two small conical projections; first

abdominal sternite devoid of pubescent fovea.

Variation in the type specimens.

Male (n=11)	Female (n=13)
TL (mm): 1.14–1.38 (1.23±0.07)	TL (mm): 1.17–1.41 (1.28±0.08)
EW (mm): 0.68–0.75 (0.71±0.03)	EW (mm): 0.66–0.8 (0.73±0.04)
TL/EW: 1.63-1.84 (1.73±0.06)	TL/EW: 1.68–1.8 (1.76±0.03)
PL/PW: 0.76–0.82 (0.79±0.02)	PL/PW: 0.78–0.85 (0.82±0.02)
EL/EW: 0.98–1.16 (1.04±0.05)	EL/EW: 1.0–1.1 (1.06±0.03)
EL/PL: 1.46–1.59 (1.53±0.07)	EL/PL: 1.46–1.62 (1.53±0.04)

Type series. Holotype: ♂, Hanayamahodô-iriguchi, Yaku-shima Is., 23–IX–1989, M. KAWANABE leg. Paratypes: 12♂♂, 12♀♀, same data as holotype; 1♀, Kosugidani, Yaku-shima Is., 21～22–V–1974, M. MIYATAKE leg.

Distribution. Yaku-shima Is.

Host fungus. Phellinus tricholor?

Remarks. This new species is closely allied to *N. brevis*, but in the latter, punctation on the elytra is sparser, hairs on the dorsum are indistinct and the eighth abdominal sternite in male is distinctly emarginate in the middle of posterior margin. This species is also allied to *N. inermis* sp. nov. in the feature of the elytral punctation, but in the latter, the fronto-clypeal ridge in male is devoid of conical projections.

Key to the Species of the Genus *Nipponapterocis*

1. Punctures on elytra sparser, separated by a distance equal to 2 to 4 diameters. Eighth abdominal sternite rather deeply emarginate in male. .... *N. brevis* MIYATAKE
— Punctures on elytra denser, separated by a distance equal to 0.5 to 2 diameters. Eighth abdominal sternite weakly emarginate in male. 2
2. Fronto-clypeal ridge in male without conical projections. Hairs on dorsum inconspicuous, 0.2 times as long as the diameter of eye. .... *N. inermis* sp. nov.
— Fronto-clypeal ridge in male with a conical projection at each side. Hairs on dorsum rather conspicuous, 0.4 times as long as the diameter of eye. .... *N. hirsutus* sp. nov.

要　約

川那部　真：日本産ダルマツツキノコムシ属の2新種の記載を含む分類学的知見．——ダルマツツキノコムシ属に属する種は，本州の近畿以西，四国および九州に分布するダルマツツキノコムシ *Nipponapterocis brevis* 1種が知られるだけであった．しかし各地の標本を検討した結果，近畿地方（奈良県）に産するものと，屋久島に産するものは，*N. brevis* によく似ているものの，いくつかの重要な点に差異が認められるので，前者をトゲナシダルマツツキノコムシ *N. inermis*，後者をケバダル

マツツキノコムシ*N. hirsutus*と新しく命名して記載した.

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Elytra, Tokyo, **23** (2): 175–176, November 15, 1995

A Synonymic Note on *Paraxestocis unicornis* MIYATAKE (Coleoptera, Ciidae)

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In his study of the Japanese ciid beetles, NOBUCHI (1955) described *Xylographus nakanei* based on one female specimen collected at Kibune, Kyoto Pref., central Honshu. Since then, there has been no record of this species. Recently, through the courtesy of Dr. NOBUCHI of Tsukuba-shi and Prof. Dr. Y. WADA of Nagasaki University, I was given an opportunity to examine the type specimens of some Japanese ciid beetles, and found that *Xylographus nakanei* NOBUCHI was a junior synonym of *Paraxestocis unicornis* MIYATAKE.

I wish to express my hearty thanks to Dr. A. NOBUCHI and Prof. Dr. Y. WADA for their kind aid and for permitting the present publication, and to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his critical reading of the manuscript.

Paraxestocis unicornis MIYATAKE

Paraxestocis unicornis MIYATAKE, 1954, Sci. Rept. Matsuyama agric. Coll., (14): 52.
Xylographus nakanei NOBUCHI, 1955, Ent. Rev. Japan, **6**: 53. [*Syn. nov.*]

Notes. I compared the type specimens of *Xylographus nakanei* and *Paraxestocis unicornis* carefully. They are very similar to each other, and can be considered to belong to the same species. At the present, *Xylographus scheerpeltzi* NOBUCHI is the only Japanese species belonging to the genus *Xylographus*.

Specimens examined: [Honshu] 〈Gifu Pref.〉 1 ex., Yasha-ga-ike, Sakauchi-mura, Ibi-gun, 1–V–1992, K. SETSUDA leg. 〈Kyoto Pref.〉 1 ex., Kibune, 19–IV–1952, A. NOBUCHI leg. (holotype ♀ of *Xylographus nakanei*). [Shikoku] 〈Ehime pref.〉 2 exs., Naose nr. Kuma, 16–V–1953, M. MIYATAKE leg. (holotype and paratype); 2 exs., Mt. Saragamine, 12–VII–1953, T. MOHRI leg. (paratypes); 1 ex., same locality, 1–VI–1955, M. MIYATAKE leg.; 1 ex., Omogokei, 2–V–1954, M. MIYATAKE leg.; 6 exs., same locality, 26～27–V–1989, M. KAWANABE leg.; 4 exs., Odamiyama, 27～28–IV–1989, M. KAWANABE leg. (paratypes). 〈Kôchi Pref.〉 1 ex., Mt.. Tebakoyama, 11–VI–1960, M. MIYATAKE leg. [Kyushu] 〈Fukuoka Pref.〉 1 ex., Mt. Hikosan, 19–X–1981, S. TANAKA leg. 〈Ôita Pref.〉 1 ex., Mt. Sobosan, 18～19–VII–1989, M. KAWANABE leg.; 1 ex., Kôbaru, 20–VII–1989, M. KAWANABE leg.

Distribution. Japan (Honshu, Shikoku, Kyushu).

Host fungi. *Coriolus versicolor* (L.: FR.) QUÉL. (Kawaratake in Japanese) and *Coriolus pubescens* (SCHUM ex FR.) QUÉL. (Yakifutake in Japanese).

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NOBUCHI, A., 1955. Studies on the ciid-beetles from Japan (I) with the descriptions of a new genus and some new species (Ciidae, Coleoptera). *Ent. Rev. Japan*, **6**: 53–58, pl. 12.

Elytra, Tokyo, **23** (2): 177–185, November 15, 1995

Notes on the Taiwanese Species of the Genus *Arthromacra* (Coleoptera, Tenebrionidae)

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4–3–23–115, Mikunihigashi, Mikuni-chô, Sakai-gun, Fukui Pref., 913 Japan

Abstract Three new lagriine tenebrionid beetles, *Arthromacra bicolor* sp. nov., *A. imasakai* sp. nov. and *A. tana* sp. nov., are described from Taiwan. A key to the Taiwanese species of the genus is also given.

Before SASAJI's account (1986), the genus *Arthromacra* KIRBY, 1837, has been represented in Taiwan only by *A. abnormalis* KÔNO, 1929. SASAJI (1986) added one new species, *A. formosana*, and one obscure species to the *Arthromacra* fauna of Taiwan. Following him, MASUMOTO (1988) described two new species, *A. tsuyukii* and *A. minuta*, listed the then known species of the genus, and transferred *A. abnormalis* to the genus *Hosohamudama* established by himself.

In this paper, I am going to give notes on the three known species, and to describe three new species under the names *Arthromacra bicolor* sp. nov., *A. imasakai* sp. nov., and *A. tana* sp. nov. A key to the Taiwanese species of the genus *Arthromacra* will be provided.

Before going further, I wish to express my deep gratitude to Professor Hiroyuki SASAJI (Fukui University, Fukui) for his continuous advice and encouragement, and to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for critically reading the manuscript of this paper. Hearty thanks are also due to Mr. Shôichi IMASAKA (Nagasaki) for his kind help in offering materials, and to Mr. Masaru OSADA (Fukui) for taking photographs inserted in this paper.

All the holotypes and allotypes of the new species to be described below will be deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Genus *Arthromacra* KIRBY, 1837

Arthromacra KIRBY, 1837, Fauna Boreali-Americana, 238; type species: *Lagria aenea* SAY, 1824.

MASUMOTO (1987) placed this genus in the Statirini. SASAJI (1986) recorded an unidentified species, which is omitted from this paper.

Arthromacra tsuyukii MASUMOTO, 1988

[Japanese name: Samehada-hamushi-damashi]

Arthromacra tsuyukii MASUMOTO, 1988, Ent. Rev. Japan, **43**: 38–39, pl. 3, fig. 5, pl. 6, figs. 28–29; type locality: Nanfengshan in Taiwan.

Notes. The female of this species is very similar to the male. The terminal segment of the antenna is longer than the three preceding segments together as in the male (in most species of *Arthromacra*, the terminal segment of the antenna in the female is shorter than in the male). This is the unique character not found in any other congeneric species from Taiwan and Japan.

Specimen examined. 1♀, Lushan, Taiwan, 12–V–1978, S. IMASAKA leg.

Arthromacra minuta MASUMOTO, 1988

[Japanese name: Chibi-ao-hamushi-damashi]

Arthromacra minuta MASUMOTO, 1988, Ent. Rev. Japan, **43**: 39–40, pl. 3, fig. 6, pl. 6, figs. 30–31; type locality: Mt. Lalashan in Taiwan.

Specimens examined. 3♂♂, 1♀, Jiuyuehtan, Taiwan, 15–IV–1975, S. IMASAKA leg.; 1♂, Nanshanchi, Taiwan, 28–IV–1975, S. IMASAKA leg.; 1♀, Fenchihu, Taiwan, 21–IV–1975, S. IMASAKA leg.

Arthromacra formosana SASAJI, 1986

[Japanese name: Taiwan-ao-hamushi-damashi]
(Figs. 4–5)

Arthromacra formosana SASAJI, 1986, Mem. Fac. Educ. Fukui Univ., (II), (36): 11–13, figs. 8–10; type locality: Tsifeng [sic] in Taiwan.

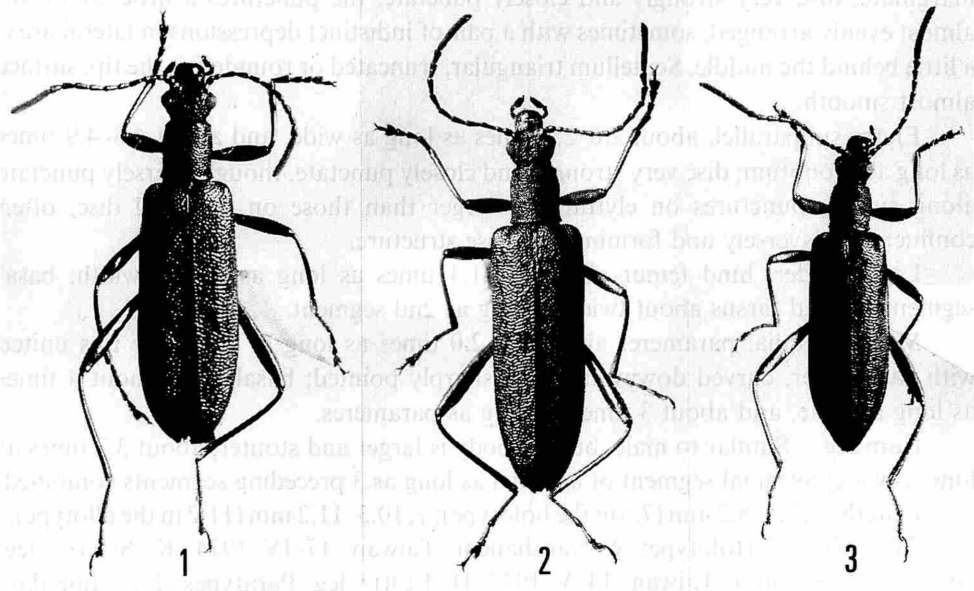
Notes. This species is very similar to *A. decora* (MARSEUL, 1876) from Japan, and is not separable from it by external characteristics. However, the parameres of the male genitalia are rounded at the tips in the former, which is clearly different from very narrowly truncated tips in the latter. On the other hand, *A. formosana* resembles *A. amamiana* NAKANE, 1963, from Is. Amami-Ôshima, but this Japanese species sparsely bears rather long erect hairs on the elytral disc.

Specimens examined. 1♂, 2♀♀, Meifeng, Taiwan, 15–VI–1978, S. IMASAKA leg.; 1♀, same locality, 16–VI–1978, S. IMASAKA leg.; 1♂, same locality, 20–V–1977, S. IMASAKA leg.; 1♀, Mt. Lalashan, Taiwan, 29–IV–1987, T. OCHI leg.

Arthromacra bicolor M. SAITÔ, sp. nov.

[Japanese name: Futairo-hamushi-damashi]
(Figs. 1, 6–7)

Description. Male. Body elongate, about 4 times as long as wide. Dorsal surface of body almost coppery in colour with metallic lustre, sometimes with greenish



Figs. 1–3. *Arthromacra* spp. from Taiwan. —— 1, *A. bicolor* M. SAITÔ, sp. nov.; 2, *A. imasakai* M. SAITÔ, sp. nov.; 3, *A. tana* M. SAITÔ, sp. nov.

shimmer, fore head, apical and basal margins of pronotum narrowly, and scutellum with bluish green metallic lustre; ventral surface bluish green with metallic lustre. Mouth part dark brown except for labrum; antennae dark brown, 2nd segment and base of 3rd segment pale; legs also dark brown, sometimes with greenish lustre. Dorsal surface of body almost hairless; ventral surface sparsely covered with pale hairs; mouth parts, legs and antennae covered with short pale hairs.

Head nearly rhombic, slightly narrower than pronotum; disc very strongly and coarsely punctate, but usually narrowly impunctate behind middle; interspaces of punctures almost smooth; antennal insertions distinctly raised, without punctures; frontoclypeal furrow somewhat widely and weakly arcuate. Clypeus about 2.5 times as wide as long, sparsely punctate, anterior margin widely and very weakly arcuate. Labrum about 1.75–1.9 times as wide as long, rather sparsely with fine punctures, anterior margin arcuate. Antennae slender, about a half as long as body length; terminal segment a little longer than 3 preceding segments combined and about 1.3 times as long as the distance between eyes, surface frosted. Relative lengths of antennal segments from basal to apical: 0.55, 0.5, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 0.95, 0.9, 3.0. Terminal segment of maxillary palpus cultrate, about 1.8–1.9 times as long as wide; inner corner rectangular.

Pronotum subcylindrical, widest at base, as wide as median length, distinctly narrowed anteriad, swollen in middle, with anterior margin narrowly carinate-

marginate; disc very strongly and closely punctate, the punctures a little confluent, almost evenly arranged, sometimes with a pair of indistinct depressions in lateral areas a little behind the middle. Scutellum triangular, truncated or rounded at the tip, surface almost smooth.

Elytra subparallel, about 2.6–2.8 times as long as wide, and about 4.8–4.9 times as long as pronotum; disc very strongly and closely punctate, though sparsely punctate along suture; punctures on elytral disc larger than those on pronotal disc, often confluent transversely and forming a rugose structure.

Legs slender; hind femur about 1.3–1.4 times as long as elytral width; basal segment of hind tarsus about twice as long as 2nd segment.

Male genitalia: parameres about 1.9–2.0 times as long as wide, the tips united with each other, curved downwards and sharply pointed; basal piece about 4 times as long as wide, and about 3 times as long as parameres.

Female. Similar to male, but the body is larger and stouter, about 3.7 times as long as wide; terminal segment of antenna as long as 3 preceding segments combined.

Length: ♂, 7.5–8.2 mm (7.5 in the holotype); ♀, 10.3–11.2 mm (11.2 in the allotype).

Type series. Holotype: ♂, Nanshanchi, Taiwan, 17–IV–1974, K. SUGINO leg. Allotype: ♀, Shenmu, Taiwan, 14–V–1977, H. FUJITA leg. Paratypes: 1 ♂, same data as the holotype; 1 ♂, 1 ♀, Nanshanchi, Taiwan, 19–IV–1975, S. IMASAKA leg.; 1 ♂, same locality, 28–IV–1975, S. IMASAKA leg.

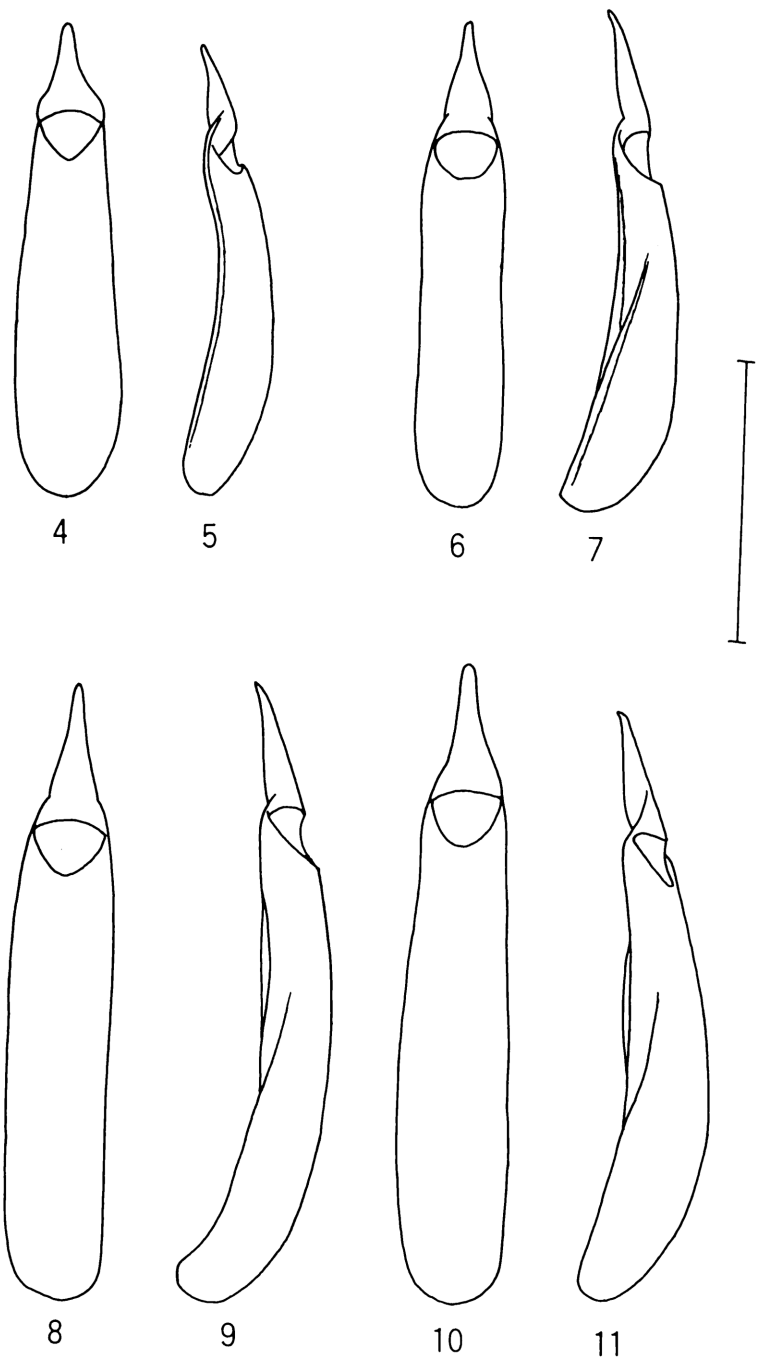
Notes. This new species resembles *A. formosana* SASAJI, but differs from it in the coppery dorsal surface and in the sharply pointed tips of parameres.

Arthromacra imasakai M. SAITÔ, sp. nov.

[Japanese name: Imasaka-hamushi-damashi]
(Figs. 2, 8–9)

Description. Male. Body elongate, about 4 times as long as wide. Body wholly green with metallic lustre, sometimes with coppery lustre; mouth parts dark yellowish brown except for labrum; apical part of terminal segment of maxillary palpus dark brown; antennae yellowish brown, gradually becoming darker apicad; legs almost yellowish brown except for coxae. Variation of body colour as will be noted later. Dorsal surface of body almost hairless; ventral surface of body, mouth parts, legs and antenna covered with pale hairs.

Head nearly rhombic, slightly narrower than pronotum; disc very strongly and coarsely punctate; antennal insertions distinctly raised, without punctures; fronto-clypeal furrow deeply and weakly arcuate. Clypeus about 2.5–2.8 times as wide as long, sparsely punctate, anterior margin widely and very weakly arcuate. Labrum about 1.7–1.9 times as wide as long, rather sparsely punctate, anterior margin arcuate. Antennae slender, about a half as long as body length; terminal segment a little longer than 3 preceding segments combined and about 1.4–1.7 times as long as the distance between eyes, surface frosted. Relative lengths of antennal segments from basal to



Figs. 4–11. Male genitalia of *Arthromacra* spp. from Taiwan —— 4–5, *A. formosana* SASAJI; 6–7, *A. bicolor* M. SAITÔ, sp. nov.; 8–9, *A. imasakai* M. SAITÔ, sp. nov.; 10–11, *A. tana* M. SAITÔ, sp. nov.; 4, 6, 8, 10, dorsal view; 5, 7, 9, 11, lateral view. (Scale: 1 mm.)

apical: 0.6, 0.5, 0.85, 0.9, 1.0, 1.0, 1.0, 1.0, 0.9, 0.8, 3.0. Terminal segment of maxillary palpus cultrate, about 2.0 times as long as wide; inner corner a little obtuse.

Pronotum subcylindrical, widest at base, as wide as median length, distinctly narrowed anteriad, swollen in middle, with anterior margin narrowly carinate-marginate; disc very strongly and closely punctate, the punctures a little confluent, almost evenly arranged, sometimes with a pair of indistinct depressions in lateral areas a little behind the middle. Scutellum triangular, truncated or rounded at the tip, surface structure variable from being smooth to rugose.

Elytra subparallel, about 2.8–2.9 times as long as wide, and about 5.1–5.5 times as long as pronotum; disc strongly and closely punctate, though sparsely punctate along suture, the punctures often confluent transversely and forming a rugose structure.

Legs slender; hind femora about 1.3–1.4 times as long as elytral width; basal segment of hind tarsus about twice as long as 2nd segment.

Male genitalia: parameres about 1.9–2.0 times as long as wide, the tips united with each other, curved downwards and sharply pointed; basal piece about 1.9 times as long as wide, and 4.6 times as long as parameres.

Female. Similar to male, but the body is larger and stouter, about 3.7–3.9 times as long as wide; terminal segment of antenna as long as 3 preceding segments combined.

Length: ♂, 9.0–10.3 mm (10.6 in the holotype); ♀, 9.0–11.5 mm (10.6 in the allotype).

Colour variation. This species can be separable at first sight into two colour forms of the elytra: one including the holotype is bright green with metallic lustre, and the other dark green with somewhat dull metallic lustre. The legs and the antennae are sometimes dark brown.

Type series. Holotype: ♂, Meifeng, Taiwan, 3–V–1975, S. IMASAKA leg. Allotype: ♀, same data as the holotype. Paratypes: 9♂♂, 2♀♀, same data as the holotype; 1♂, Mt. Alishan, Taiwan, 22–IV–1975, S. IMASAKA leg.; 2♂♂, 3♀♀, Meifeng, Taiwan, 13–V–1975, S. IMASAKA leg.; 2♂♂, 1♀, same locality, 19–V–1977, S. IMASAKA leg.; 4♂♂, same locality, 15–V–1978, S. IMASAKA leg.; 3♂♂, 1♀, Mt. Lalashan, Taiwan, 29–IV–1987, T. OCHI leg.

Notes. This new species is similar to *A. bicolor* M. SAITÔ, sp. nov., but differs from it in the more elongate body which is wholly green.

Arthromacra tana M. SAITÔ, sp. nov.

[Japanese name: Ibushi-hamushi-damashi]
(Figs. 3, 10–11)

Description. Male. Body elongate, about 4 times as long as wide. Whole body somewhat leathery. Dorsal surface dark coppery with somewhat dull metallic lustre, sometimes with greenish lustre in some places; palpi dark yellowish brown; apical

part of terminal segment of maxillary palpus dark brown; antennae dark yellowish brown, gradually becoming darker apicad; legs yellowish brown, apical halves of femora dark brown with coppery lustre, their boundary being indistinct. Dorsal surface of body almost hairless; ventral surface of body, mouth parts, legs and antennae covered with short pale hairs.

Head broadly rhombic, slightly narrower than pronotum; disc very coarsely and strongly punctate, size and form of punctures not uniform, enlarged in middle; antennal insertions distinctly raised, without punctures forwards; fronto-clypeal furrow deep and arcuate. Clypeus about 2.9–3.3 times as wide as long, coarsely punctate, anterior margin widely arcuate. Labrum about 1.9–2.0 times as wide as long, rather sparsely punctate, anterior margin arcuate. Antennae slender, about a half as long as body length; terminal segment as long as 5 preceding segments combined and about 2.3 times as long as the distance between eyes, surface frosted. Relative lengths of antennal segments from basal to apical: 0.6, 0.5, 0.9, 0.9, 1.0, 1.0, 1.0, 0.9, 0.8, 0.7, 4.5. Terminal segment of maxillary palpus cultrate, about 1.6–2.0 times as long as wide; inner corner obtuse.

Pronotum subcylindrical, widest at about middle, as long as wide, distinctly narrowed anteriad, swollen in middle, with anterior margin narrowly carinate-marginate; disc very coarsely and strongly punctate, the punctures transversely confluent and forming rugose structure in some places, with a pair of distinct depressions in lateral areas a little behind the middle. Scutellum triangular, truncated at the tip, surface structure variable from being smooth to rugose.

Elytra subparallel-sided, about 2.7–2.8 times as long as wide, and about 5.0–5.2 times as long as pronotum; disc somewhat coarsely punctate, though sparsely punctate along suture, the punctures somewhat cone-shaped, confluent transversely and forming rugose structure; interspaces of punctures broad in some places and making two pairs of longitudinal intermittent bands.

Legs slender; hind femora about 1.3–1.4 times as long as elytral width; basal segment of hind tarsus about twice as long as 2nd segment.

Male genitalia: parameres about 1.7–1.9 times as long as wide, with rather strong constriction at base, the tips being united with each other, curved downwards and dully rounded. Basal piece about 4.5 times as long as wide, and about 3.6 times as long as parameres.

Female. Similar to male, but the body is larger and stouter, about 3.6 times as long as wide; elytra weakly broadening posteriad; terminal segment of antenna about as long as 4 preceding segments combined.

Length: ♂, 9.2–10.6 mm (10.6 in the holotype); ♀, 11.6–12.5 mm (12.5 in the allotype).

Type series. Holotype: ♂, Meifeng, Taiwan, 3–V–1975, S. IMASAKA leg. Allotype: ♀. Tsuifeng, Taiwan, 2–V–1978, A. SHINOHARA leg. Paratypes: 1♂, same data as the allotype; 1♂, 1♀, Sungkang, Taiwan, 4–V–1978, A. SHINOHARA leg.; 1♀, Meifeng, Taiwan, 16–V–1978, S. IMASAKA leg.

Notes. This new species is similar to *A. imasakai* M. SAITÔ, sp. nov., but differs from the latter in the wholly dark coppery body and in the terminal segment of antenna almost as long as the 5 preceding segments combined (in male) or almost as long as the 4 preceding segments combined (in female).

Key to the Taiwanese Species of the Genus *Arthromacra*

1. Elytra densely and independently punctate, never confluent; interspaces of punctures rather flat with shagreened structure. Pronotum very closely punctate, leaving almost no spaces of punctures, but the punctures are hardly confluent. Dorsal surface dark green in colour. ..... *A. tsuyukii* MASUMOTO
— Elytra densely punctate, more or less confluent transversely and forming rugose structure, interspaces of punctures swollen and almost smooth. Pronotum densely punctate, interspaces of punctures distinct, the punctures more or less confluent transversely. 2
2. Terminal segment of antenna shorter than 4 preceding segments combined in male and distinctly shorter than 4 preceding segments combined in female. Colour of elytral disc grassy with clear metallic lustre 3
— Terminal segment of antenna almost as long as 5 preceding segments combined in male and almost as long as 4 preceding segments combined in female. Elytral surface somewhat leathery with more or less dull metallic lustre; colour dark coppery. ..... *A. tana* M. SAITÔ, sp. nov.
3. Terminal segment of antenna distinctly shorter than the distance between eyes. Interspaces of punctures on head and pronotum microshagreened, metallic lustre duller than that of elytra. Colour of dorsal surface coppery to golden green. ..... *A. minuta* MASUMOTO
— Terminal segment of antenna at least as long as the distance between eyes, usually longer. Interspaces of punctures on head and pronotum without microshagreened structure, metallic lustre as on elytra. 4
4. Parameres of male genitalia dully rounded at the tip. Punctures of elytra unevenly arranged. Body somewhat broad. Colour of dorsal surface golden green. ..... *A. formosana* SASAJI
— Parameres of male genitalia sharply pointed at the tip. Punctures of elytra evenly and closely arranged. Body more elongate and subparallel-sided. 5
5. Dorsal surface of body almost coppery; ventral surface bluish green. Elytra about 2.6–2.8 times as long as wide, about 4.8–4.9 times as long as pronotum. ..... *A. bicolor* M. SAITÔ, sp. nov.
— Wholly green. Body large and very elongate; elytra about 2.8–2.9 times as long as wide, and about 5.1–5.5 times as long as pronotum. ..... *A. imasakai* M. SAITÔ, sp. nov.

要　約

斎藤昌弘：台湾産アオハムシダマシ属について．——台湾のアオハムシダマシ属について，佐々治（1986）以前には*A. abnormalis* KÔNOのみが知られていた．佐々治（1986）は1新種を追加し，のちに益本（1988）は2新種を追加してリストを作成した．今回，3新種，フタイロハムシダマシ*A. bicolor* M. SAITÔ，イマサカハムシダマシ*A. imasakai* M. SAITÔ，イブシハムシダマシ*A. tana* M. SAITÔを記載し，全種を検索表に示した．

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Elytra, *Tokyo*, **23** (2): 185, November 15, 1995

An Indoor Collecting Record of *Hylotrupes bajulus* (Coleoptera, Cerambycinae) in Western Tokyo

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Bioindicator Co., Ltd., Takada 3–16–4, Toshima-ku, Tokyo, 171 Japan

At the end of the year 1991, Mr. T. WAKEJIMA collected a strange callidine cerambycid species at his home in Hachiohji-shi of western Tokyo. He had a New Year Eve party with some friends of his, and at that night, might be too drunk on wine. The cerambycid was shattered by his hand because he failed to see it clearly and thought it as a fly or a cockroach. After that, the damaged specimen in question was submitted to me for identification. At a sight, it was determined as *Hylotrupes bajulus* (LINNÉ, 1758), which is widespread in the Palearctic and part of North America. The collecting data are as follows: 1♂, Terada-machi (indoor), Hachiohji-shi, Tokyo, Japan, 31–XII–1991, T. WAKEJIMA leg.

Hylotrupes bajulus has so far been unknown from off the continental side of Asia; i.e., Siberia, Shanghai, and so on. The larva of the species is a well known borer of lumber and has strong tolerance for dried condition. The specimen presently examined is most probably derived from the northern Europe made furniture at his home.

I am grateful to Messrs. T. WAKEJIMA and Y. KUSAKABE for their kind supplying with an interesting specimen.

Elytra, Tokyo, **23** (2): 186, November 15, 1995

Note on *Aphrodisium faldermannii* (Coleoptera, Cerambycinae) in Northern Vietnam

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Aphrodisium faldermannii is a large distinct callichromine cerambycid, so far known only from China including Taiwan and northern Vietnam. This callichromine is geographically variable, and is split into six subspecies of various localities of China; one of them, *rufiventris*, is known as the westernmost population of the species. In the recent field investigations in northern Vietnam, I was able to take specimens of *A. faldermannii rufiventris* on Mt. Tam Dao, lying at the western part of Vinh Phu Province.

Aphrodisium (s. str.) ***faldermannii rufiventris*** (GRESSITT, 1940)

Aromia faldermannii rufiventris GRESSITT, 1940, Notes Ent. chin., **7**, p. 174; type locality: Kuatun in Fujian Prov.

Other references are omitted.

Description based on the Vietnamese specimens examined. Body large, elongate and subparallel-sided, with rather slender antennae and legs. Colour bluish dark green with metallic lustre; pronotum orange with purplish black apical and basal margins, supplementarily with a pair of approximate dark stripes in the centre in ♂; elytron bright green except for a longitudinal black pubescent stripe; ventral surface dark bluish green, though the abdomen of ♂ is yellowish orange; tarsi yellowish orange. Antenna surpassing elytral apex at segment 10 in ♂. Pronotum with lateral tubercles large and not so strongly pointed; disc with sparse orange pubescence, apical margin and central dark stripes of ♂ with dense black pubescence. Elytra weakly narrowed to apices, more than 5 times as long as pronotum. Ventral surface densely clothed with yellowish orange pubescence, especially on metasternum and abdomen. Body length: 33.6–36.5 mm in ♂, 38.3–47.6 mm in ♀.

Specimens examined. 1♀, Mt. Tam Dao (near 1,000 m in alt.), Vinh Phu Prov., northern Vietnam, 29–IV–1991; 7♂♂, 7♀♀, same locality, III–1995.

Distribution. China: Fujian, Guangxi Zhuangzu Zizhiku, Sichuan; N Vietnam.

I wish to thank Dr. Utako KUROSU of the Entomological Laboratory, Tokyo University of Agriculture, for her kind support.

Elytra, Tokyo, **23** (2): 187–193, November 15, 1995

New or Little-known Elateridae (Coleoptera) from Japan, XXXIII

Hitoo ÔHIRA

Kitsuneyama 6–4, Maigi-chô, Okazaki, 444–35 Japan

Abstract Three new species of elaterid beetles are described from Japan and illustrated. They are named *Zorochros suzukii*, *Elathous yamamotoi* and *Shirozulus hiramatsui*.

In the present study, the author is going to describe three new species of elaterid beetles from Japan. They belong to three different subfamilies, Negastriinae, Denticollinae and Elaterinae. The holotype of each species to be described in this paper are preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Before going further, the author wishes to express his deep indebtedness to Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo, for his reading the manuscript and giving me useful suggestions, and Messrs. Toshihiro OZAKI of Hirosaki, Kôjun SUZUKI of Miyagi, Hiroyoshi HIRAMATSU and Naofumi YAMAMOTO of Wakayama, for their kindness in offering the specimens used in this study.

Zorochros suzukii sp. nov. [Negastriinae]

(Fig. 1 A–I)

Male. Length 2 mm, width about 0.7 mm. Body small and subovate, moderately convex above; surface shining, black to blackish brown except for posterior angles of pronotum and ventral surface of body more or less dusky brown; a small, subcircular, yellow brown spot present behind humeral angles of each elytron as shown in Fig. 1 A. Antennae blackish brown (two or three basal segments more or less yellowish brown) and legs yellowish brown. Vestiture cinereous, decumbent, becoming longer on head and pronotum.

Head gently convex between eyes, weakly depressed on subvertical portion between antennae; surface almost smooth, moderately densely punctate, but not scabrous; clypeal margin well ridged, rounded and weakly depressed at middle (Fig. 1 D). Antenna short, not attaining to posterior angle of pronotum; basal segment robust and subovate, 2nd subcylindrical, 3rd subtriangular and nearly as long as 2nd, 4th to 10th weakly serrate (Fig. 1 H).

Pronotum subquadrate, widest across middle, with sides weakly sinuate just before

posterior angles, rounded at middle; disc moderately convex, with surface almost smooth, not scabrous, sparsely and evenly punctate, bearing an obscure longitudinal smooth line at middle; posterior angles short, projecting postero-laterad, each with a distinct carina above, which extends anteriorly along lateral margin near to anterior margin (Fig. 1 F). Propleural area flattened, without any concavity or groove;

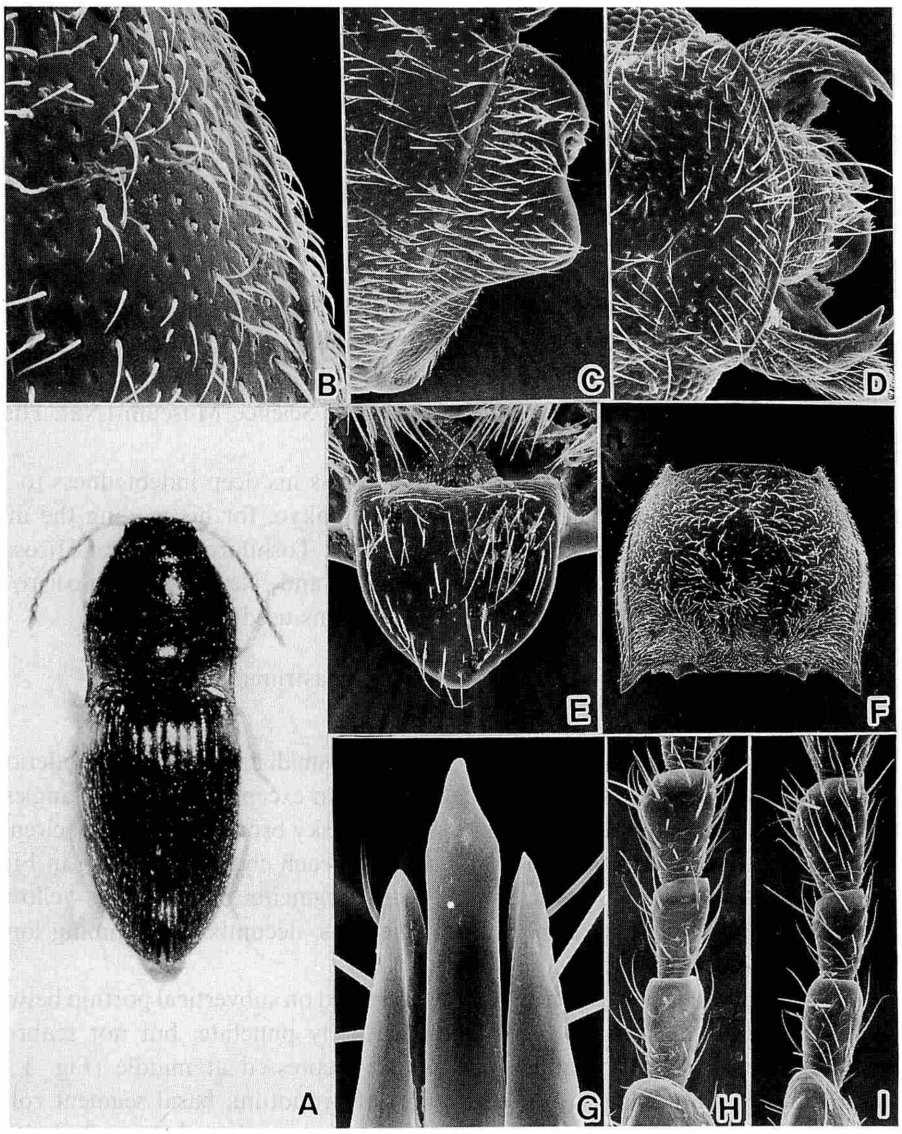

Fig. 1. *Zorochros suzukii* sp. nov. —— A, Holotype (male); B, anterolateral surface of pronotum; C, basal plate; D, frons and clypeal margin of head, dorsal aspect; E, scutellum; F, pronotum; C, aedeagus, dorsal aspect; H, 2nd to 4th segments of male antenna; I, same, female antenna.

prosterno-pleural suture broad and double, curved outwards at middle. Scutellum broad, lingulate, flattened and obtusely pointed apically (Fig. 1 E).

Elytra about 1.8 times as long as their basal width, with sides almost parallel in basal halves, thence rounded and gradually convergent towards apices which are normally pointed; striae defined; intervals weakly elevated, punctulate and finely rugose. Basal plate widest at middle and rounded at outer margin (Fig. 1 C). Legs and claws simple.

Aedeagus (dorsal aspect) as illustrated (Fig. 1 G); median lobe triangular at tip; lateral lobes each gradually attenuate and obtusely pointed at apex.

Female. Very difficult to distinguish from the male without examination of genital apparatus.

Holotype: ♂, Ôtayachi, Wakuya-chô, Miyagi Prefecture, 31–VII–1994, K. SUZUKI leg. Paratypes: 20 exs., same date and locality as for the holotype.

Distribution. Honshu, Japan.

This new species is somewhat allied to *Zorochros humeralis humeralis* (CANDÈZE, 1873) from Honshu, but can be distinguished from the latter by the smooth surface and sparser punctures on the disc of pronotum, flattened propleura of prothorax, and obtusely pointed median lobe of aedeagus.

Elathous yamamotoi sp. nov. [Denticollinae]

(Fig. 2 A–B)

Female. Length 16 mm, width about 4.5 mm. Body robust, elongate, nearly parallel-sided and moderately convex above; surface shining, dusky castaneous-brown entirely except for slightly darker elytra; antennae and legs castaneous brown; vestiture fine and fulvous on elytra.

Head broadly and triangularly impressed between eyes; surface evenly punctate, each puncture seemingly umbilical; clypeal margin well ridged, more or less expanded anteriorly and transversely truncated at middle (Fig. 2 B). Antenna short, not attaining to posterior angle of pronotum; basal segment robust and subcylindrical, 2nd small and subclavate, 3rd subtriangular and almost as long as 2nd, 4th to 10th rather feebly serrate, median longitudinal smooth line absent.

Pronotum subquadrate, widest across middle, with sides weakly sinuate just before posterior angles, slightly rounded at middle, thence gradually convergent towards anterior angles; disc dome-like, bearing a very shallow median longitudinal smooth line in posterior half, with surface smooth, evenly and rather sparsely punctate, but the punctures become denser and coarser towards sides; posterior angles short and obtuse, each bearing a short distinct carina above (Fig. 2 B). Prosterno-pleural sutures each double, weakly grooved at anterior portion. Prosternal process slightly incurved just behind procoxae. Scutellum rather broad, gently convex at middle; punctate and pubescent.

Elytra about 2.6 times as long as their basal width, with sides almost parallel in basal two-thirds, thence rounded and gradually convergent towards apices which are

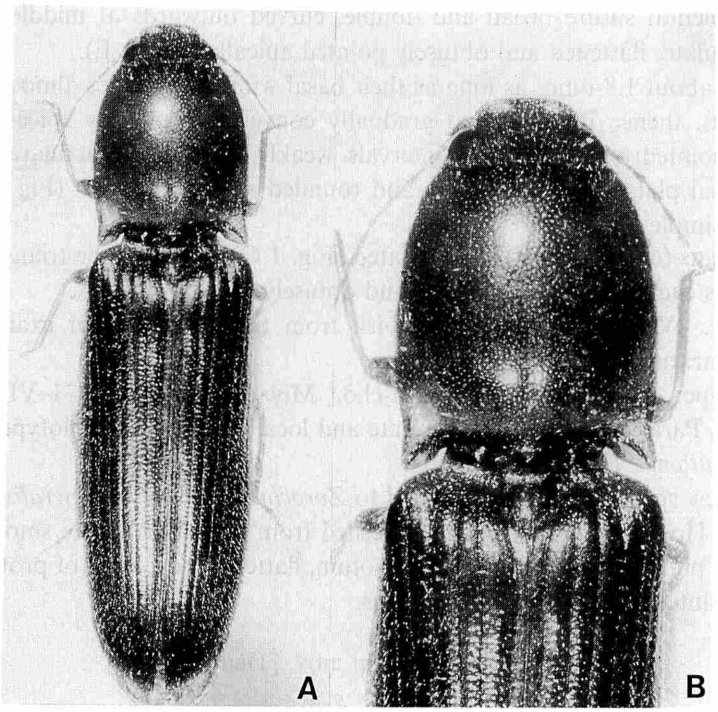

Fig. 2. *Elathous yamamotoi* sp. nov. —— A, Holotype, female; B, same, head, pronotum and basal area of elytra (enlarged).

normally rounded; striae defined, deeply and coarsely punctate; intervals gently elevated, irregularly and transversely rugose. Legs slender, tarsi and claws simple.

Male unknown.

Holotype: ♀, Mt Gomanodan, Wakayama Prefecture, 21–VIII–1976, N. YAMAMOTO leg.

Distribution. Honshu, Japan.

This new species is somewhat similar in general structure to *Elathous brunneus* (LEWIS, 1894) from Japan, but can be distinguished from the latter by the robuster body, shorter antennae, and sparser and shallower punctures on the disc of pronotum.

Shirozulus hiramatsui sp. nov. [Elaterinae]

(Figs. 3 A–I)

Male Length 7.5 mm, width about 1.7 mm. Body elongate, almost parallel-sided and normally convex above; surface shining, aeneous except for posterior angles of pronotum and around margins of 7th sternite of abodomen more or less brown; antennae blackish brown (three basal segments dark brown) and legs yellowish brown (femora dusky brown); vestitute tawny and fine.

Head with a shallow median concavity between eyes, flattened on vertical portion

between antennae; surface coarsely and densely punctate; clypeal margin well-ridged over antennal insertions, obliterated at middle (Fig. 3 C). Antenna short, not attaining to posterior angle of pronotum; basal segment robust and subovate; 2nd subcylindrical, 3rd subtriangular and almost as long as 2nd; 4th about 1.5 times as

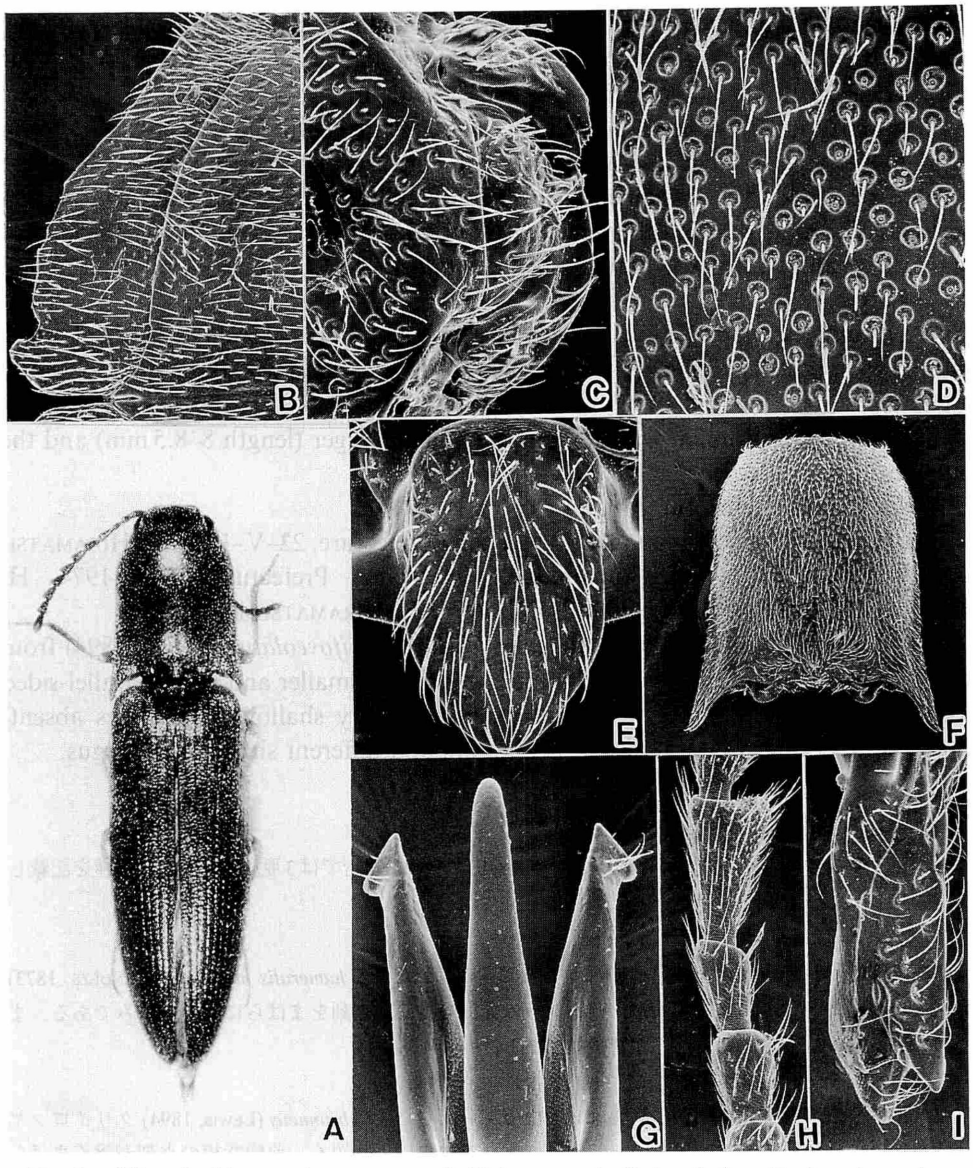

Fig. 3. *Shirozulus hiramatsui* sp. nov. —— A, Holotype, male; B, basal plate; C, clypeal margin, dorsal aspect; D, some punctures on the disc of pronotum; E, scutellum; F, pronotum, dorsal aspect; G, aedeagus, dorsal aspect; H, 2nd to 4th segments of male antenna; I, prosternal process, lateral aspect.

long as 3rd; 4th to 10th segments moderately serrate (Fig. 3 H).

Pronotum subcylindrical, clearly longer than its width, widest across posterior angles, with sides nearly straight at middle, thence rounded and convergent towards anterior angles; disc dome-like bearing a shallow median longitudinal channel in posterior half, with surface minutely scabrous, moderately densely and evenly punctate; posterior angles projecting postero-laterad, each with a distinct carina above; basal furrow absent (Fig. 3 D, F). Scutellum lingulate, flattened, punctulate and pubescent (Fig. 3 E). Prosternal process in lateral aspect as figured (Fig. 3 I).

Elytra about 2.9 times as long as its basal width, with sides almost parallel in basal halves, thence rounded and gradually convergent towards apices which are normally pointed; striae defined, deeply and regularly punctate; intervals weakly elevated, irregularly and transversely rugose. Basal plate with outer margin not angulate at middle, almost parallel in outer half (Fig. 3 B). Legs slender, tarsi and claws simple.

Aedeagus as figured (Fig. 3 G), median lobe gradually tapering towards obtusely pointed apex; apical portion of each lateral lobe subtriangular, with outer angle obtusely angulate.

Female. Very similar to male, but the body is larger (length 8–8.5 mm) and the antennae are a little shorter.

Distribution. Honshu, Japan.

Holotype: ♂, Mt. Gomanodan, Wakayama Prefecture, 22–V–1976, H. HIRAMATSU leg. Paratypes: 1♀, Mt. Gomanodan, Wakayama Prefecture, 25–V–1974, H. HIRAMATSU leg; 1♀, same locality, 22–VI–1993, H. HIRAMATSU leg.

This new species somewhat resembles *Shirozulus bifoveolatus* (LEWIS, 1894) from Japan, but can be distinguished from the latter by the smaller and more parallel-sided body, more coarsely punctate disc of pronotum, very shallow (sometimes absent) foveae on the antero-lateral disc of pronotum, and different shape of aedeagus.

要　約

大平仁夫：日本産コメツキムシ科の新種，XXXIII. ——本報告では3亜科に属する3新種を記載した．

1. *Zorochros suzukii*（ツヤカタモンチビコメツキ）

宮城県の鈴樹亨純氏が，宮城県遠田郡湧谷町で見いだした．*Z. humeralis humeralis* (CANDÈZE, 1873) カタモンチビコメツキに類似するが，前胸背板は光沢を有し，点刻をまばらに生ずるのみである．また，前胸腹側板は平滑であることが特徴的である．

2. *Elathous yamamotoi*（オオクリイロツヤハダコメツキ）

和歌山県の山本直文氏が和歌山県護摩ノ壇山で見いだした．*E. brunneus* (LEWIS, 1894) クリイロツヤハダコメツキに類似するが，体がいちじるしく大型で触角はより短く，前胸背板の点刻が浅くまばらに印することなどが特徴的である．

3. *Shirozulus hiramatsui*（ヒメコガネホソコメツキ）

和歌山市の平松広吉氏が和歌山県護摩ノ壇山で見いだした．*S. bifoveolatus* (LEWIS, 1894) コガネホソ

コメツキに類似するが，より小型で円筒形状である．前胸背板の点刻はより密に生じ，前方両側部にある1対の凹陥は浅く印することなどが特徴的である．

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Elytra, Tokyo, **23** (2): 193–194, November 15, 1995

日本産ケシツブスナサビキコリについて

大　平　仁　夫

ÔHIRA, H.: Notes on *Rismethus scobinula* (CANDÈZE, 1857) (Coleoptera, Elateridae) from Japan

本種は，CANDÈZE（1857）がChinaとMexicoから新種として記載した体長2–2.5 mmの小型種である．日本からはCANDÈZE（1873）やG. LEWIS（1894）が記録，現在では九州（長崎）を北限にして，屋久島から波照間島にいたる琉球列島の各地に分布が知られているし，台湾からはMIWA（1931, 1934）が記録している．また，大平（1975, 1986）にも分布や形態についての報告がある．その後，HAYEK（1973）は，BMNH保管のChina産の雄個体をlectotypeに指定した．

筆者は，本種の基準標本の産地が明らかにされたので，日本産の種についても再検討をすることにし，以下の標本について比較検討をした．

China産（Fig. 1B）：詳しい産地名は不明で，ラベルにはFry Coll. 1905とある2個体の古い標本で，いずれもHAYEK氏が同定．うち1個体は，図示した体長2.5 mmの褐色をした標本である．

Hong Kong産（Fig. 1A）：ラベルにはG. C. Champion Coll.とある1927年ごろの4個体の古い標本で，HAYEK氏が同定，うち1個体は図示したような体長2.5 mmの褐色をした標本である．

Texas産（Fig. 1C）：Kerrvilleで1959年4月に採集されたDr. E. C. BECKERの同定になる1個体で，図示したような外形を有している．

これらの標本の外形はたがいによく似ているが，China産のものの前胸背板はやや扁平で，両側は前方に弱く幅広くなる（Fig. 1B）のに比して，Hong Kong産では前胸背板はやや膨隆し，両側は平行である（Fig. 1A）．またTexas産の体の両側はより平行で，体表面の鱗状毛はより細長い（Fig. 1C）．

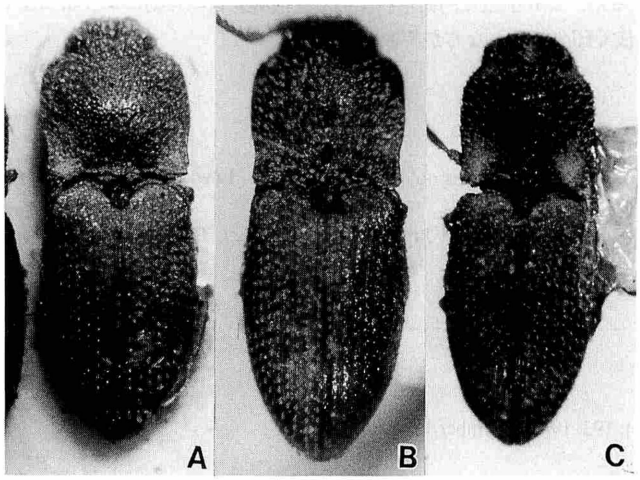

Fig. 1. *Rismethus scobinula* from Hong Kong (A) (BMNH), China (B) (BMNH) and Texas of USA (C) (in my coll.).

日本産の個体は，これらに比してより小型（体長は2 mm内外）で卵形状，背面は強く膨隆する．ここで比較したなかでは，Hong Kong産のものにもっとも近い外形をしているが，これとも同種ではないと思われる．いずれにしても，日本産の種は*R. scobinula*ではないと考えられる．本種とその近似種はほかにもいるので，さらに詳しく形態を調査して，分類上の位置を明らかにしたいと考えている．

終わりに，標本について支援を頂いたMiss C. M. F. VON HAYEK, Dr. E. C. BECKER，本文を校閲していただいた上野俊一博士に心からお礼を申しあげる．

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Elytra, Tokyo, **23** (2): 195–204, November 15, 1995

Melolonthidae (Coleoptera) from Thailand, II

Takeshi ITOH

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Abstract Eighteen species of melolonthine beetles are reported from Thailand. Two new subspecies, *Holotrichia yunnana magna* and *Miridiba tuberculipennis obscura* are described.

In the present study, I am going to report 18 species including 2 new subspecies. Abbreviations are shown in the introduction of the first part of this series. The following abbreviations are added for the names of collectors and for others: AN – Akira NISHIYAMA; AY – Akira YAMASHITA; HH – Hanmei HIRASAWA: KK – Kazuo KAWANO; MS – Minoru SAWAI; MT – Minoru TAO; NK – Nobuhiro KOYAMA: YK – Yukio KUWAHARA; YM – Yoshikazu MIYAKE; sl. – same locality; CM – Chiang Mai.

1. *Holotrichia cephalotes* (BURMEISTER, 1855)

(Fig. 1)

Phytalus cephalotes BURMEISTER, 1855, 352 (China).
Holotrichia cephalotes: MOSER, 1908, 341–342 (Montes Mauson, Chiem Hoa).

Distribution. China, N. Vietnam, Thailand [new record], Laos [new record].

Specimens examined. 1♂, 1♀, Chum Phon, S. Thailand, 30–VIII–1981 [OPU]; 14♂♂, 11♀♀, Fang (ca. 450 m alt.), CM, 14～17–V–1983 [OPU]; 3♂♂, 8♀♀, CM, V～VI–1985; 1♂, Chanthaburi, Khao Soi Dao (ca. 400 m alt.), SE. Thailand, 24～25–VIII–1987 [OPU]; 1♀, Samneua, NE. Laos, 28–V–1992, YM leg.; 2♀♀, Tam Dao, Vinh Phu, Vietnam, 10–VI–1991.

2. *Holotrichia planicollis* (BURMEISTER, 1855)

(Figs. 2, 19)

Phytalus planicollis BURMEISTER, 1855, 352–353 (China: Tschusan).
Holotrichia planicollis: MOSER, 1908, 341 (Montes Mauson, Chiem Hoa).

Distribution. China, N. Vietnam, Laos [new record], Thailand [new record].

Specimens examined. 2♂♂, 3♀♀, Doi Chiang Khian (ca. 1,250 m, alt.), CM, 29–V–1983 [OPU]; 1♂, 2♀♀, Fang, CM, 14～17–V–1983 [OPU]; 1♀, Doi Suthep, CM, 26～31–V–1983, K. IKEDA leg.; 1♀, sl., 4–VIII–1980, J. ITÔ leg.; 2♀♀, sl.,

14～15–V–1980, MT leg.; 1♀, sl., 26–V–1982, AN leg.; 1♂, sl., 11–V–1983, AN leg.; 1♂, 1♀, CM, V–1985, NK leg.; 1♂, Doi Pui, CM, 19–V–1984; 1♀, sl., 9–VI–1984; 1♂, sl., 22–V–1986; 6♂♂, Xieng Khouang, Laos, V–1993, WAKAHARA leg.; 2♂♂, Jian, Jianxi Prov., China, 10～20–VI–1991, PENG Zhongliang leg.; 2♂♂, Sapa, Hoang Lien Son, Vietnam, 27–V–1992, M. ITOH leg.; 8♂♂, 1♀, sl., 3～28–V–1993, N. KATSURA leg.; 4♂♂, 5♀♀, Tam Dao, N. Vietnam, 28～30–IV–1991, M. FUJIOKA leg.; 1♂, sl., 3～28–V–1993, N. KATSURA leg.; 1♀, Babe, N. Vietnam, 10～20–V–1994.

3. *Holotrichia nigricollis* BRENSKE, 1892

(Figs. 3, 20(a–b))

Holotrichia nigricollis BRENSKE, 1892, 177–178 (Himalaya: Dari); FREY, 1971, 218.
Holotrichia nigricollis var. *rubricollis* MOSER, 1909, 469–470 (Assam).

Distribution. India, Thailand [new record].

Specimens examined. 1♂, Doi Inthanon, CM, 21–V–1983 [OPU]; 1♂, Doi Pakia, CM, 24–V–1983 [OPU]; 3♀♀, Doi Ang Khang, CM, 16–V–1983 [OPU]; 1♀, Doi Chiang Khian, CM, 27–V–1983 [OPU]; 3♂♂, 1♀, Fang, CM, 14～17–V–1983 [OPU]; 2♂♂, Doi Suthep, CM, 22–V～1–VI–1980, MT leg.; 4♂♂, 2♀♀, sl., 3–V–1988, AY & YK leg.; 5♂♂, 2♀♀, sl., 22～29–V–1983, MS leg.; 1♂, sl., 26～31–V–1983, K. IKEDA leg.; 1♂, 1♀, Phuping Palace, CM, 29–V～3–VI–1983, MS leg.; 1♀, sl. 20～21–V–1985, MS leg.; 1♂, 2♀♀, CM, V–1985; 1♂, CM (1,000 m alt.), 21–V–1987, HH leg.; 1♂, sl. (1,300 m alt.), 17–V–1987, HH leg.; 1♂, Doi Pui (1,400–1,500 m alt.), CM, 16–V–1983, AN leg.; 1♂, Doi Mae Salong, CM, 21–IV–1992, KK leg.; 2♂♂, Erawan Resort, CM, 22–IV–1992, KK leg.; 1♂, Ban Nang Bang, Sai Yok, W. Thailand, MS leg.

4. *Holotrichia yunnana magna* T. ITOH, subsp. nov.

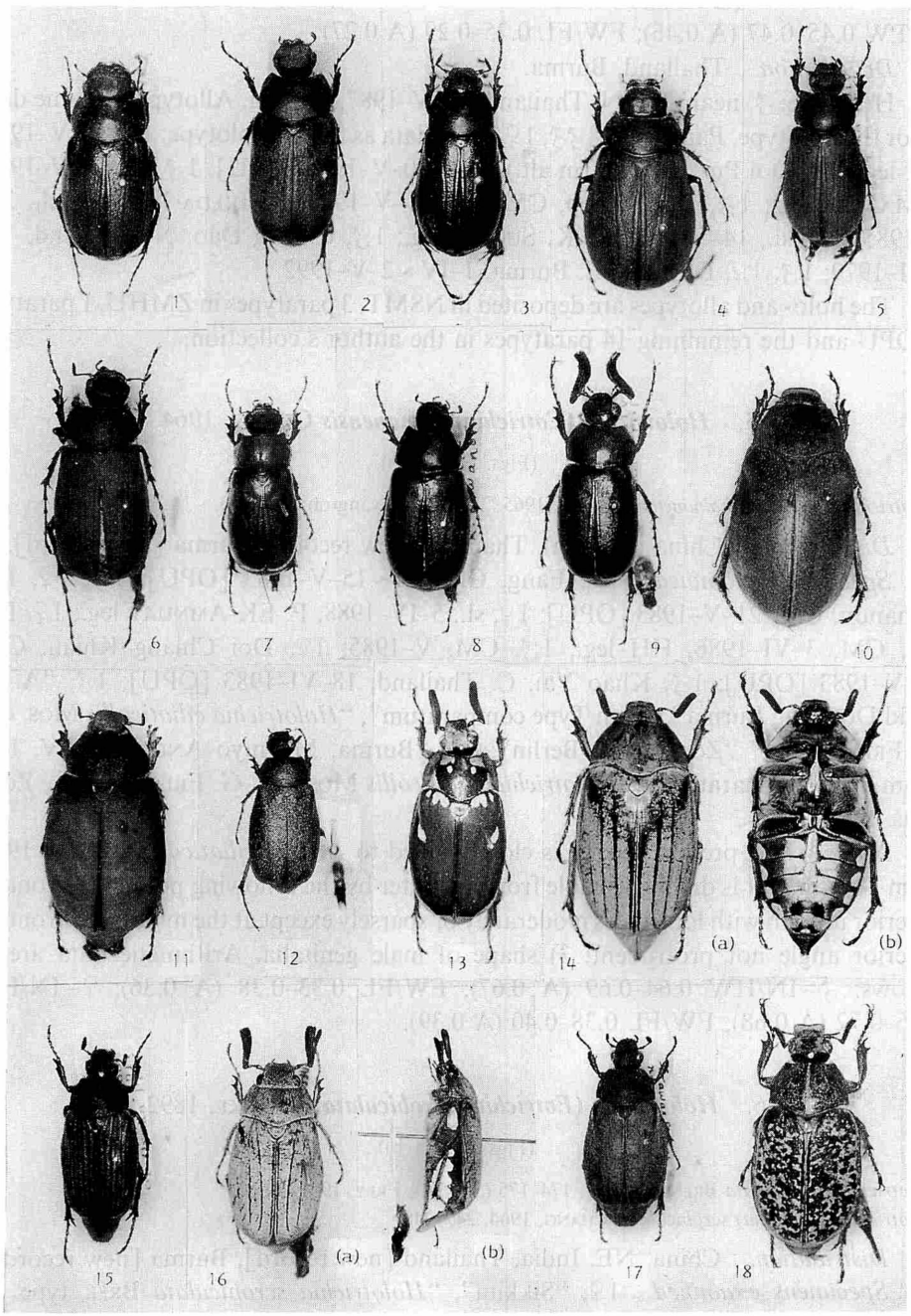
(Figs. 4, 21, 33)

Holotrichia yunnana: MOSER, 1912, 428–429 (Yunnan: Tali); CHANG, 1965, 38, 41.

Length: 22.0–26.6 mm.

The present new subspecies is distinguishable from the nominotypical one by the following points: 1) Pronotum slightly broader, in female more shining and more blackish red in color; 2) postero-lateral margins of pronotum not sinuate in female (in the female of the nominotypical one, they are sinuate); 3) metafemur more or less opaque; 4) body larger. Parameres of male genitalia identical in shape with that of the nominotypical one. Arithmetic data are as follows: ♂–IN/HW 0.67–0.70 (A 0.68);

Figs. 1–18.——1, *Holotrichia cephalotes*; 2, *H. planicollis*; 3, *H. nigricollis*; 4, *H. yunnana magna* subsp. nov.; 5, *H.* (*Eotrichia*) *hainanensis*; 6, *H.* (*E.*) *scrobiculata*; 7, *Miridiba sus*; 8, *M. tuberculipennis obscura* subsp. nov.; 9, *Megistophylla andrewesi*; 10, *Lepidiota bimaculata*; 11, *L. amoena*; 12, *Empectida tonkinensis*; 13, *Hoplosternus maculatus*; 14(a–b), *Melolontha malaccensis*; 15, *M. gressitti*; 16(a–b), *M. alboplagiata*; 17, *Exolontha castanea*; 18, *Polyphylla tonkinense*.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PL/PW 0.43–0.47 (A 0.45); FW/FL 0.22–0.26 (A 0.24); ♀–IN/HW 0.68–0.71 (A 0.70); PL/PW 0.45–0.47 (A 0.46); FW/FL 0.25–0.29 (A 0.27).

Distribution. Thailand, Burma.

Holotype: ♂, near CM, N. Thailand, 21–V–1987, HH leg. Allotype: ♀, same data as for the holotype. Paratypes: 8♂♂, 1♀, same data as for the holotype; 1♂, sl., V–1985, NK leg.; 1♀, Doi Pui (ca. 1,300 m alt.), CM, 30–V–1983 [OPU]; 1♂, sl., 11–V–1985, I. MATOBA leg.; 1♂, Doi Suthep, CM, 26～31–V–1983, K. IKEDA leg.; 1♂, sl., 26–V–1985; 1♂, sl., 14–VIII–1980, K. SUGINO leg.; 1♂, Chiang Dao, N. Thailand, 12–VIII–1979; 1♂, 1♀, Dawna, SE. Burma, 1–IV～2–V–1992.

The holo- and allotypes are deposited in NSMT, 3 paratypes in ZMHU, 1 paratype in OPU and the remaining 14 paratypes in the author's collection.

5. *Holotrichia (Eotrichia) hainanensis* CHANG, 1964

(Figs. 5, 23(a–b))

Holotrichia (Eotrichia) hainanensis CHANG, 1965, 247–248 (Kwangton: Hainan).

Distribution. China (Hainan), Thailand [new record], Burma [new record].

Specimens examined. 1♂, Fang, CM, 14～15–V–1983 [OPU]; 1♂, 1♀, Doi Inthanon, CM, 21–V–1983 [OPU]; 1♀, sl., 5–IV–1988, P. EK-AMNUAY leg.; 1♀, Doi Pui, CM, 3–VI–1986, HH leg.; 1♂, CM, V–1985; 1♀, Doi Chiang Khian, CM, 29–V–1983 [OPU]; 1♂, Khao Yai, C. Thailand, 18–VI–1983 [OPU]; 1♂, "A. K. Weld Downing Burma", "cum Type comparatum", "*Holotrichia ciliaticollis* Mos. det. G. FREY, 1969", "Zool. Mus. Berlin"; 1♀, "Burma, Maymyo ANDREWES IV. 10", "cum Type comparatum", "*Holotrichia ciliaticollis* Mos. det. G. FREY, 1969", "Zool. Mus. Berlin."

Notes. The present species is closely allied to *H. (E.) ciliaticollis* MOSER, 1912, from Tonkin, but is distinguishable from the latter by the following points: 1) Pronotal anterior margin with long hairs moderately or sparsely except at the middle; 2) pronotal anterior angle not protrudent; 3) shape of male genitalia. Arithmetic data are as follows: ♂–IN/HW 0.64–0.69 (A 0.67); FW/FL 0.33–0.38 (A 0.36); ♀–IN/HW 0.66–0.72 (A 0.68); FW/FL 0.38–0.40 (A 0.39).

6. *Holotrichia (Eotrichia) scrobiculata* BRENSKE, 1892

(Figs. 6, 24(a–b))

Holotrichia scrobiculata BRENSKE, 1892, 174–175 (Sikkim); FREY, 1971, 209.
Holotrichia (Eotrichia) scrobiculata: CHANG, 1964, 247–248.

Distribution. China, NE. India, Thailand [new record], Burma [new record].

Specimens examined. 1♀, "Sikkim", "*Holotrichia scrobiculata* BRSK type ♀", "scrobiculata BRSK", "coll. BRENSKE", "Zool. Mus. Berlin"; 1♂, "Shin-Guy-Foo, Chine", "*scrobiculata*", "Zool. Mus. Berlin"; 1♂, "Kiautschou, China", "*scrobiculata*", "Zool. Mus. Berlin"; 1♂, Doi Chiang Khian, CM, 27～29–V–1983 [OPU]; 1♂,

12. *Empectida tonkinensis* MOSER, 1914

(Figs. 12, 27(a–b))

Empectida tonkinensis MOSER, 1914, 69 (Tonkin: Montes Mauson).

Distribution. N. Vietnam, Thailand [new record].

Specimens examined. 1♂, 4♀♀, Fang, CM, 14～17–V–1983 [OPU]; 1♀, Mae Hong Son, NW. Thailand, V–1987; 1♂, Maeta Teak replantation Forest, Lang Phrae Prov., N. Thailand, 18–V–1985, MS leg.; 1♀, Wieng Ko Sai N. P., Phrae Prov., N. Thailand, 18–V–1985, MS leg.; 1♀, Khao Yai, C. Thailand, 15, 20–VI–1983 [OPU]; 1♀, Pukhieo, Chaiyaphum, C. Thailand, 5–VI–1986, P. EK-AMNUAY leg.; 2♂♂, Ban Nang Bang, Sai Yok, W. Thailand, 11～15–V–1985, MS leg.

13. *Hoplosternus maculatus* CHANG, 1983

(Figs. 13, 28(a–b))

Hoplosternus maculatus CHANG, 1983, 395–396 (Yunnan).

Distribution. China (Yunnan), Thailand [new record].

Specimens examined. 3♂♂, 1♀, Doi Pakia (ca. 1,500 m alt.), CM, 5–XI–1985 [OPU]; 5♂♂, 7♀♀, Doi Inthanon, CM, X～XI–1985, NK leg.; 1♀, sl., 1989; 1♂, Wiang Papao, CM, 1992; 1♀, CM, IX–1985, NK leg.; 2♂♂, 1♀, Doi Pui, CM, X–1985, A. COTTON leg.

14. *Melolontha malaccensis* (MOSER, 1913), comb. nov.

(Figs. 14(a–b), 29 (a–b))

Hoplosternus malaccensis MOSER, 1913, 289–290 (Malacca: Kwala Kangsar).

Distribution. Malaysia, Thailand [new record], Burma [new record].

Specimens examined. 1♂, 1♀, Fang, CM, 15～17–V–1983 [OPU]; 1♂, Doi Pui (ca. 1,300 m alt.), CM, 30–V–1983 [OPU]; 1♀, sl. 26～27–X–1985 [OPU]; 1♀, sl., 1～4–IX–1987 [OPU]; 2♀♀, sl., X–1984; 1♂, 1♀, sl., VI–1987; 1♂, Doi Suthep, CM, 1–VI–1980, MT leg.; 1♂, 1♀, sl., X–1984; 1♂, 1♀, CM, IV～VI–1985, NK leg.; 1♂, sl., V–1987; 2♂♂, 2♀♀, Wiang Papao, CM, VIII–1992; 1♂, Doi Mae Salong, CM, 21–IV–1992, KK leg.; 2♂♂, 4♀♀, Chiang Dao, near CM, 1985; 4♀♀, sl., 1987; 1♀, Nan, N. Thailand, 5–IX–1987; 1♂, N. Thailand, 1987; 1♀, Khao Yai, C. Thailand, 24–IX–1987 [OPU]; 1♂, 1♀, Dawna, SE. Burma, 1–IV～2–V–1992.

15. *Melolontha gressitti* FREY, 1970

(Figs. 15, 30(a–b))

Melolontha gressitti FREY, 1970, 108–109 (Thailand: Chieng Mai).

Distribution. Thailand.

Specimens examined. 2♂♂, 1♀, Fang, CM, 14～17–V–1983 [OPU]; 2♂♂, Doi

Suthep (ca. 600 m alt.), CM, 20–V–1983 [OPU]; 2♂♂, 2♀♀, CM, V～VI–1985, NK leg.; 1♂, 3♀♀, Doi Pui, CM, 8～27–V–1985; 3♀♀, Chiang Dao, N. Thailand, 1985; 1♀, sl., V–1987; 1♀, Khao Yai, C. Thailand, 15–VI–1983 [OPU].

16. *Melolontha alboplagiata* BRENSKE, 1898

(Figs. 16(a–b), 31(a–b))

Melolontha alboplagiata BRENSKE, 1898, 236–237 (Sikkim).

Distribution. NE. India, Thailand [new record].

Specimens examined. 1♀, "Type", "India, Sikkim, ex coll. FRUHSTORFER", "*Melolontha alboplagiata* type BRSK ♀", "coll. BRENSKE", "Zool. Mus. Berlin"; 1♀, Samoeng, CM, 1–V–1988, AY leg.; 1♂, Wiang Papao, CM, 27–V–1990, K. KUME leg.; 1♂, Doi Sang, N. Thailand, 10～13–V–1990, K. KUME leg.; 1♀, Pukhieo, Chaiyaphum, C. Thailand, 16–V–1989, P. EK-AMNUAY leg.; 2♀♀, sl., 5–VI–1986, same collector; 1♀, Khao Yai, C. Thailand, 15–VI–1983 [OPU].

Notes. The 1st lamellate segment of the antenna is about a half as long as the remaining lamellate ones in the female specimens from Thailand, while that of the holotype from Sikkim is one-fourth as long. The bases of the upper margins of posterior 4 femora are strongly sinuate in the specimens from both the areas.

17. *Exolontha castanea* CHANG, 1965

(Figs. 17, 32(a–b))

Exolontha castanea CHANG, 1965, 226–228 (Vietnam, China: Kwangtung).

Distribution. Vietnam, China, Thailand [new record].

Specimens examined. 1♀, Cuc Phuong, Ninh Binh, Vietnam, 28–IV～1–V–1993, M. HORI leg.; 2♂♂, 1♀, Tam Dao, Vinh Phu, Vietnam, 10–VI–1991; 1♀, sl., 3～8–VI–1990, M. ITOH leg.; 3♀♀, Erawan Resort, CM, 23–IV–1992, KK leg.; 1♀, Chiang Dao, N. Thailand, V–1987; 1♀, Khao Yai, C. Thailand, 15–V–1983 [OPU].

18. *Polyphylla tonkinense* DEWAILLY, 1945

(Fig. 18)

Polyphylla tonkinense DEWAILLY, 1945, 47 (Vietnam, Laos, China); 1948, 114–115.

Distribution. Vietnam, Laos, China, Thailand [new record], Malaysia [new record].

Figs. 19–33. Male genitalia (19–32). —— 19, *Holotrichia planicollis*; 20(a–b), *H. nigricollis*; 21, *H. yunnana magna* subsp. nov.; 22, *Megistophylla andrewesi*; 23, *H. hainanensis*; 24(a–b), *H. scrobiculata*; 25(a–b), *Miridiba sus*; 26(a–b), *M. tuberculipennis obscura* subsp. nov.; 27(a–b), *Empectida tonkinensis*; 28(a–b), *Hoplosternus maculatus*; 29(a–b), *Melolontha malaccensis*; 30(a–b), *M. gressitti*; 31(a–b), *M. alboplagiata*; 32(a–b), *Exolontha castanea*. —— 33. Female genitalia of *Holotrichia yunnana magna* subsp. nov.

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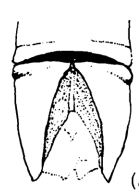

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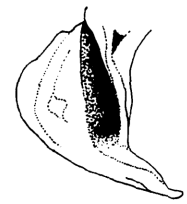

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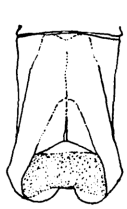

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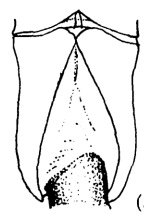

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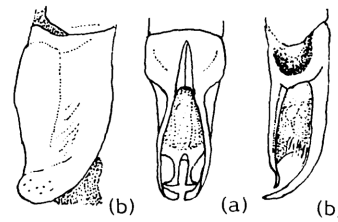

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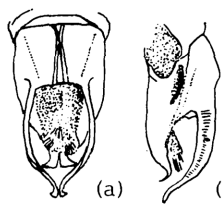

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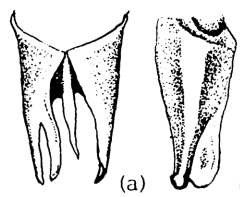

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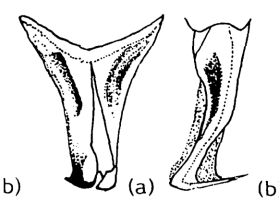

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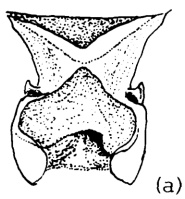

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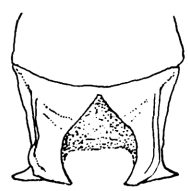

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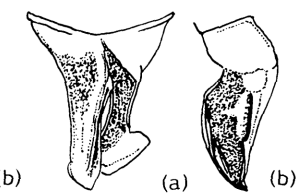

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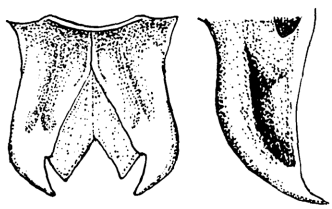

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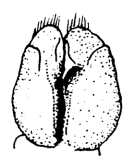

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Specimens examined. 1♀, Fang, CM, 15–V–1983 [OPU]; 1♂, Doi Pui (ca. 1,300 m alt.), CM, 30–V–1983 [OPU]; 2♂♂, sl. (ca. 1,300 m alt.), 1～4–IX–1987 [OPU]; 4♂♂, sl., 25–V～23–VII–1984; 2♂♂, sl., VI–1987; 1♀, sl., V–1985, A. COTTON leg.; 1♀, Doi Inthanon, CM, VII–1987, NK leg.; 1♀, Wiang Papao, CM, 22–V–1991; 2♂♂, sl., VIII–1992; 2♂♂, 19 miles, Perak, Malaysia, IV～VI–1988; 2♂♂, Cameron Highlands, Malaysia, V–1986; 1♂, sl., V–1992.

要　約

伊藤　武：タイのコフキコガネ科の研究，II. ——今回は，種名の判明したコフキコガネ既知種16種の記録を示し，必要なものにはコメントを加えた．さらに2新亜種，*Holotrichia yunnana magna* と *Miridiba tuberculipennis obscura* の記載を行った．

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Literatures shown in this series I are omitted.

Elytra, *Tokyo*, **23** (2): 205–208, November 15, 1995

A New *Trox* Species (Coleoptera, Trogidae) from Amami-oshima of the Nansei Islands, Southwest Japan

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Abstract A new species of the genus *Trox* (Coleoptera, Trogidae) is described from Amami-oshima Island, Nansei Islands, Southwest Japan, under the name of *Trox sugayai* sp. nov.

The genus *Trox* consists of necrophagous scarab beetles with oblong and convex bodies, whose surfaces are coarsely tuberculate and usually covered with hard incrustations, and whose antennae are composed of ten segments, three terminal ones of which form a club. More than 200 species are distributed in the temperate and subtropical regions, mainly in drier areas, though a small number of species extend their ranges rather far to the north, *e.g.* to Canada and Siberia. Ten species have hitherto been known from Japan.

On the occasion of the meeting of the Kanagawa Entomologists Association, Yokohama, Mr. Hiroshi SUGAYA, Nihon University, showed one of the authors (K. M.) two species of *Trox* from Amami-oshima Island collected by himself. One of these was identified at first sight with *Trox uenoi* NOMURA, distributed in Amami-oshima and Tokunoshima Islands, but the other was unknown to him. Mr. H. SUGAYA kindly allowed the authors to study it.

After a careful examination, the unknown species was proved new to science, and the authors are going to describe it herein as a new species.

The authors wish to express their sincere thanks to Dr. Ryûtarô IWATA and Mr. Hiroshi SUGAYA, Forest Zoology Laboratory, Department of Forestry, College of Agriculture & Veterinary Medicine, Nihon University, and also to Mr. Yoshikazu MIYAKE, Tama City, for their kind assistance in the course of this study. Thanks are also due to Dr. Shun-Ichi UÉNO, ex-director, Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, for his constant advice.

The holotype to be described will be deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Trox sugayai sp. nov.

(Fig. 1)

Brownish black, with antennae and mouth parts reddish brown, hairs on surfaces brownish yellow, major portion of them being opaque and covered with dried secretions, though the fore tarsi, terminal segments of middle and hind tarsi, apical portions and terminal spur of fore tibiae, etc. are shining. Body ovate and strongly convex above.

Male. Head widely subhexagonal, rather closely punctate though the punctures are often invisible due to secretions, gently raised posteriad; clypeus with widely triangular apex; frons feebly, transversely convex; fronto-genal border weakly ridged; gena bisinuous and sparsely haired above eye; vertex with a rather distinct transverse ridge, which is clearly interrupted medially and connected with the fronto-genal ridge on each side; eyes large and convex laterad.

Pronotum 1.5 times as wide as long and widest a little behind the middle, rather closely punctate; apex widely arcuate forwards, strongly bent obliquely forwards in lateral portions; base widely triangular, shallowly bordered and fringed with fine squamae, the fringe being noticeable in medial and lateral portions; lateral margin

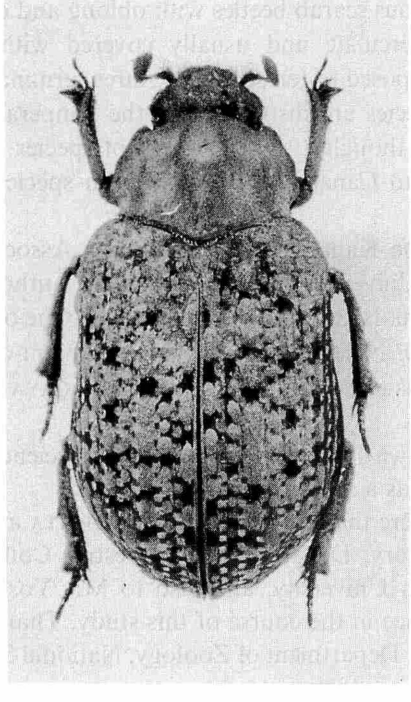

Fig. 1. Habitus of *Trox sugayai* sp. nov., holotype, male.

produced laterad, sparsely fringed, and somewhat trisinuous, the basal sinuation most distinct; front angles rather acutely projected forwards; hind angles subrectangular; disc gently convex, with 6 concavities: an elongate baso-medial one, two subsquare baso-laterals, a trapezoidal antero-medial one and two transverse antero-laterals. Scutellum linguiform, about 1.7 times as long as wide.

Elytra 1.4 times as long as wide, 2.8 times the length and 1.6 times the width of pronotum, widest at apical 3/7 and thickest at basal 3/7; disc with rows of rounded punctures, distance between them about their own diameters; odd intervals convex, each with a row of flat oblong tubercles, which are micro-shagreened and sparsely furnished with very short setae, the tubercles sometimes fused with each other; even intervals flat, each with a row of small rounded tubercles, whose surfaces are almost the same as those on odd intervals; humeri indentate; apices slightly emarginate though sutural intervals are feebly convex.

Fore tibia bifurcate at apex, male terminal spur rather bold, gently curved downwards and weakly twisted in apical portion.

Body length: 8.5–8.7 mm.

Holotype: ♂, Yuwandake, Amami-oshima Island, Nansei Isls., Southwest Japan, 25–VIII–1994, H. SUGAYA leg. Paratypes: 1 ex., 24–VIII–1994, 31 exs., 15～18–X–1995, same locality and collector as for the holotype.

Notes. This new species somewhat resembles *Trox mutsuensis* NOMURA, distributed in Northeast Japan (Honshu and Hokkaido), but can be distinguished from the latter by the larger and widened body, the pronotum more strongly produced laterad and distinctly sinuate with the base more distinctly triangular, and the tubercles on odd intervals of elytra oblong. It can be separable from *T. yamayai* NAKANE, originally described from Iriomote Island, by the frons without four nodules and the male protibial spurs modified.

It is very interesting that two species of the genus *Trox* occur at the same locality of Amami-oshima Island in the same season: *Trox uenoi* NOMURA and *T. sugayai* sp. nov.

要　約

益本仁雄・木内　信：奄美大島産コブスジコガネの1新種．——奄美大島からコブスジコガネ科コブスジコガネ属の1種を新たに記載し，*Trox sugayai* sp. nov. と命名した．本種は，北海道および本州北部に分布するムツコブスジコガネに近似するが，大きくて幅が広く，前胸背板は強く広がって波曲し基部は三角形で，上翅の奇数間室の刺毛塊は卵形であることなどで区別がつく．

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Elytra, Tokyo, **23** (2): 209–219, November 15, 1995

Discovery of the Lucanid Genus *Aesalus* (Coleoptera) in Mainland China, with Description of a New Species[1)]

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Abstract As the first record of a lucanid genus *Aesalus* from Mainland China, a new species whose antenna consists of nine segments is described from the Daba Mountains in Sichuan Province, central China. This new species, named *Aesalus sichuanensis* sp. nov., closely resembles Taiwanese *A. imanishii* but can be distinguished from the latter by the differences in both external and genitalic characters. A key to the *Aesalus* recorded from China and its neighboring countries is presented.

Lucanid beetles of the genus *Aesalus* are known from both the Old and New Worlds. In the Old World, *A. scarabaeoides* has been described from Europe, *A. ulanowskii* from Caucasus, *A. asiaticus* from Japan, *A. imanishii* from Taiwan, *A. himalayicus* from Nepal, and about 10 species, including *A. timidus*, from Tropical Asia.[2)] However, no species of this genus has so far been recorded from Mainland China in spite of its location in the center of the known distributional range of *Aesalus* in the Old World and the presence of many mountains in its vast land space. Therefore, if some new members of *Aesalus* are discovered from mountainous areas in Mainland

1) This study is supported in part by a Grant-in-aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture, Japan (No. 07740661).

2) Recently, ZELENKA (1993, 1994) erected a new genus *Echinoaesalus* and moved all the Southeast Asian species of the genus *Aesalus* to this new genus. However, there still remain many problems concerning generic classification of the tribe Aesalini, and we prefer to treat all the members of *Echinoaesalus* as those of *Aesalus* for the time being.

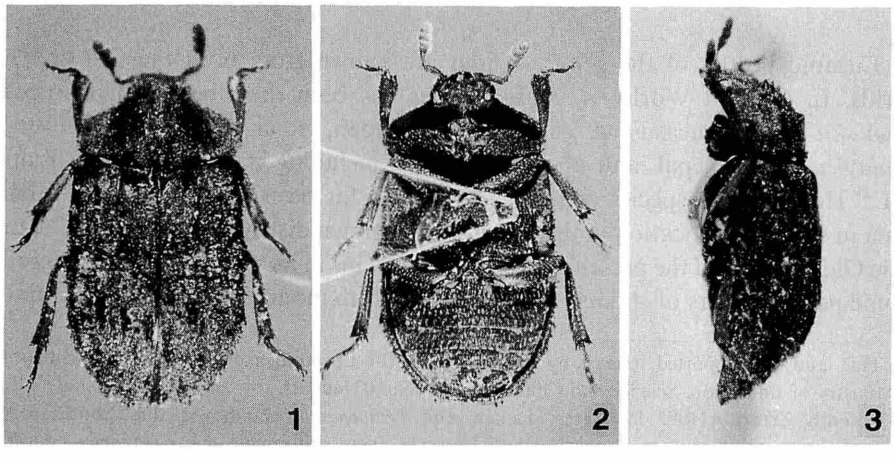
China, they will be quite important and interesting both taxonomically and zoogeographically (KUROSAWA, 1985).

Recently, we had an opportunity to examine several remarkable materials of a strange *Aesalus* collected from the Daba Mountains in Sichuan Province, central China. In general appearance, this *Aesalus* closely resembles Taiwanese *A. imanishii*, with the antenna consisting of nine segments and the body surface covered with only scale-like setae, lacking scattered stick-like bristles. However, a close examination revealed that the *Aesalus* from the Dabas can be distinguishable from the Taiwanese congener and is new to science. Thus, in the following lines, we are going to describe this new species as the first member of the genus recorded from Mainland China. The abbreviations of morphometric measurements used herein are: PEL – pronotum–elytra length; BT – body thickness; HL – head length; HW – head width; PL – pronotum length; PW – pronotum width; EL – elytra length; EW – elytra width; FTL – front tibia length; FTW – front tibia width (see ARAYA *et al.* (1993) for measuring methods). The genital organs were observed in 70% ethanol after treated with weak solution of potassium hydroxide. The terminology for description of genitalia used herein is the same as that in other papers of the first author's (ARAYA *et al.*, 1993; ARAYA, 1993, 1995).

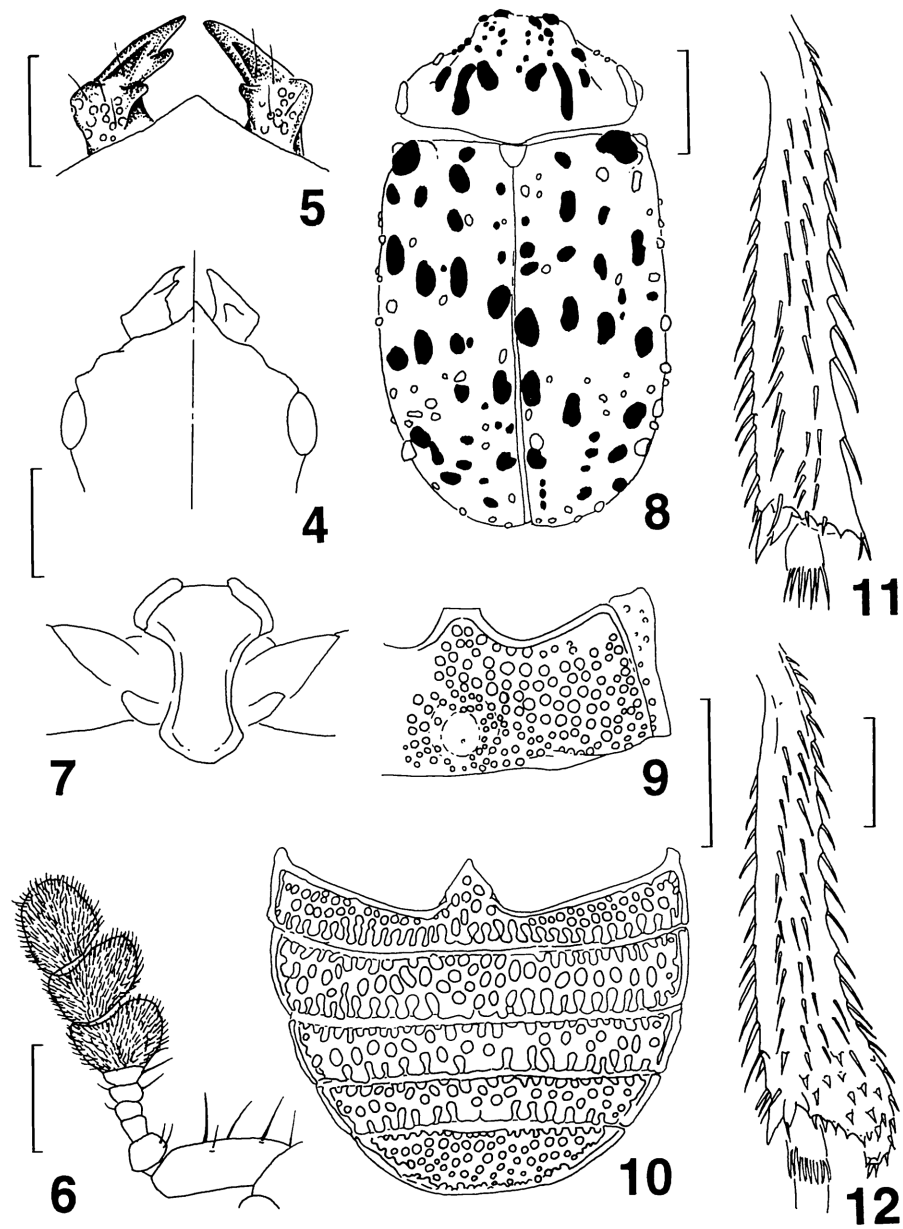
Aesalus sichuanensis ARAYA, TANAKA et TANIKADO, sp. nov.

[Japanese name: Shisen-madara-kuwagata]
(Figs. 1–18)

A large-sized *Aesalus*, length from anterior margin of head to apices of elytra 5.05–5.90 mm ($\bar{X}=5.47$). Body (Figs. 1–3, 8) elongate, outline elliptical in dorsal view (EW/PEL 0.57–0.66; $\bar{X}=0.58$), relatively flat in lateral view (BT/PEL = 0.35–0.43; $\bar{X}=0.39$). Body integument dark-greyish brown in color; dorsal surface largely covered



Figs. 1–3. *Aesalus sichuanensis* ARAYA, TANAKA et TANIKADO, sp. nov., ♂, holotype; 1, dorsal view; 2, ventral view; 3, lateral view.



Figs. 4–12. *Aesalus sichuanensis* ARAYA, TANAKA et TANIKADO, sp. nov. —— 4, Head of ♂, paratype (left), and of ♀, paratype (right); 5, mandibles of ♂, paratype; 6, antenna of ♂, paratype; 7, intercoxal process of prosternum of ♂, paratype; 8, ornaments on the dorsal body surface of ♂, paratype; 9, metasternum of ♂, paratype; 10, abdominal segments of ♂, paratype; 11, hind tibia of ♂, paratype; 12, ditto, ♀, paratype. Scales: 0.25 mm for Figs. 5, 6, 11, 12; 0.5 mm for Figs. 4, 7; 1.0 mm for Figs. 8, 9, 10.

with scale-like black and whitish-golden setae but without stick-like bristles and tomentum; scale-like whitish-golden setae partly lying like tomentum; erect scale-like setae partly forming clumps.

Head (Fig. 4) punctuated weakly, its anterior margin obtusely projected. Eye without canthus. Mandible (Fig. 5) with a sharp apical tooth and a subapical tooth on dorsal side near the middle; apical tooth of left mandible distinctly forked. Mentum with well-defined punctures each bearing a short yellowish grey hair; some of the punctures connected and forming irregular sulcus. Antenna (Fig. 6) consisting of nine segments, geniculate between scape and second segment; scape moderately curved, with several setae; second segment strongly subconical, subequal in length; third not slender, subequal in length; fourth and fifth oblong; sixth very short and somewhat acutely projected laterally; seventh to ninth forming wholly pubescent club, weakly lamellate, seventh and eighth oblong, ninth subequal in length.

Pronotum about three-fifths as long as wide (PL/PW = 0.54–0.59; $\overline{X} = 0.57$), widest near the posterior part; dorsal surface elevated on the middle, densely but shallowly punctuated, with scale-like bristles forming a pair of large black clumps on the middle. Scutellum forming an elongate triangle. Elytra about 1.4 times as long as combined width (EL/EW = 1.23–1.31; $\overline{X} = 1.27$), densely but shallowly punctuated, without striae but with regularly arranged black and whitish-golden clumps of scale-like bristles; each shoulder somewhat elevated. Hind wing fully developed (Fig. 13).

Intercoxal process of prosternum (Fig. 7) ginkgo-leaf-shaped, expanding anteriorly and reaching metasternum, both anterior and posterior margins rounded, middle part slender and convex, with isodiametric and well-defined punctures each bearing a short yellowish grey hair. Metasternum (Fig. 9) with a large circular depression in the middle, with isodiametric and fine punctures each bearing a yellowish grey hair. Metepisternum with shallow sulcus for receiving middle leg. Mesocoxae separated. Intercoxal process of hind legs forming a sharp, regular triangle produced anteriorly. Abdomen (Fig. 10) about five-sixths as long as wide; five abdominal sternites visible, each with isodiametric to elongate foveae bearing minute setae.

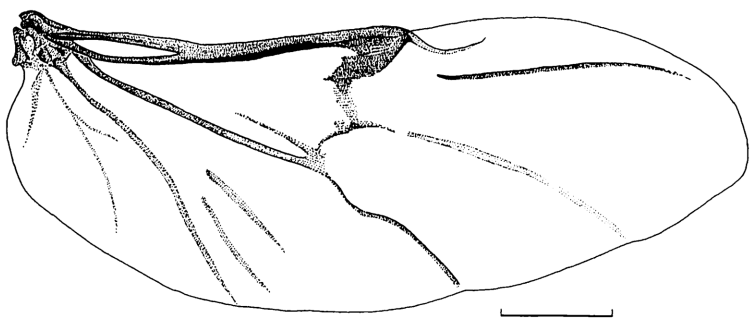
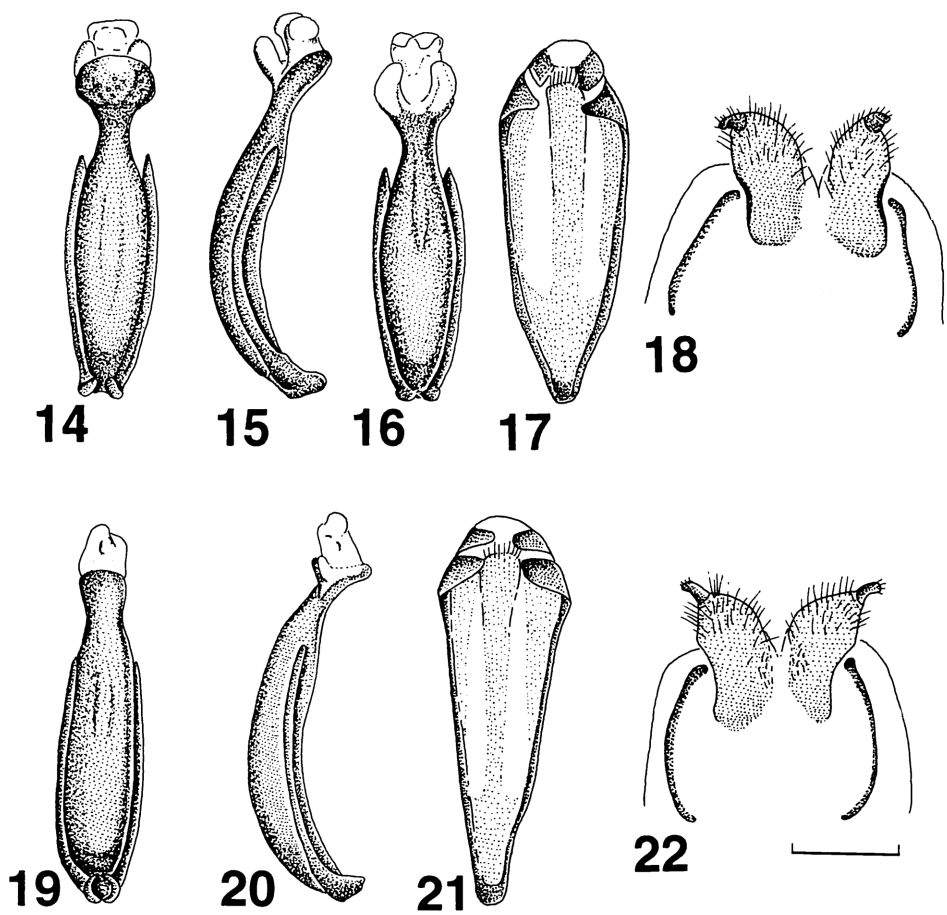


Fig. 13. Hind wing of *Aesalus sichuanensis* ARAYA, TANAKA et TANIKADO, sp nov., ♀, paratype. Scale: 1.0 mm.

Front tibia relatively slender, only slightly widened in distal portion (FTW/FTL=0.21–0.29; $\bar{X}$=0.24), with fine punctures bearing minute setae; outer margin with two denticles and a large, curved hook-like apical spine at distal end. Front femora with punctures bearing minute setae. Middle and hind legs with fine punctures bearing obliquly erect pilosity; middle and hind tibiae with small denticles on outer margins, with a large denticle at outer distal end, with a sharp spine at inner distal end.

Male genital organ. Male genitalia (Figs. 14–16) well sclerotized, with very short basal piece fused to both parameres and penis; penis slender, symmetrical, spatulately



Figs. 14–22. Genital organs of *Aesalus* spp. —— 14–18. *Aesalus sichuanensis* ARAYA, TANAKA et TANIKADO, sp nov.; 14–17, male genitalia of paratype; 14, aedeagus, ventral view; 15, ditto, left lateral veiw; 16, ditto, dorsal view; 17, ninth abdominal segment; 18, female genitalia of paratype. —— 19–22. *Aesalus imanishii* INAHARA et RATTI; 19–21, male genitalia; 19, aedeagus, ventral view; 20, ditto, left lateral view; 21, ninth abdominal segment; 22, female genitalia. Scale: 0.5 mm for Figs. 14–22.

expanding in distal end; internal sac visible but not everted; paired struts absent; paramere quite slender, subequal in length to penis, closely appressed to penis. Ninth abdominal segment (Fig. 17) flat, well sclerotized in outer margin, middle of ventral side weakly sclerotized with several setae.

Female genital organ. Female genitalia (Fig. 18) with large styli strongly curved outward; hemisternite weakly sclerotized, outer-lateral side gently concave, with long setae at distal end.

Variations in external characters. In females, the outer distal end of the hind tibia is swollen protuberantly with many spines like minute setae on the ventral side (Fig. 12). On the other hand, in males, the outer margin of the hind tibia is somewhat widened toward the distal end but without protuberance (Fig. 11). No sexual dimorphism is distinct in the shape of mandibles.

The greatest variations are observed in the distribution of black and whitish-golden clumps of scale-like bristles on the dorsal surface. Morphometric data are summarized in Table 1 (both sexes are combined because no sexual dimorphism is apparent in the characters measured).

Distribution. Known only from the Daba Mountains, Sichuan Province, central China (1,800–1,900 m in altitude).

Type series. Holotype: ♂, Bashan, Chengkou Xian, Sichuan Province, central China (northern slope of the Daba Mountains, 1,800–1,900 m in altitude), 21–IV–1994. Paratypes: 3♂♂, 2♀♀, same data as the holotype; 4♀♀, same locality as the type series, 21～22–VI–1994. The holotype and one of the female paratypes will be preserved in the collection of the Museum of Nature and Human Activities, Hyogo. As to the other paratypes, one pair will be deposited in the entomological collection of the Graduate School of Human and Environmental Studies, Kyoto University (catalogued

Table 1. Morphometric characters ($\bar{x} \pm SD$, followed by ranges in parentheses, in mm) of *Aesalus sichuanensis* sp. nov. and *A. imanishii*. See text for abbreviations.

Species	PEL	BT	HL	HW	PL
A. sichuanensis	5.47±0.292	2.13±0.103	0.93±0.059	1.02±0.067	1.57±0.067
N=10	(5.05–5.80)	(1.90–2.25)	(0.80–1.00)	(0.90–1.10)	(1.45–1.65)
A. imanishii	4.76±0.594	1.65±0.158	0.86±0.096	0.92±0.045	1.41±0.160
N=5	(4.10–5.60)	(1.45–1.85)	(0.75–1.00)	(0.90–1.00)	(1.20–1.60)

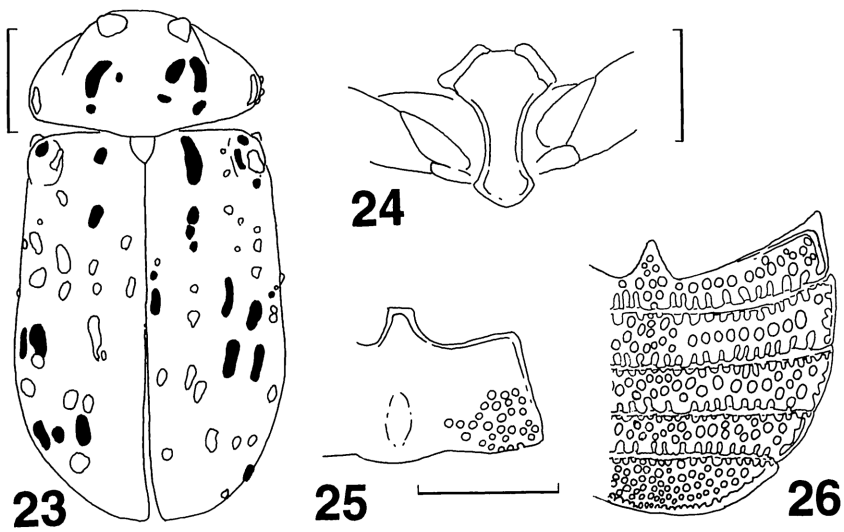
Species	PW	EL	EW	FTL	FTW
A. sichuanensis	2.77±0.116	4.04±0.184	3.18±0.116	1.19±0.074	0.29±0.039
N=10	(2.55–2.95)	(3.75–4.30)	(3.00–3.35)	(1.00–1.25)	(0.25–0.35)
A. imanishii	2.36±0.171	3.36±0.397	2.62±0.182	0.99±0.085	0.31–0.025
N=5	(2.15–2.60)	(3.20–4.20)	(2.30–2.90)	(0.90–1.10)	(0.30–0.25)

as KUHE), a female in the Museo Zoologico de "La Specola", Universita degli Studi Firenze, Italy, one pair in the collection of the second author, and the remainings, a male and two females, in the third author, respectively.

Notes. This new taxon closely resembles Taiwanese *A. imanishii* (Figs. 19–26) and doubtlessly, they belong to the same species-group in the genus. However, it differs from the latter in the following characteristics: body broader, larger in size; dark-greyish brown in color (reddish brown in *A. imanishii*); middle part of intercoxal process of prosternum not constricted; the large depression in the middle of metasternum circular (oval in *A. imanishii*); intercoxal process of hind legs forming a sharp regular triangle (an elongate isosceles triangle in *A. imanishii*); penis of male genitalia broader, distal end much more expanding; paramere shorter and broader; ninth abdominal segment broader; styli of female genitalia larger, more strongly curved outward; inner-lateral side of hemisternite gently concave (strongly concave in *A. imanishii*).

The Daba Mountains stretch on the borders of Sichuan and Shaanxi provinces and are zoogeographically nearly at the northernmost part of the Oriental Region. This mountain range is extensively covered with primeval summer green oak (*Quercus*) forests that are now not common in Mainland China, and its insect fauna has not been intensively investigated as yet. The discovery of *A. sichuanensis* sp. nov. from the Daba Mountains suggests that the beetle fauna, including lucanids, of this mountain range is similar to that of Taiwanese mountains. On the other hand, from the neighboring mountain ranges of the Daba Mountains such as the Qinling Mountains, several lucanid species of the genera *Platycerus* and *Ceruchus* were recently described (IMURA, 1993; IMURA *et al.*, 1994; TANIKADO *et al.*, 1994). These genera are distributed on the mountains of the Palearctic Region such as Japan and Europe. This fact suggests that some beetles of Palearctic element invaded the high mountains at the northernmost part of the Oriental Region such as the Qinling and Daba Mountains. Further field works may yield additional undescribed species of the genus *Aesalus*, which might be closely related to the Palearctic taxa, from these two adjoining mountain ranges.

It is difficult to determine the systematic position of the *imanishii–sichuanensis* species-group in the genus *Aesalus* because of its unique characteristics. Such characteristics as the antenna consisting of nine segments, body covered with only scale-like setae and without scattered stick-like bristles, and body dorso-ventrally flat are unique to this group and shared by no other species in this genus. Such characteristics as sexually non-dimorphic mandible and wholly pubescent antennal club are also found in *A. himalayicus* and other congeners from Southeast Asia. On the other hand, the *imanishii–sichuanensis* species-group and the Palearctic *Aesalus* (*A. asiaticus*, *A. scarabaeoides*, *A. ulanowskii*) share the following important characteristics that are not shared by *A. himalayicus* or Southeast Asian members: third antennal segment transverse, not slender; eye without distinct canthus; pronotum widest near the posterior part; intercoxsal process of prosternum convex, not flat; penis slender and symmetrical, with long paramere. Thus, *A. sichuanensis* and *A. imanishii* might possibly be intermediate between the Palearctic and Oriental mem-



Figs. 23–26. *Aesalus imanishii* INAHARA et RATTI.——23, Ornaments on the dorsal body surface of ♂; 24, intercoxal process of prosternum of ♂; 25, metasternum of ♂; 26, abdominal segments of ♂. Scales: 1.0 mm for Figs. 23, 25, 26; 0.5 mm for Fig. 24.

bers both taxonomically and zoogeographically. It is also possible that these two *Aesalus* are relict species which have been isolated in the mountains of central China and Taiwan, and retain the most ancestral character states in the Old World *Aesalus* members. Anyway, detailed analyses of the genus *Aesalus* will reveal the systematic position of this interesting species-group within the genus.

Adults and larvae of *A. sichuanensis* were collected from brown-rotten oak tree. This is true for the larval habitat of *A. sichuanensis*, which is similar to that hitherto recorded for other members of the genus *Aesalus* (ARAYA, 1993).

Key to the Species of *Aesalus* Recorded from China and its Neighboring Countries

Two subspecies of Japanese *A. asiaticus*, nominotypical *A. a. asiaticus* from the main islands of Japan and *A. a. sawaii* FUJITA et ICHIKAWA, 1985, from Yaku-shima Island, are included in this key.

1a. Eye with distinct canthus; third antennal segment slender; apical tooth of left mandible not forked; intercoxal process of prosternum flat, anterior and posterior margins almost straight; male genitalia with asymmetrical banana-shaped penis (from Nepal) ..... *A. himalayicus.*

1b. Eye without canthus; third antennal segment not slender: apical tooth of left mandible distinctly forked; intercoxal process of prosternum convex, anterior and posterior margins rounded; male genitalia with symmetrical slender penis ..... 2.

2a. Antenna consisting of 9 segments; antennal club wholly pubescent; sexual dimorphism in mandible indistinct; body flat (BT/PEL 0.34–0.36); body surface covered with only scale-like setae and lacking scattered stick-like bristles; penis flat and spatulate ..... 3.

2b. Antenna consisting of 10 segments; antennal club partly pubescent; sexual dimorphism in mandible distinct; body relatively thick (BT/PEL 0.37–0.46); body surface covered with both scale-like setae and scattered stick-like bristles: penis cylindrical ..... 4.

3a. Size smaller (PEL 4.10–5.60; $\overline{X}=4.76$); body slender (EW/PEL 0.52–0.57; $\overline{X}=0.55$) and reddish brown in color; elytral clumps of scale-like bristles arranged irregularly; middle part of intercoxal prosess of prosternum constricted; a large depression of metasternum oval; intercoxal process of hind legs forming an elongate isosceles triangle; distal end of male penis not expanding (from Taiwan) ..... *A. imanishii.*

3b. Size large (PEL 5.05–5.80; $\overline{X}=5.47$); body broader (EW/PEL 0.57–0.61; $\overline{X}=0.58$) and grayish brown in color; elytral clumps of scale-like bristles arranged regularly; middle part of intercoxal process of prosternum not constricted; a large depression of metasternum circular; intercoxal process of hind legs forming a sharp regular triangle; distal end of male penis much expanding (from Mainland China) ..... *A. sichuanensis* sp. nov.

4a. Pronotum with several clumps of black scale-like bristles on middle portion; elytral punctures smaller and united (from main islands of Japan) ..... *A. asiaticus asiaticus.*

4b. Pronotum without clump of black scale-like bristles; elytral punctures distinct and sparser (from Yaku-shima Is., Japan) ..... *A. asiaticus sawaii.*

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Specimens Examined for Comparison

The acronyms of specimens are: KUHE – the entomological collection of the Graduate School of Human and Environmental Studies, Kyoto University; NSMT – National Science Museum (Natural History), Tokyo; TOC – personal collections of T. OCHI; MT – personal collections of the third author.

A. imanishii: 1 ♂, Sungkan, Taiwan, 23–III–1974, O. IMANISHI leg. (TOC); 1 ex., ditto, 23–III–1974, O. IMANISHI leg. (NSMT); 1 ♂, ditto, 1–X–1986, T. OCHI leg. (TOC);

1♂, Meifeng, Taiwan, 6–IX–1981, YU Ching-Jin leg. (NSMT); 1♂, 1♀, Sungkan, Nantou, Taiwan, 21–IV–1992, W. I. CHOU leg. (KUHE); 1♂, 1♀, Meifeng, Taiwan, 11–V–1992, M. TANIKADO leg. (MT).

要　約

荒谷邦雄・田中正浩・谷角素彦：中国大陸からはじめて記録されたマダラクワガタ属の1新種. —— 中国四川省と陝西省の境界に位置する，大巴山脈の北斜面にある標高1,800–1,900 mの夏緑ナラ林で採集されたマダラクワガタ属の1種を新種と認め，*Aesalus sichuanensis* sp. nov.（シセンマダラクワガタ）として記載した．本種は，中国大陸からはじめて記録されるマダラクワガタ属のクワガタムシである．*A. sichuanensis*は，台湾中部の山地に生息するタイワンマダラクワガタ*A. imanishii*にきわめて近縁で，この2種は触角が9節から成ること，背面を被う毛はすべて鱗片状で棒状の毛を欠くこと，および体の厚みがごく薄いことによって他のすべてのマダラクワガタ属の種と明確に区別される．さらに，*A. sichuanensis*はタイワンマダラクワガタに比べると，体形がより大型で幅広く，体色が灰色味を帯びる，鞘翅上の毛束は規則正しく列をなして配列する，前胸腹板の基節突起の中央部のくびれが弱い，後胸腹板中央部の凹部は円形（*A. imanishii*では楕円形）である，後脚の基節突起は正三角形をなす（*A. imanishii*では長二等辺三角形），雄交尾器の陰茎は太く先端部がスプーン状に広がり，側片もやや短く幅広い，第9腹板はより幅広い，雌交尾器の半腹板の外側のえぐれはごく弱い，尾毛は大きくかつ外側に強く曲がる，などの特徴があり容易に区別できる．

*A. sichuanensis*とタイワンマダラクワガタの持つ特徴のうち，大顎に性的2型が見られないこと，および触角の片状部全体が短い毛で覆われていることは，ネパール産の*A. himalayicus*をはじめとする他の東洋区産の種と共通している．一方，触角の第3節は伸長せず短い，眼縁突起は発達しない，前胸背板の幅は中央より後ろ寄りで最大となる，前胸腹板の基節突起は著しく隆起する，などの外部形態の特徴，および陰茎は左右対称形で細長く伸長する，側片は細長く伸長する，などの交尾器形態の特徴は旧北区産の種と共通するものである．このように東洋区の種と旧北区産の種の両方の特徴を合わせ持つ*A. sichuanensis*とタイワンマダラクワガタは，もしかすると中国内陸部と台湾中部の山地帯に取り残された，旧世界産のマダラクワガタ属のうちでもっとも祖先的な形質をとどめた遺存的な種群として位置づけられるのかもしれない．

今回，中国内陸部の大巴山脈から台湾産の種にきわめて近縁なマダラクワガタ属の新種が見つかったことは，クワガタムシ類をはじめとするこの地域の甲虫と台湾のそれとの共通性を示唆するものであるが，近隣の秦嶺山脈にはルリクワガタ属やツヤハダクワガタ属など旧北区要素のクワガタムシ類が生息することが知られている．今後，大巴山脈およびその周辺地域から旧北区産の種に近縁なマダラクワガタ属が発見される可能性もある．

なお，中国およびその近隣諸国から知られている，*A. sichuanensis*を含む4種のマダラクワガタ属の検索表を付記した．

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Elytra, Tokyo, **23** (2): 219, November 15, 1995

A New Record of *Lissorhoptrus oryzophilus* (Coleoptera, Curculionidae) from the Yayeyama Islands of the Ryukyus

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Since the invasion of *Lissorhoptrus oryzophilus* KUSCHEL from North America into Japan in 1976, it has rapidly spread over the Japanese mainland as a pest of rice plant. Though this species has not been recorded from the Yayeyama Islands of the Ryukyu Archipelago until now, it seems to expand gradually its distribution onto those islands in recent years. In the last three years, but not before, I have met the species on three of the Yayeyama Islands as recorded below. These are the southernmost known localities of the weevil in the Japanese territory.

Specimens examined. 1 ex., Omoto, Ishigaki-jima, 16–III–1993, M. SATÔ leg.; 2 exs., Komi, Iriomote-jima, 23–III–1994, M. SATÔ leg.; 4 exs., Sonai, Yonaguni-jima, 20–III–1995, M. SATÔ leg.

Elytra, Tokyo, **23** (2): 220, November 15, 1995

Records of *Pseudopsis watanabei* (Coleoptera, Staphylinidae, Pseudopsinae) from Rishiri-tô and a Lowland of Hokkaido, Japan

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Pseudopsis watanabei HERMAN (1975, p. 274) was originally described on the basis of specimens collected on Mt. Poroshiri-dake of the Hidaka Mountains, Hokkaido. After that, it was recorded by NAOMI (1982) from Hirogawara in Yamanashi Prefecture, Honshu. This staphylinid seems rather rare, as it has seldom been recorded from mountainous areas. Recently, I was able to examine some specimens of the species collected on Rishiri-tô Island off northern Hokkaido and the Tokachi Plain in mainland Hokkaido. Their collecting data are as given below.

Specimens examined. 1 ex., Mt. Rishiri-zan, Rishiri-tô Is., 8–VIII–1990, T. KISHIMOTO leg.; 1 ex., Oshidomari, Rishiri-tô Is., 23–VIII–1993, T. KISHIMOTO leg.; 3 exs., same locality and collector, 25–VIII–1993; 2 exs., Nakaate, Taiki-chô, Tokachi, Hokkaido, 24–VIII–1995, S. HORI leg.

I wish to express my hearty thanks to Professor Yasuaki WATANABE, Laboratory of Entomology, Tokyo University of Agriculture, for his continuous guidance. Deep gratitude is also due to Mr. Shigehisa HORI, Nature Conservation Department, Hokkaido Institute of Environmental Sciences, for kindly supplying me with valuable specimens and to Mr. Masahiko SATÔ, Rishiri Town Museum, for his help in field works and other ways.

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Elytra, Tokyo, **23** (2): 221–224, November 15, 1995

Colony Composition and Altitudinal Distribution of Passalid Beetles (Coleoptera, Passalidae) Observed in the Kinabalu Park, Sabah, Borneo

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Abstract Colony composition and altitudinal distribution are reported for the following five passalid beetles observed in the Kinabalu Park, Sabah: *Aceraius alpinus* KON, UEDA et JOHKI, *A. hikidai* KON, UEDA et JOHKI, *A. kinabalensis* KON et JOHKI, *A. sabanus* KON, UEDA et JOHKI and *Ophrygonius uedai* KON et JOHKI.

Passalid beetles (Coleoptera, Passalidae) have been cited as being subsocial insects (TALLAMY & WOOD, 1986, etc.). Most species are known to live in colony in the gallery excavated into logs (REYES-CASTILLO & HALFFTER, 1983).

KON and JOHKI (1992) reported the colony composition and habitats for some passalid beetles collected from the areas under 1,300 m in altitude in Sabah, Borneo. In March, 1994, we had an opportunity to observe some passalid colonies in the Kinabalu Park, Sabah (over 1,600 m) under permission. We herewith report their colony composition, habitats and altitudinal distribution.

Observations were made in the Kinabalu Park at the altitudes between 1,600 m and 2,350 m. When two or more conspecific individuals (regardless of their developmental stages) were found within the same gallery system excavated into a log or within a small depression on the ground under a log, we regarded such a group of individuals as a colony.

Before going further, we wish to express our hearty thanks to Mr. Francis LIEW and Rajibi Haji AMAN, the Sabah Parks, for giving us the permission of performing

the present research in the Kinabalu Park.

Aceraius alpinus KON, UEDA et JOHKI

Aceraius alpinus KON, UEDA et JOHKI, 1995, Jpn. J. sys. Ent., **1**, p. 99.

Thirteen colonies were observed in the altitudes between 1,810 m and 2,350 m in the Kinabalu Park. Of these, two colonies consisted of a bisexual pair, eight consisted of a bisexual pair of black adults and young (either red teneral adults, pupae, larvae and/or eggs), one consisted of one black female and eggs, one consisted of one black male and two black females, and one consisted of eleven adults (2 black ♂♂, 6 black ♀♀, 1 red ♂, 2 red ♀♀), eight larvae and twenty two eggs (Table 1). In the last colony, all the eggs were found to be aggregated in a particular area in the gallery where mixture of triturated wood and adult feces were spread. They were living in the galleries excavated into rather tough logs.

Aceraius hikidai KON, UEDA et JOHKI

Aceraius hikidai KON, UEDA et JOHKI, 1993, Elytra, Tokyo, **15**, p. 276.

Ten colonies were observed in the altitudes between 1,600 m and 1,840 m in the Kinabalu Park. Of these, seven colonies consisted of a bisexual pair and three consisted of a bisexual pair and young (either larvae or eggs; Table 1). They were living in the galleries excavated into rather tough logs.

UEDA *et al.* (1988) reported for *Aceraius* species collected from Sabah that altitudinal segregation was observed between species having similar body size. *Aceraius alpinus* and *A. hikidai* are similar in body size; the former is 31.0–34.2 mm in body length (KON *et al.*, 1995) whereas the latter 29.3–30.4 mm (KON *et al.*, 1993 b). In the present study, it was revealed that *A. alpinus* and *A. hikidai* appeared to be altitudinally segregated; the former was found between 1,810 m and 2,350 m whereas the latter between 1,600 m and 1,840 m, though they co-occurred in a narrow altitudinal range between 1,810 m and 1,840 m.

Aceraius kinabalensis KON et JOHKI

Aceraius kinabalensis KON et JOHKI, 1989, Jpn. J. Ent., **57**, p. 533.

One colony, consisting of two black females, one pupa and one third instar, was observed at an altitude of 1,890 m (Table 1). They were living in the gallery excavated into a tough log. The two black females of this colony appeared to be imago-offspring, because they were not worn out at all. When the log, in which this *A. kinabalensis* colony was found in March, 1994, had once been examined in September, 1993, it had not yet been attacked by any passalid beetles at all (KON *et al.*, personal observation). This means that the *A. kinabalensis* colony observed in the present study

Table 1. Colony composition of passalid beetles observed in the Kinabalu Park, Sabah.

Altitude (m)	Date	Adults (black)		Adults (red)		Pupae	Larvae			Eggs
		Male	Female	Male	Female		3rd instar	2nd instar	1st instar	
Aceraius alpinus										
1. 1900	25–III–1994	1	1	0	0	0	0	0	0	0
2. 2350	25–III–1994	2	6	1	2	0	8	0	0	22
3. 1900	26–III–1994	1	1	0	0	0	6	0	0	0
4. 1910	26–III–1994	1	1	0	0	0	1	0	0	0
5. 1900	26–III–1994	1	1	0	0	0	0	0	0	2
6. 1900	26–III–1994	0	1	0	0	0	0	0	0	4
7. 1900	26–III–1994	1	1	0	0	0	0	0	0	0
8. 1840	27–III–2994	1	1	0	0	0	3	0	0	0
9. 1840	27–III–1994	1	1	1	2	0	2	0	0	0
10. 1830	27–III–1994	1	1	0	0	0	0	2	0	0
11. 1830	27–III–1994	1	1	0	0	0	1	1	0	0
12. 1830	27–III–1994	1	1	0	1	1	5	0	0	0
13. 1810	27–III–1994	1	2	0	0	0	0	0	0	0
Aceraius hikidai										
1. 1840	27–III–1994	1	1	0	0	0	0	0	0	0
2. 1830	27–III–1994	1	1	0	0	0	0	0	0	10
3. 1810	27–III–1994	1	1	0	0	0	0	0	0	0
4. 1740	27–III–1994	1	1	0	0	0	0	0	0	0
5. 1740	27–III–1994	1	1	0	0	0	0	5	0	0
6. 1600	28–III–1994	1	1	0	0	0	0	0	0	0
7. 1600	28–III–1994	1	1	0	0	0	0	0	0	0
8. 1610	28–III–1994	1	1	0	0	0	0	0	0	0
9. 1610	28–III–1994	1	1	0	0	0	0	0	0	0
10. 1620	28–III–1994	1	1	0	0	0	4	1	0	0
Aceraius kinabalensis										
1. 1890	25–III–1994	0	2	0	0	1	1	0	0	0
Aceraius sabanus										
1. 1880	25–III–1994	1	2	1	1	0	4	0	0	0
Ophrygonius uedai										
1. 1860	27–III–1994	1	1	0	0	0	0	0	0	0
2. 1840	27–III–1994	1	1	1	0	0	1	0	0	0
3. 1840	27–III–1994	1	1	0	0	0	0	0	0	0
4. 1840	27–III–1994	1	1	0	0	0	0	0	0	0
5. 1840	27–III–1994	1	1	0	0	0	3	0	0	0
6. 1810	27–III–1994	1	1	0	0	0	2	0	0	0
7. 1810	27–III–1994	1	1	0	0	0	0	0	0	4
8. 1600	28–III–1994	1	1	0	0	0	0	0	0	3
9. 1600	28–III–1994	1	1	0	0	0	0	0	0	6

was certainly six or less months old. Thus, it appears to take six months or less for *A. kinabalensis* to grow up to be black adults after the colony foundation.

Aceraius sabanus KON, UEDA et JOHKI

Aceraius sabanus KON, UEDA et JOHKI, 1995, Jpn. J. sys. Ent., **1**, p. 101.

One colony, consisting of three black adults (1♂, 2♀♀), two red teneral adults (1♂, 1♀) and four larvae, was observed at an altitude of 1,880 m (Table 1). Of three black adults of this colony, one female appeared to be the founding female, because it had been worn out. They were living in the gallery excavated into a seemingly old log lacking the bark.

Ophrygonius uedai KON et JOHKI

Ophrygonius uedai KON et JOHKI, 1991, Jpn. J. Ent., **59**, p. 506.

Nine colonies were observed at the altitudes between 1,600 m and 1,860 m in the Kinabalu Park. Of these, two colonies consisted of a bisexual pair and six consisted of a bisexual pair and young (either red teneral adults, larvae and/or eggs; Table 1). As reported in KON *et al.* (1993 a), they were living on the ground under logs, not tunnelling into the logs.

要　約

近　雅博・常喜　豊・菊田　融：ボルネオ，サバ州のキナバル公園で観察されたクロツヤムシの家族構成と垂直分布．——サバ州のキナバル公園で観察した5種のクロツヤムシ，*Aceraius alpinus* KON, UEDA et JOHKI, *A. hikidai* KON, UEDA et JOHKI, *A. kinabalensis* KON et JOHKI, *A. sabanus* KON, UEDA et JOHKI および *Ophrygonius uedai* KON et JOHKI の，家族構成と垂直分布について報告した．

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Elytra, Tokyo, **23** (2): 225–227, November 15, 1995

A New Species of the Genus *Paratiberioides* (Coleoptera, Passalidae) from Sulawesi

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Abstract A new passalid beetle, *Paratiberioides similis*, is described from Sulawesi, Indonesia. This new species resembles *P. trajae* IWASE, but is distinguished from the latter by the structure of the anterior part of head.

Paratiberioides similis sp. nov.

(Figs. 1 & 2A)

Black and shining; dorsal surface moderately convex.

Antenna with three short and three moderately long lamellate segments, the third lamella 0.67–0.70 times as long as the fourth one (except for the smooth axile part). Anterior border of labrum with very obtuse middle tooth. Right lowest terminal tooth of mandible as large as the left one; right anterior lower tooth acute, upper denticle obtuse, with a long edge behind the tip; anterior tip of posterior convexity of right mandible acute with the apex rounded. Posterior convexity of left mandible high, without dorsal face, anterior tip rectangular or rounded, not produced anteriorly in lateral view, a little bent inward in dorsal view, posterior tip obtuse, higher than anterior one in lateral view, somewhat bent outward in dorsal view, dorsal border between the two tips straight or a little concave in laterial view; internal face of left mandible with a triangular tubercle below posterior tip of posterior convexity. Middle part of mentum smooth; scars reaching the anterior border of middle part. Eye gibbous.

Clypeus invisible in dorsal view, laminate, very transverse, narrowed at the middle in frontal view. Apices of outer tubercles a little pointed outward, respectively; left one a little larger than right one, without upper denticle, the ridge extending from left inner tubercle to near left outer tubercle distinct; ritht outer tubercle with acute or rectangular upper denticle; the short ridge between right outer tubercle and the upper denticle emarginate in lateral view. Anterior border of head between the two outer tubercles moderately emarginate in dorsal view, and somewhat concave in frontal view. Inner tubercle rather large, somewhat pedunculate; the ridge between the two inner tubercles emarginate in dorsal view, somewhat convex in frontal view. Depressed area of head hairless; anterior oblique area finely and longitudinally rugose.

Pronotal scar hairless.

Punctures of elytral grooves small, those of sutural one indistinct anteriorly.

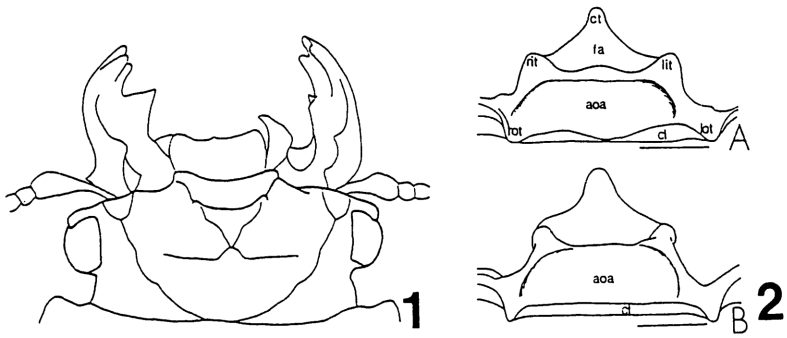

Fig. 1–2. *Paratiberioides* spp.; 1, 2A, *P. similis* sp. nov.; 2B, *P. trajae* IWASE. —— 1, Head in dorsal view, 2, head in frontal view (scale: 1 mm); aoa: anterior oblique area, cl: clypeus, ct: central tubercle, fa: frontal area, lit: left inner tubercle, lot: left outer tubercle, rit: right inner tubercle, rot: right outer tubercle.

Posterior plate of prosternum sparsely hairy (holotype and 1 paratype) or with a few hairs (1 paratype). Mesosternum finely rugose with indistinct punctures medially, almost smooth laterally; scar (L : W = 2.75 : 1) rather distinctly defined, about 1/2 as long as the length of lateral border of mesosternum, finely rugose with a few short hairs. Lateral area of metasternum strongly widened posteriorly as in the other members of the genus. Sixth abdominal sternite impunctate or with a few fine punctures.

Body length: 36–38 mm; pronotal width: 11–12 mm; elytral width: 13–14 mm.

Holotype, ♀, Sampraga, Sulawesi Selatan, Sulawesi, XII–1994; paratypes: 2♀♀, same data as the holotype. The holotype will be preserved in the National Science Museum (Nat. Hist.), Tokyo.

This new species is very closely allied to *Paratiberioides trajae* IWASE (Fig. 2B), but differs from the latter in the following points: the body a little larger; the anterior border of head between the two outer tubercles emarginate in dorsal view (almost straight in the latter); the clypeus narrowed at the middle in frontal view (almost parallel in the latter); the anterior oblique area of head longitudinaly rugose (smooth with some granules in the latter); the antennal segment VII (the third lamellate segment) about 0.70 times as long as VIII (0.55 times as long as VIII in the latter).

Acknowledgement

I would like to thank Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for reviewing the manuscript of this paper. My thanks also go to M. FUJIOKA, Tokyo, for helpful support.

要　約

岩瀬一男：スラウェシ産クロツヤムシ科*Paratiberioides*属の1新種．——インドネシア領スラウェシ島産のクロツヤムシ*Paratiberioides similis*を新種として記載した．本種は*P. trajae* IWASEによく似ているが，両者は頭部の前縁の形，頭盾の形，前方の傾斜部分のほか，触角片状部第3節の長さなどで区別できる．

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Elytra, Tokyo, **23** (2): 227–228, November 15, 1995

Records of the Inopeplidae (Coleoptera) from Northern Vietnam[1)]

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and

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In the entomological survey of northern Vietnam made in the autumn of 1994, SATÔ had an opportunity to collect two species of inopeplid beetles. After a careful examination, they were proved to belong to known species. However, as these two species represent the first record of the family from Vietnam, they are recorded herewith.

We are very grateful to Dr. Shun-Ichi UÉNO for his kind aid in many ways as our team leader.

1) This study is supported by the Grant-in-aid No. 06041116 for Field Research of the Monbusho International Scientific Research Program, Japan.

Inopeplus albonotatus (MOTSCHULSKY)

Euryplatus albonotatus MOTSCHULSKY, 1859, Étud. ent., **8**: 98.

As was recently recorded by SATÔ (1992) from Malaysia, this species seems common in tropical Asia.

Specimens examined. 12 exs., Truong Bao Yen (alt. 110 m), Xa Long Phuc, Lao Cai Prov., N. Vietman, 13–X–1994, M. SATÔ leg.

Distribution. W. India, Malaysia, Vietnam.

Inopeplus biocellatus (MOTSCHULSKY)

Euryplatus biocellatus MOTSCHULSKY, 1859, Étud. ent., **8**: 98.

Body flattened and broad. Head, thorax, abdomen and legs reddish brown. Elytra black, each provided with a whitish circular spot at the middle.

This species is peculiar for its characteristic colour and body form.

Specimens examined. 1 ex., Truong Bao Yen (alt. 110 m), Xa Long Phuc, Lao Cai Prov., N. Vietnam, 13–X–1994, M. SATÔ leg.; 1 ex., Manjitar (alt. 320 m), W. Bengal, India, 9–X–1986, M. SAKAI leg.

Distribution. W. India, Vietnam.

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Elytra, *Tokyo*, **23** (2): 229–233, November 15, 1995

Lordithon daviesi (Coleoptera, Staphylinidae, Tachyporinae), a Remarkable New Species from Taiwan

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Abstract A new species, *Lordithon daviesi*, is described and illustrated from specimens collected recently in southeastern Taiwan. The species is one of the largest members of the genus *Lordithon*.

During my recent fieldwork in the Hsinkangshan mountain range in southeastern Taiwan a series of strikingly large specimens, presumably belonging to the genus *Lordithon* THOMSON, 1859, was found on some soft-bodied mushrooms growing on dead wood. Subsequent study of the specimens not only confirmed that they indeed belong to *Lordithon*, but also established that they belong to a remarkable new species, which is one of the largest members of the genus.

The purpose of this paper is to describe and illustrate this conspicuous species, which is a member of the nominotypical subgenus *Lordithon* (see CAMPBELL, 1982, 12).

Mr. A. DAVIES and Dr. E. C. BECKER from the Biological Research Division of the Land and Biological Resources Research Centre, Agriculture Canada, reviewed the draft of the manuscript and provided valuable comments. Mr. Go SATO of the same inked the line drawings.

Lordithon* (*Lordithon*) *daviesi sp. nov.

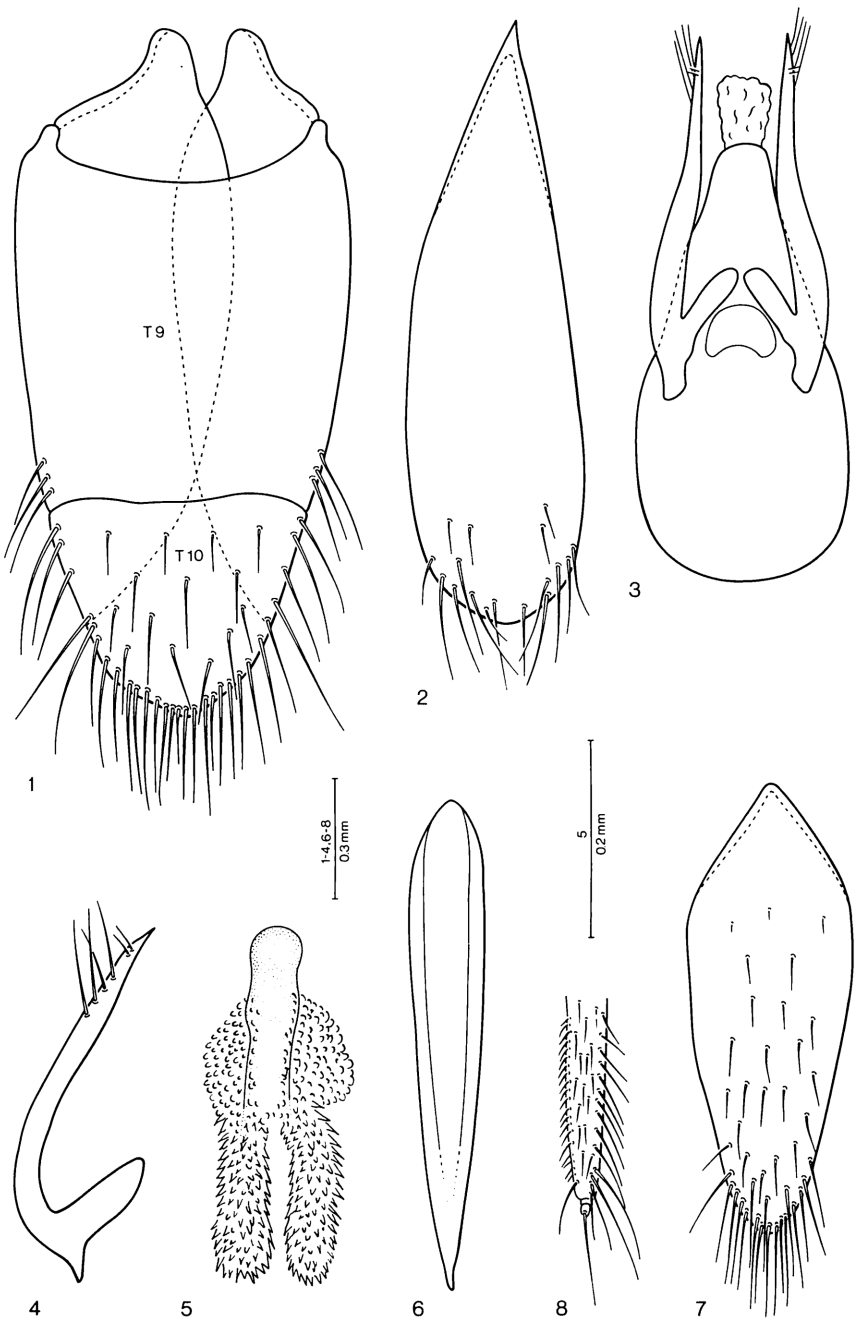
(Figs. 1–8)

Description. Body deep black, shiny, dorsal surface, except for head, markedly iridescent; maxillary palpi piceous-black with tip of each segment more or less paler; labial palpi brownish with tip of each segment somewhat paler; antennae and legs black, first two antennal segments rufo-brunneous. Basal fourth of both abdominal tergite and sternite 8 (seen only on dissected specimens) pale yellowish. Head relatively short, about as long as wide, with distinct mandibular ridge disappearing close to posterior margin of head; eyes about as long as tempora; with two antennal setae, situated anteriad and posterio-mediad of antennal insertion; ocular seta absent; surface of head with distinct, sexually dimorphic microsculpture (see below). Antenna relatively long, segment 1 long, about as long as segments 2 and 3 combined, segment 3 distinctly

longer than segment 2, segment 4 symmetrical, about as long as wide, segment 5 wider than segment 4, slightly wider than width at apex and asymmetrical, segments 6–10 wider than long, asymmetrical, subserrate, segment 11 shorter than two preceding segments combined. Pronotum vaguely wider than long (ratio 1.09), widest at about posterior fourth, markedly transversely convex, less so in front of basal margin; basal margin broadly arcuate, minutely concave at middle, lateral margins each arcuately, evenly narrowed toward obtuse anterior angles; anterio-medial punctures each separated from anterior margin by distance at least three times diameter of puncture, anterio-lateral punctures each separated from anterior margin by distance about equal to diameter of puncture; surface with traces of excessively fine, rudimentary, sparse microsculpture and with sparse micropunctulation. Scutellum small, impunctate, apex broadly arcuate. Elytra moderately long, at suture slightly (ratio 1.10), at sides moderately (ratio 1.22) longer than pronotum at midline, slightly, arcuately widened posteriad; surface impunctate; surface with traces of exceedingly fine, sparse, rudimentary microsculpture; sutural row with 8–10 punctures, discal row with 10–12 punctures, lateral row with 12–14 punctures, apical row with 6–8 short bristles. Abdomen markedly narrowed posteriad; tergite 7 (fifth visible) with wide, whitish apical seam of palisade fringe; tergites moderately coarsely and densely punctate, punctation in general becoming finer and denser toward apex of abdomen, extensive middle portion of first visible, and distinctly smaller middle portion of second visible tergite impunctate except for some micropunctulation; pubescence black; surface between punctures with exceedingly fine and dense microsculpture of transverse striae. Apex of hind tibia with ctenidium of several long and short setae; first three segments of middle and hind tarsus each with apical ctenidium of rather short, slightly unequal setae.

Male. Dorsal surface of head with very dense, relatively coarse microsculpture of more or less irregular striae, gradually becoming gradually coarser, more irregular and randomly almost meshed, so that dorsal surface of head is more or less dull. Sternite 8 with apical margin subtruncate, vaguely concave at middle, area in front of concavity slightly flattened. Genital segment with tergite 9 large, with some setae at each latero-apical angle, and with ventral lobes each pigmented and setose in about apical third; tergite 10 small, closely attached to tergite 9, densely setose, narrowly arcuate apically; sternite 9 narrow and elongate, in general drop-shaped, slightly pigmented apically and latero-apically, dilated toward broadly arcuate apex, with numerous, unequally long setae at and near apical margin, and with a few fine setae on apical portion (Figs. 1, 2). Aedoeagus (Figs. 3–5) relatively small; median lobe with apex narrowly arcuate; parameres each slightly bisinuate in ventral view, with apex considerably exceeding apex of median lobe, with a few short, fine setae on ventral face before apex, and with longitudinal row of four dark, long setae on dorsal face before apex; internal sac with large, heavily sclerotized sclerite, shaped as in Fig. 5.

Female. Dorsal surface of head with very fine and dense microsculpture of mostly transverse and oblique striae, gradually becoming vaguely coarser and random-



Figs. 1–8. *Lordithon daviesi*. —— 1, 2: male genital segment: 1, tergite 9 and 10; 2, sternite 9. 3, aedoeagus, ventral view; 4, left parameter, lateral view; 5, internal sac of aedoeagus; 6–8 female genital segment: 6, median sclerite; 7, tergite 10; 8, second gonocoxite.

ly irregular, so that dorsal surface of head is shinier than that of male. Sternite 8 simple, apical margin evenly arcuate. Genital segment with a narrow, elongate, fusiform median sclerite (Fig. 6); tergite 10 as in Fig. 7, with numerous, unequally long setae at apex and with additional, short setae on apical portion; second gonocoxites each with minute stylus bearing one short and one long seta (Fig. 8).

Length 8.0–10.8 mm.

Type material. Holotype (male) and allotype (female): "TAIWAN, Taitung Hsien Hsinkangshan above Chengkung, 850 m, 26. IV. 95, A. Smetana [T 166]". In the collection SMETANA, Ottawa, Canada.

Paratypes: 4♂♂, 2♀♀, same data as holotype. One male each in the National Museum of Natural Science, Taichung, Taiwan, and in the National Science Museum, Tokyo, Japan; rest in the collection SMETANA.

Geographical distribution. *Lordithon daviesi* is known only from the Hsinkangshan mountain range in southeastern Taiwan.

Bionomics. The specimens of the original series were taken at the elevation of 850 m in an original evergreen broadleaved forest from small soft mushrooms growing on a dead standing tree.

Recognition and comments. Only two species of the genus *Lordithon* are presently recorded from Taiwan (SHIBATA, 1973, 65, as *Bolitobius*): *L. pallidiceps* (SHARP, 1888) and *L. kawamurai* (BERNHAUER, 1943). They both differ from *L. daviesi* considerably by the color pattern alone and cannot be confused with it. The same applies to any other species of *Lordithon* known to occur in eastern and southeastern Asia.

Lordithon daviesi resembles, surprisingly, the North American species *L. niger* (GRAVENHORST, 1802) by its large robust body form and by the uniform black coloration. However, *L. daviesi* differs abundantly, in addition to the sexual characters, mainly by the sexually dimorphic microsculpture on the dorsal surface of the head, by the subserrate antenna and by the different chaetotaxy of the pronotum and elytra. It is quite possible that *L. niger* and *L. daviesi* are relicts of the once widely distributed Tertiary fauna. It should be noted that *L. niger* is extremely rare in eastern North America and is considered an endangered species.

Etymology. Patronymic, the species was named in honour of Mr. Anthony DAVIES, my technician, in recognition of his outstanding support of my research activities.

要　約

A. SMETANA：台湾産キノコハネカクシ属の顕著な新種．——台湾の南東部から大型のキノコハネカクシを記載し，*Lordithon daviesi* と命名した．この新種は，台湾産の既知の2種および東アジアや東南アジアに分布する同属の種と，体色の特徴のみで識別できる．

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Elytra, Tokyo, **23** (2): 233–234, November 15, 1995

A Brief Note on *Habronychus aritai* M. SATÔ (Coleoptera, Cantharidae)

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Habronychus aritai M. SATÔ, 1986, was described on the basis of a male specimen from Ishigaki-jima Is. of the Ryukyu Islands. After that IMASAKA and YAMAJI (1989) recorded a female of this species from Ishigaki-jima Is. with only its collecting data.

Recently, I was able to examine some specimens of this species from Ishigaki-jima Is. and Iriomote-jima Is.(newly recorded in this paper), the Ryukyus, and compared them with the holotype. It was revealed that the holotype is an unusually pale-coloured individual. In other specimens examined, the antennae, markings of the head and pronotum and the elytra except for yellowish lateral sides are dark brown to black. In the following lines, the female of this species is described for the first time.

Description of female. Body somewhat longer and wider than in the male. Antennae shorter than in the male, barely attaining to the middle of elytra. Pronotum 0.80–0.83 times as wide as head, 1.00–1.05 times as long as wide. Elytra conjointly 1.44–1.60 times as wide as pronotum, 3.05–3.29 times as long as wide. Eighth abdominal sternite largely and roundly prominent on both sides (Fig. 1). Length of body: 5.83–7.05 mm.

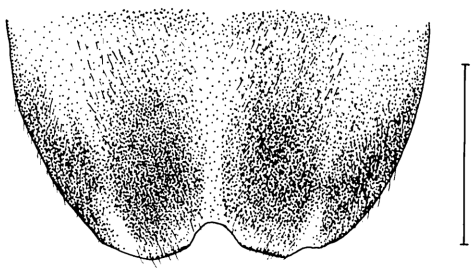

Fig. 1. Eighth abdominal sternite in the female of *Habronychus aritai* M. SATÔ. (Scale: 0.5 mm.)

Specimens examined. Mt. Omoto-dake, Ishigaki-jima Is., Ryukyus: 1♂, 7–IV–1968, Y. ARITA leg. (holotype); 1♀, 28–II–1992, S. NIRASAWA leg.; 1♀, 29–II–1992, S. NIRASAWA leg.; 1♂, 21～22–III–1992, T. HANATANI leg. Iriomote-jima Is., Ryukyus: 1♀, Maryudo-no-taki, 9–III–1993, Y. OKUSHIMA leg.; 1♀, Maryudo-no-taki, 11–III–1993, Y. OKUSHIMA leg.; 1♂, Komi, 15–III–1993, Y. OKUSHIMA leg.; 1♀, Ohtomi-rindô, 19–II–1994, T. SHIMIZU leg.; 1♀, Maryudo-no-taki, 12–III–1995, Y. OKUSHIMA leg.

Depository of the specimens examined. The holotype is preserved in the collection of the Biological Laboratory, Nagoya Women's University. All the other specimens recorded above are preserved in the collection of the Kurashiki Museum of Natural History.

I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his critical reading of the original manuscript, to Dr. Masataka SATÔ of Nagoya Women's University for his kind aid and advice on the present study, and to all the collectors who supported me with specimens.

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Elytra, Tokyo, **23** (2): 235–244, November 15, 1995

Contributions to the Knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China

Part 1. Some Species of the Genus *Quedius* STEPHENS, 1829, Subgenus *Microsaurus* DEJEAN, 1833

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Abstract Taxonomic, faunistic and bionomic data on the species of the genus *Quedius*, subgenus *Microsaurus*, from the People's Republic of China are provided. Several species are described as new: *Q. lamus* (Sichuan), *Q. moeris* (Quinhai), *Q. petilius* (Sichuan). *Quedius kiangsiensis* BERNHAUER, 1916 is redescribed and illustrated and some sexual characters of *Q. inquietus* (CHAMPION, 1925) are described and illustrated. *Quedius inquietus* is for the first time recorded from China (Sichuan).

Introduction

Some time ago, when I published the revision of the Quediina and Atanygnathina of the Himalayan region (SMETANA, 1988), I pointed out that many of the Himalayan species show distinct relationships to the species known from the mountainous areas of western China, particularly of Sichuan and northern Yunnan. I also commented that our knowledge of the presumably rich fauna of these areas is unfortunately only fragmentary.

Thanks to the frequent collecting in recent years, quite interesting material became available for study from these areas. Needless to say that this material finally gave us the opportunity to confirm the richness of the fauna and its importance for our understanding of the origins of the fauna of eastern Asia.

It is my intention to publish the results of the study of this material, and of some older material, such as that collected by KLAPPERICH just after the Second World War, in an open series of papers, to make the names of the numerous species available for further studies; a key to their identification will eventually be made available. This paper is the first one of the series.

Quedius (*Microsaurus*) *inquietus* (CHAMPION)

(Figs. 1–3)

Velleius inquietus CHAMPION, 1925, 107; CAMERON, 1932, 279.

Quedius leptocephalus COIFFAIT, 1982, 276.
Quedius inquietus: SMETANA, 1988, 189.

New record. China: W Sichuan, Gonggashan–Hailuogou, 2,900–3,200 m, 3 ~ 6–VII–94, D. KRÁL & J. FARKAC (ASCC) 1.

Comments. New record for China. The species was until recently known only from the Himalaya (from Uttar Pradesh eastward through Nepal to West Bengal, see SMETANA, 1988, 190).

The Sichuan male specimen agrees in most external characters with those from the Himalaya, but it differs in some characters on the paramere of the aedoeagus. The apical portion of the paramere is more symmetrical, more pointed apically, with three (instead of two) sensory peg setae at each lateral margin of the underside (see Fig. 1 and Figs. 2 and 5 in SMETANA, 1988, 391). Since only very few specimens (particularly males) of this species are known at present, it is impossible to evaluate the taxonomic significance of the differences in the development of the paramere. It is therefore assumed that the differences fall within the intraspecific variability of the species. Male genital segment (not yet described) with tergite 10 fairly wide, broadly rounded apically, with numerous unequally long setae at and near apical margin (Fig. 2); sternite 9 subarcuately emarginate apically, with numerous long and short setae at apical margin (Fig. 3).

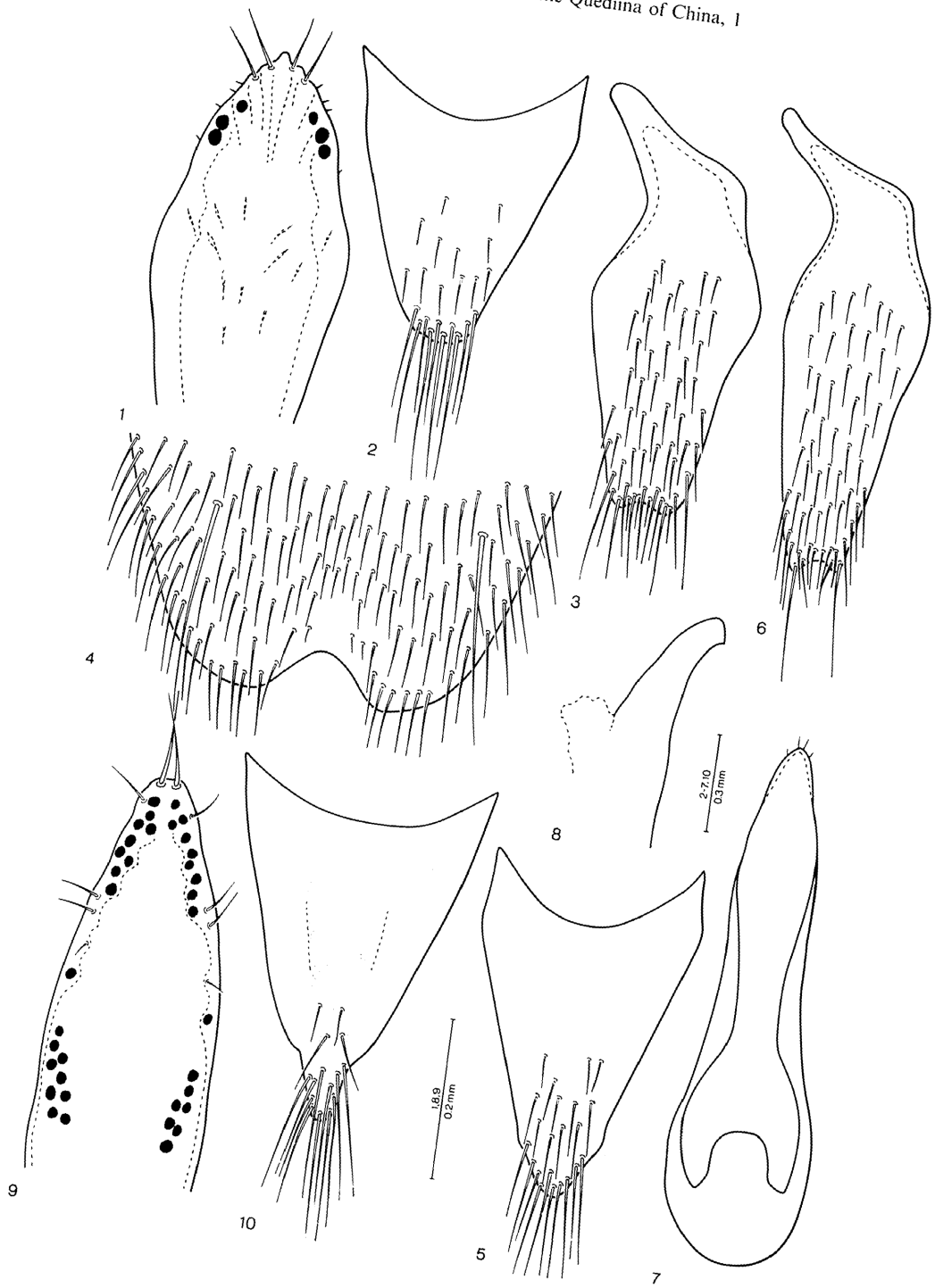
Quedius (*Microsaurus*) *kiangsiensis* BERNHAUER

(Figs. 4–10)

Quedius simulans v. *kiangsiensis* BERNHAUER, 1916, 32.
Quedius kiangsiensis: GRIDELLI, 1924, 28.

Description. Piceous-black to black, elytra occasionally somewhat paler with narrowly, vaguely paler suture; head and pronotum feebly, abdomen more distinctly iridescent; maxillary, labial palpi and antennae piceous to dark brunneous, legs piceo-brunneous, medial faces of front tibiae slightly, those of middle and hind tibiae extensively blackened. Head of rounded quadrangular shape, slightly wider than long (ratio 1.13), almost parallel-sided behind eyes, posterior angles rounded, indistinct; eyes moderately large and convex; tempora slightly longer than eyes seen from above (ratio 1.15); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated distinctly closer to posterio-medial margin of eye than to posterior margin of head; two punctures between it and posterior margin of head; temporal puncture situated distinctly closer to posterior margin of head than to posterior margin of eye; tempora with some fine punctures; surface of head with

Figs. 1–10. —— 1–3. *Quedius inquietus*: 1, apical portion of underside of paramere with sensory peg setae; 2, tergite 10 of male genital segment; 3, sternite 9 of male genital segment. —— 4–10. *Q. kiangsiensis*: 4, apical portion of male sternite 8; 5, tergite 10 of male genital segment; 6, sternite 9 of male genital segment; 7, aedoeagus, ventral view; 8, apical portion of median lobe, lateral view; 9, apical portion of underside of paramere; 10, tergite 10 of female genital segment.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1.8.9
0.2mm

extremely dense and fine microsculpture of transverse waves, with scattered, inconspicuous micropunctulation. Antenna short and robust, distinctly incrassate toward apex; segment 3 longer than segment 2, segments 4–10 distinctly transverse, gradually becoming slightly asymmetrical, with medial portion more extended, last segment slightly shorter than two preceding segments combined. Pronotum wider than long (ratio 1.19), widest at about basal fourth, broadly rounded basally, distinctly narrowed anteriad, transversely convex, lateral portions slightly explanate, particularly posteriorly; dorsal rows each with three fine punctures, sublateral rows each with two punctures, posterior puncture situated before level of large lateral puncture; microsculpture on pronotum similar to that on head, but still somewhat finer and denser. Scutellum punctate and pubescent on apical half, with extremely fine microsculpture of rudimentary striae. Elytra moderately long, at base narrower than pronotum at widest point, only vaguely widened posteriad, at suture vaguely longer (ratio 1.06), at sides distinctly longer (ratio 1.28) than pronotum at midline; punctation and pubescence dense and fine, transverse interspaces between punctures mostly about 1.5 as large as diameters of punctures; pubescence piceous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; punctation and pubescence of abdominal tergites similar to those on elytra, but somewhat less dense, almost evenly covering surface of tergites, in general becoming slightly sparser toward apex of abdomen; pubescence piceous; surface between punctures with exceedingly dense and fine microsculpture of transverse striae.

Male. First four segments of front tarsus markedly dilated, sub-bilobed, each covered with modified pale setae ventrally; segment two about as wide as apex of tibia; segment four narrower than preceding segments. Sternite 8 with one large seta at each side; with moderately wide, fairly deep, subarcuate medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 4). Genital segment with tergite 10 narrow, markedly narrowed toward subacute apex, with numerous unequally long setae at apical margin and with numerous, shorter setae on apical portion (Fig. 5); sternite 9 with narrow basal portion, apical portion rather elongate, narrowed toward distinctly emarginate apex, with one strong apical setae at each side of apical emargination (Fig. 6). Aedoeagus (Figs. 7–9) elongate and narrow; median lobe with apical portion evenly narrowed into acute apex, with rudimentary apical tooth on face adjacent to paramere. Paramere elongate, apical portion lanzet-shaped, almost entirely covering apical portion of median lobe, with subacute apex reaching apex of median lobe; two moderately long setae at apex, one smaller seta just below apex and two similar setae considerably below apex at each side; sensory peg setae on underside of paramere situated quite characteristically, forming two latero-apical groups connected below apex and two latero-basal groups, with one peg seta at each side between them; internal sac without larger sclerotized structures.

Female. First four segments of front tarsus not appreciably different from

those of male. Genital segment with tergite 10 of characteristic shape, abruptly narrowed into stylus-like, obtuse apical portion, with medial portion distinctly pigmented, pigmented portion delimited at each side by longitudinal carina, stylus-like apical portion with numerous long setae (Fig. 10).

Length 8.5–9.0 mm.

Type material. BERNHAUER (1916, 32) described this species from one male specimen from Kiangsi. The holotype, deposited now at the Field Museum of Natural History, Chicago, Illinois, was studied by GRIDELLI (1924, 29).

Geographical distribution. *Quedius kiangsiensis* is at present known from the province of Fujian.

New records. China: Fujian: "Kuatun (2300 m) 27,40 n.Br. 117,40 ö.L. J. Klapperich 31.5.1938 (Fukien)" (NHMW) 3; "KUATUN FUKIEN China 21.5.46 (TSCHUNG SEN.)" (ASCC) 1.

Bionomics. Nothing is known about the habitat requirements of this species.

Quedius (*Microsaurus*) *lamus* sp. nov.

(Figs. 11–15)

Description. Dark brownish with piceous head, elytra and apical margins of abdominal tergites somewhat paler; lateral portions of pronotum and abdominal tergites markedly iridescent, dorsal side of all tarsal segments and all tibiae slightly iridescent; maxillary and labial palpi testaceous, antennae and legs brown, medial faces of hind tibiae darkened. Head of rounded quadrangular shape, about as long as wide, slightly rounded behind eyes, posterior angles entirely obsolete, indistinct; eyes small and flat, not protruding from lateral contours of head; tempora considerably longer than eyes seen from above (ratio 2.40); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture and temporal puncture both situated about midway between posterior margin of eye and posterior margin of head, two fine punctures between posterior frontal puncture and posterior margin of head; tempora with numerous very fine punctures; surface of head with very fine and dense microsculpture of transverse striae, with intermixed micropunctulation. Antenna moderately long, segment 3 distinctly longer than segment 2, segments 4–7 about as long as wide, segments 8–10 slightly transverse, last segment about as long as two preceding segments combined. Pronotum vaguely wider than long (ratio 1.09), basal margin continuously rounded with lateral margins, lateral portions vaguely explanate posteriorly, lateral margins distinctly, evenly arcuately narrowed anteriad; left dorsal row with three fine punctures with first two punctures close together near anterior margin of pronotum, right dorsal row with only one puncture; sublateral rows each with just one puncture situated close to anterior margin of pronotum; surface of pronotum with microsculpture similar to that of head but striae oriented obliquely anteriad and becoming distinctly finer toward lateral margins, micropunctulation less noticeable. Scutellum impunctate, surface with extremely fine and dense

microsculpture of transverse striae. Elytra rather short, at base markedly narrower than pronotum at widest point, hardly widened posteriad, at suture distinctly (ratio 0.75), at sides somewhat (ratio 0.87) shorter than pronotum at midline; punctation very fine and dense, slightly asperate, transverse interspaces between punctures mostly as large as diameters of punctures, some punctures actually almost touching; pubescence fine, brownish, decumbent; surface between punctures without microsculpture. Wings reduced to small, non-functional stumps. Abdomen with tergite 7 (fifth visible) lacking whitish apical seam of palisade setae; punctation and pubescence similar to that of elytra, but punctation finer and appreciably sparser, becoming slightly sparser toward apex of each tergite and in general toward apex of abdomen.

Male. First four segments of front tarsus markedly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two about as wide as apex of tibia; segment four narrower than preceding segments. Sternite 8 with two large setae on each side, apical margin with shallow and narrow, inconspicuous medio-apical emargination, small triangular area before emargination slightly flattened and smooth (Fig. 11). Genital segment with tergite 10 broadly triangular, markedly narrowed toward subtruncate apex, with numerous variably long setae at apical margin and on apical portion (Fig. 12); sternite 9 fairly wide and short, without larger setae, with apical margin arcuately emarginate (Fig. 13). Aedoeagus (Figs. 14, 15) rather narrow, elongate, with median lobe slightly asymmetrical; median lobe narrowed into subacute apex, with face adjacent to paramere distinctly impressed before apex and with distinct apical tooth. Paramere elongate, narrow, in general evenly narrowed toward narrowly subtruncate apex, not quite reaching apex of median lobe; sensory peg setae on underside of paramere arranged into two apico-lateral, irregular groups of six or seven setae; four apical setae and two similar setae at each lateral margin below apex; internal sac simple, without larger sclerotized structures.

Female unknown.

Length 9.7 mm.

Type material. Holotype (male): CHINA: "China, N Sichuan prov. 60 km S of HONGYUAN 27.–29.6.1991, ca 4200 m J. Kaláb leg.". In the collection A. SMETANA, Ottawa, Canada.

Geographical distribution. *Quedius lamus* is at present known only from the type locality in northern Sichuan.

Bionomics. Nothing is known about the collection circumstances of this specimen.

Recognition and comparisons. *Quedius lamus* may be fairly easily recognized, in addition to the sexual characters, by the combination of the following characters: the coloration, including the markedly iridescent lateral portions of the pronotum and the abdominal tergites, the very small eyes, the position of the posterior frontal and temporal punctures on the head, the short and densely punctuate elytra, and the absence of the whitish apical fringe of palisade setae at the apex of the abdominal tergite 7 (fifth visible). It only can be confused with *Q. moeris*; see under the latter

species for the distinguishing characters.

Etymology. The specific name is that of *Lamus*, *-i*, m., the founder of Formiae.

Quedius (*Microsaurus*) *moeris* sp. nov.

(Figs. 16–20)

Description. In all characters very similar to *Q. lamus*, but different as follows: form more robust, size slightly larger. Head less broadly rounded behind eyes, larger and slightly wider than long (ratio 1.10); posterior frontal puncture situated slightly closer to posterio-medial margin of eye than to posterior margin of head, temporal puncture situated slightly closer to posterior margin of head than to posterior margin of eye. Antenna more robust, outer segments as long as wide. Pronotum more voluminous, vaguely wider than long (ratio 1.10); lateral portions more distinctly explanate posteriorly, lateral margins somewhat flattened in front of basal margin; left dorsal row with three, right dorsal row with two fine punctures; microsculpture somewhat finer and denser. Elytra both at suture and at sides somewhat more distinctly shorter than pronotum at midline (corresponding ratios 0.71 and 0.83); punctation somewhat less dense, surface between punctures with micropunctulation. Punctation and pubescence of abdominal tergites somewhat denser.

Male. First four segments of front tarsus similar to those of *Q. lamus* but more robust. Sternite 8 with two large setae on each side, apical margin with moderately wide and deep, obtusely triangular medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 16). Genital segment with tergite 10 similar, but slightly wider and less markedly narrowed toward apex (Fig. 17); sternite 9 similar, basal portion narrower, apical portion distinctly wider (Fig. 18). Aedoeagus (Figs. 19, 20) similar to that of *Q. lamus*, but median lobe somewhat wider; paramere with apex slightly emarginate; only three setae at apex, both apical and subapical setae shorter and finer; sensory peg setae on underside of paramere arranged into two shorter, more crowded latero-apical groups.

Female unknown.

Length 10.4 mm.

Type material. Holotype (male): CHINA: "China (Quinhai) Lajishan-Pass s. Xining 3700–3900 m 13.–15.VII. 1993 W. Heinz leg.". In the collection A. SMETANA, Ottawa, Canada.

Geographical distribution. *Quedius moeris* is at present known only from the type locality in eastern Quinhai.

Bionomics. Nothing is known about the habitat requirements of this species. The holotype was presumably found in a pitfall trap.

Recognition and comments. *Quedius moeris* can be confused only with *Q. lamus*, but it may be fairly easily distinguished by the characters mentioned above, particularly by the wider and deeper medio-apical emargination of male sternite 8 (Figs. 11, 16) and by the differences on the aedoeagus (Figs. 14, 15, 19, 20).

Etymology. The specific name is that of *Moeris*, *-is*, m., a king of Egypt in the 15th century B.C.

Quedius (*Microsaurus*) *petilius* sp. nov.

(Fig. 21)

Description. In all characters very similar to *Q. lamus*, but different as follows: form more robust, size slightly larger. Head with eyes slightly larger and consequently with tempora somewhat less markedly longer than eyes seen from above (ratio 2.30); posterior frontal puncture situated somewhat closer to posterior margin of head than to posterio-medial margin of eye, temporal puncture situated distinctly closer to posterior margin of head than to posterior margin of eye. Antenna slightly more robust. Pronotum vaguely wider than long (ratio 1.12), lateral margins slightly flattened in front of basal margin; left dorsal row with three very fine punctures, right dorsal row with two similar punctures. Elytra with punctation denser, more distinctly asperate, interspaces with very fine microscopical irregularities, resulting in surface of elytra appearing appreciably dull. Punctation of abdominal tergites similar, but distinctly denser.

Female. First four segments of front tarsus markedly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; second segment vaguely narrower than apex of tibia (ratio 0.90); fourth segment narrower than preceding segments. Genital segment with tergite 10 markedly narrowed toward narrowly arcuate apex, with medio-apical portion pigmented, with two long and numerous shorter setae at apical margin and numerous short setae on medio-apical portion (Fig. 21).

Length 10.3 mm.

Type material. Holotype (female): CHINA: "China, N Sichuan prov. ZHANGLA env., 4200–4700 m 25.–29.7.1991 J. Kaláb leg.". In the collection A. SMETANA, Ottawa, Canada.

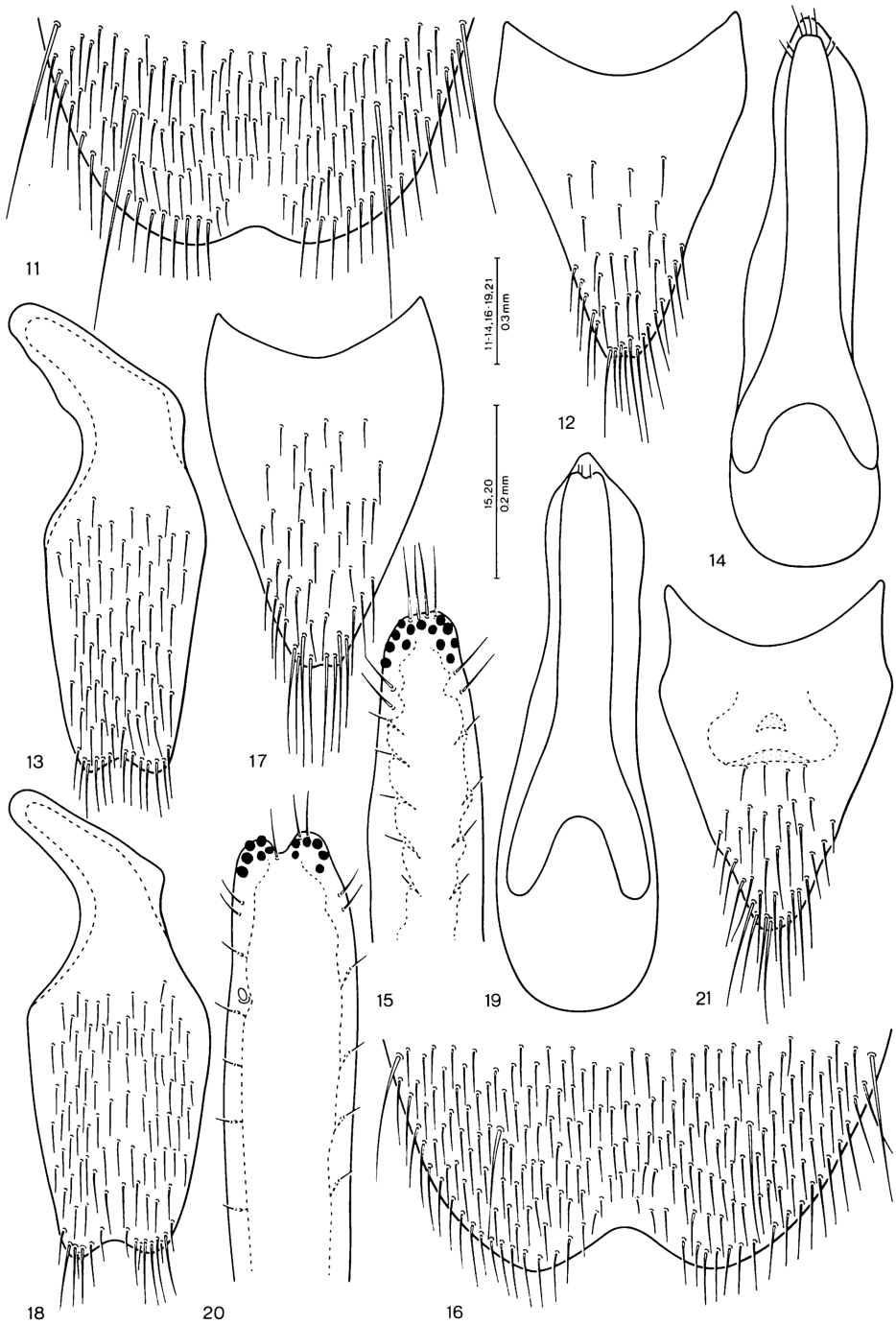
Bionomics. Nothing is known about the collection circumstances of the holotype.

Geographical distribution. *Quedius petilus* is at present known only from the type locality in northern Sichuan, located north of Songpan.

Recognition and comments. *Quedius petilius* is similar to both *Q. lama* and *Q. moeris*, but it differs from both by the position of the posterior frontal and temporal punctures, in combination with the different elytral punctation and the presence of the microsculpture on the interspaces between the punctation on the elytra, which consequently appear dull, and with the denser punctation of the abdominal tergites.

Quedius lamus, *Q. moeris* and *Q. petilius* are three obviously closely related species

Figs. 11–21. —— 11–15. *Quedius lamus*: 11, apical portion of male sternite 8; 12, tergite 10 of male genital segment; 13, sternite 9 of male genital segment; 14, aedoeagus, ventral view; 15, apical portion of underside of paramere. —— 16–20. *Q. moeris*: 16, apical portion of male sternite 8; 17, tergite 10 of male genital segment; 18, sternite 9 of male genital segment; 19, aedoeagus, ventral view; 20, apical portion of underside of paramere. —— 21. *Q. petilius*: tergite 10 of female genital segment.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belonging to one lineage. There is a remote possibility that *Q. petilius* is actually a female of *Q. moeris* with somewhat abnormal sculpture of the elytra, but the somewhat different positions of both the posterior frontal and temporal punctures in *Q. petilius* do not support this possibility.

Etymology. The specific name is that of *Petilius*, a name of Roman gens.

Acknowledgements

I thank Dr. D. E. BRIGHT and A. DAVIES from the Biological Resources Division, CLBRR, Ottawa, for their criticisms of the manuscript, and Mr. Go SATO for finishing all drawings.

要　約

A. SMETANA：中国産ツヤムネハネカクシ亜族に関する知見．1．ツヤムネハネカクシ属*Microsaurus*亜属の数種．——中国産ツヤムネハネカクシ属の数種について，分類，分布，生態等に関する知見を報告し，4新種を記載するとともに，他の2種について知見を補足し，そのうちの1種は再記載した．

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Elytra, Tokyo, **23** (2): 245–249, November 15, 1995

A New Micropeplid Species (Coleoptera) from Yunnan Province, Southwest China

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Abstract A new Yunnanese species of the genus *Micropeplus* is described and illustrated under the name of *M. rougemonti*, from Ruili (Juili) in Yunnan Province, Southwest China.

Only two species belonging to the genus *Micropeplus* have hitherto been reported from China by WATANABE and LUO (1991, pp. 93, 94) based on the specimens obtained on the Tian-mu Mountains in Zhejiang Province, East China.

Through the courtesy of Mr. G. DE ROUGEMONT, London, I have recently had an opportunity to examine an interesting species of the genus *Micropeplus* obtained by himself at Ruili (Juili) in Yunnan Province, Southwest China. It seems to belong to the group of *M. porcatus* for the reason of having five keels on each elytron and very coarse punctures on the interspaces of keels. After a careful examination, however, it has become clear that the species is new to science because of disagreement with the known congeners in the surface sculpture of head and configuration of the male genital organ. It will be described and illustrated in the present paper. The holotype and four paratypes of the new species to be described are deposited in G. DE ROUGEMONT's private collection, the allotype and four paratypes in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, and the remaining one paratype in the collection of the Academia Sinica, Beijing, China.

Before going further, I wish to express my hearty thanks to Mr. Guillaume DE ROUGEMONT, London, for his kindness in giving me the opportunity of studying on the interesting species. Deep gratitude is also due to Visiting Professor Shun-Ichi UÉNO, Tokyo University of Agriculture, and Mr. Yasutoshi SHIBATA, Machida, for their kind advice on the present study.

Micropeplus rougemonti Y. WATANABE, sp. nov.

(Figs. 1–6)

Body length: 1.8–1.9 mm (from front margin of head to anal end); 1.1–1.2 mm (from front margin of head to elytral apices).

Body broad oval and convex. Colour reddish brown to blackish brown, shining,

except for head and pronotum subopaque, with mouth parts, antennae and legs yellowish, both sides of pronotum and apical parts of elytra yellowish brown.

Male. Head subtriangular and considerably broader across compound eyes than long (width/length = 1.73); clypeo-frontal part produced forwards, rounded and distinctly reflexed in anterior margin, surface depressed above and impunctate, though covered all over with coriaceous ground sculpture; lateral sides feebly arcuate though slightly emarginate behind the middle and distinctly bordered, anterior margin semicircularly emarginate and finely bordered; surface uneven, impunctate, though covered with similar ground sculpture to that on clypeo-frontal part, somewhat depressed in frontal area and deeply foveolate on each side of middle just before the base, provided with a pair of distinct carinae, each of which is two-forked in posterior half; compound eyes somewhat prominent and coarsely faceted. Antennae short, usually receding onto the underside of pronotum for their reception, all the segments polished except for setose apical part of apicalmost segment; 1st enlarged and dilated apicad, a little longer than broad (length/width = 1.25), 2nd abruptly narrowed apicad, somewhat longer than broad (length/width = 1.33), though a little shorter (2nd/1st = 0.80) and narrower (2nd/1st = 0.75) than 1st, 3rd and 4th equal in both length and width to each other, each elongate, more than 2.5 times as long as broad, 5th oblong and twice as long as broad, as broad as but somewhat shorter (5th/4th = 0.75) than 4th, 6th about 1.5 times as long as broad, as broad as but apparently shorter (6th/5th = 0.77) than 5th, 7th as long as broad, a little shorter (7th/6th = 0.87) but somewhat broader (7th/6th = 1.33) than 6th, 8th distinctly transverse (width/length = 1.67), a little shorter (8th/7th = 0.75) but somewhat broader (8th/9th = 1.25) than 7th, apicalmost globular and largest, slightly longer than broad (length/width = 1.17), much longer (apicalmost/8th = 4.67) than and nearly 2.5 times as broad as 8th, narrowly rounded at the apex, which is setigerous.

Pronotum convex medially and subtrapezoidal, strongly transverse (width/length = 2.34) and considerably broader than head (pronotum/head = 1.79), widest at base, abruptly narrowed anteriad in anterior half though slightly or hardly narrowed posteriad in posterior half, lateral margin almost straight in anterior half though slightly arcuate or nearly straight in posterior half, anterior margin broadly and shallowly emarginate, posterior margin bisinuate, somewhat produced backwards and broadly rounded at middle; anterior angles bluntly rounded and somewhat produced forwards, posterior ones nearly rectangular; lateral parts each distinctly and somewhat broadly explanate, provided with a shallow depression before and behind the middle, respectively, surface of this part impunctate, though uniformly coriaceous as on head; median part provided with six cells enclosed by costae, three in anterior half and the remaining three in posterior half, surface of each cell distinctly depressed and covered with coriaceous ground sculpture as on lateral parts. Scutellum relatively large and subtriangular, covered with fine coriaceous ground sculpture on the surface. Elytra subquadrate and elevated medially, apparently transverse (width/length = 1.38) and distinctly longer (elytra/pronotum = 1.72) than but almost as broad as pronotum,

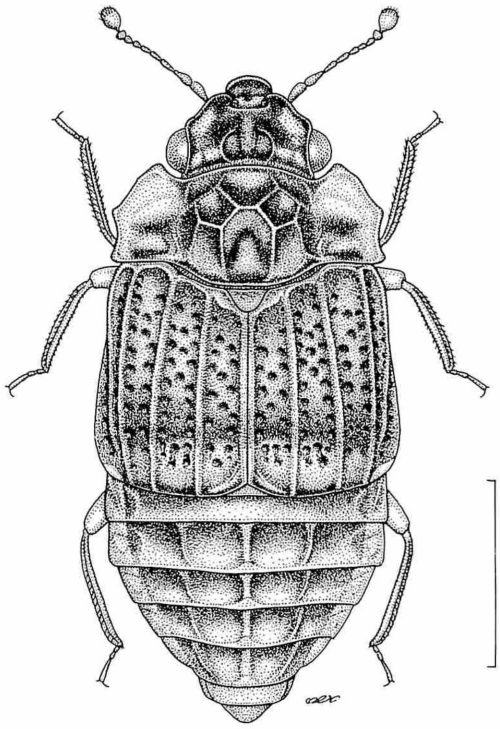
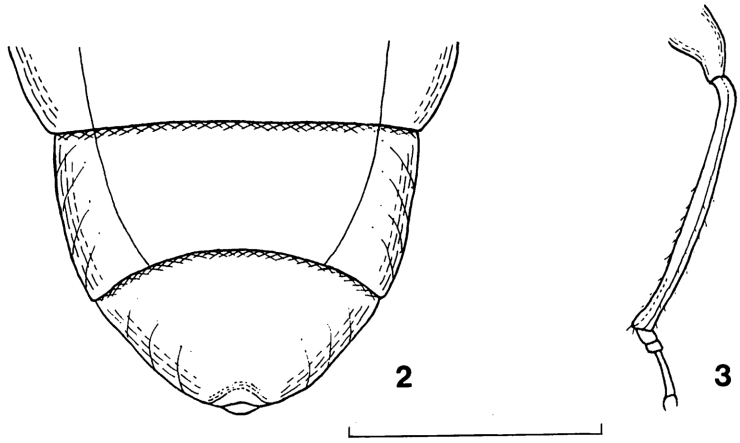


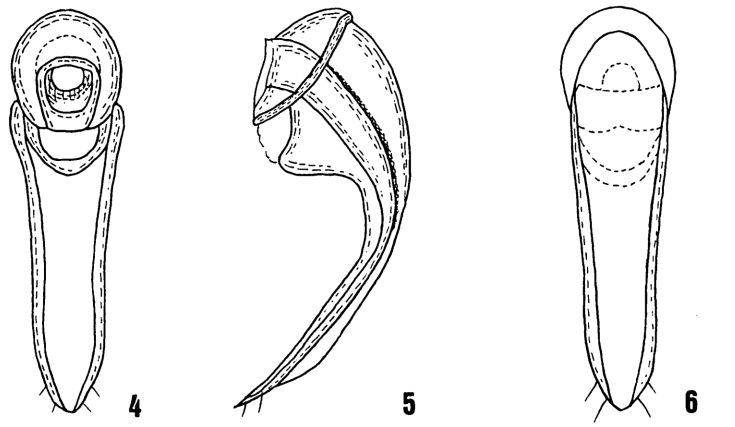
Fig. 1. *Micropeplus rougemonti* Y. WATANABE, sp. nov., ♂, from Ruili (Juili) in Yunnan Prov., Southwest China. Scale: 0.5 mm.

slightly dilated apicad, abruptly and transversely depressed in apical fourth along posterior margin; each elytron provided with five longitudinal keels, one sutural, three discal and one humeral, inner three keels each extending through the whole length, fourth keel abbreviated at posterior fourth; interspace of the keels with irregular longitudinal rows of large and somewhat contiguous punctures, 1st and 2nd interspaces each with two or three rows, 3rd with three rows in basal half but two rows in apical half; 4th with one row; epipleural keel strongly and arcuately raised, pseudepipleural keel present between epipleural and humeral keels, nearly straight and abbreviated in front, interspace between epipleural and pseudepipleural keels with two rows of punctures, which are irregularly arranged; interspace between humeral and pseudepipleural keels with a row of coarse punctures.

Abdomen relatively short, gradually narrowed apicad; surface of each tergite impunctate, though covered with coriaceous ground sculpture, basal four visible tergites each transversely depressed in basal half and provided with three strong longitudinal keels which are nearly parallel and equidistant; 1st visible sternite provided with a pair of longitudinal keels at the middle and evidently transversely depressed between these keels, visible 2nd to 4th sternites each with four longitudinal keels on each lateral



Figs. 2–3. Male secondary sexual characters of *Micropeplus rougemonti* Y. WATANABE, sp. nov.; last three abdominal sternites (2), metatibia (3). Scale: 0.2 mm.



Figs. 4–6. Male genitalia of *Micropeplus rougemonti* Y. WATANABE, sp. nov.; ventral view (4), lateral view (5), and dorsal view (6). Scale: 0.2 mm.

side, the outermost keel extending throughout and much longer than the inner three ones, which are abbreviated in posterior half; preapical sternite shallowly emarginate at the middle of posterior margin, provided with a vague arcuate carina in front of the emargination and somewhat depressed on the space between semicircular carina and emargination; preceding sternite broadly semicircularly emarginate at the middle of posterior margin. Legs relatively short, metatibia slightly emarginate in posterior third of inner side.

Genital organ elongate and symmetrical. Median lobe elongate, gradually tapered towards the apex which is narrowly rounded, strongly curved ventrad in posterior

half as seen from lateral side; parameres slender and fused with median lobe, slightly shorter than median lobe, each provided with two very fine setae at the apical part.

Female. Similar in general appearance to the male, though differing from the latter in lacking the emargination of abdominal preapical sternite and simple metatibia.

Type series. Holotype: ♂, allotype: ♀, Ruili (Juili), Yunnan Prov., Southwest China, 4–II–1993, G. DE ROUGEMONT leg. Paratypes: 8♂♂, 2♀♀, same data as for the holotype.

Distribution. Southwest China (Yunnan Prov.).

Notes. The present new species belongs to the group of *M. porcatus* in having five keels on each elytron and very coarse punctures on the interspaces between the keels, but it differs from the congeners in the ground sculpture on the upper surface of head and configuration of male genitalia.

The specific name of this new species is given after Mr. Guillaume DE ROUGEMONT, London, who offered his interesting specimens to me for study.

要　約

渡辺泰明：中国雲南省から採集されたチビハネカクシ属の1新種．——チビハネカクシ属に含まれる種として，これまでに中国から報告されているのは，WATANABE & LUO (1991)による浙江省からの2種に過ぎない．最近，筆者は，ロンドン在住のGuillaume DE ROUGEMONT氏のご好意によって，同氏が中国雲南省西部の瑞麗で採集された本属の1種を検討する機会に恵まれた．そこで，この種を詳細に検討した結果，新種と判定されたので下記のとおり命名・記載した．

Micropeplus rougemonti Y. WATANABE, sp. nov.

この種は，上翅のそれぞれに5本の顕著な縦隆条が存在すること，そしてそれらの隆条間の点刻がきわめて粗造であることなどから，*M. porcatus*種群に含まれることが一見して明らかである．しかしながら，頭部表面の構造，雄の後脛節に表われる第二次性徴と雄交尾器の形状などによって，このグループの他種からは容易に区別することができる．

なお，種名は本種の採集者であり，かつ筆者に研究の機会を與えられたG. DE ROUGEMONT氏に献名したものである．

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Elytra, *Tokyo*, **23** (2): 250, November 15, 1995

New Record of Staphylinid Species from Oki-no-shima Island on the Sea of Japan

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In the previous paper (WATANABE, 1977), 30 species of staphylinid beetles, including 5 recorded species, were reported from Oki-no-shima Island on the Sea of Japan.

Examining the staphylinid collection at the National Science Museum (Nat. Hist.), Tokyo, I have found 4 unrecorded staphylinid species, as listed below.

I am thankful to Dr. Shun-Ichi UÉNO for his kindness in giving me the opportunity of studying the specimens.

1. *Osorius angustulus* SHARP

1♀, Hotoke-dani (70 m alt.), Mt. Daimanji-yama, Saigô-chô, Oki-no-shima Island, Shimane Pref., 1–IX–1984, Y. NISHIKAWA leg.

2. *Stenus* (*Stenus*) *kobensis* CAMERON

1♂, 1♀, Minami-dani, Kasuga Rv., Fuse-mura, Oki-no-shima Island, Shimane Pref., 11–IX–1984, M. TOMOKUNI leg.

3. *Stenus* (*Hypostenus*) *velox* SHARP

1♂, Hotoke-dani (70 m alt.), Mt. Daimanji-yama, Saigô-chô, Oki-no-shima Island, Shimane Pref., 2–IX–1984, Y. NISHIKAWA leg.

4. *Astenus chloroticus* SHARP

1♀, Hotoke-dani (70 m alt.), Mt. Daimanji-yama, Saigô-chô, Oki-no-shima Island, Shimane Pref., 2–IX–1984, Y. NISHIKAWA leg.

Reference

WATANABE, Y., 1977. The staphylinid beetles of Oki-no-shima Island. *Coleopterists' News*, *Tokyo*, (38): 5–6. (In Japanese.)

Elytra, *Tokyo*, **23** (2): 251–255, November 15, 1995

Cholevid Beetles from the Daisetsu-zan Mountains in Central Hokkaido, Northeast Japan

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Abstract Six species of cholevid beetles are recorded from the Daisetsu-zan Mountains in central Hokkaido, Northeast Japan. One of them, *Catops lygaeus* IABLOKOFF-KHNZORIAN, is redescribed as being new to the fauna of Japan.

The Daisetsu-zan Mountains are one of the most interesting areas from the zoogeographical viewpoint of the Japanese insect fauna. Mr. Nobuki YASUDA of the Sôunkyô Museum of Natural History, Kamikawa, has eagerly made faunal investigations of coleopterous insects in this area since more than twenty years ago (cf. YASUDA, 1985). Recently, I had an opportunity to examine his collection of cholevid beetles from the mountains taken by baited traps during the investigation. The collection consists of six species including one newly recorded from Japan. In the present paper, I am going to record them, with a redescription of *Catops lygaeus* IABLOKOFF-KHNZORIAN. The abbreviations used herein are the same as those explained in my previous papers.

Before going further, I wish to express my deep gratitude to Mr. Masatoshi TAKAKUWA of the Kanagawa Prefectural Museum of Natural History, Odawara, for his kindness in critically reading the original manuscript of this paper. Hearty thanks are also due to Dr. Takehiko NAKANE of Chiba, and to Messrs. Nobuki YASUDA of the Sôunkyô Museum of Natural History, Kamikawa, Mitsurô ARAI and Yasutoshi SHIBATA of Tokyo for their kindness in supplying with important materials or useful information.

Mesocatops japonicus (JEANNEL, 1936)

Sciodrepoides japonicus JEANNEL, 1936, Mém. Mus. Hist. nat., Paris, (n. s.), **1**, p. 335, figs. 741–742, 750–752; type locality: Tokio, Japon.
Other references are omitted.

Specimens examined. 1♂, 1♀, Mt. Daisetsu-zan, 850–1,050 m in alt., Kamikawa, central Hokkaido, Northeast Japan, 21–VIII–1982, N. YASUDA leg.

Catops lygaeus IABLOKOFF-KHNZORIAN, 1974

[Japanese name: Daisetsu-chibishidemushi]
(Figs. 1–5)

Catops lygaeus IABLOKOFF-KHNZORIAN, 1974, Dokl. Akad. Nauk. Armyanskoi, SSR, **59**, pp. 295–296, fig. 1; type locality: Mt. Chekhova near Yuzhno-Sakhalinsk, Sakhalin Is.

Male and female. Length 3.85–4.55 mm in male, 4.45–4.60 mm in female (from apical margin of clypeus to apices of elytra), width 1.90–1.93 mm in male, 1.75–1.85 mm in female. Body elongate-elliptical, gently convex, with golden yellow adpressed pubescence; labrum, maxillary palpi and mouth parts clear reddish brown; antennae blackish brown except for basal two segments paler; head, pronotum and scutellum blackish brown; elytra reddish brown, entirely bearing opalescent lustre; legs also reddish brown; ventral surface almost blackish brown.

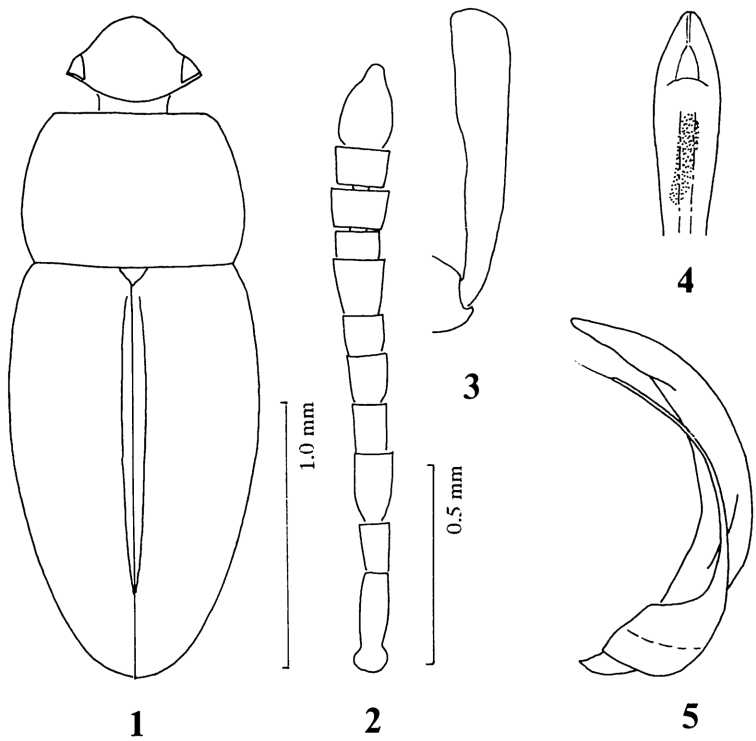
Head gently convex, subtrapezoidal, with front margin straight, wider than long, widest at the level of occipital carina (length : width = ca. 1 : 1.3); labrum transverse, subtrapezoidal, well emarginate at front margin, with punctures fine and sparse; maxillary palpi with last segment conical, slightly bent, 2/3 as wide as and extremely shorter than the preceding segment; frons with punctures larger and denser than those on labrum; vertex punctate as on frons: eyes normal, moderately prominent. Antennae rather long, hardly reaching pronotal base; segment II 2.3 × as long as wide, slightly shorter than III, which is 2 × as long as wide, VI and VII as long as wide, VIII transverse, 1.8 × as wide as long, IX and X transverse, XI pyriform.

Pronotum transverse, trapezoidal, gently convex, widest before the middle, with base distinctly narrower than elytral base, PW/HW 1.66 in male, 1.63–1.64 in female, PW/PL 1.46–1.48 in male, 1.50–1.56 in female; front margin weakly emarginate and distinctly marginate; front angles rounded; sides arcuate, gently marginate; hind angles obtuse; basal margin almost straight; surface densely clothed with asperate punctuations. Scutellum triangular, punctulate. Hind wings full.

Elytra elongate, elliptical, slightly depressed, widest before the middle, EW/PW 1.17–1.22 in male, 1.18–1.19 in female, EL/PL 2.55–2.64 in male, 2.72–3.05 in female, EL/EW 1.42–1.53 in male, 1.51–1.66 in female; sides arcuate, gently converging apicad in apical halves; apices separately rounded; suture complete; disc with sutural and traces of four or five pairs of striae, the latter of which are rather distinct in apical portion; surface clothed with asperate punctuations and microsculpture formed by short transverse wrinkles; epipleura ending at about apical 1/6, punctate as on elytra. Pygidium closely and strongly punctate.

Mesosternum clothed with microscopic transverse wrinkles. Metasternum somewhat foveolate. Abdominal sternites clothed with transverse-rugose punctuations, with sternite V in female feebly bisinuate and protuberant at the middle of apical margin.

Legs with profemur smooth on underside; male protibia gently sinuate at middle of inner margin; male protarsus well dilated in basal three segments, with first one 5/6 as wide as apex of protibia; male mesotarsus with first segment the longest, distinctly



Figs. 1–5. *Catops lygaeus* IABLOKOFF-KHNZORIAN, 1974, from Mt. Daisetsu-zan in central Hokkaido, Northeast Japan. —— 1, Outline of body, ♂; 2, antenna, same; 3, protibia and apical part of profemur in dorsal view, same; 4, apical part of aedeagus in dorso-apical view; 5, aedeagus in lateral view. (Scales: 1.0 mm for Fig. 1 and 0.5 mm for Figs. 2–5.)

thicker than the others.

Aedeagus symmetrical, subparallel-sided in basal 2/3, slightly dilated outwards and gradually narrowed towards apex in preapical portion, truncate at the apex, strongly arcuate in lateral view; surface weakly depressed longitudinally in middle portion, triangularly concave in apical portion, longitudinally grooved from the concavity to the apex; ligulae long, obliquely truncate outwards in apical portions, with apex acute. Parameres slender, elongate, reaching about apical 6/7 of aedeagus. Basal piece ample.

Specimens examined. 2♀♀, Mt. Daisetsu-zan, 850–1,050 m in alt., Kamikawa, central Hokkaido, Northeast Japan, 7–IX–1982, N. YASUDA leg.; 2♂♂, same locality and collector, 20–IX–1982.

Notes. The specimens from Daisetsu-zan are slightly different from the original description in the shape of antennal segments, i.e., segment III twice as long as wide, and VIII 1.8 times as wide as long, but the aedeagal configuration indicates that they can be included in the present species. This species is newly recorded from Japan. It was originally described from Mt. Chekhova near Yuzhno-Sakhalinsk in the southern part of the Island of Sakhalin, though it was left out from the cholevid fauna of the

Island in LAFER (1989).

The species is somewhat similar to the following species, but can be separated from the latter by the configuration of aedeagus and parameres of male genitalia, condition of punctuations on the upper surface, and the shape of protibiae in the male, respectively.

Catops angustitarsis lewisi JEANNEL, 1936

Catops angustitarsis lewisi JEANNEL, 1936, Mém. Mus. Hist. nat., Paris, (n. s.), **1**, p. 365, fig. 821; type area: Japon.
Other references are omitted.

Specimens examined. 1♂, 4♀♀, same locality and collector as the preceding species, 9–VIII–1982, 5♂♂, 21–VIII–1982.

Catops sachalinensis IABLOKOFF-KHNZORIAN, 1970

Catops sachalinensis IABLOKOFF-KHNZORIAN, 1970, Dokl. Akad. Nauk. Armyanskoi, SSR, **51**, pp. 304–305, fig. 1; type locality: Mt. Chekhova near Yuzhno-Sakhalinsk, Sakhalin Is. —— LAFER, 1989, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(1), pp. 316–317, figs. 198, *1–3*. —— NAKANE, 1995, Kita-kyûshû no Konchû, Kitakyushu, **42**, p. 43.
Catops yasudai NAKANE, 1982, Rept. Fac. Sci. Kagoshima Univ., (Earth Sci. & Biol.), (15), pp. 104–105, fig. 3; type locality: Mt. Daisetsu, Hokkaido. —— NISHIKAWA, 1983, Check-list Coleopt. Japan, (23), p. 6. —— HISAMATSU, 1989, Check List Jpn. Ins., **1**, p. 254.

Specimens examined. 2♂♂, 1♀, Mt. Niseikaushuppe of the Daisetsu-zan Mountains, 1,800 m in alt., Kamikawa, central Hokkaido, Northeast Japan, 16–VII–1984, N. YASUDA leg.

Notes. The present species was originally described from Sakhalin Island,* and has already been recorded from Hokkaido by LAFER (1989).

Catops sparcepunctatus JEANNEL, 1936

Catops sparcepunctatus JEANNEL, 1936, Mém. Mus. Hist. nat., Paris, (n. s.), **1**, p. 349, fig. 772; type locality: Nikko, dans les montagnes, Japon.
Other references are omitted.

Specimens examined. 5♂♂, 5♀♀, Mt. Daisetsu-zan, 850–1,050 m in alt., Kamikawa, central Hokkaido, Northeast Japan, 2–VII–1982, N. YASUDA leg.

Catops sp.

Specimen examined. 1♀, same locality and collector as in the preceding species, 8–VII–1982.

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* *Sakhalin specimens examined.* 3♂♂, 5♀♀, Gorniu Bozdukh, Sakhalin Gornu, Yuzhno-Sakhalinsk, southern Sakhalin, Russia, 8–VII–1992, Y. KOHARA leg.

Notes. The specimen is comparatively elongate in profile, and has the following characters: abdominal sternites IV and V depressed in the middle, and notched at the middle of apical margin in the latter. Probably, it belongs to the *hilleri* group of the genus. I prefer to withhold its final determination until male specimens are available for further study.

要　約

西川正明：大雪山系で得られたチビシデムシ．——北海道中央部の大雪山系で，保田信紀氏によって採集されたチビシデムシ科甲虫6種を報告した．それらのうちの，ダイセツチビシデムシ *Catops lygaeus* IABLOKOFF-KHNZORIAN は，日本から新たに記録されるものなので，得られた標本にもとづいた再記載をつけた．

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Elytra, Tokyo, **23** (2): 256, November 15, 1995

Additional Records of Staphylinid Species from Okushiri-tô Island, off Southwestern Hokkaido

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In a previous paper of mine (WATANABE, 1992), four staphylinid species, including a recorded one, were reported from Okushiri-tô Island, off southwestern Hokkaido. Examining the staphylinid collection of the National Science Museum (Nat. Hist.), Tokyo, I have found three other species unrecorded from that island. Their collecting data are as given below.

I thank Dr. Shun-Ichi UÉNO for his kindness in giving me the opportunity of examining the specimens.

1. *Othius medius* SHARP

1♂, Kamui-yama, NE slope (300 m alt.), Okushiri-tô Is., Hiyama, off Hokkaido, NE Japan, 2–IX–1986, S. UÉNO leg.; 3♂♂, 3♀♀, Kamui-yama, N slope (400 m alt.), Okushiri-tô Is., 1–IX–1986, Y. NISHIKAWA leg.

2. *Othius rosti* BERNHAUER

3♂♂, 3♀♀, Kamui-yama, N slope (400 m alt.), Okushiri-tô Is., 1–IX–1986, Y. NISHIKAWA leg.

3. *Philonthus gastralis* SHARP

1♀, Kamui-yama, N slope (400 m alt.), Okushiri-tô Is., 1–IX–1986, Y. NISHIKAWA leg.

Reference

WATANABE, Y., 1992. The staphylinid beetles newly recorded from Okushiri-tô Island, off southwestern Hokkaido. *Elytra, Tokyo*, **20**: 10.

Elytra, Tokyo, **23** (2): 257–261, November 15, 1995

Notes on Chlamydopsinine Histerid Beetles of Japan, with Description of a New Species

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Abstract Two Japanese species of the histerid genus *Eucurtiopsis* are dealt with. A brief biological note is made for a recently described species, *Eucurtiopsis ohtanii* (K. SAWADA). A new species belonging to the same genus is described from Okinawa-jima Is., under the name of *Eucurtiopsis hiranoi* sp. nov.

Histerid genera of the subfamily Chlamydopsinae have been recorded mainly from the Australian and the Neotropical Regions, and according to MAZUR (1984), only two monotypical genera are known from the Oriental Region. Most species of the subfamily are either myrmecophilous or termitophilous. In 1926, SILVESTRI established a strange new genus, *Eucurtiopsis*, for *E. mirabilis* from central Taiwan. It is one of the two Oriental genera of the subfamily. Recently, I found a species of this genus in a colony of *Pheidole fervida* Fred. SMITH (Hymenoptera, Formicidae) during the "Faunal Investigation of Zama-shi" made by the Board of Education of Zama City (NISHIKAWA & MARUYAMA, 1993). Though the same species was described by K. SAWADA (1994) as a new species of a new genus, *Boreochlamydus ohtanii*, ÔHARA (1994) redescribed it as a species of the genus *Eucurtiopsis*.

On the other hand, I received another chlamydopsinine histerid from Mr. Y. HIRANO. After a close examination, I have come to the conclusion that it should also be included in the same genus as *E. mirabilis* and *ohtanii*. Several differences of specific importance were, however, recognized, and therefore it will be described in the present paper as a new species. The abbreviations used herein are as follows: HW – greatest width of head including eyes; PW – greatest width of pronotum; PL – median length of pronotum; PA – width of pronotal apex; EW – greatest width of elytra; EL – length of elytra; AW – greatest width of abdomen; AL – median length of abdomen.

Before going further, I wish to express my deep gratitude to Mr. Masatoshi TAKAKUWA of the Kanagawa Prefectural Museum of Natural History, Odawara, for his critical reading of the original manuscript of this paper. Special thanks are also due to Mr. Yukihiko HIRANO not only for drawing my attention to the myrmecophilous beetles but also for giving me the specimens of the interesting species, and to Mr. Masao KUBOTA, an authority of the family Formicidae, not only for giving information from his studies of the host ant but also for loan of literature and help

in many other ways. Drs. Takehiko NAKANE, Chiba City, Masahiro ÔHARA of Otaru Museum, Otaru, and Kôhei SAWADA of Shukugawa Gakuin Junior College, Nishinomiya, who kindly gave me important information. My field works in Zama-shi were supported by the Association for Faunal Investigation of Zama-shi Operating Grant.

Eucurtiopsis ohtanii (K. SAWADA, 1994)

(Fig. 3)

Boreochlamydus ohtanii K. SAWADA, 1994, Contr. biol. Lab. Kyoto Univ., **28**, pp. 359–360, fig. 1; type locality: Mt. Sobo, Ooita Pref., central Kyushu, Japan (holotype); Mt. Gozaisho, Mie Pref., central Honshu, Japan.

Eucuritopsis [sic] *ohtanii*: ÔHARA, 1994, Ins. matsum., (N. S.), **51**, pp. 78–80, fig. 49.

Eucurtiopsis sp.: NISHIKAWA & MARUYAMA, 1993, Creatures Zama, pp. 230, 246, pl. 13, fig. 2.

Specimen examined. 1♀, Yatoyama, ca. 70 m in alt., Zama-shi, Kanagawa Pref., central Honshu, 20–V–1990, M. NISHIKAWA leg. Deposited in my collection.

Measurements of body parts. Length 1.98 mm (from apical margin of head to apices of elytra), width 1.30 mm, PW/HW 2.13, PW/PL 1.36, PW/PA 1.17, EW/PW 1.53, EL/PL 2.04, EL/EW 0.98, AW/AL 2.09.

Host ant. *Pheidole fervida* Fred. SMITH, 1874 (determination by M. KUBOTA on the basis of a soldier and a few workers).

Biological notes. The collecting site of the specimen examined, Yatoyama in Zama-shi, is situated in the central part of the Zama Heights lying along the left side of the Sagami-gawa River in southern Kwantô, which is mainly surrounded by a secondary forest. The present specimen was found in a colony of the ant, *Pheidole fervida*, under the bark of a rotten Japanese red pine lying down in a small ridge. It crawled very slowly among numerous workers and soldiers, and looked like a cranial structure of a soldier within the colony. The similarity between them seems to me to be an example of the Batesian mimicry, since the beetle needs some defensive mechanism against ants attacking in the colony. Though it shows several directly defensive modifications, that is, the eyes are covered with antennal scapes, a narrow groove is situated at the outer edge of each scape which is put into pedicel, the antennal cavities are present near the anterior prothoracic angles for insertion of the antennal clubs, and the femora are folded up to the body, I consider it as a symphile for the reason of the similarity in coloration among the previously known symphiles (cf. BICKHARDT, 1916–'17), reduction of mouth parts, presence of elytral gland structure, and a peculiar setal character (cf. RICHARDS & DAVIES, 1977; PAULIAN, 1988). Additional careful observation is required for the beetle from the behavioral point of view.

The host ant, *P. fervida*, ranges from Hokkaido to Kyushu, including some small islands, and in the Korean Peninsula (OGATA, 1989). Several species of the ant genus *Pheidole* have been known as the hosts of the histerid genera *Ceratohister* REICHENSPERGER from India and *Pheidoliphila* LEA from Australia and Tasmania

(REICHENSPERGER, 1924). According to SILVESTRI (1926), *E. mirabilis* was found from a nest of an ant, though its scientific name was not recorded. Incidentally, MJÖBERG (1912) noted a valuable observation that *Eucurtia paradoxa* MJÖBERG (=*E. comata* (BLACKBURN)) is a termitophile.

Eucurtiopsis hiranoi M. NISHIKAWA, sp. nov.

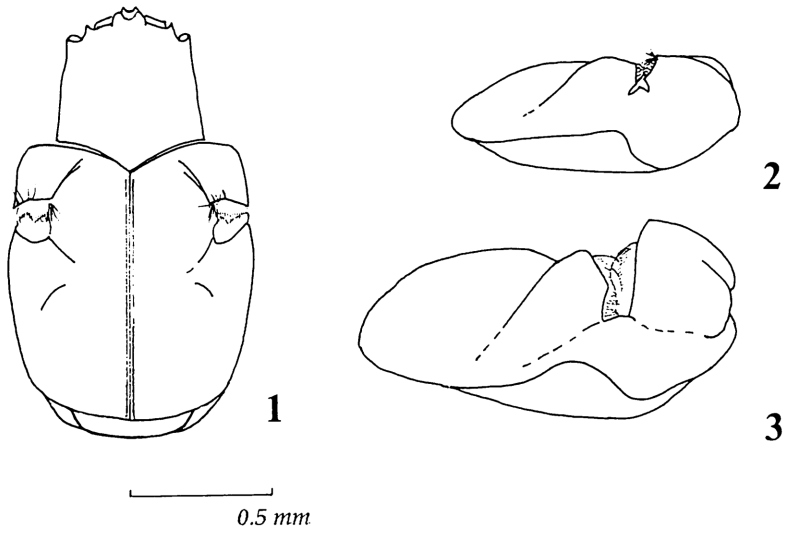
[Japanese name: Okinawa-kobu-enmamushi]

(Figs. 1–2)

Length 1.58 mm (from apical margin of head to apices of elytra), width 0.95 mm. Sex undetermined. Colour as in *E. ohtanii*.

Head longitudinally bicarinate in the middle; lateral margins parallel and carinate; surface foveate as in *E. ohtanii*. Labrum semicircular, foveate. Mandibles robust, with the tips pointed. Eyes moderately prominent. Antennae with scape subtriangular in outline, deeply excavated at outer side, foveate, sparsely clothed with bifurcate yellowish setae; funicle setiferous; club longitudinally elliptical, 2.2 × as wide as long, with silky setae as long as those of funicle, though several long setae are intermixed with ordinary ones in apical portion.

Pronotum subpentagonal, convex, widest at base, PW/HW 2.00, PW/PL 1.13, PW/PA 1.18; sides feebly angulate-emarginate; front angles feebly projected outwards; antennal cavities strongly emarginate, with inner edges pointed; basal angles angulate; basal margin also angulate at the middle; disc strongly depressed at antero-lateral



Figs. 1–3. *Eucurtiopsis* spp.——1–2, *Eucurtiopsis hiranoi* M. NISHIKAWA, sp. nov., from Chihana-jôshi, Okinawa-jima Is. of the Ryukyus; 3, *E. ohtanii* (K. SAWADA), from Zama-shi, Kanagawa Pref. in central Honshu, ♀; 1, outline of body; 2–3, right elytron and epipleuron in lateral view, showing a narrow channel between elytral elevations. (Scale: 0.5 mm.)

portions, with two projections at medio-apical portion somewhat ridged; surface densely foveate as on pronotum of *E. ohtanii*, sparsely intermixed with brevi-setiferous punctures among the foveae, with microsculpture longitudinally rugose. Scutellum invisible from above.

Elytra almost as long as wide, about 1.8 × as long and 1.5 × as wide as pronotum, widest at the level of middle elevations, EW/PW 1.46, EL/PL 1.78, EL/EW 1.08; denticulate humeral angles invisible from above; sides arcuate in apical 1/3; apices gently and conjointly arcuate; disc strongly depressed in basal half, gradually and strongly convex in the middle portion, with a pair of fine marginal striae along sutures, and with two pairs of elevations in humeral and middle portions as follows: the humeral pair oblong, simple, subperpendicularly elevated upwards from lateral 1/2 in elytral base, angulate-emarginate at apical edges, each with several erect, yellowish setae and a golden trichome at apex, the middle one gradually and subtriangularly elevated upwards from apical 1/3 of elytra towards the apex of the humeral one, emarginate at apical edges, each with apex bearing a trichome as in the humeral one, these two elevations opposed at elytral basal 1/3, forming a deep gap as a narrow channel, which is angulately grooved at the outer end; surface sparsely clothed with brevi-setiferous punctures throughout, and with several large ones in basal portion, though the middle area is polished. Epipleura flat, punctate as microscopical meshes, with marginal stria strongly sinuate.

Propygidium transverse (ca. 1 : 2), clothed with brevi-setiferous punctures as on elytra. Pygidium about 1.4 × as long as wide, with punctures somewhat denser than those on propygidium. Prosternum convex, marginate, except for front margin which is feebly bisinuate; surface foveate as on pronotum. Prosternal process elevated, slightly rounded in apical margin. Mesosternum small, transverse, foveate as on prosternum. Metasternum marginate, with sparse punctures as on propygidium, with median longitudinal suture distinct. Abdomen convex, slightly wider than long (AW/AL 1.19), with punctures as those on propygidium; first sternite the largest, with large punctures along each side; 2–5 sternites punctate along each apical margin.

Legs as in *E. ohtanii*, though bifurcate hairs are absent.

Type specimen. Holotype: 1 ex. (sex undetermined), Chihana-jôshi, Okinawa-shi, Okinawa-jima Is., Ryukyus, SW Japan, 27–III–1980, S. TANAKA leg. The holotype will be deposited in the collection of the Kanagawa Prefectural Museum of Natural History, Odawara.

Notes. The present new species is similar in general appearance to the two previously known species of the genus, but can be clearly discriminated from the latter by the following characteristics: body sparsely brevi-setiferous; head longitudinally bicarinate in middle; pronotal ridges in medio-apical portion poorly developed; elytral elevations rather simple, with a trichome and several erect setae at the apex of the humeral one.

The holotype specimen of this new species was mingled with other beetles sent from Mr. Shingo TANAKA of Fukuoka City to Mr. Yukihiko HIRANO for identification.

It was probably sorted out from leaf litter or soil during a research of the springtail fauna. As the new species has been known from only the holotype, I was unable to examine configuration of the genital organ. It is to be hoped that further examination is made on additional specimens. Judging from the morphological specialization of the new species, it seems to be a myrmecophile or a termitophile, though its host is unknown at present.

要　約

西川正明：日本産コブエンマムシ亜科の1新種記載を含む知見．――ごく最近，新属新種として記載された*Boreochlamydus ohtanii* K. SAWADAを，ÔHARA (1994)にしたがって，アリノスコブエンマムシ*Eucurtiopsis ohtanii* (K. SAWADA)と改め，新たな標本にもとづいて記録し，生態的知見を報告した．なお，そのひとつとして，本種が宿主アリのコロニー内で，兵アリの頭部に擬態している可能性を記した．さらに本属の3番目の種として，オキナワコブエンマムシ*Eucurtiopsis hiranoi* M. NISHIKAWA, sp. nov.を，沖縄島の沖縄市知花城跡産の標本にもとづいて記載した．この新種は，頭部中央に2隆条と前胸背板先端中央に2突起をもち，体表の大部分が短毛でまばらにおおわれること，また単純な上翅肩部の隆起と，その先端に分泌毛束とともに直立した剛毛を備えることとによって，既知の2種から区別できる．

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Elytra, Tokyo, **23** (2): 262, November 15, 1995

New Record of *Procirrus lewisii* (Coleoptera, Staphylinidae, Paederinae) from Ishigaki-jima of the Ryukyu Islands, Southwest Japan

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The paederine beetle *Procirrus lewisii* SHARP (1889, p. 324) was orginally described on the basis of a single female collected at Nagasaki. After that, it has been mainly reported from western Japan, as follows: Kanagawa Pref. (SHIBATA, 1986), Osaka Pref. (SAKAGUCHI & SAWADA, 1955; ITO, 1971), Hiroshima Pref. (OKAMOTO, 1990), Kôchi Pref. (ADACHI, 1955), Kuchinoerabu-jima Is. (WATANABE & ONODA, 1994) and Tokunoshima Is. (ITO, 1971). Although this species may be widespread in East Asia, it seems to be rather rare in Japan. Recently, I had an opportunity to examine a specimen of this species collected on Ishigaki-jima Island. This is the first record for the species from the Yaeyama Group of the Ryukyu Islands. The collecting data are as given below.

Specimen examined. 1♀, Takeda, Ishigaki-jima Is., Yaeyama Isls., Ryukyus, 7–IX–1995, S. SATÔ & Y. SUGIYAMA leg.

Distribution. Japan (Honshu, Shikoku, Kyushu, Kuchinoerabu-jima Is., Tokunoshima Is., Ishigaki-jima Is.); Thailand.

I wish to express my hearty thanks to Professor Yasuaki WATANABE of Tokyo University of Agriculture for his continuous guidance. My deep gratitude is also due to Mdlles. Sihoko SATÔ and Yôko SUGIYAMA for kindly supplying me with the interesting specimen.

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Elytra, Tokyo, **23** (2): 263–266, November 15, 1995

Notes on Some Coleopteran Groups of the Himalo-Japanese Element in Northern Vietnam

I. On the Genus *Nipponhydrus* (Dytiscidae)[1)]

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Abstract In the course of our faunal researches in northern Vietnam made in 1994 and 1995, I collected many coleopteran species which belong to the Himalo-Japanese element. In the first part, the dytiscid genus *Nipponhydrus* is dealt with, with description of a new species, *N. vietnamicus* M. SATÔ, sp. nov.

From the zoogeographical viewpoint, the Coleoptera belonging to the Himalo-Japanese element are important for analysing the process of establishment of the Japanese fauna. As regards this problem, many works in entomology have hitherto been published, for instance, by SHIRÔZU (1947), ASAHINA (1960), OWADA (1993), and so on. However, studies are still insufficient in the field of Coleoptera, above all, by lacking materials from such intermediate areas as southern China and northern Vietnam. Fortunately, I was able to obtain a long series of coleopteran material in northern Vietnam in 1994 and 1995 through the faunal researches made by the National Science Museum, Tokyo, under the leadership of Dr. Shun-Ichi UÉNO. As a part of the result, I will enumerate in this series of papers some groups of the Coleoptera exhibiting Himalo-Japanese relationship, and the first part is devoted to the dytiscid genus *Nipponhydrus*.

I am very grateful to the members of the expeditions to northern Vietnam, above all to Dr. S.-I. UÉNO for his kind support in many ways.

Genus *Nipponhydrus* GUIGNOT

As was already enumerated (SATÔ, 1981), the genus *Nipponhydrus* GUIGNOT (1954) contains three previously known species which are regarded as representing a Himalo-Japanese element. Up to the present, however, it is unknown from Vietnam, one of the intermediate areas. It was fortunate that I came across a species of the

1) This study is supported by the Grant-in-aid No. 06041116 for Field Research of the Monbusho International Scientific Research Program, Japan.

genus in northern Vietnam in the spring of 1995. After a careful examination, I have come to the conclusion that it is new to science, and am going to describe it as a fourth species of the genus in the present paper.

All the species of the genus *Nipponhydrus* inhabit clean waters of small brooks. This fact seems to suggest that they are restricted to low temperature habitats in the zone of evergreen broadleaved forest as relicts and show an old-type pattern of distribution from the zoogeographical viewpoint.

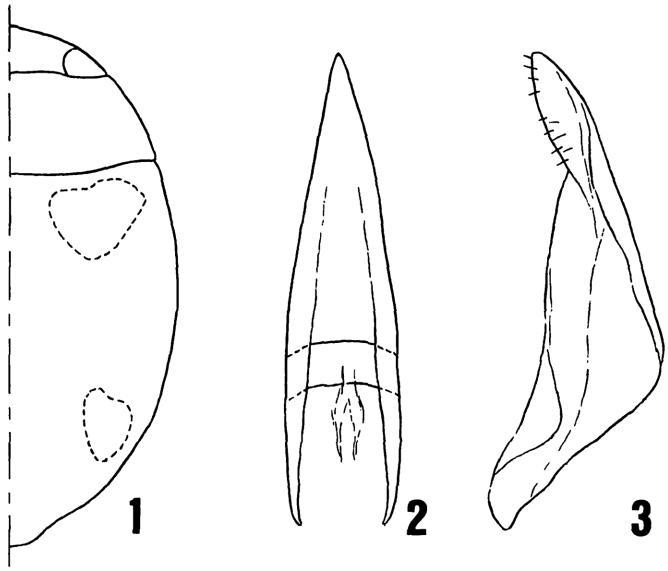
Nipponhydrus vietnamicus M. SATÔ, sp. nov.

(Figs. 1–3)

Body semispherical, moderately convex and shining. Colour mostly dark reddish brown; antennae, mouth appendages and legs brown; four markings of elytra yellowish brown.

Head about 2.2 times as broad as long; surface smooth in the main part, finely shagreened in the anterior area, with scattered minute punctures; a group of punctures at the antero-lateral side of each eye more or less distinct; fronto-clypeus slightly bordered.

Pronotum about 2.7 times as broad as long, broadest at the base which is about 1.4 times as broad as the anterior breadth; sides slightly convergent anteriad; surface distinctly and closely punctate in the central area and closely, somewhat rugosely so in the posterior area, and longitudinally wrinkled in posterior half; integument smooth.



Figs. 1–3. *Nipponhydrus vietnamicus* M. SATÔ, sp. nov.; 1, right half of body; 2, median lobe of male genitalia; 3, lateral lobe of male genitalia.

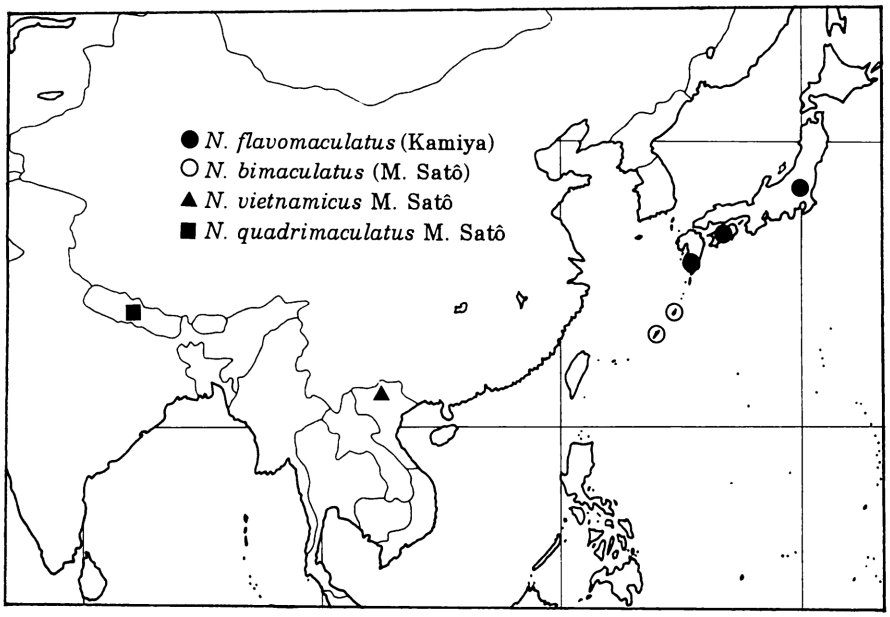


Fig. 4. Map showing the distribution of *Nipponhydrus* species.

Elytra about 1.2 times as broad as pronotum, about 1.1 times as long as broad, broadest at the middle, thence slightly narrowed anteriad and moderately narrowed posteriad; surface somewhat closely and minutely punctate, bearing a fine series of pubescence on the postero-lateral portions; integument smooth; each elytron provided with suboval markings at the base near shoulder and at the lateral part near apex.

Prosternal process distinctly expanded apicad and with blunt tip; surface rugosely punctate, longitudinally raised at the lateral sides which are smooth. Metasternal wings finely punctate. Metacoxal plate scattered with fine punctures and microreticulated in the central area and somewhat smooth in the lateral areas. Metacoxal line moderately traced. Metacoxal process angulate at the inner sides of trochanters. Abdomen finely and sparsely punctate; 3rd sternite bearing long hairs in the centre. Claws of hind legs unequal, the longer one being slightly shorter than the 5th tarsal segment.

Male genitalia: lateral lobe well sclerotized, inwardly bent with rounded apex and bearing sparse pubescence; median lobe tapered apicad with pointed apex.

Male and female closely similar to each other.

Length: 2.5–2.6 mm; breadth: 1.7–1.8 mm.

Holotype: ♂, Deo O Quy Ho (alt. 1,750 m), Sa Pa, Lao Cai Prov., N. Vietnam, 12–V–1995, M. SATÔ leg. Paratypes: 1♂, 5♀♀, same data as for the holotype.

The holotype and one paratype are preserved in the collecton of the National Science Museum (Nat. Hist.), Tokyo. Remaining paratypes are now preserved in the collection of the Biological Laboratory, Nagoya Women's University.

This new species is somewhat allied to *N. quadrimaculatus* M. SATÔ, 1981, in general appearance, but is discriminated from the latter and other members of the genus by the following key.

Key to the Species of the Genus *Nipponhydrus*

1(2) Head, pronotum, elytra and ventral surface dark reddish brown; each elytron provided with two rather small markings..... *N. vietnamicus* M. SATÔ, sp. nov.

2(1) Head reddish to yellowish brown; elytra dark brown with various markings.

3(4) Each elytron provided with two suboval and rather large markings ..... *N. quadrimaculatus* M. SATÔ, 1981.

4(3) Each elytron provided with a large transverse marking at the base, and sometimes with another marking.

5(6) Each elytron provided with a basal marking only..... *N. bimaculatus* (M. SATÔ, 1972).

6(5) Each elytron provided with two small markings in addition to a basal marking ..... *N. flavomaculatus* (KAMIYA, 1938).

要　約

佐藤正孝：ヴェトナムを経由するヒマラヤ－日本系分布要素の甲虫類．I．キボシケシゲンゴロウ属について．――国立科学博物館が組織し，1994，1995年に実施されたヴェトナム昆虫相調査に参加でき，ヒマラヤ－日本系分布要素の甲虫類を多く採集することができた．今回は，その要素の一群として，ゲンゴロウ科のキボシケシゲンゴロウ属*Nipponhydrus*をとりあげた．あわせて，ラオカイ地方で得られた資料に基づいて1新種を記載し，*N. vietnamicus* M. SATÔと命名した．

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Elytra, Tokyo, **23** (2): 267–282, November 15, 1995

Species of the Genus *Harpalomimetes* (Coleoptera, Carabidae, Harpalini)

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Abstract A key to the harpaline carabids of the genus *Harpalomimetes* SCHAUBERGER is given. Three known species are redescribed, and two new species are described from New Guinea and Japan, respectively.

Introduction

In this paper I am going to redescribe three known species of the harpaline genus *Harpalomimetes*. Also I am going to describe two new species, *Harpalomimetes papua* from New Guinea and *Harpalomimetes orbicollis* from Japan and to provide a key to all the species. The species of *Harpalomimetes* have hitherto been unknown from New Guinea. The latter new species from Japan has been determined as *H. andrewesi* SCHAUBERGER until now, but comparing the species with the holotype of *H. andrewesi* SCHAUBERGER, I have come to the conclusion that it is a new species, because the pronotum is wider and more thickly bordered at the sides and the long seta of the stylus is situated more closely to apex.

I wish to express my deep gratitude to Dr. Fritz HIEKE of the Museum für Naturkunde der Humboldt-Universität zu Berlin, Dr. Fritz GUSENLEITNER of the Landesmuseum, Linz, and Dr. Aleš SMETANA and Dr. Yves BOUSQUET of the Agriculture Canada for their kind loan of types and materials. I also heartily thank Dr. Takeshi MATSUMURA of the National Institute of Agro-environmental Sciences, Tsukuba, and Mr. Seiji MORITA, Tokyo, for their kind support. Further, my hearty thanks are due to Mr. Taichi SHIBATA, Osaka, for his continuous guidance of my study.

Key to the Species of the Genus *Harpalomimetes*

1. Elytral apices not produced, widely arcuate, rounded at sutural angles and widely separated from each other. ..... *H. papua* sp. nov.
1′. Elytral apices more or less produced, narrowly arcuate or acute at tips. 2
2. Basal angles of pronotum angularly rounded. ..... *H. sjoestedti* (ANDREWES)
2′. Basal angles of pronotum widely and clearly rounded. 3
3. Pronotum more transverse, more than one and a half times as wide as long, almost

straightly contracted behind at sides; mid tarsi narrower than usual. .....
..... *H. shibatai* (HABU)

3′. Pronotum less transverse, less than one and a half times as wide as long, rounded throughout at sides. 4

4. Pronotum widely bordered, not reflected basally and more strongly rounded at sides, with distinctly coarse punctures in basal foveae; elytral intervals flat on disc; female stylus more weaky arcuate outwards and blunt at tip, with a seta at inner side near the tip. ..... *H. orbicollis* sp. nov.

4′. Pronotum moderately bordered, more or less reflected basally and gently rounded at sides, basal foveae moderately coarsely punctate; elytral intervals gently raised; female stylus clearly curved and acute at tip, with a seta at inner side more or less far apart from the tip. ..... *H. andrewesi* SCHAUBERGER

Harpalomimetes sjoestedti (ANDREWES)

(Figs. 1, 6–9)

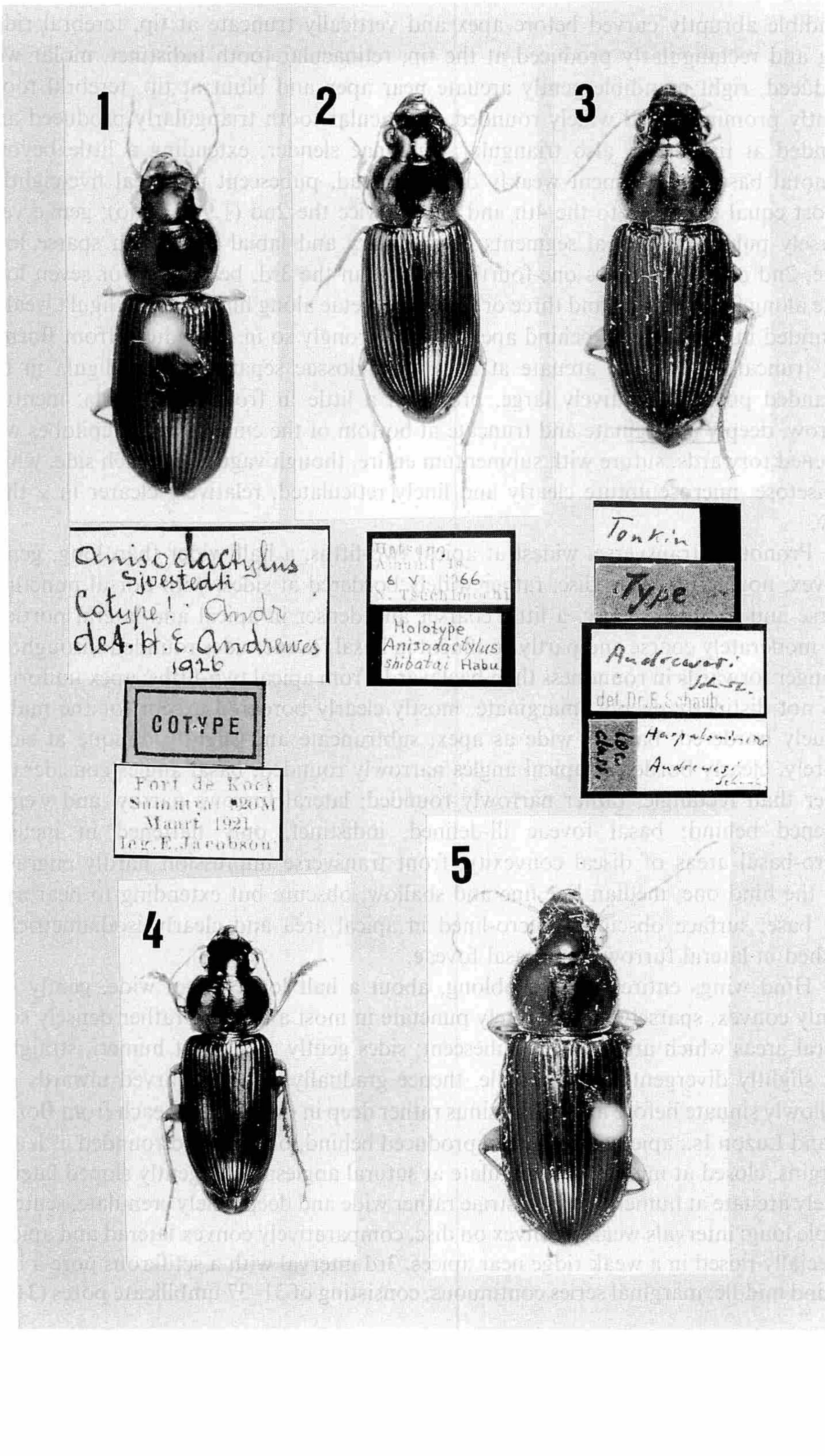
Anisodactylus sjoestedti ANDREWES, 1926, Ann. Mag. nat. Hist., (9), **18**: 276–277. —— HABU, 1968, Kontyû, Tokyo, **36**: 269–272; 1969, Ent. Rev. Japan, **21**: 55.

Harpalomimetes sjoestedti: SCHAUBERGER, 1933, Ent. Anz., **13**: 133–134. —— TANAKA, 1958, Mushi, Fukuoka, **32**: 84. —— NOONAN, 1973, Quaest. ent., **9**: 346.

Body oblong, gently convex, black, shiny, weakly iridescent on pronotum and elytra; palpi, antennae and legs yellowish brown, lateral portions of labrum and lateral margins of pronotum light reddish brown, basal areas of mandibles dark reddish brown, frons with a large obscure dark reddish patch.

Head weakly, uniformly raised in individuals from Sumatra (cotype), Sunda Is. (without further data) and Luzon Is. of the Philippines and flattened on triangular area from vertex to clypeus in those from Borneo Is., large and three-fourths pronotal width, glabrous all over, minutely and rather densely punctate throughout inclusive of mandibles; labrum weakly arcuately convergent at sides, with apex deeply emarginate; clypeus almost even, depressed along apex which is so deeply emarginate that membraneous part of labrum is exposed, very obscurely rugose near sides in a cotype (wholly rugose in individuals); clypeal suture finely, shallowly carved and not deepened even near ends in most examples, rather deep in a specimen from Luzon Is.; frontal impressions a little deeper than the suture and reaching eyes, weakly ridged in front of apical parts and widely, shallowly depressed behind themselves; eyes large and rather prominent; interocular space wide, seven-tenths times width of head including eyes; temple straightly oblique, very obtuse and not angulate at angle formed with neck constriction; space between buccal fissure and genuine ventral margin of eye wide and shallowly grooved; mandibles thick and short, widened basad, left

Figs. 1–5. Habitus of *Harpalomimetes* spp. —— 1, *H. sjoestedti* (ANDREWES); 2, *H. shibatai* (HABU); 3, *H. andrewesi* SCHAUBERGER; 4, *H. orbicollis* sp. nov.; 5, *H. papua* sp. nov.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Sumatra 920M
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mandible abruptly curved before apex and vertically truncate at tip, terebral ridge long and rectangularly produced at the tip, retinacular tooth indistinct, molar well produced, right mandible gently arcuate near apex and blunt at tip, terebral tooth slightly prominent and widely rounded, retinacular tooth triangularly produced and rounded at tip, molar also triangular; antennae slender, extending a little beyond pronotal base, 3rd segment weakly dilated distad, pubescent in apical five-eighths, almost equal in length to the 4th and about twice the 2nd (1.9 in ratio); genae very sparsely pubescent; apical segments of maxillary and labial palpi with sparse long setae, 2nd of labial palpus one-fourth longer than the 3rd, bearing six or seven long setae along front margin and three or four short setae along hind margin; ligula weakly expanded in front a little behind apex (rather strongly so in individuals from Borneo Is.), truncate or weakly arcuate at apex; paraglossae separated from ligula in the expanded portion, relatively large, produced a little in front from ligula; mentum narrow, deeply emarginate and truncate at bottom of the emargination, epilobes well widened forwards, suture with submentum entire, though vague near each side, which is bisetose; microsculpture clearly and finely reticulated, relatively clearer in ♀ than in ♂.

Pronotum transverse, widest at apical two-fifths, a half wider than long, gently convex, not flattened on disc, rather widely bordered at sides, with dorsal punctures sparse and minute on disc, a little coarser and denser in apical and lateral portions and moderately coarse and partly confluent in basal foveae; sides rounded throughout, stronger forwards in roundness than backwards from apical two-fifths; apex uniformly and not distinctly deeply emarginate, mostly clearly bordered except for the middle vaguely bordered; base as wide as apex, subtruncate and slightly oblique at sides, entirely, clearly bordered; apical angles narrowly rounded; basal angles considerably wider than rectangle, rather narrowly rounded; lateral furrows narrow and weakly widened behind; basal foveae ill-defined, indistinct, only flattened in inclined latero-basal areas of discal convexity; front transverse impression hardly engraved like the hind one; median line fine and shallow, obscure but extending to near apex and base; surface obscurely micro-lined in apical area and clearly isodiametrically meshed in lateral furrows and basal foveae.

Hind wings entire. Elytra oblong, about a half longer than wide, gently and evenly convex, sparsely and minutely punctate in most areas and rather densely so in lateral areas which are sparsely pubescent; sides gently arcuate at humeri, straightly and slightly divergent to the middle, thence gradually strongly curved inwards and shallowly sinuate before apices, the sinus rather deep in one example each from Borneo Is. and Luzon Is.; apices more or less produced behind, oblique and rounded at lateral margins, closed at middle, and angulate at sutural angles; bases gently sloped laterad, widely arcuate at humeral angles; striae rather wide and deep, finely crenulate, scutellar striole long; intervals weakly convex on disc, comparatively convex laterad and apicad, especially raised in a weak ridge near apices, 3rd interval with a setiferous pore a little behind middle; marginal series continuous, consisting of 31–37 umbilicate pores (31–32

pores in cotype); microsculpture invisible under 80× magnification.

Ventral surface mostly smooth, with several obscure punctures only in lateral areas of metasternum and on metepisterna, sparsely pubescent in pro- and mesosterna and along middle of metasternum and of abdominal segments, whose pubescence is very short on the 5th and 6th, prosternal process with many setae varying in length; metepisternum considerably elongate, three-fifths longer than wide; 6th abdominal segment truncate at apex in ♂, and gently, widely arcuate in ♀, bisetose in both sexes at each side.

Mid coxae plurisetose wholly on ventral side; fore femur uniseriately arranged with seven to ten setae dorsally and with four to six setae ventrally along fore margin, mid femur along front margin with short setae a little more than ten in number and along hind margin with many long setae; fore tibia with eight seriate short setae along middle on dorsal side, armed with two short spines apico-externally, apex truncate, with a small protuberance in middle, terminal spur rather robust and simple; fore and mid tarsi dorsally with several short setae, hind tarsus one-tenth shorter in both sexes than the width of head, 1st segment one-fifth shorter than the 2nd and 3rd together and four-elevenths longer than the 2nd, 4th deeply emarginate at apex and a half as long as the 3rd, claw segment with three to five setae (four setae in a cotype) along each ventral margin.

Aedeagus (Fig. 6) robust, gradually thinned distad; apex not thickened; dorsal side expanded in middle, with wide apical orifice constricted medially; apical lobe spatulate, rounded and ridged at distal margin; ventral side unbordered and more or less raised longitudinally. Stylus (Figs. 7–9) clearly curved outwards, sharpened apicad, with a very short seta in a cotype only on dorso-external margin and in the example from Borneo basally at both dorso- and ventro-external margins, and without the seta in the example from Luzon; valvifer not produced apicad beyond base of stylus, bearing four to seven short spine-like setae near apex.

Length: 10.3–11.5 mm. Width: 3.8–4.5 mm.

Specimens examined. 1♂ (cotype), 920 m, Sort de Kock, Sumatra, III–1921, E. JAKOBSON leg.; 1♂, Sunda Is., G. STIDT leg.; 2♀♀, Borneo Is., S. V. MARTIN SCHMIDT leg.; 1♀, Sarawak, Semengok, 12 mil., S. Kuching, Borneo Is., 28–XII–1974, A. EARNSHAW leg.; 1♀, Paraculi, Luzon Is., Philippines, F. JAGOR leg.

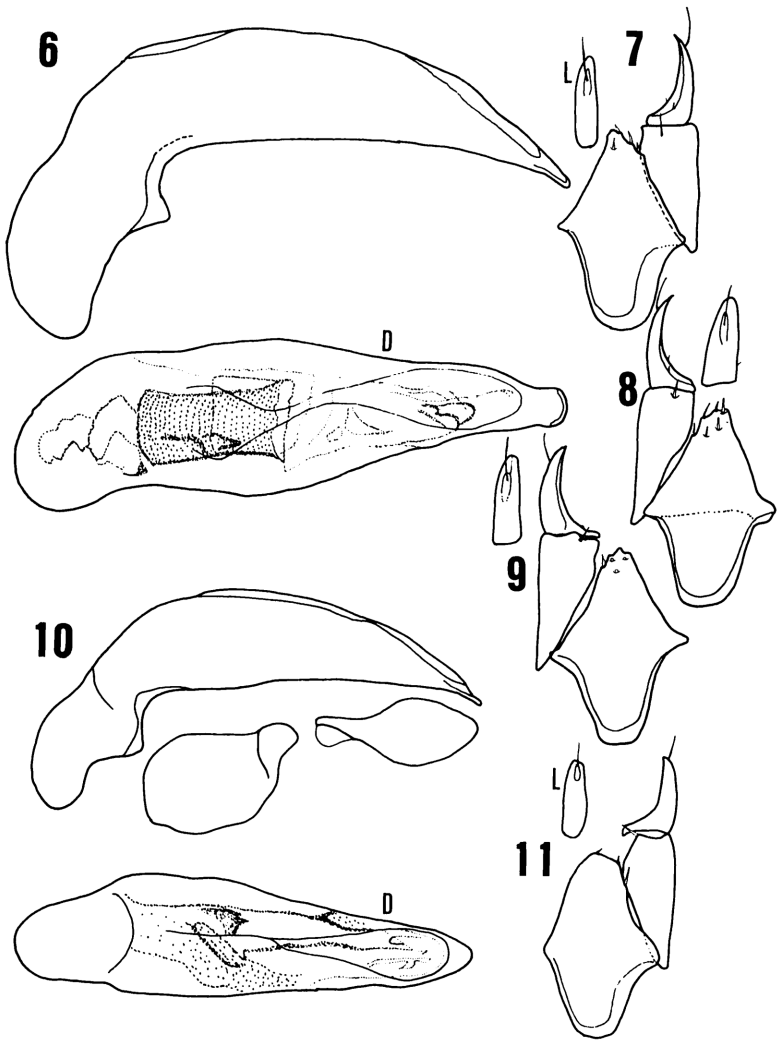
Harpalomimetes shibatai (HABU)

(Figs. 2, 10–11)

Anisodactylus (*Anisodactylus*) *shibatai* HABU, 1969, Ent. Rev. Japan, **21**: 55. —— 1972, Fauna Japonica: Carabidae, Harpalini, 21, 46–48. —— NOONAN, 1973, Quaest. ent., **9**: 346.

Body oblong, a little more convex than in *Harpalomimetes sjoestedti* (ANDREWES), black, shiny, with weakly iridescent lustre on elytra; palpi, antennae and legs light brown, labrum dark brown, lateral margins of pronotum brown.

Head thick and wide, three-fourths the pronotal width, two-thirds the width of



Figs. 6–11 Genitalia of *Harpalomimetes* spp.——6–9, *H. sjoestedti* (Andrewes); 10 and 11, *H. shibatai* (Habu); 6 and 10, male genitalia; 7–9 and 11, female genitalia; 7, from Sumatra; 8, from Borneo; 9, from Luzon; D, dorsal side; L, lateral view of stylus.

head at interocular space, rather well convex, gently aslant flattened from vertex to clypeus, somewhat coarsely and moderately punctate, with short vague rugosities on vertex and near frontal impressions; labrum subtrapezoidal, deeply emarginate at apex; clypeus slightly swollen in basal half, with apex regularly and more or less deeply emarginate, finely and shallowly sutured with frons; frontal impressions abruptly divergent behind, shallow but not rudimentary even near eyes; eyes large, less prominent than in *H. sjoestedti*; temples a little more steeply convergent behind; genuine ventral margin of eye moderately separated from buccal fissure; mandibles short and stout,

truncate at tips, retinacular tooth of right mandible wide and slightly produced; antennae slender, reaching base of elytra, 3rd segment weakly dilated apicad, densely pubescent in apical two-thirds, as long as the 4th and twice the 2nd; labial palpus slender, 2nd segment bearing six or seven setae on front margin, one-tenth longer than the 3rd; ligula bottle-shaped, truncate at apex, free from paraglossae in basal two-thirds; paraglossae wide, gently rounded at apices, prolonged forwards a little beyond ligula; emargination of mentum relatively divergent in front at sides, truncate at bottom, epilobes narrow, not expanded forwards, with tips sharp and somewhat prominent, suture with submentum obscure and carved only between a pair of setae near sides; surface finely and clearly reticulated on clypeus and frons and obscurely and transversely meshed on the residual portion.

Pronotum more transverse than in *H. sjoestedti*, widest near middle, two-thirds wider than long, rather well convex, with punctures fine and sparse on disc, a little denser in apical area and dense and coarse in lateral furrows and basal foveae where they are especially coarse and partly confluent; sides similar in arc to those in *H. sjoestedti*, but the curvature in apical halves is a little stronger, finely bordered and not reflexed; apex evenly and rather deeply emarginate, unbordered in middle fifth; base one-tenth wider than apex, shallowly bisinuate and weakly arcuate at sides, finely and not clearly bordered; basal angles wider than those of *H. sjoestedti*, fully rounded; lateral furrows narrow, gradually widened behind and linked with basal foveae which are large, transverse and obliquely flattened; front transverse impression slightly visible, hind transverse one unobservable; median line reduced before apex and base in the holotype and reaching them in paratypes; microsculpture composed of obscure transverse lines on disc and of clear isodiametric meshes in lateral furrows and basal foveae.

Hind wings fully developed. Elytra oblong, a little more than one and a half as long as wide (1.53–1.56 in ratio), one-fourth wider than pronotum, same in convexity as in *H. sjoestedti*, densely and rather coarsely punctate, the density increasing in lateral portions which are rather densely pubescent; apices gently arcuate, narrowly separated from each other, angulate at sutural angles; apical sinus somewhat deep; bases very shallowly emarginate, forming very obtuse and angulate angles with sides; striae wide, but a little narrower than in *H. sjoestedti*, deep, finely crenulate, scutellar striole moderately long; intervals flat on disc, becoming swollen near apices, a dorsal pore of 3rd interval situated at apical two-fifths; marginal series composed of 26–29 umbilicate pores; microsculpture mostly invisible, partly observable as obscure transverse meshes in 8th and 9th intervals.

Ventral surface finely and moderately punctate on pro- and metasterna and middle of 2nd to 6th abdominal segments, and somewhat coarsely and sparsely so on pre- and metepisterna and laterally on metasternum, covered with rather dense pubescence on prosternum and 2nd to 4th abdominal segments and with sparse pubescence on metasternum and 5th and 6th segments; metepisternum elongate, about two-thirds longer than wide; anal segment of abdomen bisetose at each side in both sexes, truncate

in ♂ and clearly arcuate at apical margin in ♀.

Numbers of setae in coxae, femora and tibiae similar to those in *H. sjoestedti*; fore tibia trispinous apico-externally, truncate at apex, terminal spur short, expanded in middle; fore and mid tarsi dorsally with long sparse setae and hing tarsi with short ones, 1st segment of mid tarsus in ♂ without adhesive hairs on ventral side, hind tarsus one-eighth in ♂ and one-fifth in ♀ shorter than the width of head, 1st segment four-fifths length of the 2nd and 3rd together and one-third longer than the 2nd, 3rd a half longer than the 4th, claw segment trisetose along each ventral margin.

Aedeagus (Fig. 10) more or less thick, gradually thinned towards apex, with comparatively small basal part; inner sac unarmed with sclerite; apical lobe transverse, twice as wide as long, narrowly arcuate at tip. Stylus (Fig. 11) short, weakly curved outwards, with a long seta situated at blunt apex; valvifer probably quadrisetose near apex (observed by the roots of setae).

Length: 10.0–10.8 mm. Width: 4.0–4.2 mm.

Specimens examined. 1♂ (holotype), Hatsuno, Amami Is., Kagoshima Pref., Japan, 6–V–1966, N. TSUCHIMOCHI leg.; 1♂ (paratype), same locality as the holotype, 4–V–1966, N. TSUCHIMOCHI leg.; 1♀ (paratype), Shimmura, Amami Is., Kagoshima Pref., 23–V–1961. T. SHIBATA leg.; 1♀ (paratype), Amamiôshima Is. (=Amami Is.), 14–VII–1961, M. YAKAHARA leg.

Remarks. NOONAN arranged the species in the genus *Anisodactylus* without examining specimens, but the species actually belongs to *Harpalomimetes* due to the ligula not strongly expanded, the pronotum discoidal at sides and the apex of valvifer not well produced.

Harpalomimetes andrewesi SCHAUBERGER

(Figs. 3, 17–19)

Harpalomimetes andrewesi SCHAUBERGER, 1933, Ent. Anz., **13**: 134. —— NOONAN, 1973, Quaest. ent., **9**: 346.

Body rather narrowly oblong, weakly convex, dark brown to brownish black, with weakly iridescent lustre on elytra; palpi, antennae and legs yellowish brown, mandibles dark reddish brown, lateral furrows of pronotum light brown.

Head wide, three-fourths pronotal width, with interocular space narrow and less than two-thirds the width of head, rather raised on vertex, finely and sparsely punctate, the punctures reduced on clypeus; labrum subtrapezoidal, rather deeply emarginate at apex; clypeus almost flat, slightly swollen centrally, obscurely rugose at sides on the swell, with apex narrowly depressed and more or less emarginate, clypeal suture fine and shallow, weakly bisinuate, linked with punctiform frontal foveae, from which shallow and vague lines run obliquely backwards and disappear near eyes; eyes large and well prominent; temples short, one-sixth the length of eyes, gently sloping behind and obtusely meeting with neck constriction; space between genuine ventral margin of eye and buccal fissure more or less wide; mandibles (Fig. 19) thick and short, truncate at tips, retinacular tooth weakly produced and arcuate in left mandible and

comparatively prominent in right one; antennae slender, 3rd segment hardly dilated distad, pubescent in apical half, as long as the 4th (1.15 in ratio) and twice the 2nd; 3rd segment of labial palpus weakly dilated medially, sparsely covered with long pubescence, 2nd slender, as long as the 3rd, bearing eight setae on front margin and three or four setae near hind margin; ligula shallowly and widely constricted, almost truncate at apex; paraglossae prolonged to the level of ligular apex, fused with ligula up to near its apex; mentum truncate and wide at bottom of apical emargination, epilobes hardly widened forwards, suture with submentum engraved only in middle two-fifths; microsculpture more or less clearly impressed, discernible as fine isodiametric meshes.

Pronotum subquadrate, two-fifths wider than long, regularly arcuate and finely bordered at sides, relatively convex, more or less steeply declivous laterally and basally; punctures of surface fine and sparse on disc, becoming a little denser towards apex and sides, dense, rather coarse and partly confluent in basal foveae; apex shallowly emarginate, subtruncate in middle two-thirds, with the border narrowly interrupted centrally; base a little wider than apex (1.17 in ratio), almost straight, hardly oblique at sides, clearly bordered throughout; apical angles somewhat widely rounded; basal angles wider than rectangle, considerably widely rounded; lateral furrows narrow, gradually widened behind, falling into basal foveae, which are wide, flattened at grounds and ill-defined; both front and hind transverse impressions short and obscure; median line fine and shallow, not rudimentary; microsculpture invisible on most parts, observed as isodiametric meshes in lateral furrows and the punctures of basal foveae.

Hind wings entire. Elytra gently sloped laterad and basad, but slightly raised even on disc, subelliptical, about a half longer than wide (1.56 in ratio) and one-seventh wider than pronotum, rather densely and somewhat coarsely punctate, finely pubescent in lateral and basal areas; apices not produced behind, widely arcuate, angulate at sutural angles; apical sinus shallow; bases weakly oblique at sides, very obtusely and angularly meeting with lateral margins; striae wide and deep, clearly crenulate, scutellar striole fairly long; intervals more or less convex on disc, becoming more convex towards surrounding parts, subcarinate especially near apices, 3rd interval with a setiferous pore at apical two-fifths; marginal series uninterrupted, composed of 29–33 umbilicate pores; microsculpture not detected under 80 × magnification.

Ventral surface finely and sparsely punctate medially on pro- and metasterna and on 2nd to 6th abdominal segments, pubescent on the same parts; metepisternum relatively elongate, one and a half as long as wide; 6th abdominal segment of ♀ quadrisetose along apical margin, which is produced and narrowly rounded.

Mid coxa more or less densely setose; fore femur with eight to nine setae uniseriately arranged along dorsal front margin and eight setae near the ventral margin, mid femur with eight short setae near front margin and twelve setae near hind margin, hind femur bisetose ventrally near hind margin; fore tibia weakly expanded distad, almost truncate and with small protuberance at apex, smooth on dorsal side, trispinose apico-externally; fore and mid tarsi with several setae on dorsal sides, hind tarsus equal in length to

the width of head in ♀, 1st segment one-fifth shorter than the 2nd and 3rd combined and one-third longer than the 2rd, 3rd twice as long as the 4th, claw segment quinquesetose along each ventral side.

Stylus (Figs. 17–18) slender, relatively clearly curved outwards, bearing a short seta near base on ventro-external margin and a long seta relatively distant from tip, basal segment unispinose at apico-external corner; valvifer hexaspinose near apex.

Length: 10.0 mm. Width: 3.8 mm.

Specimens examined. 1♀ (holotype), Tonkin (preserved in Landesmuseum); 1♀, Annam.

Harpalomimetes papua sp. nov.

(Figs. 5, 12)

Body widely oblong, robuster than in *Harpalomimetes sjoestedti* (Andrewes), more or less convex, black, shiny, weakly iridescent on elytra, with a transverse reddish patch on frons; palpi, basal three segments of antennae and femora dark yellowish brown, lateral margins of pronotum reddish brown, labrum and basal portions of mandibles dark brown.

Head gently convex, a little more sparsely punctulate than in *H. sjoestedti*, relatively large, three-fourths the prontal width; labrum subquadrate, roundly produced at apical corners; clypeus evenly and rather deeply emarginate at apex, flattened in apical half and weakly, transversely bulgy in the residual portion, obscurely rugose near sides; clypeal suture fine and shallow, weakly bisinuate, obsolete near frontal foveae, which are punctiform and connect with oblique lines prolonged to eyes; interocular space a little more than two-thirds times the width of head; eyes large and considerably prominent; temples small, weakly arcuately, abruptly convergent to neck constriction; genuine ventral margin of eye rather widely separated from buccal fissure; mandibles thick and short, left mandible well curved before apex, blunt and vertically truncate at tip, not produced at retinacular tooth, the tooth of right mandible subtrapezoidal; antennae slender and a little surpassing elytral bases, 3rd segment weakly dilated distad, pubescent in apical five-eighths, almost equal in length to the 4th and twice as long as the 2nd; genae covered with sparse pubescence spread over submentum; labial palpi a little slenderer and longer than those of *H. sjoestedti*, 3rd segment sparsely bearing long pubescence, 2nd septisetose along front margin, as long as the 3rd; ligula shallowly constricted before apex, adnate to paraglossae up to the constriction, truncate at apex; paraglossae wide, weakly rounded at external margin, a little produced beyond ligula; mentum obscurely sutured with submentum, truncate at bottom of apical emargination, epilobes narrow, weakly expanded apically; submentum bisetose laterally; microsculpture consisting of isodiametric meshes, more or less clearly visible behind frons and distinct near frontal impressions and on clypeus.

Pronotum transversely quadrate, widest a little before the middle, a half wider than long, clearly arcuate throughout and thickly bordered at sides, gently convex,

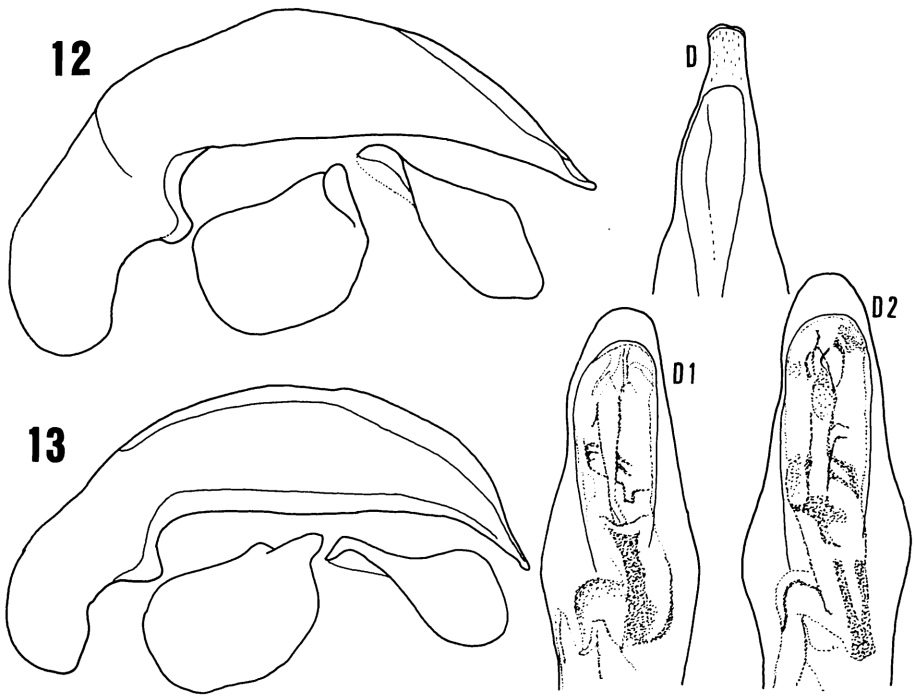
sparsely, minutely punctate on disc, rather densely and coarsely so in middle of apical and basal portions, the punctures in basal foveae especially coarse and partly confluent; apex uniformly, rather deeply emarginate, unbordered medially; base very gently inclined laterad and truncate in middle, firmly bordered like the sides; lateral furrows narrow, weakly widened behind; basal foveae indistinct, very shallowly impressed in inclined areas of discal convexity, linked with the furrows; front transverse impressions obscure but not invisible like the hind one; median line fine and obscure. brokenly engraved, reaching apex and base; surface obscurely, transversely meshed partly on disc and clearly reticulated in lateral furrows and basal foveae.

Hind wings entire. Elytra widely oblong, a little less than a half longer than wide (1.43 in ratio), gently and evenly convex, more or less sparsely covered with minute punctures on disc and densely with rather coarse punctures in basal, lateral and apical parts; sides slightly arcuately widened from humeri to apical two-fifths, thence gradually strongly curved inwards and shallowly sinuate before apices; apices not produced behind, widely, very weakly rounded at tips, widely separated from each other, not angulate at sutural angles; bases gently oblique at sides, humeral angles widely arcuate; striae not so wide as those of *H. sjoestedti*, moderately deep, becoming wider and deeper towards sides and apices, finely and clearly crenulate, scutellar striole long; intervals flat on disc, raised in a keel near apices, 3rd interval with a setiferous pore at apical two-fifths, 8th and 9th sparsely pubescent; marginal series uninterrupted and composed of 29–32 umbilicate pores; microsculpture invisible under 80× magnification.

Ventral surface rather densely pubescent medially on pro- and metasterna and on 2nd to 4th abdominal segments and sparsely on prepisterna, mesosternum, lateral areas of metasternum and 5th abdominal segment, with punctures scattered like the pubescence; metepisternum relatively contracted behind, about a half longer than wide; 6th abdominal segment in ♂ bearing four apical setae, clearly, entirely bordered at apical margin, truncate at tip.

Fore coxae very sparsely pubescent near trochanters, mid coxae covered with many long setae and pubescence mostly on ventral surface; fore femur with 11–12 setae along front dorsal and ventral margins, respectively, ventral surface plurisetose like the front margins, hind margin with short spinous setae, mid femur bearing setae a little less in number than in fore femur; fore tibia considerably dilated distally, truncate at apex, bispinous apico-externally, terminal spur short and simple, relatively, arcuately expanded medially; tarsi sparsely pubescent dorsally, the pubescence very short in hind tarsi, fore and mid tarsi in ♂ each well widened in middle three segments like those in *H. sjoestedti*, spongy hairs of the 1st mid tarsal segment confined to apical third, hind tarsus seven-eighths times the width of head, 1st segment one-fourth shorter than the 2nd and 3rd together, 2nd one-fourth longer than the 3rd and one and four-fifths the 4th, claw segment quinquesetose ventrally along each side.

Aedeagus (Fig. 12) robust, well arcuate and clearly tapered distad on dorsal side; apex thin and slightly thickened above; apical orifice gourd-shaped, opening almost



Figs. 12–13. Male genitalia of *Harpalomimetes* spp. —— 12, *H. papua* sp. nov.; 13, *H. orbicollis* sp. nov.; D, dorsal side; D1, from Mt. Iwawaki; D2, from Koga.

lengthwise in apical part, inner sac missing; apical lobe oblong, weakly constricted before tip which is rounded and narrowly ridged, very finely serrate; ventral side unbordered and evenly convex.

♀ Unknown.

Length: 11.2 mm. Width: 4.4 mm.

Holotype: ♂, Pionigerlager, D. N. Guinea (=New Guinea), 18–V–1912, S. G. BRÜGER leg. (Kais. Augstafl. Expedition), (preserved in the Museum of Humboldt Museum).

This new species is similar to *Harpalomimetes sjoestedti* (ANDREWES), but is distinguished from the latter by the pronotum a little more arcuate at the sides and more rounded at the basal angles, the elytral apices not produced and separated from each other, and additionally by the characters mentioned in the description.

The species of the genus have hitherto been unrecorded from New Guinea.

Harpalomimetes orbicollis sp. nov.

(Figs. 4, 13, 14–16, 20)

Harpalomimetes andrewesi: TANAKA, 1958, Mushi, Fukuoka, **32**: 85–87.

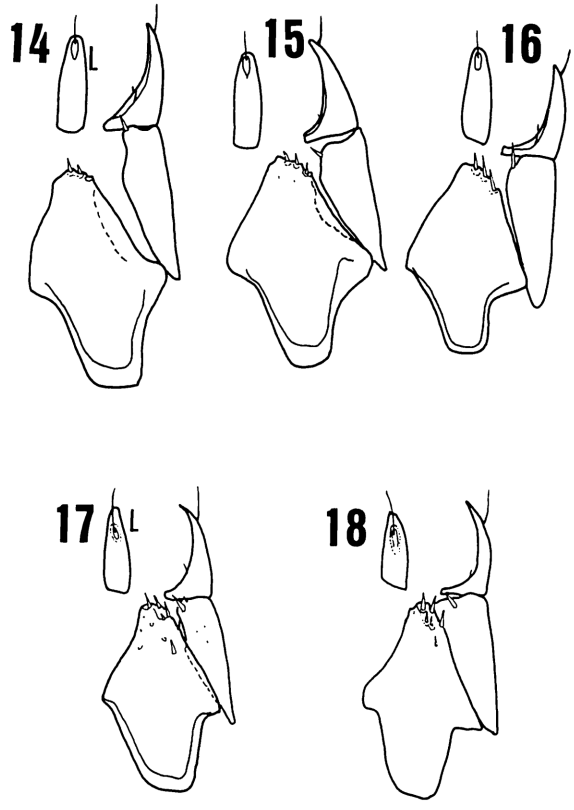
Anisodactylus (*Anisodactylus*) *andrewesi*: HABU, 1973, Fauna Japonica: Carabidae, Harpalini, 21, 43–46.

Body rather robust, oblong, rather well raised, black, shiny, with feebly iridescent lustre on pronotum and with rather clear lustre on elytra; antennae, lateral margins of pronotum and legs dark reddish brown, palpi, outer areas of labrum and apical border of clypeus light brown.

Head gently convex, gently obliquely flattened in frons, wide, a little more than seven-tenths pronotal width, finely and moderately punctate, wider in interocular space than in *Harpalomimetes andrewesi* SCHAUBERGER, seven-tenths the width of head; labrum straightly or subarcuately convergent forwards, deeply emarginate at apex; clypeus deeply emarginate at apex, with fine and short rugosities near sides; clypeal suture fine, weak and equal in depth throughout; frontal impressions straightly divergent behind, fine and shallow, reduced just before eyes; eyes smaller and less prominent than those of *H. andrewesi*; temples relatively long, one-fourth the length of eyes, weakly convergent behind, forming a wide and blunt angle with neck constriction; genuine ventral margin of eye widely separated from buccal fissure; mandibles (Fig. 20) short and robust, vertically truncate at tips, retinacular tooth rudimentary in left mandible and only weakly and widely arcuate in right mandible; antennae slender, a little surpassing pronotal base, 3rd segment weakly dilated distad, pubescent in apical two-thirds, a little longer than the 4th (1.15 in ratio) and about twice the length of 2nd; labial palpi slender, 3rd segment sparsely setose, as long as the 2nd; ligula narrow, weakly expanded forwards from apical fifth, free from paraglossae in the expansion; paraglossae prolonged in front a little beyond ligula, subarcuate at external sides; mentum truncate at bottom of apical emargination, epilobes narrow, weakly widened forwards, suture with submentum shallow, obscure at sides; microsculpture considerably clear, composed of fine isodiametric meshes.

Pronotum wide, about a half wider than long, widest at the middle, gently convex, almost smooth on disc, finely and sparsely punctate in apical and lateral areas and coarsely, densely and not confluently punctate in basal foveae; sides arcuate lengthwise, widely bordered and rather well reflexed; apex regularly and more or less deeply emarginate, unbordered medially; base one-fifth wider than apex, weakly arcuate, with entire wide border like the sides; basal angles more widely rounded than in *H. andrewesi*; lateral furrows narrow and clear, weakly widened behind; basal foveae ill-defined, never deepened and only flattened in inclined portions of discal convexity; front transverse impression not deep and somewhat clear; hind transverse one not observable; median line fine and shallow, reduced near both apex and base; microsculpture invisible on disc, observable as isodiametric meshes in lateral furrows and as transverse lines in front transverse impression and basal foveae.

Hind wings fully developed. Elytra oblong, subparallel-sided, a little more than one and a half as long as wide (1.54–1.57 in ratio) and one-eighth wider than pronotum, gently convex, but a little more strongly declivous to sides than in *H. andrewesi*, finely or somewhat coarsely and moderately punctate, sparsely pubescent on 8th and 9th



Figs. 14–18. Female genitalia of *Harpalomimetes* spp. —— 14–16, *H. orbicollis* sp. nov.; 17–18, *H. andrewesi* SCHAUBERGER; 14, from Koga; 15, from Mt. Iwawaki; 16, from Nishiyama; 17, from Tonkin; 18, from Annam; L, lateral view of stylus.

intervals; apices a little more prominent than in *H. andrewesi*, narrowly rounded, acute at sutural angles; bases shallowly emarginate, rounded at humeral angles; striae comparatively wide and deep, becoming wider towards apices, scutellar striole long; intervals mostly flat, more or less raised near apices, a dorsal pore of 3rd interval adjoining 2nd stria and situated at about apical two-fifths; marginal series of umbilicate pores continuous and 34–37 in number; microsculpture invisible under 80 × magnification.

Ventral surface finely punctate on prosternum and in middle of metasternum and 2nd to 6th abdominal segments, pubescent at each puncture, the pubescence on metasternum and the 2nd and 3rd segments considerably long; metepisternum rather well contracted behind, a half longer than wide; 6th abdominal segment bisetose at each side, apex truncate or feebly emarginate in ♂ and clearly arcuate in ♀.

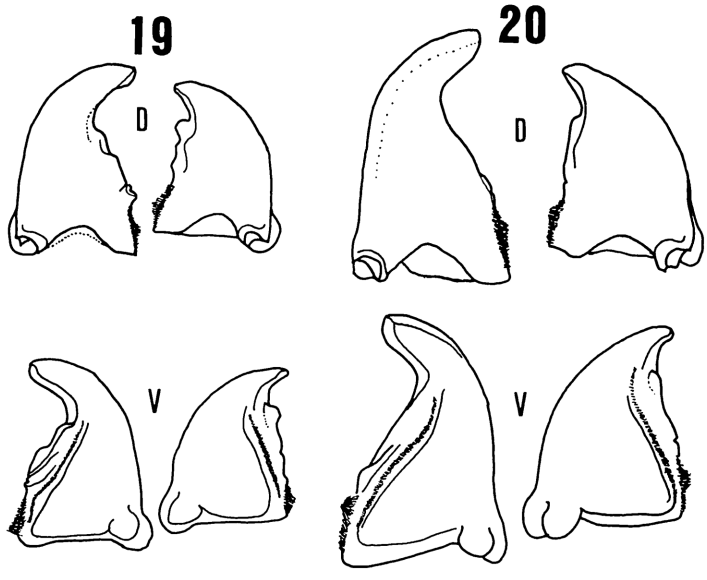
Mid coxa bearing long and dense setae in external half; fore femur with seven to eleven uniseriate setae along the front dorsal margin and five to eight setae near the ventral margin, mid femur with five to eight short setae along each hind margin,

hind femur bi- or trisetose on hind margin; fore tibia relatively dilated forwards, subtruncate at apex, dorsally without sulcus, quadrispinous apico-externally, mid and hind tibiae densely setose on apico-external sides; fore and mid tarsi furnished dorsally with several setae, hind tarsus a little shorter than the width of head (0.85 in ratio) in both sexes, 1st segment two-fifths longer than the 2nd and twice the 3rd, 4th a half as long as the 3rd, claw segment tri- or quadrisetose ventrally along each side.

Aedeagus (Fig. 13) robust, gently curved before apex; apex thin, not thickened at tip; apical orifice widely open, inner sac without any sclerites; apical lobe transverse, twice as wide as long, finely bordered and widely rounded at outer margins; ventral side flattened, weakly bordered at sides. Stylus (Figs. 14–16) relatively robust, weakly arcuate, a long seta near tip and a short seta near base of ventro-external margin, basal segment bearing a short spine ventrally at apico-external corner; valvifer trispinous at apex.

Length: 10.0–11.8 mm. Width: 3.8–4.5 mm.

Holotype: ♂, Fujioka, Watarase, Tochigi Pref., 21–V–1968, A. HABU leg. (preserved in the National Institute of Agro-environmental Sciences). Paratypes: 1♂, 1♀, same data as the holotype; 1♂, 1♀, same locality as the holotype, 15–V–1968, A. HABU leg.; 2♀♀, Watarase, Ibaraki Pref., 27–III–1963, K. SUGA leg.; 1♂, 1♀, Koga, Ibaraki Pref., K. KUROSA leg.; 1♂, Koga, Saitama Pref., 30–IV–1973, S. MORITA leg.; 1♂, 2♀♀, ditto, 13–IV–1974, S. MORITA leg.; 1♂, 1♀, Nogi, Tochigi Pref., 5–V–1975, S. MORITA leg.; 1♂, ditto, 19–IV–1975, S. MORITA leg.; 1♂, Uchiyamachô, Mitsukaidô City, Ibaraki Pref., VIII–1984, K. AKIYAMA leg.; 1♂, 1♀, Tsurugaike, Iwata City,



Figs. 19–20. Mandibles of *Harpalomimetes* spp. —— 19, *H. andrewesi* SCHAUBERGER; 20, *H. orbicollis* sp. nov.; D, dorsal side; V, ventral side.

Shizuoka Pref., 11–XI–1989, S. MORITA leg.; 1♂, Toride, Riv. Tone, Ibaraki Pref., Japan, 20–IX–1954, K. TANAKA leg.; 1♂, 1♀, Mt. Iwawaki, Osaka Pref., Japan, 13–VIII–1966, Y. KIMURA leg.; 1♂, Aina, Hyôgo Pref., 8–XI–1981, M. YAMAMOTO leg.; 1♀, Nishiyama, Ube City, Yamaguchi Pref., Japan, 4–IV–1965, K. TANAKA leg.; 1♀, Koriki, Maebaru, Fukuoka Pref., 13–XI–1967, A. HABU leg.

This new species is closely allied to *Harpalomimetes andrewesi* SCHAUBERGER, but differs from the latter in having the pronotum wider and more thickly bordered at sides, the elytra flat on intervals, the female stylus with a long seta situated more closely to apex, and additionally in the characteristics mentioned in description.

要　約

伊藤　昇：*Harpalomimetes*属の種について．—— *Harpalomimetes*属の既知種の再記載とともに，日本およびニューギニアからそれぞれ1種ずつ新種を記載した．前者は，従来*Harpalomimetes andrewesi* SCHAUBERGERとされていたものであるが，*H. andrewesi*の正基準標本およびAnnamの標本と比較した結果，前胸背板がより幅広くてその側縁がより厚く縁取られる点，上翅間室が隆起しない点，および雌の生殖器のstylusの剛毛がより先端に近い位置にある点などで異なり，別種であることが判明した．この属の種は今までアジア地域からのみ知られていたが，後者の新種によりニューギニアにも分布していることが判明した．

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Elytra, Tokyo, **23** (2): 283–287, November 15, 1995

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

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Abstract A new pterostichine carabid beetle is described from Kwantô District, Central Japan, under the name of *Pterostichus* (*Nialoe*) *ogaensis*. It is related to *P.* (*N.*) *nakanei* STRANEO, but differs from it mainly in the body size, shape of the elytra and configuration of the aedeagus.

The carabid fauna of the area intervening between the Nasu Volcanoes and the Nikkô–Shiobara area has not been intensively investigated as yet. This area involves several mountains, all of which are not particularly high, attaining to a height of 1,900 m at the most.

In the last year, Mr. OHKAWA and his fellows made several investigations on Mt. Oga-dake (= Mt. Ojika-dake), one of the mountains in this area. Their collection of carabid beetles made on this mountain was recently submitted to me for taxonomic examination and was found to contain a new species of the genus *Pterostichus*. I am going to describe it under the name of *Pterostichus ogaensis*.

The abbreviations used herein are the same as those explained in my previous papers.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO for critical reading of the original manuscript of this paper. My thanks are also due to Messrs. Hideo OHKAWA, Kengo ONDA, Tôru SUDA, and Yûji UCHIYAMA for their kind offering the invaluable material.

Pterostichus* (*Nialoe*) *ogaensis MORITA, sp. nov.

[Japanese name : Oga-naga-gomimushi]
(Figs. 1–9)

Length: 11.71–12.68 mm (from apical margin of clypeus to apices of elytra).

Body robust. Colour black and shiny; ventral side almost black; antennae, mandibles, legs and labrum dark brown to brown; palpi brown to reddish brown.

Head moderately convex; PW/HW 1.27–1.32 (M 1.31) in 4♂♂, 1.29–1.35 (M 1.32) in 3♀♀; frontal furrows very shallow, short and a little divergent posteriad; eyes large; genae weakly convex though short, about 3/8 as long as eyes; lateral grooves deep

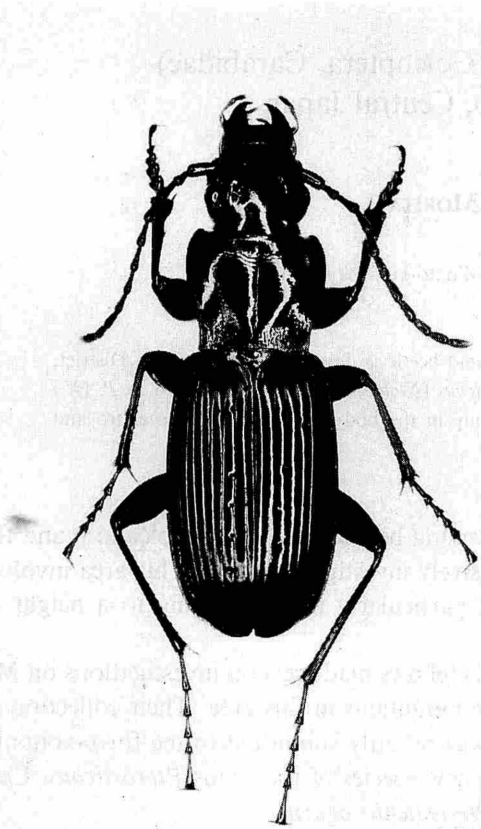


Fig. 1. *Pterostichus* (*Nialoe*) *ogaensis* MORITA, sp. nov., ♂, from Mt. Ogadake.

and straight, extending beyond the level of posterior supraorbital pores; anterior supraorbital pore situated a little before the mid-eye level, posterior one situated a little before the post-eye level; mentum tooth porrect, bifid at the tip; submentum usually with two setae on each side, rarely with one seta on each side; microsculpture composed of isodiametric meshes; surface sparsely and microscopically punctate; apex of labrum weakly emarginate; antennae stout; relative lengths of antennal segments as follows: I : II : III : IV : V : VI : XI ≒ 1 : 0.57 : 0.95 : 0.82 : 0.81 : 0.82 : 0.85.

Pronotum nearly square, widest at apical 1/4; PW/PL 1.32–1.41 (M 1.37) in 4♂♂, 1.38–1.39 (M 1.38) in 3♀♀; PW/PA 1.24–1.27 (M 1.26) in 4♂♂, 1.22–1.26 (M 1.24) in 3♀♀; PW/PB 1.25–1.28 (M 1.27) in 4♂♂, 1.27–1.30 (M 1.28) in 3♀♀; apex moderately emarginate and usually a little narrower than base; PA/PB 0.99–1.03 (M 1.01) in 4♂♂, 1.01–1.04 (M 1.03) in 3♀♀; sides weakly arcuate in front, slightly sinuate or convergent posteriad, and then a little divergent or subparallel towards hind angles; base weakly emarginate at the median part and slightly oblique inside hind angles; surface with

irregularly transverse wrinkles and microscopic punctures; apical angles produced and rounded at the tips, hind ones almost rectangular or acute; anterior pair of marginal setae inserted a little before the widest part, posterior ones inserted before and inside hind angles; anterior transverse impression almost obsolete; median line distinct, reaching neither apex nor base; basal foveae deep and linear at the bottom, and sparsely and coarsely punctate; basal part between basal foveae almost smooth or with several short longitudinal wrinkles; microsculpture composed of transverse meshes.

Elytra subovate, convex and widest at about middle; shoulders rounded, not angulate; EW/PW 1.22–1.25 (M 1.24) in 4♂♂, 1.17–1.23 (M 1.19) in 3♀♀; EL/EW 1.52–1.56 (M 1.54) in 4♂♂, 1.54–1.60 (M 1.57) in 3♀♀; sides weakly and evenly arcuate, and with shallow preapical emargination; epipleuron gradually narrowed towards apex; inner plica visible in lateral view; apices variable in form, usually truncate and separated from each other ; sutural angle usually dentate, sometimes sharp, or rarely obtuse; basal border strongly arcuate and joining scutellar striole which is very short and lies on interval 1; basal pore situated at the base of stria 1; intervals weakly convex; striae almost smooth throughout; dorsal pores variable in number and position; interval 3 with 4 to 7 dorsal pores (2 to 6 pores adjoining stria 2; 1 or 2 one(s) usually on interval 3, sometimes lacking; 1 to 3 pore(s) usually adjoining stria 3, rarely lacking); interval 5 rarely with 1 to 2 dorsal pore(s) (rarely 1 pore adjoining stria 4; sometimes 1 or 2 one(s) on interval 5; in only one case (♀), 1 pore adjoining stria 5 on the right elytron); marginal series composed of 17 or 18 pores; microsculpture composed of fine transverse meshes, partially of fine transverse lines but partially disordered.

Genae with obliquely transverse wrinkles on the ventral side; ventral side almost smooth, rarely mesosternum and apical part of mesepisternum sparsely and coarsely punctate; in ♂, anal sternite deeply concave at the middle along apical margin which is deeply emarginate and has a single projection; the projection short and almost transversely truncate.

Basal three segments of protarsus usually with median sulci on dorsal side, though vaguely; basal three or four segments of meso- and metatarsi each with outer sulci.

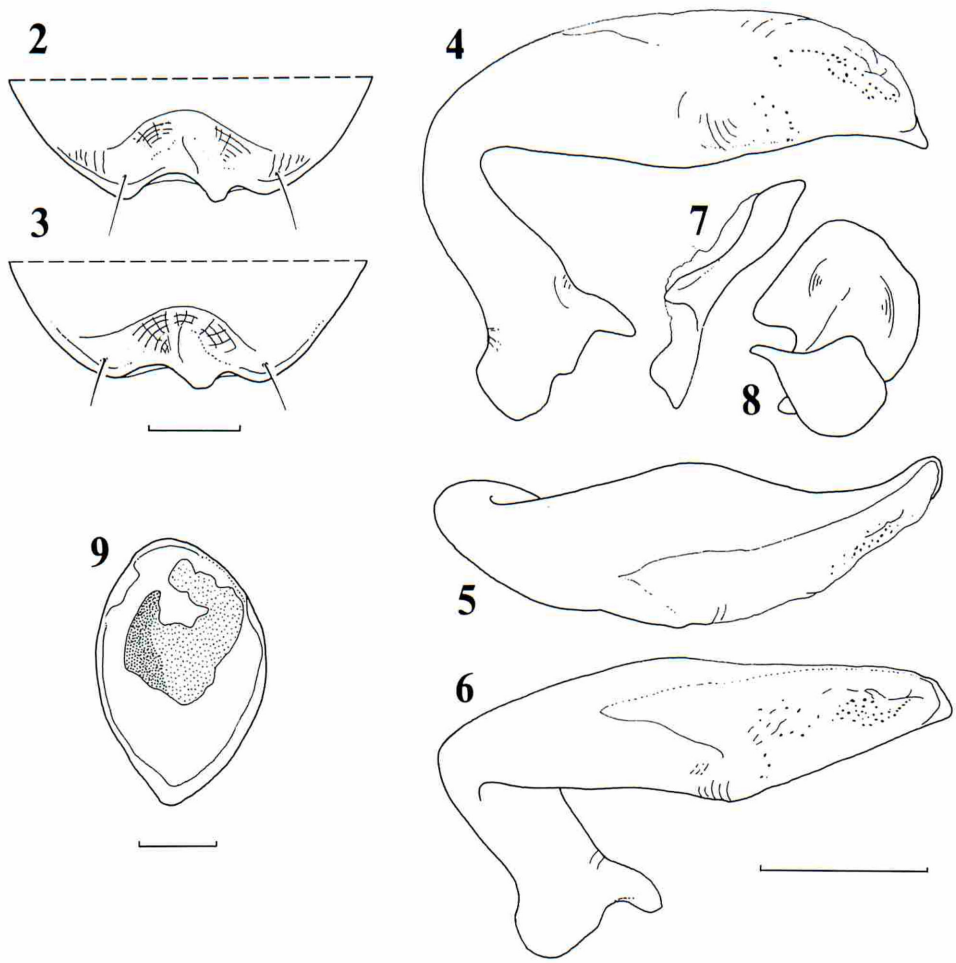
Aedeagus relatively stout, strongly bent at basal third; viewed dorsally, apical part slightly inclined to the right, and with widely rounded apex; apex wide in left dorso-lateral view; right paramere almost straight, and with simply rounded apex; left one wide and square.

Type series. Holotype: ♂, allotype: ♀, 11–VI–1995, H. OHKAWA, K. ONDA, T. SUDA & Y. UCHIYAMA leg. Paratypes: 5♂♂, 5♀♀, same collecting data as for the holotype.

Type locality. Mt. Oga-dake (=Mt. Ojika-dake), Kuroiso-shi, Tochigi Prefecture, Kwantô District, Central Japan.

The holo- and allotypes are preserved in the National Science Museum (Nat. Hist.), Tokyo.

Notes. Judging from the coloration, robust body, shape of anal projection in the male and structure of the apical part of aedeagus, this new species is closely allied



Figs. 2–9. *Pterostichus* (*Nialoe*) *ogaensis* MORITA, sp. nov., ♂, from Mt. Oga-dake. —— 2–3, Anal sternite, showing individual variation; 4, aedeagus, left lateral view; 5, aedeagus, dorsal view; 6, aedeagus, left dorso-lateral view, showing the shape of apex; 7, right paramere, left lateral view; 8, left paramere, left lateral view; 9, genitalic ring sclerite, dorsal view. (Scale: 1 mm.)

to *Pterostichus* (*Nialoe*) *nakanei* STRANEO (1955, p. 95). It is, however, distinguished from it by the following points: 1) smaller and narrower body; 2) pronotum with less transverse wrinkles; 3) sides of pronotum not serrate; 4) elytra with the widest part at about middle; 5) elytra with shallower preapical emargination; 6) shape of elytral apices; 7) apical part of aedeagus slightly inclined to the right, and 8) apical third of aedeagus with smaller tumor.

This beetle was found from under stones by a forestry road.

要　約

森田誠司：関東地方産ナガゴミムシの1新種．——栃木県黒磯市男鹿岳で採集されたナガゴミムシを，新種と認め，オガナガゴミムシ *Pterostichus* (*Nialoe*) *ogaensis* と命名した．この新種は，ナカネナガゴミムシ *P. nakanei* STRANEO に近縁であるが，はるかに小型で，上翅は中央でもっとも幅広く，陰茎の先端部の右方への傾きが弱く，下面の膨らみも弱いことで，識別される．

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Elytra, *Tokyo*, **23** (2): 287–288, November 15, 1995

Pterostichus spiculifer yatsuensis STRANEO (Coleoptera, Carabidae): A Taxonomic Note

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Recently, an interesting collecting site was discovered by the second and the third authors, namely, Nozoriko, Gunma Prefecture, central Honshu, Japan. There *Pterostichus spiculifer* coexists with one of its so-called subspecies, *P. s. yatsuensis* STRANEO (1955, p. 90) in the same

habitat. Examining a long series of specimens from this locality, the present authors came to the conclusion that the two forms were clearly distinct from each other. Therefore, we consider *P. yatsuensis* to be an independent species.

We wish to thank Dr. Shun-Ichi UÉNO for his kindness in reading the manuscript of this short paper.

Pterostichus (Epinialoe) yatsuensis STRANEO, stat. nov.

Pterostichus spiculifer yatsuensis STRANEO, 1955, Annli. Mus. civ. Stor. nat. Genova, **68**: 90, figs.11 & 21: type locality: Mt. Yatsu. —— JEDLIČKA, 1962, Ent. Abh. Mus. Tierk. Dresden, **26**: 285. —— NAKANE, 1979, Nat. & Ins., Tokyo, **14** (13): 4. —— TANAKA, 1985, Coleopt. Japan Col., Osaka, **2**: 118, fig. 15-e.

Specimens examined. 7♂♂, 2♀♀, 15-IX-1985, T. SUDA & Y. UCHIYAMA leg.; 14♂♂, 1-VI-1986, T. SUDA leg.; 1♂, 1♀, 1-VII-1987, T. SUDA leg.

Locality. Nozori-ko, Kuni-mura, Gunma Prefecture, Central Japan.

Pterostichus (Epinialoe) spiculifer BATES

Pterostichus spiculifer BATES, 1883, Trans. ent. Soc. London, **1883**: 246.
Other references are not required here.

Specimens examined. 5♂♂, 4♀♀, 15-IX-1985, T. SUDA & Y. UCHIYAMA leg.; 9♂♂, 18♀♀, 1-VI-1986, T. SUDA leg.; 4♂♂, 2♀♀, 1-VII-1987, T. SUDA leg.

Locality. Same locality as for the preceding species.

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TANAKA, K., 1985. Carabidae (Pterostichinae, Zabrinae). *In* UÉNO, S.-I., Y. KUROSAWA & M. SATÔ (eds.), *Coleoptera of Japan in Color*, **2**: 105-138. Hoikusha, Osaka. (In Japanese.)

Elytra, Tokyo, **23** (2): 289–295, November 15, 1995

Two New Patrobine Carabid Beetles from Western Honshu, Japan

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Abstract Two new patrobine carabid beetles, *Apatrobus odanakai* sp. nov. and *A. yamajii* sp. nov., are described from western Honshu, Japan. The former species belongs to the *echigonus* group, and the latter to the *hikosanus* group.

There occur two unnamed patrobine carabid beetles belonging to the genus *Apatrobus* in western Honshu, Japan. One of them belongs to the *echigonus* group. It was found on Mt. Ôe-yama in Kyoto Prefecture, which is the westernmost locality of that group so far known. The other one is a member of the *hikosanus* group. It was collected on northern mountains in Okayama Prefecture. Both the species are, however, clearly distinguished from their relatives by several characteristics and must be new to science. In this article, I will describe the former species under the name *Apatrobus odanakai* sp. nov., and the latter under the name *A. yamajii* sp. nov. The abbreviations used herein are the same as those explained in other papers of mine. All the holotypes to be designated are preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo. The paratypes are deposited in my cabinet.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO, the former chief of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, for his encouragement and for reading the manuscript of this paper. Thanks are also due to Messrs. Kôichi NOJIMA, Ken ODANAKA and Osamu YAMAJI for their kind supplying with valuable specimens.

Apatrobus odanakai sp. nov.

[Japanese name: Ôeyama-nurechi-gomimushi]
(Figs. 1–2)

Description. Length (measured from apex of labrum to apices of elytra) 8.6–8.9 mm; width 3.1–3.2 mm. Dark reddish brown, shiny; palpi and tarsi light reddish brown.

Head moderately convex; eyes convex, though not prominent; genae as long as eyes, weakly swollen; neck constriction distinctly impressed and strongly punctate dorsad; frontal furrows distinct, arcuate outwards, strongly punctate; lateral grooves

deep, extending to behind the post-eye level; supraorbital areas and frons convex; surface sparsely punctate except on vertex; microsculpture invisible, though well visible on labrum; antennae moderately long, reaching the basal fourth of elytra, relative lengths of scape and segments 2–6 as follows:—1 : 0.5 : 1.4 : 0.9 : 0.8 : 0.75.

Pronotum quadrate-cordate, moderately convex, widest at apical two-fifths, ca. 1.26 times as wide as head (PW/HW 1.24–1.28, mean 1.26), ca. 1.33 times as wide as base (PW/PBW 1.31–1.35, mean 1.33), 1.24 times as wide as long; lateral margins gently arcuate, strongly convergent posteriad and slightly sinuate before base; apical

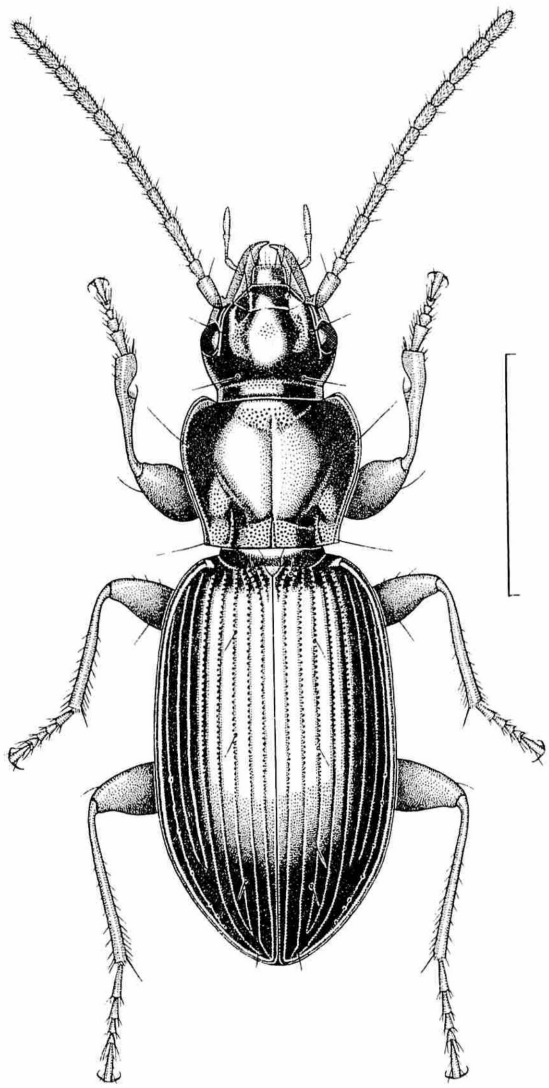

Fig. 1. *Apatrobus odanakai* sp. nov., ♂, from Mt. Ôe-yama in Kyoto Pref. Scale 3 mm.

margin almost straight, apical angles produced, rounded at the tips; basal margin as wide as or a ltttle wider than the apical, straight, though somewhat oblique on each side, basal angles rectangular, slightly produced laterad; basal foveae deep, strongly and ruggedly punctate; median line deep, strongly punctate in basal part; surface strongly punctate in apical, basal and lateral areas, minutely punctate on disc; microsculpture almost invisible.

Wings reduced. Elytra oblong subovate, moderately convex, widest at about middle, ca. 1.36 times as wide as pronotum (EW/PW 1.35–1.37, mean 1.36), ca. 2.8 times as long as pronotum (EL/PL 2.76–2.81, mean 2.79), ca. 1.65 times as long as wide; shoulders widely rounded; lateral margins gently divergent from behind shoulders to the widest level, then roundly convergent towards apices; scutellar striole short and punctate, arising from basal pores; striae distinctly punctate, though the punctures become finer towards apices; intervals gently convex, though almost flat in apical parts, sparsely and minutely punctate; interval 3 with three to four dorsal pores, adjoining stria 3 at basal fifth, about middle and apical fifth; microsculpture slightly visible, formed by fine transverse meshes.

Venter strongly punctate on neck constriction, pro-, meso- and metepisterna, pro- and mesosterna, and abdominal sternites 3–4, weakly punctate and rugose on lateral sides of sternites 5–8; prosternal process furrowed at middle.

Aedeagus strongly bent at basal third and almost straightly extending to apex in lateral view, apical half gently curved rightwards in dorsal view; apical lobe longer than wide, tapered towards apex, which is rather pointed, though dull at the tip; inner sac containing three copulatory pieces, apical one long and heavily sclerotized, horn-shaped; parameres wide and thin, not produced at apices.

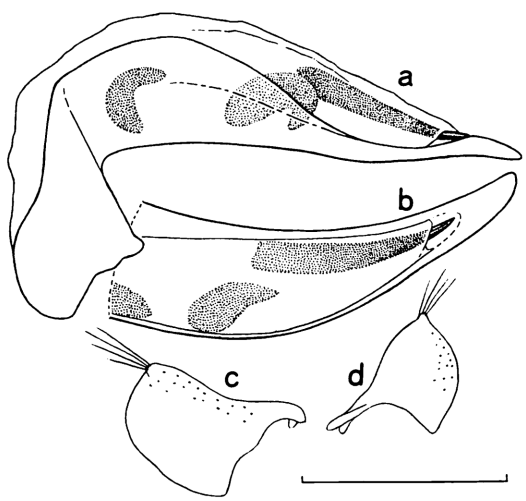

Fig. 2. Male genitalia of *Apatrobus odanakai* sp. nov., from Mt. Ôe-yama in Kyoto Pref. —— a–b, Aedeagus: a, left lateral view; b, dorsal view, basal part omitted; c, left paramere; d, right paramere. Scale 1 mm.

Type series. Holotype: ♂, Mt. Ôe-yama, Kyoto Pref., 2–X–1983, K. ODANAKA leg. Paratype: 1♀, same data as for the holotype.

Notes. The present new species may be related to *A. iwasakii* MORITA (1987, p. 36) and *A. hasemiya* MORITA (1990, p. 35) both described from Gifu Prefecture, but is distinguished from the latter two by having different configuration of male genitalia. This species is dedicated to Mr. Ken ODANAKA, who is the collector of this interesting beetle.

Apatrobus yamajii sp. nov.

[Japanese name: Yamaji-nurechi-gomimushi]
(Figs. 3–5)

Description. Length (measured as in the preceding species) 8.8–10.2 mm; width 3.2–3.8 mm. Black, shiny; labrum, mandibles, antennae, femora and tibiae dark reddish brown; palpi and tarsi reddish brown.

Head moderately convex; eyes convex, more or less prominent; genae shorter than eyes, gently swollen; neck constriction distinctly impressed and punctate dorsad; frontal furrows arising from clypeal pores, deeply impressed, divergent posteriad and punctate; lateral grooves deep, extending to behind the post-eye level; supraorbital areas and frons convex; surface minutely punctate and often with a small fovea in the middle of frons; microsculpture invisible; antennae moderately long, reaching the basal third of elytra; relative lengths of scape and segments 2–6 as follows:— 1 : 0.5 : 1.4 : 0.9 : 0.9 : 0.9.

Pronotum cordate, moderately convex, widest at apical third, ca. 1.3 times as wide as head (PW/HW 1.26–1.35, mean 1.32), ca. 1.5 times as wide as base (PW/PBW 1.47–1.59, mean 1.52), ca. 1.25 times as wide as long (PW/PL 1.23–1.27, mean 1.25); lateral margins well arcuate, strongly convergent posteriad and slightly sinuate before base; apical margin almost stright, apical angles somewhat produced, rounded at the tips; basal margin narrower than the apical, almost straight, though rather oblique on each side, basal angles obtuse or nearly rectangular, evidently angulate; basal foveae deep, strongly and ruggedly punctate; median line deep, strongly punctate in basal part; surface strongly punctate in apical, basal and lateral parts, minutely punctate on disc; microsculpture invisible.

Wings reduced. Elytra oblong subovate, gently convex, though rather flat on disc, widest at middle, more than 1.3 times as wide as pronotum (EW/PW 1.32–1.40, mean 1.33), ca. 2.65 times as long as pronotum (EL/PL 2.56–2.71, mean 2.65), ca. 1.6 times as long as wide (EL/EW 1.47–1.64, mean 1.59); shoulders widely rounded, and very minutely dentate; lateral margins gently arcuate from behind shoulders and roundly convergent towards apices; scutellar striole moderately long, arising from basal pores, strongly punctate; striae fine but deep, distinctly punctate, though the punctures become finer towards apices; intervals gently convex, minutely but clearly punctate; interval 3 with three to four dorsal pores, adjoining stria 3 at basal fifth,

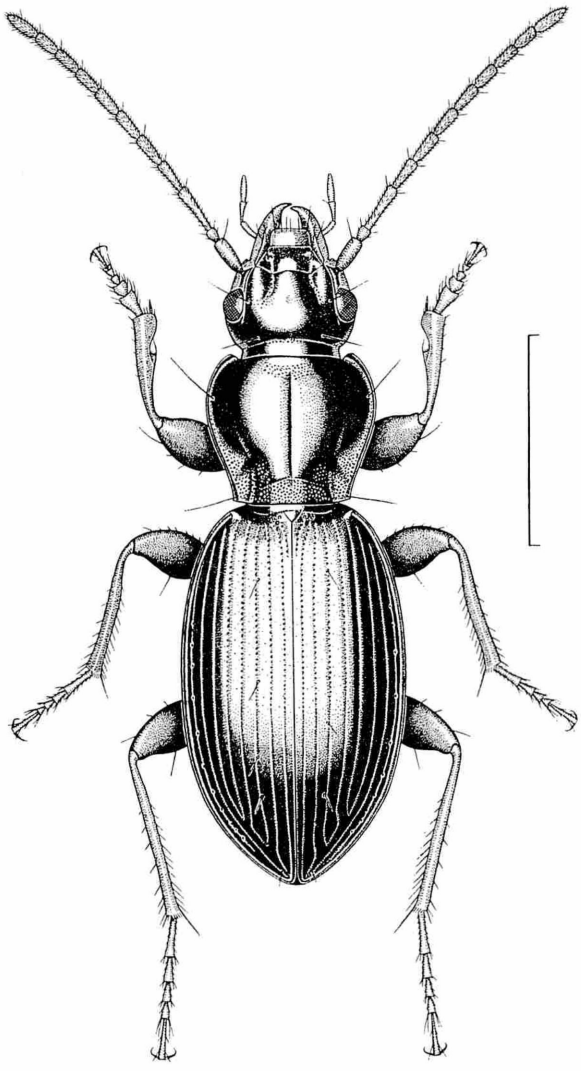

Fig. 3. *Apatrobus yamajii* sp. nov., ♂, from Mt. Yamanori-sen in Okayama Pref. Scale 3 mm.

about middle and apical fifth; microsculpture slightly visible, formed by fine transverse meshes.

Venter strongly punctate on neck constriction, pro-, meso- and metepisterna, mesosternum, lateral sides of pro- and metasterna, and abdominal sternites 3–4; minutely punctate and rugose on lateral sides of sternites 5–8; prosternal process distinctly furrowed at middle.

Aedeagus strongly bent at basal third, weakly curved upwards in apical half, apex truncate in lateral view; apical lobe as long as wide, obliquely truncate at apex, left

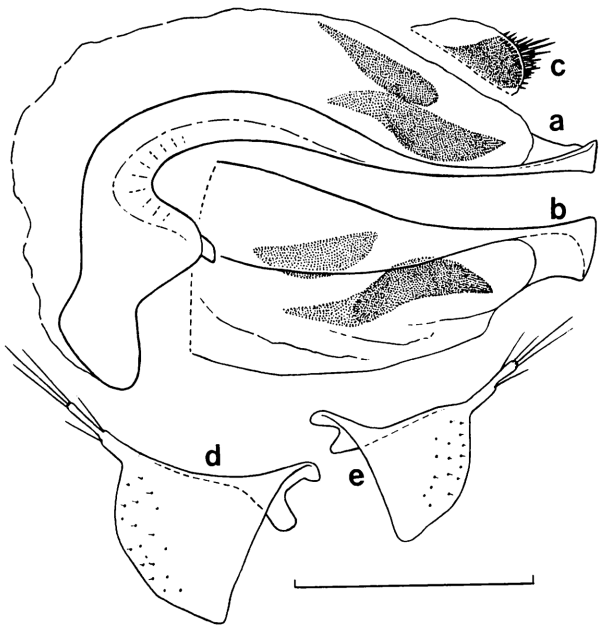

Fig. 4. Male genitalia of *Apatrobus yamajii* sp. nov., from Mt. Yamanori-sen in Okayama Pref. ——a–c, Aedeagus: a, left lateral view; b, dorsal view, basal part omitted; c, apex of apical copulatory piece exposed from apical orifice, lateral view; d, left paramere; e, right paramere. Scale 1 mm.

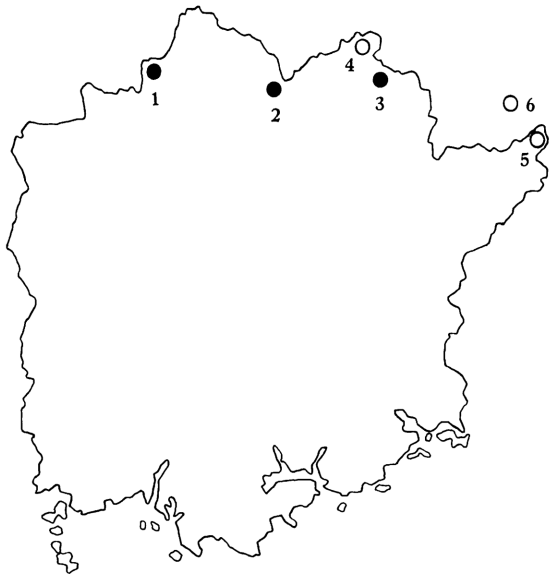

Fig. 5. Map showing the distribution of *Apatrobus* spp. in Okayama and adjacent prefectures. Black circles, *A. yamajii* sp. nov.; open circles, *A. nishiawakurae* (HABU). ——1, Mt. Kenashin-zen, Shinjô-son, Okayama Pref.; 2, Mt. Yamanori-sen, Chûka-son, Okayama Pref.; 3, Kurami, Kamo-chô, Okayama Pref.; 4, Akawase, Kamisaibara-son, Okayama Pref.; 5, Wakasugi-tôge, Nishiawakura-son, Okayama Pref.; 6, Yakô-dani, Chizu-chô, Tottori Pref.

margin gently emarginate; inner sac containing two copulatory pieces in apical third, apical one spindle-shaped, with the apex formed by a bundle of numerous spines; parameres wide, triangular, apex distinctly prolonged.

Type series. Holotype: ♂, Mt. Yamanori-sen, Chûka-son, Okayama Pref., 15–IX–1994, O. YAMAJI leg. Paratypes: 3♀♀, same locality as for the holotype, 21–VI–1992, O. YAMAJI leg.; 1♂, 2♀♀, same locality, 10–IX–1994, S. KASAHARA leg.; 1♂, 1♀, Mt. Kanashi-zen, Shinjô-son, Okayama Pref., 29–V–1993, O. YAMAJI leg.; 1♀, same locality, 14–V–1994, O. YAMAJI leg.; 1♂, 1♀, same locality, 1–VI–1994, K. NOJIMA leg.; 1♂, 6♀♀, Kurami, Kamo-chô, Okayama Pref., 26–IX–1992, O. YAMAJI leg.

Notes. The present new species resembles *A. nishiawakurae* (HABU) (1980, p. 47) in general appearance and occurs in a close proximity, but is clearly discriminated from the latter by punctate intervals of elytra and different configuration of male genitalia. The species was named after Mr. Osamu YAMAJI, who is keenly investigating the coleopteran fauna of Okayama Prefecture.

要　約

笠原須磨生：本州西部産ヌレチゴミムシの2新種．——京都府の大江山で発見されたオオエヤマヌレチゴミムシ*Apatrobus odanakai*と，岡山県北部の山地に分布するヤマジヌレチゴミムシ*A. yamajii*を記載した．前種はエチゴヌレチゴミムシ群*echigonus* groupに属し，本群の分布域のなかでもっとも西に分布するものである．一方，後種はヒコサンヌレチゴミムシ群*hikosanus* groupに属し，近似のニシアワクラヌレチゴミムシ*A. nishiawakurae* (HABU)と分布域を接しているが，上翅間室に点刻のあることや，雄交尾器の形態が相違していることで明らかに区別できる．

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Elytra, Tokyo, **23** (2): 296, November 15, 1995

Some Carabid Beetles Found on the Shiga Heights in Nagano Prefecture, Central Honshu, Japan

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In June 1995, the Japanese Society of Coleopterology held a regular meeting on the Shiga Heights in Nagano Prefecture, central Honshu, Japan. At this opportunity, I made an investigation of beetles and succeeded in obtaining many examples, some of which were of interest from the zoogeographical viewpoint. The carabid fauna of the Shiga Heights has hitherto been poorly known.

I thank Dr. Shun-Ichi UÉNO and Mr. Shinzaburô SONE for their kind help in field works.

Nebria saeviens BATES

1♂, Zakkogawa-rindô, 17–VI–1995, S. KASAHARA leg.

Nebria reflexa reflexa BATES

1♂, Kanakura-rindô, half way down Mt. Yakebitai-yama, 16–VI–1995, S. KASAHARA leg.; 1♂, Zakkogawa-rindô, 17–VI–1995, S. KASAHARA leg.

Pterostichus defossus BATES

1♂, Zakkogawa-rindô, 17–VI–1995, S. KASAHARA leg.

Pterostichus macrogenys BATES

1♀, Kanakura-rindô, half way down Mt. Yakebitai-yama, 16–VI–1995, S. KASAHARA leg.

Pterostichus abaciformis STRANEO

1♂, 1♀, same data as for the preceding species.

Pterostichus uenoi STRANEO

1♀, Okushiga-rindô, 17–VI–1995, S. KASAHARA leg.

Pterostichus spiculifer spiculifer BATES

2♀♀, Zakkogawa-rindô, 17–VI–1995, S. KASAHARA leg.

Pterostichus janoi JEDLIČKA

2♂♂, Kanakura-rindô, half way down Mt. Yakebitai-yama, 16–VI–1995, S. KASAHARA leg.

These individuals somewhat resemble *P. cristatoides* STRANEO in larger body with wider pronotum, though configurations of the anal sternite and genitalia are doubtlessly identical with those of *P. janoi*.

Pterostichus latistylis TANAKA

1♂, 1♀, same data as for the preceding species.

Right paramere wide, pointed but not truncate at the apex.

Pterostichus asymmetricus BATES

5♂♂, 1♀, same data as for the preceding species.

Apex of aedeagus somewhat roundly enlarged.

Pterostichus katashinensis katashinensis HABU

1♀, same data as for the preceding species.

Elytra, Tokyo, **23** (2): 297–304, November 15, 1995

Two New Subterranean Trechines (Coleoptera, Trechinae) from Southwestern Hokkaido, Northeast Japan[1)]

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Abstract Two new subterranean trechine beetles are described from the Pacific side of the Oshima Peninsula in southwestern Hokkaido, Northeast Japan. One of them, named *Epaphiopsis* (*Epaphiama*) *gracilenta*, is endogean and oligophthalmic, while the other, named *Accoella thermalis*, is upper hypogean and anophthalmic. They occur in the same colluvia along a stream, but at different depth. The male genitalic characters of the genus *Accoella* are first introduced into science.

Five years ago, a very strange anophthalmic trechine beetle was reported under the name *Accoella akirai* on the basis of a single female specimen unexpectedly collected at the southwestern tip of the Oshima Peninsula in southwestern Hokkaido (UÉNO, 1990, p. 170, fig. 1), with the comment that its true affinity was indeterminable at that time. In the same paper, another blind trechine, *Epaphiopsis* (*Epaphiama*) *oligops*, which had theretofore been considered endogean in the alpine zone, was recorded from the upper hypogean zone of the same locality. Since then, nothing new has been added to our knowledge of the monotypical genus *Accoella* in spite of careful searches continuously made by its discoverer.

In the summer of 1994, Masaaki NISHIKAWA visited a hot spring lying at the other side of the Oshima Peninsula, and came across a habitat of an oligophthalmic species of *Epaphiama* at the side of a nearby stream. While collecting this trechine beetle, he was surprised to find an individual of a large anophthalmic species, which looked to him as a member of *Accoella*. He then submitted all his collection to me for taxonomic investigation. His expectation was fulfilled by my study of the specimen; it proved to be a second species of the problematical genus. Unfortunately, however, the single specimen known was a female as in the case of the type species, so that further searches were needed for clarifying the systemaic status of the genus. At my request, Shinzaburo SONE made an intensive survey in that area about a month after NISHIKAWA's discovery, and finally succeeded in obtaining long-waited males of *Accoella*. I myself found an opportunity to pay a visit to the collecting site early in

1) This study is supported by the Grant-in-aid No. 06640914 for Scientific Research from the Ministry of Education, Science and Culture, Japan.

the summer of this year, and with the aid of Dr. Akiko SAITO, carefully examined the condition of existence of the two trechines in question.

Before the present discovery, subterranean trechines in southwestern Hokkaido were known from only the Oshima Mountains arcuately stretching from north to south along the axis of the Oshima Peninsula. The new locality of *Epaphiama* and *Accoella* near the hot spring lies at the eastern foot of the Kameda Hills on the Kameda Sub-peninsula, which are separated from the Oshimas by the recent volcano Koma-ga-také, the Oh-numa lake area and the Hakodaté Plain. As is readily understood from this topography, the new locality is so isolated from those of the previously known species, that speciation of subterranean trechines between them is naturally expected. This is amply verified at present, though the two species are closely related beyond doubt to the forms occurring on the southern part of the Oshimas.

In the present paper, the two new species will be described under the names *Epaphiopsis* (*Epaphiama*) *gracilenta* and *Accoella thermalis*. Male genitalic characters of the genus *Accoella* will be introduced into science for the first time, and a brief comment will be made on the affinity of the genus. The abbreviations used herein are the same as those explained in previous papers of mine.

Before going into further details, I wish to thank Messrs. Masaaki NISHIKAWA and Shinzaburo SONE as well as to Dr. Akiko SAITO for their kind help in preparing the present paper.

Epaphiopsis* (*Epaphiama*) *gracilenta S. UÉNO, sp. nov.

[Japanese name: Kakkumi-chibi-gomimushi]
(Figs. 1–3)

Length: 3.50–4.05 mm (from apical margin of clypeus to apices of elytra).

Rather variable species related to *E. oligops* S. UÉNO (1978, pp. 128, 140, figs. 10–12; 1985, p. 66, pl. 13, fig. 10) and *E. nishikawai* S. UÉNO (1987, p. 124, figs. 1–3), both from the southern part of the Oshima Mountains, but the fore-body is larger on an average, the eyes are more or less faceted though small, the genae are usually glabrous, the prothorax is a little narrower at the base in most individuals, and the elytra are more strongly punctato-striate. Distinguished at first sight from the two species of the Oshima Mountains by the differently shaped aedeagus, which is larger, slenderer and remarkably depressed.

Colour as in *E. oligops*, concolorously dark reddish brown, with lighter palpi and legs.

Head generally similar to that of *E. oligops*, but larger with distinctly faceted eyes; genae almost always glabrous, usually a little longer than (1.05–1.35 times as long as) eyes but sometimes shorter than (3/4–9/10 as long as) the latter; eyes variable in both size and convexity, nearly always flat but very slightly convex in rare exceptional individuals, ommatidia more or less distinct though somewhat reduced in a few individuals; antennae short and stout, usually reaching basal fourth of elytra in both

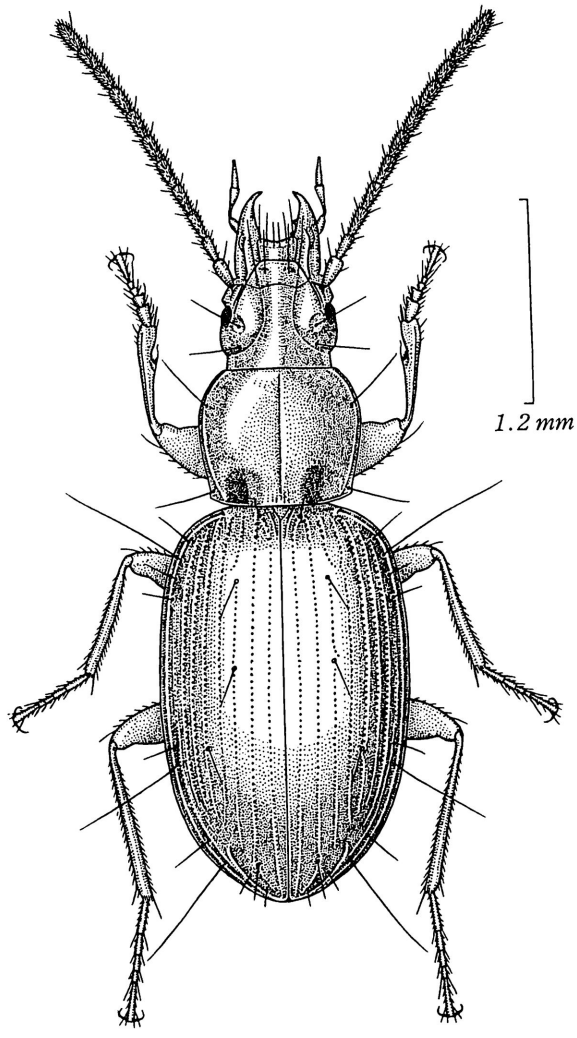
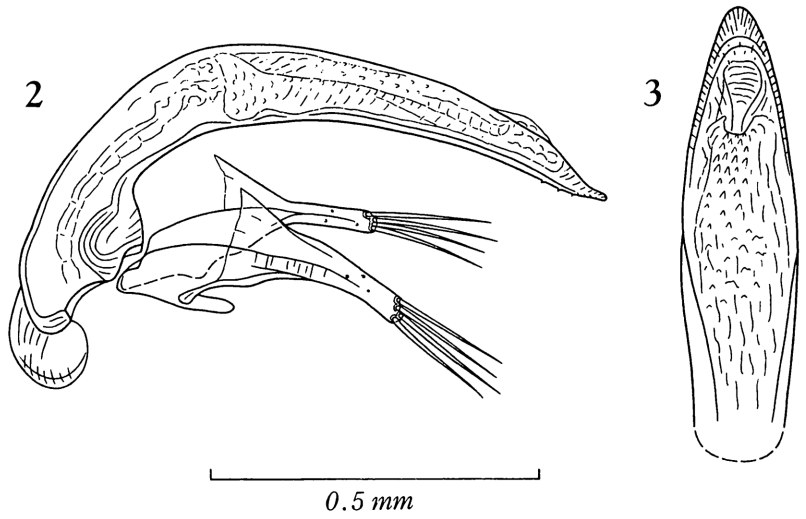


Fig. 1. *Epaphiopsis* (*Epaphiama*) *gracilenta* S. Uéno, sp. nov., ♂, from Kakkumi-kôén.

♂ and ♀, though variable to some extent in length according to individuals and sometimes barely reaching basal fifth of elytra.

Pronotum usually similar to that of *E. oligops* though a little narrower at the base in most individuals, widest at about three-fifths from base and more strongly narrowed towards apex than towards base; in some individuals, pronotum widest at about four-sevenths from base, more gradually narrowed anteriad, and more strongly so posteriad; reflexed lateral margins also variable in width, sometimes broader than usual in posterior halves; PW/HW 1.41–1.52 (M 1.46), PW/PL 1.19–1.31 (M 1.24), PW/PA 1.52–1.67 (M 1.57), PW/PB 1.18–1.29 (M 1.24), PB/PA 1.21–1.34 (M 1.27).



Figs. 2–3. Male genitalia of *Epaphiopsis* (*Epaphiama*) *gracilenta* S. UÉNO, sp. nov., from Kakkumi-kôên; left lateral view (2), and apical part of aedeagus, dorsó-apical view (3).

Elytra more strongly convex than in *E. oligops*, widest at about or a little before the middle, with the sides less evenly arcuate in basal two-thirds; EW/PW 1.44–1.53 (M 1.49), EL/EW 1.45–1.52 (M 1.48); shoulders distinct though rounded, with prehumeral borders almost perpendicular to the mid-line at the innermost portions; striae deeply impressed throughout, more coarsely punctate than in *E. oligops*, stria 3 with two setiferous dorsal pores at 1/8–1/6 and 3/8–3/7 from base, respectively, stria 5 with a single setiferous dorsal pore at about 2/3 from base; preapical pore lying on the apical anastomosis of striae 2 and 3 at about or a little behind the level of the terminus of apical striole.

Legs as in *E. oligops*.

Male genital organ basically similar to those of *E. oligops* and *E. nishikawai*, but obviously larger, more elongate, and heavily sclerotized. Aedeagus very slender, nearly three-sevenths as long as elytra, depressed, gently arcuate, and rather abruptly bent ventrad at the basal part, with fairly long apical lobe slightly reflexed at the terminal part; viewed laterally, aedeagus very gradually tapered towards apex from proximal two-fifths, with apical lobe very thin at the reflexed part; basal part rather small, shallowly emarginate at the sides of small basal orifice, and provided with a large sagittal aileron; viewed dorsally, aedeagus broadest at apical third and gradually tapered apicad from there, with symmetrical apical lobe narrowly rounded at the extremity; ventral margin widely emarginate in profile. Inner sac wholly covered with small scales, which are poorly sclerotized except near apical orifice. Styles small, with narrow apical parts, left style longer than the right, each bearing four slender setae at the apex.

Type series. Holotype: ♂, allotype: ♀, 28–VI–1995, S. UÉNO leg. Paratypes: 9♂♂,

3♀♀, 15–VIII–1994, M. NISHIKAWA leg.; 11♂♂, 8♀♀, 16–VIII–1994, M. NISHIKAWA leg.; 1♂, 1♀ (both teneral), 28–VI–1995, S. UÉNO & A. SAITO leg.; 1♂, 3♀♀, 29–VI–1995, S. UÉNO & A. SAITO leg. Four paratypes (CBM–ZI 33971–33974) are deposited in the collection of the Natural History Museum and Institute, Chiba. All the others including the holotype and the allotype are deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Type locality. Kakkumi-kôén, 90 m in altitude, in Minamikayabé-chô of Oshima, southwestern Hokkaido, Northeast Japan.

Notes. This new species seems less adapted to the subterranean life than *E. oligops* and *E. nishikawai*, as is indicated by the lesser extent of the reduction of eyes. It dwells in the same colluvia that *Accoella* inhabits, but is usually found just below the surface and does not penetrate into the upper hypogean zone. On the other hand, this species does not seem humicolous like *E. brevis*, since it has not been collected by sifting dead leaves in nearby forests.

Accoella thermalis S. UÉNO, sp. nov.

[Japanese name: Kakkumi-mekura-chibigomimushi]
(Figs. 4–5)

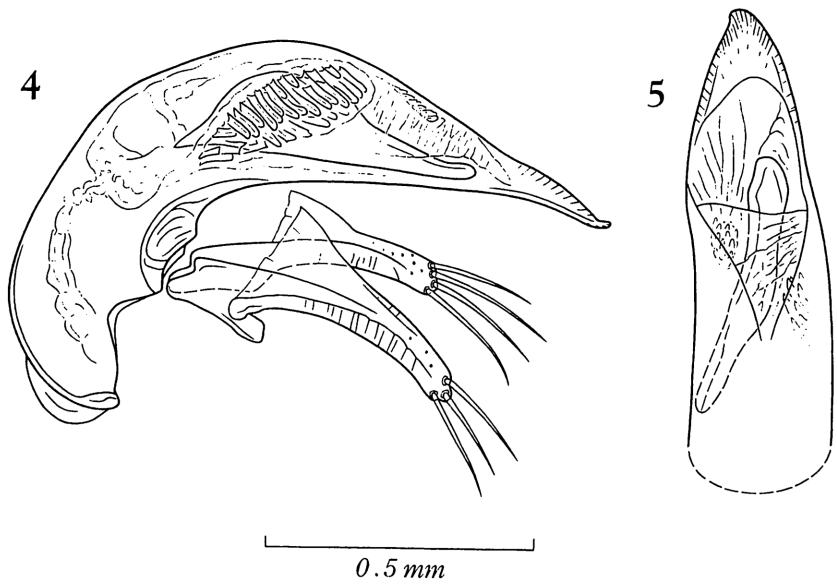
Length: 5.30–5.80 mm (from apical margin of clypeus to apices of elytra).

Closely similar to *A. akirai* S. UÉNO (1990, p. 170, fig. 1) of Ohmori-yama in Matsumaé-chô, but different in the following points:

Head a little larger, with more regularly convex genae, especially at the posterior parts, and more deeply marked neck constriction at the sides; antennae reaching or nearly reaching the middle of elytra in both ♂ and ♀. Pronotum wider at apical third or three-eighths, with the sides more strongly arcuate in front and feebly so even in basal halves, though hardly sinuate before hind angles, which are either obtuse or rectangularly denticulate; reflexed margins narrower, especially near front angles, which are slightly more apparent; PW/HW 1.24–1.34 (M 1.29), PW/PL 0.98–1.04 (M 1.02), PW/PA 1.42–1.52 (M 1.47), PW/PB 1.24–1.31 (M 1.28), PB/PA 1.10–1.20 (M 1.15).

Elytra longer and more parallel-sided, widest at about or slightly before the middle, with a distinct, anteriorly slanting depression on each basal part; EW/PW 1.73–1.79 (M 1.77), EL/PL 2.89–3.08 (M 3.01), EL/EW 1.64–1.70 (M 1.67); surface a little more convex, especially at the sides; striae somewhat deeper and more coarsely punctate; apical striole usually directed to or almost joining stria 7 without terminal curve, but sometimes briefly curved inwards at the anterior end; intervals convex though less sharply convex at the side than in *A. akirai*; stria 3 with three setiferous dorsal pores at 1/8–1/7, 2/7–1/3 and 3/5–2/3 from base, respectively; in the allotype, an extra dorsal pore present on the left elytron between the second and the third pores; stria 5 with two setiferous dorsal pores at 2/13–1/5 and 3/8–1/2 from base, respectively, the proximal pore being more distant from base than in *A. akirai*.

♂: Anal sternite provided with a pair of marginal setae; two proximal



Figs. 4–5. Male genitalia of *Accoella thermalis* S. UÉNO, sp. nov., from Kakkumi-kôên; left lateral view (4), and apical part of aedeagus, dorso-apical view (5).

protarsomeres widely dilated, stoutly protrudent inwards at apices, and furnished beneath with adhesive appendages.

Male genital organ small though rather heavily sclerotized. Aedeagus only one-third as long as elytra, not depressed, highest at about middle, and gradually tapered towards apex, with large basal part strongly bent ventrad; dorsal margin semicircularly rounded before the middle in profile; basal part rather elongate, almost rectangularly emarginate at the sides of basal orifice, and provided with a small hyaline sagittal aileron; viewed dorsally, apical lobe elongated subtriangular, somewhat asymmetrical, with the terminal portion slightly curved to the right; viewed laterally, apical lobe narrow, gradually tapered, slightly curved ventrad, and briefly reflexed at the extremity; ventral margin almost straight in apical two-thirds in lateral view except for that of apical lobe. Inner sac armed with a large copulatory piece and two patches of sclerotized teeth; copulatory piece elongate, about a half as long as aedeagus, lying diagonally at the ventral side of inner sac from right proximal to left apical, and narrowly rounded at the apex, with the left dorsal edge dorsally expanded in proximal three-fifths and forming a hyaline semicircular lamella; left proximal teeth-patch large and elongate, obliquely lying at about middle, and consisting of large, heavily sclerotized teeth; dorso-apical teeth-patch very small, lying at the right side just inside apical orifice, and consisting of very small teeth. Styles fairly large, left style obviously longer than the right, each bearing three or four setae at the apex.

Type series. Holotype: ♂, allotype: ♀, 16–IX–1994, S. SONE leg. Paratypes: 1♀, 15–VIII–1994, M. NISHIKAWA leg.; 2♂♂, 16–IX–1994, S. SONE leg.; 1♀, 28–VI–1995,

S. UÉNO leg: All deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Kakkumi-kôén, 90 m in altitude, in Minamikayabé-chô of Oshima, southwestern Hokkaido, Northeast Japan.

Notes. Describing *Accoella akirai*, the type species of the genus, I suggested that it might have some remote affinity to the members of the group of *Trechiama oreas* mainly because of the similarity in elytral chaetotaxy. This suggestion proved wrong by examination of the male genitalia of *A. thermalis*. Though generally similar to those of *Trechiama*, they are unique in conformation of the inner armature, which is utterly different from those in any lineages of the *oreas* group.

The unique configuration of the prothorax of *Accoella*, especially of its hind angles, reminds us of that of "*Trechiama*" *siamensis* DEUVE (1988, p. 287, figs. 1–8), an isolated species described from a limestone cave in Central Thailand. *Accoella* is also similar to the Thailand species in the elytral chaetotaxy. They are, however, decisively different in conformation of the male genitalia, those in the latter being primitive and similar to those of *Trechiotes luticola* (cf. UÉNO, 1995, pp. 179–180, figs. 3–4). I have the impression that "*Trechiama*" *siamensis* may be more closely related to *Trechiotes* than to *Trechiama*, in spite of the marked difference in the shape of prothorax and in the arrangement of setiferous dorsal pores on elytra. Anyway, "*T.*" *siamensis* is a tropical species like the members of *Trechiotes*, both retaining plesiomorphic states of various characters. On the other hand, *Accoella* is an advanced genus in the *Trechiama* group, seeing that the aedeagal inner armature has become highly differentiated. Its peculiar prothorax may represent a plesiomorphic character state, though I am not certain of this. What is important is that it has no direct relatives in northeastern Honshu. This seems to mean that the origin of *Accoella* cannot be sought in that direction. It is possible that like the Hokkaido species of *Epaphiama*, *Accoella* may have been derived from an ancestor that reached southwestern Hokkaido directly from somewhere in the Asian Continent.

As was mentioned in the introduction of this paper, the only known habitat of *Accoella thermalis* lies at the eastern foot of the Kameda Hills. It is about 84 km distant to the northeast from Ohmori-yama, the type locality of *A. akirai*. Generally speaking, the Kakkumi area is not favourable for harbouring upper hypogean fauna, since most streams cut through compact tuff formation and do not deposit loose screes at their sides. In the immediate vicinity of the hot spring called Kakkumi-onsen, however, the tuff has been metamorphosed by the hot water and has formed innumerable subparallel cracks. *Accoella* dwells in these cracks always beneath thick colluvia. The six known specimens were dug out from four colluvia deposited at the sides of the stream called the Kakkumi-gawa within a distance of only 300 m. We were unable to find any favourable colluvia outside this small place along the stream in spite of careful searches made for seven man-days.

要　約

上野俊一：北海道南西部の地中から見つかったチビゴミムシ類の2新種．—— 1994年の夏，渡島半島南東部で，西川正明氏によって，2種のチビゴミムシが採集された．そのひとつは，キタチビゴミムシ亜属に含まれる地中性の新種で，カックミチビゴミムシ *Epaphiopsis* (*Epaphiama*) *gracilenta* S. UÉNO と命名して記載した．他のひとつは，ホソメクラチビゴミムシ属の第二の種で，カックミメクラチビゴミムシ *Accoella thermalis* S. UÉNO と命名したが，その生息域が地下浅層だと確認された．また，この属の雄交尾器の構造が初めて明らかになり，ナガチビゴミムシ群の祖先的な形態を残す一群であろうと推定された．どちらの種も渡島山地のものに類縁が近く，亀田山地に隔離されたことによって，共通の祖先から分化したものだと考えられる．

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Elytra, Tokyo, **23** (2): 305–311, November 15, 1995

Some Additional Findings on the Genus *Carabus* (Coleoptera, Carabidae) from the Dabashan Mountains of Sichuan Province, Central China

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Abstract Three species of the genus *Carabus* (s. lat.) are newly recorded from the Dabashan Mountains at the northeastern end of Sichuan Province, Central China, with description of a new species and a taxonomic modification: *Carabus* (*Apotomopterus*) *manlius* sp. nov., *C.* (*Oreocarabus*) *ohshimaianus* DEUVE, bona sp., and *C.* (*O.*) *titanus* BREUNING. The male of *C.* (*Shunichiocarabus*) *uenoianus* IMURA is described at the same time.

In my previous papers (IMURA, 1995 a, b), I recorded seven species of the genus *Carabus* from the Dabashan Mountains at the northeastern end of Sichuan Province, Central China. Very recently, I had an opportunity to examine some specimens additionally obtained from the same mountain range, through the courtesy of Mr. Wakô KITAWAKI. The collection contains a new species belonging to the subgenus *Apotomopterus* and two species belonging to the subgenus *Oreocarabus*, i.e., *C.* (*O.*) *ohshimaianus* DEUVE and *C.* (*O.*) *titanus* BREUNING, both of the latter two are newly recorded from the Dabashan Mountains. Besides, I was able to examine the males of *Carabus* (*Shunichiocarabus*) *uenoianus* IMURA included in the same collection, which has been known so far from only two female specimens. In the following lines, I am going to record these species with necessary descriptions and some taxonomical notes.

The abbreviations used herein are the same as those explained in my previous papers.

I thank Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo, for reviewing the original manuscript of this paper. My deep gratitude is also due to Mr. Wakô KITAWAKI, Osaka, for his kindness in giving me the opportunity to examine the materials used for this study.

1. *Carabus* (*Apotomopterus*) *manlius* IMURA, sp. nov.

(Figs. 1, 5, 8)

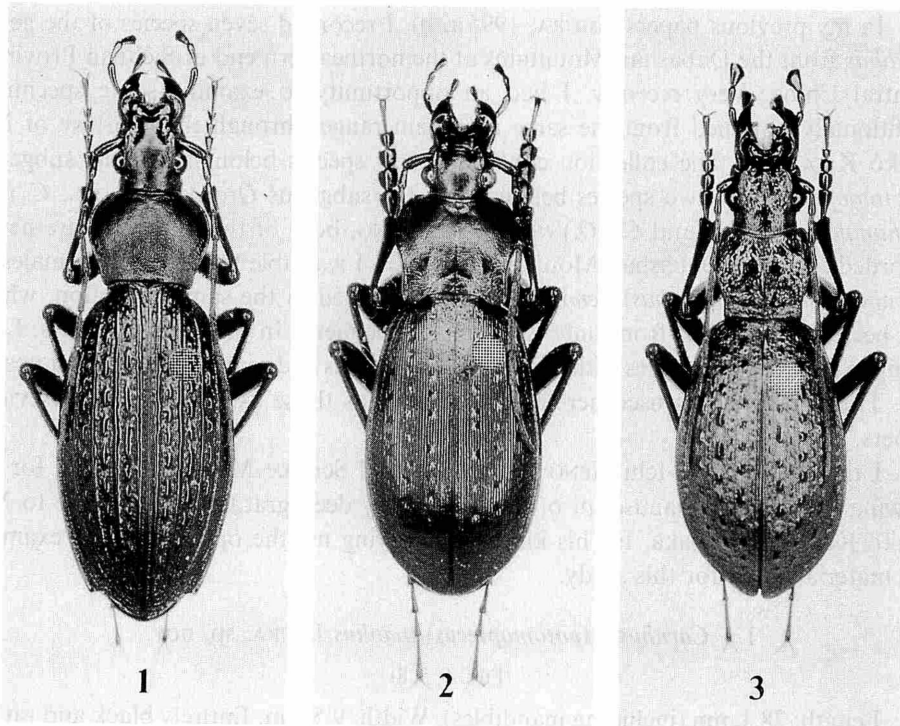
Length: 28.1 mm (including mandibles). Width: 9.5 mm. Entirely black and rather mat.

Medium- or a little small-sized species for the subgenus, with external features

similar to those of *C.* (*A.*) *telemachus* HAUSER or to *C.* (*A.*) *torquatus* CAVAZZUTI.

Head as in *C. torquatus*, but the frontal surface is smoother, much less strongly rugulose and never punctate; apical margin of labrum much more deeply emarginate than in *C. telemachus*; penultimate segment of labial palpus multisetose, with four setae on the right side and six on the left side; mentum almost the same in shape as that of *C. telemachus*, which is obviously more transverse than in *C. torquatus*; submentum bisetose; antennae rather long, extending slightly beyond the middle of elytra, which are much longer than in *C. telemachus* and almost same in relative length as in *C. torquatus*.

Pronotum more transverse than in *C. telemachus* and *C. torquatus*, with the sides more roundly arcuate near the widest part, more strongly cordate and sinuate towards hind angles which are obviously protrudent posteriad though the apices are obtusely rounded. Discal surface almost as in *C. telemachus* and never punctate as in *C. torquatus*; basal foveae much shallower than in both the species, which are hardly concave; lateral margins bisetose, one seta at a little behind the widest part and the other one before hind angles; PW/HW 1.58, PW/PL 1.34, PW/PAW 1.69, PW/PBW 1.31, PBW/PAW 1.29.



Figs. 1–3. *Carabus* (s. lat.) spp. from the Dabashan Mountains in northeastern Sichuan, Central China. —— 1, *Carabus* (*Apotomopterus*) *manlius* sp. nov., holotype, ♀; 2, *C.* (*Oreocarabus*) *ohshimaianus* DEUVE, ♂; 3, *C.* (*Shunichiocarabus*) *uenoianus* IMURA, ♂.

Elytra shorter and robuster, with deep preapical emargination though a little shallower than that of *C. torquatus*; EW/PW 1.45, EL/EW 1.84; primary tubercles much narrower and smaller than in *C. telemachus*, and rows of granules on the tertiary intervals much less prominent than in both the species; prepisterna more minutely and coarsely punctate; metacoxa trisetose; sternal sulci completely and prominently carved.

Tarsi a little longer and slenderer than in both the species.

Male unknown.

Holotype: ♀, 1,600–1,900 m alt., near Bashan on the Dabashan Mts. in Chengkou Xian (Wanxian Diqu), NE Sichuan, Central China, V～VII–1995, in coll. NSMT.

Derivatio nominis. *Manlius*, the name of this new species, comes from an old family name of the Roman, and is well-known to be dubbed "*Torquatus*" which is the name given to the allied species distributed in Guangxi Province.

2. ***Carabus* (*Oreocarabus*) *ohshimaianus*** DEUVE, 1988, bona species

(Figs. 2, 11, 12)

Carabus (*Oreocarabus*) *ohshimaianus* DEUVE, 1988, L'Entomologiste, **44**, p. 324: type locality; Chine, Hubei, Shennongjia.

Carabus (*Oreocarabus*) *reitterianus ohshimaianus*: DEUVE, 1994, Bibliothèque Entomologique, **5**, p. 165.

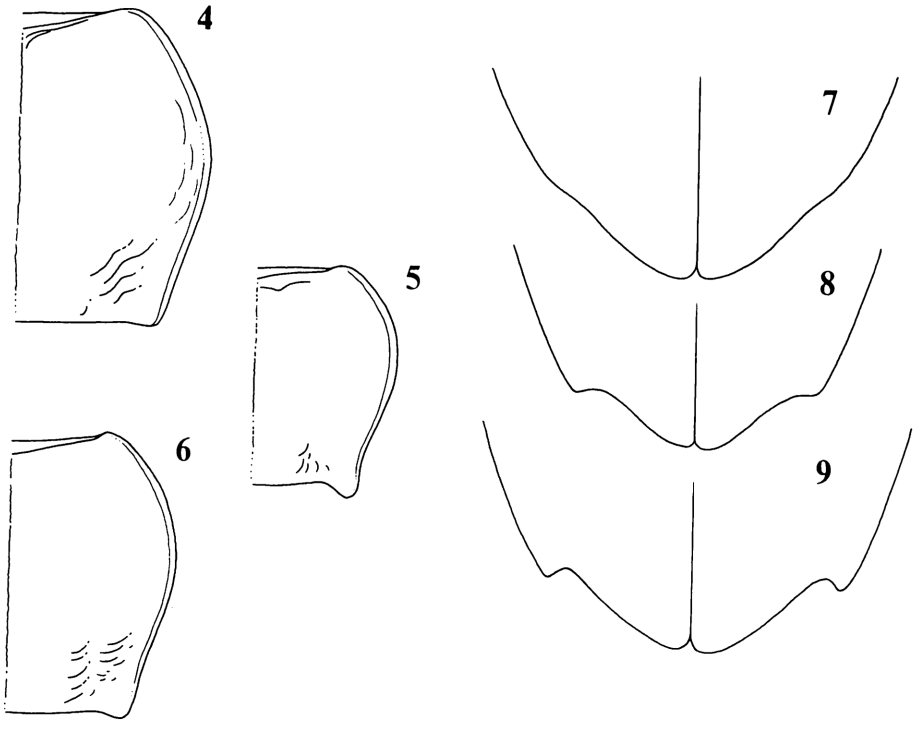
Male genitalia. In contrast with similarity in the external features, basic structure of the endophallus of this taxon is much different from that of *C. reitterianus*; median lobe not developed at all, while it is strongly and triangularly projected in *C. reitterianus*; praeputial pad much more characteristic in shape, strongly protrudent dorsad to form a plate-like sclerite with marked pigmentation, the centre of which is deeply guttered, though it is quite simple and rather atrophic in *C. reitterianus*; apical part of endophallus much more elongate than in *C. reitterianus*, though the aggonoporius is not sclerotized as that of *C. reitterianus*.

Specimen examined. 1♂ (27.7 mm in length including mandibles), 1,600–1,900 m alt., near Bashan on the Dabashan Mts. in Chengkou Xian (Wanxian Diqu), NE Sichuan, Central China, V～VII–1995, in coll. Y. IMURA.

Notes. Although DEUVE (1994, p.165) downgraded this taxon to the subspecies of *C. reitterianus* according probably to similarity in the external and aedeagal features, endophallic structure of the former is much different from that of the latter as mentioned above, and therefore *C. ohshimaianus* should be regarded as a distinct species. It is worth noting that some Chinese species belonging to the subgenus *Oreocarabus*, *e.g.*, *C. titanus* BREUNING and *C. kitawakianus* IMURA, often show such a remarkable modification in the endophallic structure, and it will be necessary to discuss their systematic relationship in due consideration of the characteristics of the same organ.

3. ***Carabus* (*Oreocarabus*) *titanus*** BREUNING, 1932

Carabus (*Oreocarabus*) *titanus* BREUNING, 1933, Best.-Tab. eur. Coleopt., (107), p. 729: type locality; China,



Figs. 4–9. Pronotum (4–6, ♀, right half in dorsal view) and apical part of elytra (7–9, ♀) of *Carabus* (*Apotomopterus*) spp. —— 4 and 7, *Carabus* (*Apotomopterus*) *telemachus* HAUSER, from Mt. Heng Shan, Hunan; 5 and 8, *C.* (*A.*) *manlius* IMURA, sp. nov., from Dabashan Mts., NE Sichuan; 6 and 9, *C.* (*A.*) *torquatus* CAVAZZUTI, from Mt. Miao'er Shan, NE Guangxi.

Prov. Hupe, Tan-che-chan.

Specimen examined. 1♀ (36.5 mm in length including mandibles), 1,600–1,900 m alt., near Bashan on the Dabashan Mts. in Chengkou Xian (Wanxian Diqu), NE Sichuan, Central China, V～VII–1995, in coll. Y. IMURA.

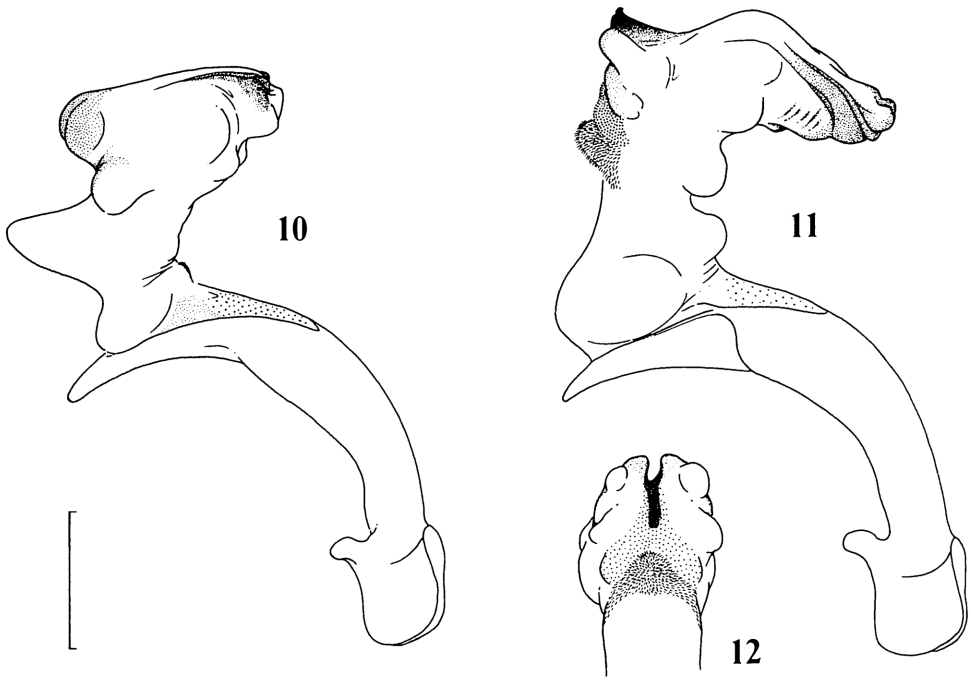
Notes. So far as judging from the external features of the single female specimen, the Dabashan race is not so remarkably different from the population of Shaanxi and Gansu Province, and belongs presumably to the nominotypical subspecies.

4. *Carabus* (*Shunichiocarabus*) *uenoianus* IMURA, 1995

(Figs. 3, 13–16)

Carabus (*Shunichiocarabus*) *uenoianus* IMURA, 1995, Spec. Bull. Jpn. Soc. Coleopterol., Tokyo, (4), p. 229: type locality; 1,600–1,900 m alt., near Bashan on the Dabashan Mountains in Chengkou Xian (Wanxian Diqu), northeastern end of Sichuan Province near the Shaanxi borders, Central China.

Male. Macrocephalism almost as in female, with the apical segments of palpi more widely and triangularly dilated. Eyes a little larger than in female. Antennae a

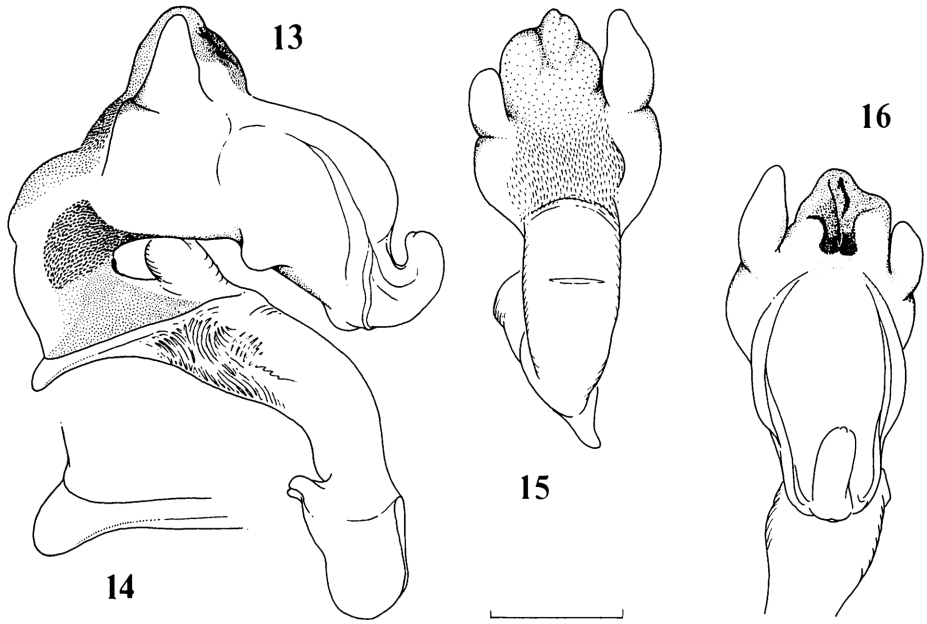


Figs. 10–12. Male genital organ of *Carabus* (*Oreocarabus*) spp. —— 10, *Carabus* (*Oreocarabus*) *reitterianus* BREUNING, from Mt. Xinglong Shan, Gansu; 11 and 12, *C.* (*O.*) *ohshimaianus* DEUVE, from the Dabashan Mts., NE Sichuan; 10 and 11, aedeagus with fully everted endophallus in right lateral view; 12, median portion of endophallus in basal view. Scale: 2 mm.

little longer, extending slightly beyond the middle of elytra. Pronotum a little slenderer and a little less strongly cordate. Basal four segments of protarsus dilated, with hair pads on the ventral surface, though the fourth segment is obviously smaller than the basal three. Sternal sulci absent as in female.

Male genitalia. Aedeagus rather short and robust, strongly bent ventrad at the basal third, with the median portion slightly but obviously inflated at the middle before membraneous preostium, and remarkably rugulose especially on the ventral surface; aedeagal apex short, rounded and rather strongly depressed laterad; ostium lobe large, robust, and unilobate, though the apex is very slightly bifurcate; endophallus rather simple in the basal portion, neither paraligula nor basal lobe is developed; praeputial pad remarkably protrudent dorsad, rather strongly sclerotized and pigmented, and asymmetrical in shape either in apical or in basal view, with the lateral lobes also asymmetrical in size, the right one being much larger than the left; aggonoporius simple and not developed at all, neither sclerotized nor protruded apicad.

Specimens examined. 3♂♂ (22.4–25.6 mm in length including mandibles), 1,600-1,900 m alt., near Bashan on the Dabashan Mts. in Chengkou Xian (Wanxian Diqu), NE Sichuan, Central China, V～VII–1995, in coll. Y. IMURA.



Figs. 13–16. Male genital organ of *Carabus* (*Shunichiocarabus*) *uenoianus* IMURA; 13, aedeagus with fully everted endophallus in right lateral view; 14, apical part of aedeagus in right lateral view; 15, endophallus in basal view; 16, ditto in apical view. Scale: 2 mm for 13, 15, 16; 1 mm for 14.

Notes. Judging from the detailed structure of the male genitalia, this unique carabid beetle doubtless belongs to the Multistriati (sensu ISHIKAWA, 1978) or to the Lobifera (DEUVE, 1994), and seems to be most closely allied to the subgenus *Pseudocranion* distributed mainly from northern Sichuan to southern Gansu, as has already been expected on the basis of external features and basic structure of the female genitalia.

要　　約

井村有希：大巴（Daba）山脈のオサムシに関するいくつかの追加知見．——筆者はさきに，中国四川省の北東端にある大巴山脈から7種のオサムシを記録したが，本論文では同山脈から1新種を含む3種をあらたに記録するとともに，これまで未知であったコブキバオサムシ *Carabus* (*Shunichiocarabus*) *uenoianus* IMURAの♂を記載した．1）マーンリウストゲオサムシ *Carabus* (*Apotomopterus*) *manlius* sp. nov.：湖南省のテーレマクストゲオサムシ *C.* (*A.*) *telemachus* HAUSERや広西省のトルクアートゥストゲオサムシ *C.* (*A.*) *torquatus* CAVAZZUTIに近いが，下唇基節，前胸背板，♀上翅端，ならびに上翅彫刻などの形態が異なることにより識別できる．2）オオシマミヤマオサムシ *C.* (*Oreocarabus*) *ohshimaianus* DEUVE：湖北省西部の神农架 Shennongjia から独立種として記載されたのち，記載者のDEUVE自身によってライターミヤマオサムシ *C.* (*O.*) *reitterianus* BREUNINGの1亜種に降格されていたものだが，今回，大巴山脈から記録された♂の交尾器形態を詳しく調べた結果，その内

袋はライターミヤマオサムシのそれと大きく異なることが判明した．したがって，これらふたつの分類単位は，やはり種のレベルで異なるものとみなすべきだろう．3）ティーターンミヤマオサムシ*C.* (*O.*) *titanus* BREUNING：湖北省西部，陝西省南部，甘粛省南部などに分布する中国産ミヤマオサムシ類中の最大種で，四川省においては北部の南坪県から記録されていたが，北東部の大巴山脈にも生息していることが明らかになった．本種は地理的変異に乏しく，大巴山脈の個体もほぼ基亜種に相当する形態を有している．4）コブキバオサムシ*Carabus* (*Shunichiocarabus*) *uenoianus* IMURA：1995年の春に記載された時点では2頭の♀が知られていたにすぎなかったが，同年の夏に基準産地から複数の♂が得られたので，陰茎や内袋を含む諸形態の全貌を明らかにすることができた．その結果，外部形態や♀交尾器形態などからほぼ予測されたとおり，この顕著なオサムシはニセキンオサムシ亜属*Pseudocranion*にもっとも類縁が近いらしいことが判明した．

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Elytra, Tokyo, **23** (2): 312, November 15, 1995

List of the Host Fungi of the Japanese Ciidae (Coleoptera), I

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The Ciidae is a typical fungivorous beetle family. Its members feed on the mycelia and fruiting bodies of wood-rotting fungi in both larval and adult stages. The host fungi of the beetles are mainly polyporaceous family, and their host preference was intensively studied by PAVIOUR-SMITH and LAWRENCE. Host fungi of the European and American ciid species have been recorded by many authors and are rather well known. However, the host fungi of the Japanese species have been recorded only fragmentarily. In this series of short reports, I am going to record the host fungi of the Japanese ciid beetles based on my own observation and on some literature.

The nomenclature of the host fungi is complied after R. IMAZEKI and T. HONGO's "Colored Illustrations of Mushrooms of Japan, Vols. I and II" (Hoikusha, Osaka, 1987 and 1989). Some species were identified by S. ITO's "Mycological Flora of Japan, Vol. II, No. 4" (Yokendo, Tokyo, 1955), and N. KIKUHARA's "The Corticeales and the Clavariales of Japan" (Seichiken, Tokyo, 1987).

The asterisks indicate that the breeding seems doubtful in those fungus species.

Class Eubasidiomycetes
Subclass Hymenomycetidae
Order Agaricales

Family Pleurotaceae
- *Pleurotus* sp.
  - *Ennearthron chujoi**, *Syncosmetus japonicus**

Family Tricholomataceae
- *Panellus stypticus* [Wasabitake]
  - *Nipponocis unipunctatus**

Family Bolbitiaceae
- *Agrocybe cylindracea* [Yanagimatsutake]
  - *Cis bifasciatus**

Order Aphyllophorales

Family Schizophyllaceae
- *Schizophyllum commune* [Suehirotake]
  - *Orthocis schizophylli*

Family Stereaceae
- *Xylobolus spectabilis* [Momijiurokotake]
  - *Ennearthron chujoi*

(To be continued)

Elytra, Tokyo, **23** (2): 313–314, November 15, 1995

Occurrence of *Xenocerus salamandrinus* (Coleoptera, Anthribidae) in North Thailand

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Xenocerus salamandrinus was described by JORDAN (1916, p. 361) on the basis of a pair of the specimens collected from Hoa Binh, Tonkin (male), and Kampong Toul, Cambodja (female). After that, an additional female specimen was recorded by JORDAN (1923, p. 101) from Chapa, Tonkin. There has been no record of this species from Thailand up to the present.

Recently, through the courtesy of Mr. Masatoshi NISHIMURA of Tokyo, I had an opportunity to examine a specimen of *Xenocerus salamandrinus* JORDAN, collected on a mountain in the District of Fang, Chiang Mai Province, North Thailand. The collecting data of the specimen examined is as follows:

1 ♂, Mt. Doi Pa Hompok, Fang, Chiang Mai Prov., North Thailand, 22–V–1993.

Xenocerus salamandrinus JORDAN, 1916

(Fig. 1)

Xenocerus salamandrinus JORDAN, 1916, Novit. zool., **23**: 361 (Tonkin, Cambodja); 1923, Opusc. Inst. sci. Indochine, (1): 33 (Tonkin, Cambodge). —— SENOH, 1991, Coleopterists' News, Tokyo, (96): 4 (Tonkin).

Length: 18 mm (from apical margin of rostrum to apex of elytra).

Male. Colour predominantly black, antennae, fifth tarsal segments dark red to reddish brown. Pubescence dense, very short, blackish brown, pale yellow and black; pale yellow markings, most of which are bordered with black and the others are accompanied with a black spot on each.

Head with a deep longitudinal sulcus between eyes; rostrum with granules; maximum width of rostrum about 3.3 times as wide as the shortest distance between eyes. Antennae long, about 1.6 times as long as the length of body, 2nd to 5th sparsely covered with fine granules, and bearing long hairs on one side, 6th compressed, sparsely covered with fine longitudinal keels, proportion in length of antennal segments from 2nd to 11th about 75 : 15 : 78 : 79 : 53 : 39 : 37 : 18 : 10 : 25, apical segment somewhat curved and pointed.

Pronotum about 1.1 times as long as wide. Elytra twice as long as wide; strial punctures very small, distance between them as wide as the widths of intervals. Pygidium subtriangular, vertical, about 1.2 times as wide as long, depressed in apical third.

Notes. The colour of the derm of this species is darker than in the North Vietnamese specimen examined, in which the colour is reddish.

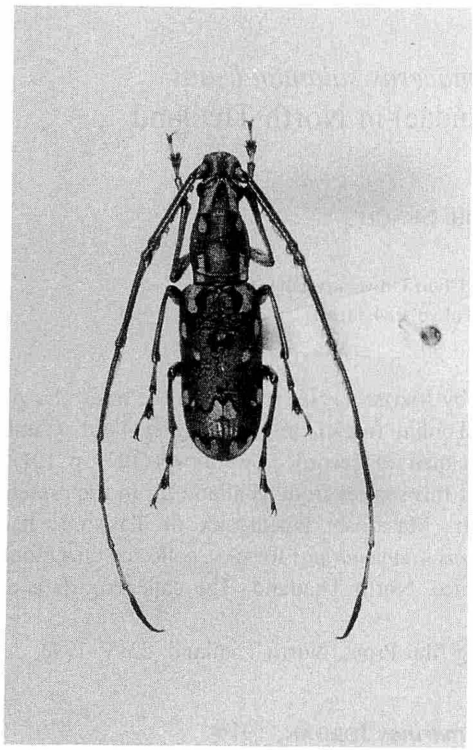

Fig. 1. *Xenocerus salamandrinus* JORDAN, ♂, from North Thailand.

I wish to thank Mr. Masatoshi NISHIMURA of Tokyo for his kindness in submitting the invaluable specimen to me for taxonomic study, and to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for kindly reading the original manuscript of the present short paper.

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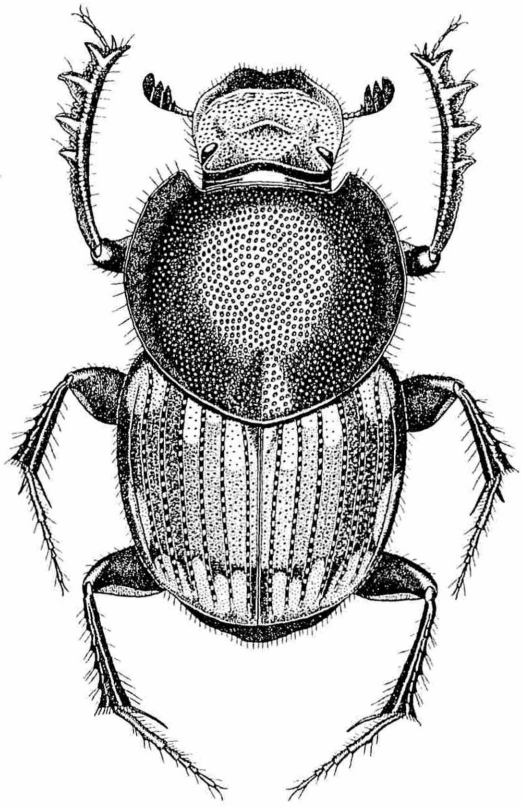

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