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昆 蟲 学 評 論

THE ENTOMOLOGICAL REVIEW OF JAPAN

VOL. XXIII, NO. 2. SEPT., 1971.

Studies on the Genus *Pterostichus* from Japan (V) (Carabidae, Coleoptera)

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Pterostichus (*Nialoe*) *mitoyamanus* sp. nov.

(Figs. 1 & 2; Pl. 2, figs. 1 & 2)

Length: 15½–18 mm. Width: 5.4–6.3 mm. Apterous.

Body depressed, black, shining; elytra of female subopake; base of mandibles, labrum and antennae pitchy brown; palpi, labium and legs brown; underside of body more or less brownish.

Head (width: 3.2–3.9 mm) smooth; clypeus emarginate at apex; frontal furrows moderately deep, extending onto clypeus and reaching clypeal pores anteriorly, diverging and reaching level of front supraorbital pores posteriorly; hind supraorbital pores a little behind post-eye level; spaces outside frontal furrows a little convex; lateral grooves not hooked at hind end but appearing to be curved outwards in right angle at level of hind supraorbital pores; eyes relatively small, convex, encircled behind by tumid tempora which is nearly as convex and 0.7–0.8 as long as eye; genae beneath eye smooth or slightly wrinkled; labrum slightly or deeply emarginate at apex; ultimate joint of maxillary palpi compressed-cylindrical, truncate at apex, 3.4–4.2 times as long as wide, subequal to penultimate in length; ultimate joint of labial palpi widest about apical third, a little tapering towards base, obliquely truncate at apex, 4.4–4.9 times as long as wide, subequal to penultimate in length; antennae subfiliform, joint II 3–4 setose; joint VI 2.6–2.8 (♂) or 2.4–2.5 (♀) times as long as wide.

Prothorax cordate-quadrate, widest at about apical ¼, 1.15–1.30 (av. 1.23) times as wide as long, 1.26–1.38 (av. 1.32) times as wide as head; apical margin emarginate, unbordered; lateral margins arcuate in apical ¾, sinuate-narrowed behind, generally parallel before base, sometimes converging or diverging posteriorly, bordered

throughout but often faintly so before base; basal margin emarginate in middle, unbordered, approximately as wide as apical margin, 0.71-0.78 (av. 0.75) as wide as the widest part, the angles right or rather acute, sharp at tip; disk smooth, finely wrinkled around basal foveae which are fairly deep, with parallel or anteriorly diverging linear impressions at the bottom; apical crescent depression distinct; median line sharply impressed, not reaching apical margin, barely reaching basal margin; basal area flattened, often with a transverse lightly impressed line; laterobasal area more or less explanate-reflexed; front marginal pore single, at or just before the widest part, hind one at basal angle.

Elytra oblong, flatter in ♀ than in ♂, 1.46-1.55 (av. 1.50) times as long as wide, widest at about middle (usually in ♂) or just behind middle (usually in ♀), 2.14-2.35 (av. 2.28) times as long and 1.18-1.29 (av. 1.24) times as wide as prothorax; shoulders 0.59-0.65 (av. 0.62) as wide as the widest part, the angles obtuse, edentate; striole short, on interstice I; striae distinct throughout, impunctate, with minute crenulation; interstices convex, smooth, V generally markedly broadened near base and distinctly wider than VI; preapical sinuation distinct, inner plica scarcely visible; dorsal pores variable in number, most often 3, sometimes 4 or 5, anterior 1 or 2 adjoining stria III and posterior 2 or 3 adjoining stria II, occasionally additional 1 appearing on interstice IV, rarely only 2 on interstice III.

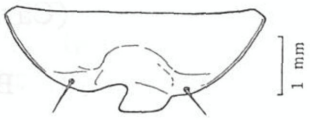


Fig. 1. *Pterostichus (Nialoe) mitoyamanus* sp nov., male apical ventral segment.

Underside punctured on prepimera and mesepisterna, rugose at base of abdomen, smooth otherwise; prosternal process sulcate up to the apex which is truncate, unbordered, the vertical side flat and fairly wide, a little constricted at middle; metepisterna rhomboidal, 1.15-1.21 (av. 1.18) (♂) or 1.22-1.40 (av. 1.30) (♀) times as wide as long; ♂ apical ventral segment (Fig. 1) deeply and widely excavated in middle along apical margin which has two sinuses, the left one (in ventral view) wide and very deep, the right one vestigial, between these sinuses present a wide process asymmetric in shape and in position.

Legs: basal 3 joints of ♂ protarsi dilated; basal 3 joints of meso- and metatarsi sulcate on outer side.

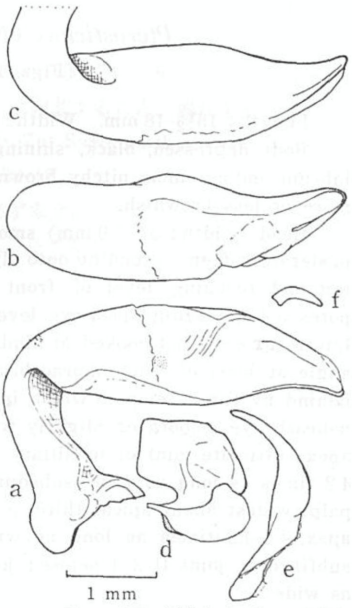


Fig. 2. *Pterostichus (Nialoe) mitoyamanus* sp. nov., male genitalia. a- median lobe, left side; b- id., dorsal side; c- id., right side; d- left paramere; e- right paramere; f- chitin tooth of inner sac.

Microsculpture extremely fine, consisting of isodiametric meshes on head, transverse ones on prothorax, irregular transverse lines or rather indistinct and strongly transverse meshes on

elytra, in ♀ elytra more deeply sculptured and consisting in greater part of less transverse but still irregular meshes intermixed with isodiametric ones in basal area.

Genitalia ♂ (Fig. 2): median lobe characterized by a deep and wide oblique furrow on underside at curved portion, it gives an folded or twisted appearance in both side views; tumour of right ventral side very large; apical lamella very short; left paramere wide, with almost straight apical margin; right paramere long, slender and arcuate.

Habitat: Kantô Mountain-range, Honshû, Japan.

Holotype ♂: Mt. Mitô, Okutama, Tokyo Pref., July 3, 1966, K. TANAKA leg. Paratypes: 24♂♂, 17♀♀, the same locality, June 3, 18, 19, July 2 & 3, 1966, K. TANAKA leg.; 1♂, Mt. Kumotori (1,750 m), Yamanashi Pref., Aug. 10, 1964, K. SUGA leg.

Holotype in the author's collection. Paratypes are distributed to the following Carabidologists: Dr. G. E. BALL, University of Alberta, Canada; Mr. H. ISHIDA, Kôbé University; Mr. T. SHIBATA, Ôsaka; Mr. M. OHKURA, Kôbé; Dr. S. L. STRANEO, Milano, Italia; Mr. K. SUGA, Tokyo; the author.

Among the sympatric species, the present new species is most closely allied to *Pt.* (*Nialoe*) *rhanis kantous* TANAKA, and is distinguishable from it by the generally larger size, relatively smaller eyes and longer and more strongly swollen temporae. The prothorax is in general wider and flatter, the laterobasal part is explanate-reflexed and not punctured, the lateral border is broader at apex; the elytra are more depressed at base; interstice V is distinctly wider than VI near base; the micro-sculpture of elytra is irregular, finer and less distinct.

The original description of *Pt.* (*Nialoe*) *rhanis kantous* is so brief. I give more detailed one below.

Pterostichus (*Nialoe*) *rhanis kantous* TANAKA

(Fig. 3)

TANAKA, 1958, Akitu, 7: 63. Type loc.: Mt. Shiraiwa and Mt. Kumotori in Kantô Mountain-range.

Length: 14⅕–16 mm. Width: 5.0–5.5 mm. Apterous.

Body a little convex, black, shining, ♀ elytra less shining (still more shining than in *rhanis rhanis*); mouth parts, apical half of antennae, pro- and mesocoxae, trochanters and tarsi brown or reddish brown.

Head (width: 2.9–3.3 mm) smooth; clypeus a little emarginate at apex; frontal furrows moderately deep, extending onto clypeus and reaching clypeal pores anteriorly, diverging and reaching level of front supraorbital pores posteriorly; hind supraorbital pores just behind post-eye level; spaces outside frontal furrows a little convex; lateral grooves not hooked at hind end which is placed just behind level of hind supraorbital pores; eyes convex; temporae only a little swollen, less convex than and 0.6–0.7 as long as eye; genae beneath eye smooth or with vestigial wrinkles; labrum slightly emarginate at apex; ultimate joint of maxillary palpi nearly cylindric, compressed, truncate at apex, 3.9–4.3 times as long as wide, generally slightly longer than penultimate; ultimate joint of labial palpi widest about apical ¼–⅓, tapering towards base,

obliquely trunctate at apex, 4.8–5.0 times as long as wide, generally equal to penultimate in length; antennae subfiliform, joint II 2–3 setose, joint VI 2.6 (♂) or 2.3–2.5 (♀) times as long as wide.

Prothorax cordate, widest at apical 3/10, 1.11–1.24 (av. 1.18) times as wide as long; 1.33–1.43 (av. 1.36) times as wide as head; apical margin emarginate, unbordered; lateral margins arcuate in apical 3/4–4/5, sinuate-narrowed behind, parallel or diverging posteriorly before base, bordered throughout, the border not broadened at apex; basal margin emarginate in middle, unbordered, usually as wide as apical margin, 0.68–0.73 (av. 0.71) as wide as the widest part, the angles usually right, sharp or blunt at tip; disk smooth except basal area which is longitudinally rugose in middle, finely punctured on both sides; basal foveae moderately deep, a little diverging anteriorly; disk often with transverse fine wavy lines on posterior area; apical crescent depression distinct; median line rather fine, not reaching apical margin, barely reaching basal margin; laterobasal area neither explanate nor reflexed; front marginal pores usually single, hind one a little before or at basal angle.

Elytra oblong, somewhat flatter in ♀ than in ♂, 1.48–1.57 (av. 1.53) times as long as wide, widest at about middle, 2.15–2.30 (av. 2.24) times as long and 1.17–1.27 (av. 1.24) times as wide as prothorax; shoulders 0.58–0.63 (av. 0.60) as wide as the widest part, the angles obtuse, edentate; striole short, on interstice I; striae distinct throughout, impunctate, with minute crenulation; interstices convex, smooth, V not markedly broadened near base and slightly wider than VI; preapical sinuation distinct; inner plica scarcely visible; dorsal pores 3–4 on interstice III, anterior 1 adjoining stria III, others adjoining stria II.

Underside punctured rather vaguely on prepimera, mesosternum, mesepisterna, sides of metasternum and base of abdomen, some of them often reduced, other parts smooth; prosternal process with a faint furrow, the apex truncate, unbordered, the vertical side flat and fairly wide, a little constricted at middle; metepisterna rhomboidal, as wide as long (♂) or 1.16–1.26 times as wide as long (♀); ♂ apical ventral segment[1] deeply excavated in middle along apical margin which has 2 sinuses, the right one (in ventral view) narrower and shallower than the left but still distinct, between these sinuses present a wide process asymmetric in shape and in position.

Legs: basal 3 joints of ♂ protarsi dilated; basal 3 joints of meso- and metatarsi sulcate on outer side.

Microsculpture extremely fine, consisting of isodiametric meshes on head, transverse meshes on prothorax; rather irregular transverse meshes on elytra; in ♀ elytra microsculpture coarser and more distinct, consisting of a little transverse meshes intermixed with isodiametric ones.

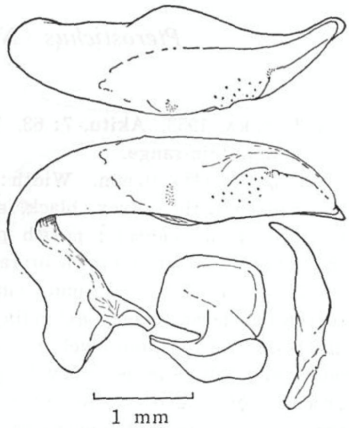
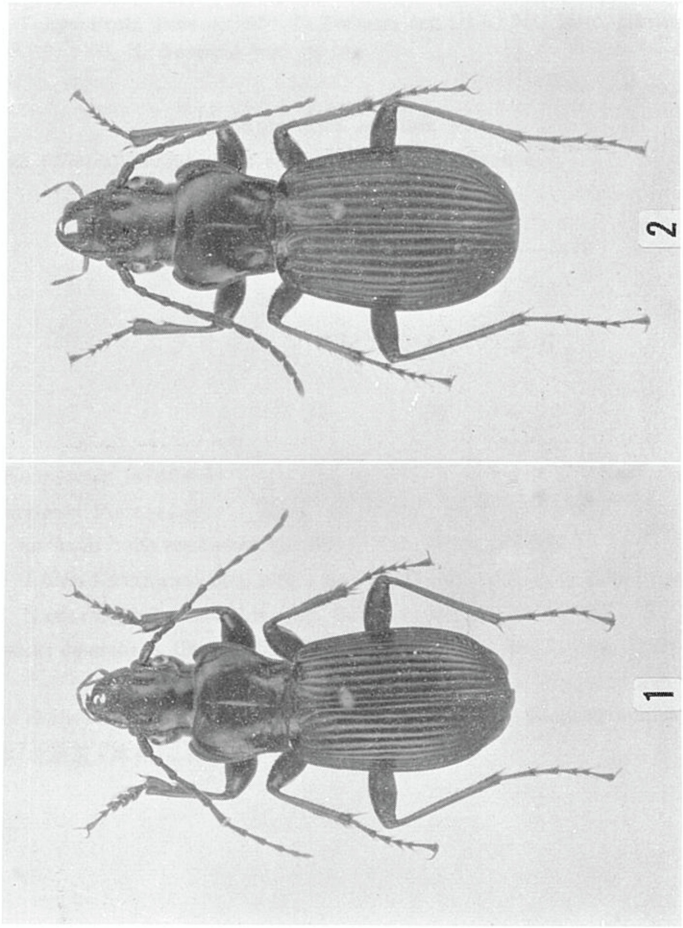


Fig. 3. *Pterostichus* (*Nialoe*) *rhanis kantous* TANAKA, 1958, male genitalia.

1) The structure is identical with that of *rhanis angustistylis* (Akitu, 7: 63, fig. 3).



(K. TANAKA photo.)

Genitalia ♂ (Fig. 3) similar to those of *rhanis rhanis* and *rhanis angustistylis* (cf. Akitu, 7: 96, figs. 11 & 12, 1958), right style of intermediate form between *rhanis rhanis* and *rhanis angustistylis*.

Habitat: Kantô Mountain-range, Honshû, Japan.

Specimens examined. 2♂♂, 2♀♀, Mt. Shiraiwa, Saitama Pref., Aug. 14, 1940, K. ODA & K. ORITA leg., in coll. Nat. Sci. Mus. Tokyo; 1♂, Mt. Kumotori, Saitama Pref., Aug. 15, 1940, K. ODA leg., in coll. Nat. Sci. Mus. Tokyo; 1♂, 1♀, Mt. Gozen, Okutama, Tokyo Pref., June 1, 1963, K. TANAKA leg.; 1♀, Mt. Mitô, Okutama, Tokyo Pref., June 10, 1963, K. TANAKA leg.

Explanation of Plate 2.

Pterostichus (*Nialoe*) *mitoyamanus* sp. nov., 1–Male, 2–Female.

ムラサキスジアシゴミムシの学名

石　田　　裕

Eobroscus lutshniki (ROUBAL, 1928) ムラサキスジアシゴミムシ

Broscus lutshniki ROUBAL, 1928 : Wien. ent. Zeitg., 45:90 (Siberia).

Eobroscus lutshniki : KRYZHANOVSKIJ, 1968 : Ent. Obozr., 47:173.

Eobroscus richteri KRYZHANOVSKIJ, 1951 : Ent. Obozr., 31: 538, figs. (Maritime Province, China) ; NAKANE, 1963 : Icon. Ins. Jap. Col. nat. ed., 2 : 22, pl. XI, f. 21.

Tosawabroscus amabilis S. UÉNO, 1953 : Shin Konchû, 6 (7): 49 ; ISHIDA, 1958 : Akitu, 7: 17.

Chilotomus chalybaeus: KÒNO, 1936 (nec FALDERMANN, 1835): Biogeographica, 1 (2): 79.

分布：日本(北海道・本州)；樺太・シベリア・中国.

Notes on the Japanese Scarabaeidae, II.

By SIZUMU NOMURA

In the present paper the author described a new species of the genus *Odochilus* (Aphodiinae) from Iriomote Is. in the Loochoos, five new species and a new subspecies of the genus *Trichoserica* from Japan, and treated the genus *Ophthalmoserica* as a synonym of *Trichoserica* with some new combinations.

Before going further, the author wishes to express his hearty thanks to Messrs. Dr. KINTARO BABA, KÔKICHI HATTA, Dr. HIROSHI INOUE, Dr. YOSHIHIKO KUROSAWA, KIMIO MASUMOTO, YOSHIKAZU MIYAKE, Dr. TAKEHIKO NAKANE, MASATAKA SATÔ for their kind helps in the course of the present study.

Genus *Odochilus* HAROLD (Psammobiini)

スジケシマグソコガネ属（新称）

HAROLD, 1877: p. 97; SCHMIDT, 1910: p. 116, 118; SCHMIDT, 1922: p. 492; BALTHASAR, 1964: p. 555.

Type: *Odochilus syntheticus* HAROLD (1877).

Odochilus convexus NOMURA sp. nov. (Pl. 3)

スジケシマグソコガネ（新称）

Elongate oval, convex, dark red-brown, with clypeus piceous, anterior part of clypeus, tibiae and tarsi red-brown, antennae and mouth parts yellowish brown.

Head broader than long, subhexagonal in shape, vertical in front, coarsely granulate in the middle, asperate behind, smooth and shining on vertical face and just behind there, with true front margin (under ridge of vertical face) feebly emarginate, upper ridge of vertical face as shown apparent front margin of head carinate and very feebly emarginate, surface decorated with two longitudinal parallel carinae in the middle, two oblique convergent posteriorly carinae behind them, and one short longitudinal carina on each side near eye.

Pronotum broader than long (1.2 : 0.87), abruptly narrowed in basal third, with broadest point which across near apex, anterior margin gently, base very feebly protrude in the middle, lateral margins strongly bisinuate, basal margin bears a row of scales. Disk of pronotum decorated with 3 transverse carinae, in which 3rd carina interrupted in the middle and from there 2 longitudinal carinae extended posteriorly, 2 tubercles and 2 short longitudinal carinae on each side near base, surface sparsely, finely punctate upon the carinae, coarsely, rugosely punctate on the depressed areas between carinae. Scutellum coriaceous, small, triangular, with apex rounded.

Elytra oval, with broadest point which across about the middle, base as broad as

〔Ent. Rev. Japan, Vol. XXIII, No. 2, pp. 64–72, pl. 3–5, Sept., 1971〕

that of pronotum, shoulders rounded and indistinct, apex separately angulate. Each elytron with 10 rows of large subquadrate punctures and 10 intervals, in which alternate intervals (sutural, 3rd, 5th, 7th and 9th) and lateral margin carinate and tomentose at the tip, even intervals almost flat and coriaceous, sutural carina joined to lateral one at apex, carina of 9th interval vanished at apical third, epipleura somewhat broad in basal third, narrower behind, reaches apex. Hind wing ca. 2.3 mm. in length, a little shorter than length of body.

Ventral surface of thorax coriaceous, sparsely granulate in some places. Abdominal segments coriaceous, each with a row of large punctures along base and a transversal row of short setae behind the middle. Pygidium clothed with sparse short setae, decorated with a median longitudinal narrow carina and several depressions. Anterior tibiae slender, tridentate, posterior four tibiae slender and feebly curved outwards, with several small teeth and short setae on outer side, without distinct transversal ridges. Anterior tarsi short, as long as half length of tibiae, posterior four tarsi a little shorter than respective tibiae. Basal segment of hind tarsus as long as inner tibial spur, a little shorter than combined two following segments. Tibial spurs slender and acute at apex.

Length: 2.6 mm.; breadth: 1.3 mm.

Distribution: Iriomote Is. (Loochoos).

Holotype: ♀, Ohara-kaigan, Iriomote Is., under dead leaves, 17 July 1969, leg. K. ISHIKAWA, in coll. M. SATÓ.

This species differs from *O. syntheticus* HAROLD in having two longitudinal carinae on basal third of the pronotum, the oval elytra and the flat, not carinated even elytral intervals. Both species are easily separated from *O. setosus* BOUCOMONT (Pl. 4) from Borneo by the absence of setae upon the carinae and lateral margins of the pronotum and of the elytra.

Genus *Trichoserica* REITTER

ヒゲナガビロウドコガネ属

Trichoserica REITTER, 1896: p. 181, 183; REITTER, 1901 (1902): p. 137, 139, 295; DALLA TORRE, 1912: p. 28; MEDVEDEV, 1952: p. 101, 114.

Ophthalmoserica BRENSKE, 1897: p. 356 (*Serica* subg.); DALLA TORRE, 1912: p. 16; MEDVEDEV, 1952: p. 101, 110; KONTKANEN, 1956: p. 58–60. syn. nov.

Serica (part), NIIJIMA & KINOSHITA, 1923: p. 14; SAWADA, 1937: p. 10; MURAYAMA, 1954: p. 18, 19; ARROW, 1946: p. 3.

Type: *Serica polita* GEBLER (1832).

The genus *Trichoserica* was described by REITTER in 1896, as having close semi-erect hairs on the dorsal surface of the body. The *Ophthalmoserica* was introduced by BRENSKE in the next year as a subgenus of *Serica* MACLEAY, defined by the very prominent eyes and the long antennal club of the male, and treated by MOSER and ARROW as a doubtful group or a synonym of the genus *Serica*, on the other hand it was separated from *Serica* as a genus by DALLA TORRE, MEDVEDEV and KONTKANEN in having minute scattered scale-like setae or hairs on the dorsal surface, irregular rows of pubescences on the median area of each abdominal segment and the different shape of the male genitalia.

T. polita GEBLER (text fig. 1) from China as the type of *Trichoserica* has very close similarity with *Ophthalmoserica*-species in the male genitalia and the other characters, except the close hairs upon the dorsal surface of the body. I consider that the variation of hair is not important to supply reasons for their separation. In the species of *Ophthalmoserica* varied the hairs slender to scale-like, close to sparse. I therefore regard the genus *Ophthalmoserica* as a synonym of *Trichoserica* and refer to this genus the following species, and moreover, add five new species and a new subspecies as described follows.

boops WATERHOUSE (1875), *nigrovariata* LEWIS (1895), *karafutoensis* NIIJIMA et KINOSHITA (1923), *foobowana* SAWADA (1937), *niijimai* KONTKANEN (1956), *inexspectata* KONTKANEN (1956), *sawadai* NOMURA (1959), *kurosawai* NOMURA (1959), *yoshidai* NOMURA (1959), *nipponica* NOMURA (1959), *tokejii* NOMURA (1959), *elongata* NOMURA (1959), *echigoana* NAKANE et BABA (1960).

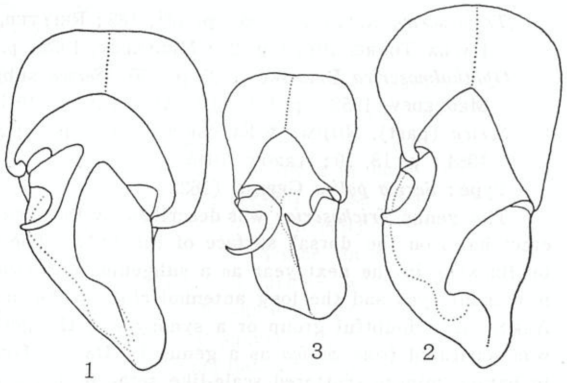
Trichoserica pilosa NOMURA sp. nov. (Text fig. 2; Pl. 5, figs. 1 & 2)

ケブカビロウドコガネ（新称）

Elongate oval, reddish brown, with head black, clypeus piceous, antennae fulvous, numerous small patches on elytra, greater part of pronotum, scutellum and ventral surface dark brown to piceous. Body opaque, with whole head, antennae and legs shining. Dorsal surface covered with close erect hairs.

Clypeus of male slightly narrowed to apex, with lateral margins straight, front margin roundly emarginate, surface somewhat rugosely, sparsely punctate, fronto-clypeal suture slightly raised. Clypeus of female broader, roundly narrowed in front, rather densely, not rugosely punctate. Frons depressed in front, densely punctate, with a short median longitudinal ridge. Eyes of male large and prominent, about half breadth of frons between them as seen from above. Antennae with club of male a little longer than twice length of footstalk, first segment somewhat abruptly broadened from basal third.

Pronotum somewhat densely punctate at sides, rather sparsely in the middle, covered with long erect and rather short semierect hairs, with broadest point which across near base, front angles obtusely angulate or rounded in male, acute and produced in female, lateral margins feebly sinuate behind. Scutellum densely punctate and pubescent, except smooth area in the middle of base. Elytra densely punctate



Text figs. 1-3.
Male genitalia: fig. 1, *Trichoserica polita* (GEBLER); fig. 2, *T. pilosa* sp. nov.; fig. 3, *T. incurvata* sp. nov.

and pubescent, those hairs arranged two or three irregular rows on each interval.

Anterior tarsi as long as tibiae in male, shorter in female. Middle tibiae slender and straight. Hair of hind femora as long as half to one-third breadth of femora.

Length: ♂, 8.5–9 mm.; ♀, 9.5–10.5 mm.

Distribution: Shikoku & Kyushu.

Holotype: ♂, paratype: 1♂, Mt. Ishizuchi, Ehime Pref., 20 July 1960, leg. T. KIKUTI; allotype: ♀, ditto, 14 July 1953, leg. H. HATTORI; paratypes: 3♂, 1♀, Mt. Kujû, Oita Pref., 23–27 July 1966, leg. K. HATTA, 1♀, ditto, 15 Aug. 1962, leg. Y. MIYAKE (holotype and allotype in my coll.).

This is nearly related to *T. heydeni* REITTER from China, but it may be separated from the latter in the larger body and the shiny head.

Trichoserica incurvata NOMURA sp. nov. (Text fig. 3; Pl. 5, figs. 3 & 4)

アシマガリビロウドコガネ（新称）

Oval, yellowish red-brown, with head piceous, clypeus dark brown, antennae yellowish brown, abdomen darker, greater part of pronotum, the middle of scutellum and numerous small patches on elytra dark brown to piceous. Body opaque, with clypeus, antennae and legs shining. Head pubescent, pronotum and elytra sparingly clothed with short recumbent scale-like setae.

Clypeus punctate, narrowed to apex, with lateral margins feebly rounded, front margin somewhat angularly emarginate, fronto-clypeal suture slightly raised. Frons depressed in front and in the middle, somewhat densely punctate. Eyes of male large and prominent, broader than half breadth of frons between them. Antennae with club as long as twice length of footstalk in male, shorter than footstalk in female, first segment gradually broadened to apex.

Pronotum subparallel behind, narrowed to apex in front, somewhat densely punctate, with a median longitudinal smooth line on basal half, front angles obtuse and rounded in male, rather acutely angulate in female, lateral margins somewhat angularly curved near the middle. Scutellum punctate and bald, almost smooth in the middle of base. Elytra sparingly clothed with short recumbent scale-like setae and rather long semierect ones, those setae arranged in an irregular row on each interval.

Anterior tarsi stout and shorter than tibiae, with 2nd to 4th segments broader than respective length in male, a little narrower in female. Inner claw of anterior tarsus with an oval lamina beneath in male, with a short tooth in female. Middle tibiae somewhat dilated and more(♂) or less (♀) incurved at apical third. Hind femora densely pubescent, especially on basal part of under surface, hair of posterior margin as long as breadth of femora in male, a little shorter in female. Hair of anterior and middle femora as long as half breadth of respective femur.

Length: ♂, 7.0–7.5 mm.; ♀, 7.0–8.5 mm.

Distribution: Hokkaido & Honshu.

Holotype: ♂, allotype: ♀, paratypes: 2♂, 20♀, Yunotaira spa, Gunma Pref., 26 July 1968, leg. H. INOUE; 4♂, 4♀, Hoshi spa, Gunma Pref., 22–25 July 1965 & 29 July 1971, leg. S. NOMURA & N. MINAGAWA; 1♂, Nasu, Tochigi Pref., 1 July 1935, leg. M. YANO; 1♀, Asama, Nagano Pref., 28 July 1949, leg. M. TOKEJI; 1♀, Oku-Nikko, Tochigi Pref., 20 July 1968, leg. S. NOMURA; 1♂, Mt. Yatsugatake, Nagano Pref., 30

July 1957, leg. S. NOMURA; 5♂ 14♀, Kiyosato, Yamanashi Pref., 30 Aug. 1970 & 20 Aug. 1971, leg. H. INOUE; 1♂, Tokugo pass, Nagano Pref., 24 July 1940, leg. H. KONDÔ; 1♀, Kiso-Fukushima, Nagano Pref., 7 Aug. 1951, leg. H. HASEGAWA; 2♂ 2♀, Daibosatsu pass, Yamanashi Pref., 18 July 1970 & 20 July 1971, leg. K. MASUMOTO; 2♂, 2♀, Okutama, Tokyo, 21 July 1968, leg. H. YUASA; 5♂, 1♀, Aomori Pref., 17–19 July 1956, leg. S. KIMOTO; 1♀, Tsuta spa, Aomori Pref., 5 Aug. 1968, leg. N. MINAGAWA; 1♀, Mt. Apoi, Hokkaido, 1 Aug. 1968, leg. N. MINAGAWA (holotype and allotype in my coll.).

This species has been identified as *O. boops* by KONTKANEN and distributed in the north of Honshu, whereas the type locality of the latter species is Hiogo in the west of Honshu. Both species have close resemblance to each other, but this is separated from the latter in the following points: The elytra bear rather long semi-erect setae in addition to short scattered ones; the middle tibiae more distinctly incurved near apex; the hair of hind femora longer and denser; the male genitalia with right paramere is not triangular, but nearly parallel-sided.

Trichoserica opacifrons NOMURA sp. nov. (Text fig. 4; Pl. 5, figs. 5 & 6)

ツヤケシビロウドコガネ（新称）

Elongate oval, reddish brown, with head black, clypeus dark red-brown, antennae yellowish brown, greater part of ventral surface dark brown, disk of pronotum (except paler margins), median part of scutellum and numerous small patches on elytra piceous. Body opaque, with clypeus, antennae and legs shining, except opaque posterior third of middle femora. Head pubescent, pronotum and elytra sparingly clothed with short scale-like setae.

Clypeus slightly narrowed to apex, nearly parallel-sided, with lateral margins straight, front angles rounded, front margin feebly, angularly emarginate, surface sparsely, rugosely punctate in male, not rugosely, but somewhat densely in female. Frons depressed in front, punctate and pubescent, with fronto-clypeal suture flat. Eyes of male large and prominent, broader than half breadth of frons between them. Antennae with club longer than twice length of footstalk in male, first segment somewhat abruptly broadened to apex from basal third.

Pronotum subtrapezoid, somewhat densely punctate, with a median longitudinal smooth line on basal half, front angles obtuse and rounded in male, acutely produced in female, lateral margins rounded in front, somewhat sinuate behind. Scutellum sparsely punctate at sides, almost smooth in the middle, bears very minute pubescences on apical part. Elytra sparingly clothed with short recumbent and semierect scale-like setae arranged in an irregular row on each interval.

Anterior tarsi shorter than tibiae in both sexes. Each femur bears long hair, those of posterior margin of hind femora as long as ⅔–¾ breadth of femora.

Length: ♂, 7–8.5 mm.; ♀, 8.5 mm.

Distribution: Kyushu & Yakushima.

Holotype: ♂, Mt. Kirishima, Kagoshima Pref., 12 July 1961, leg. Y. TAKEMURA; allotype: ♀, Mt. Hikosan, Fukuoka Pref., 3 July 1966, leg. T. KITANO; paratypes: 1♂, ditto, 6 Aug. 1947, leg. Y. TAKAKURA; 3♂, ditto, 1–2 Aug. 1953, leg. Y. MIYAKE; 1♂, Mt. Kujû, Oita Pref., 27 July 1961, leg. Y. MIYAKE; 2♂, Yakushima, Kagoshima

Pref., 21 June 1954, leg. K. MATSUDA (holotype and allotype in coll. S. NOMURA, paratypes in coll. Y. MIYAKE).

This species may be separated from *T. tokejii* NOMURA in the larger body, the shorter front tarsi, the sparse punctures on the scutellum and the different shape of the male genitalia.

Trichoserica nitidiceps NOMURA sp. nov. (Text fig. 5; Pl. 5, fig. 7)

ツヤズビロウドコガネ（新称）

Elongate oval, red-brown, with antennae yellowish brown, head (except clypeus), median or greater part of pronotum and of scutellum, numerous small patches on elytra and greater part of ventral surface piceous to dark brown. Dorsal surface of body dully shining, with head more shiny, pronotum and elytra opalescent, ventral surface opaque, with antennae and legs shining. Head pubescent, pronotum and elytra sparingly clothed with short recumbent and rather long semierect hairs.

Clypeus subtrapezoid, sparsely, rugosely punctate, with lateral margins nearly straight, anterior margin roundly emarginate, fronto-clypeal suture slightly raised. Frons sparsely punctate, depressed in front and in the middle, roundly elevated on each side. Eyes of male large and prominent, broader than half breadth of frons between them. Antennae with club as long as twice length of footstalk in male, first segment gradually broadened to apex.

Pronotum subtrapezoid, subparallel behind, roundly narrowed to apex in front, sparsely punctate, with a median longitudinal smooth line on basal half, front angles obtuse and rounded in male, lateral margins more or less sinuate behind. Scutellum densely punctate at sides, almost smooth in the middle, with sparse pubescences on apical part. Elytra clothed with scattered short or rather long semierect hairs arranged in an irregular row on each interval.

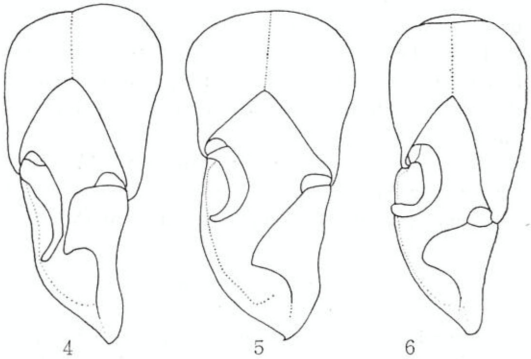
Legs very slender. Anterior tibiae as long as tarsi, middle tibiae straight. Middle femora elongate spindle-shape, bear short hair. Hind femora subparallel-sided, a little broadened in the middle, with sparse stout hair, which as long as half breadth of femora in male.

Length: ♂, 8.5–9 mm.

Distribution: Kyushu.

Holotype: ♂, paratype: 1♂, Mt. Sobo, Oita Pref., 22 July & 23 May 1952, leg. Y. MIYAKE. (Holotype in coll. S. NOMURA, papatype in coll. Y. MIYAKE).

This species is closely related to *T. foobowana* SAWADA, but it may be distinguished from the latter in the following points: The dorsal surface of the body dully shining, with opalescence in some light



Text figs. 4-6.
Male genitalia: fig. 4. *Trichoserica opacifrons* sp. nov.; fig. 5, *T. nitidiceps* sp. nov.; fig. 6, *T. ovata* sp. nov.

in the male, the hair of the dorsal surface longer and denser, those of the middle femora shorter, the legs more slender, and the left paramere of the male genitalia not sharply, but obtusely curved as figured.

Trichoserica ovata NOMURA sp. nov. (Text fig. 6; Pl. 5, figs. 8 & 9)

マルヒゲナガビロウドコガネ（新称）

Oval, reddish brown, with head piceous, clypeus dark brown, antennae yellowish brown, pronotum (except paler margins), median part of scutellum and greater part of ventral surface dark brown, numerous small patches on elytra piceous. Body opaque, with clypeus, frons, antennae and legs shining. Head pubescent, pronotum and elytra sparingly clothed with short recumbent hairs and rather long semierect ones.

Clypeus sparsely punctate, slightly narrowed to apex, with front margin obtusely, angularly emarginate. Frons somewhat closely punctate in front, with a median longitudinal short ridge, fronto-clypeal suture feebly raised in the middle in male, more raised in female. Eyes of male large and prominent, about half breadth of frons between them as seen from above. Antennae with club of male a little longer than twice length of footstalk, first segment gradually broadened to apex.

Pronotum subtrapezoid in shape, rather sparsely punctate, with a median longitudinal smooth line on basal half, front angles broadly rounded in male, acutely produced in female, lateral margins feebly rounded in front, nearly straight or feebly sinuate behind. Scutellum rather sparsely punctate and pubescent at sides, smooth in the middle. Elytra sparingly clothed with short recumbent hairs and moreover rather long semierect ones, those hairs arranged in an irregular row on each interval.

Anterior tarsi as long as tibiae in male, a little shorter in female, with 2nd to 4th segments shorter than twice breadth of respective segment in male. Hair of hind femora as long as or a little shorter than breadth of femora in male, half to two-thirds of it in female.

Length: ♂, 6.5–7 mm.; ♀, 8–9 mm.

Distribution: Honshu.

Holotype: ♂, allotype: ♀, Okutama, Tokyo, 8–10 Aug. 1951, leg. S. NOMURA; paratypes: 1♀, Nippara, Tokyo, 5 Sept. 1967, leg. N. MINAGAWA; 1♀, Ina, Nagano Pref., 27 July 1970, leg. S. NOMURA; 2♂, Tobira spa, Nagano Pref., 18 July 1969, leg. F. SAITÔ & H. KOBAYASHI; 1♀, Kurokawa, Niigata Pref., 20 Aug. 1961, leg. K. BABA; 1♂, Mt. Iide, Yamagata Pref., 5 Aug. 1943, leg. Y. KUROSAWA (holotype and allotype in my coll.).

This species may be separated from *T. yoshidai* NOMURA from Shikoku in having longer hair on the hind femora, the absence of minute setae on the under side of the hind tarsi and the different shape of the male genitalia.

Trichoserica elongata nitididorsis NOMURA subsp. nov.

Dorsal surface of the body wholly shining, without opalescence or dull bloom, ventral surface opaque, with antennae, legs and median part of metasternum shining.

Length: ♂, 7.5–8.5 mm.; ♀, 7.5–8.8 mm.

Distribution: Kyushu.

Holotype: ♂, allotype: ♀, paratypes: 3♂, 5♀, Mt. Kujû, Oita Pref., 23–27 July 1966, leg. K. HATTA; 1♀, ditto, 28 July 1961, leg. Y. MIYAKE; 1♀, Mt. Daisenzan, Oita Pref., 27 July 1970, leg. S. MIYAKE; 1♀, Mt. Hikosan, Fukuoka Pref., 27 July 1960, leg. T. TAKEISHI. (Holotype and allotype in my coll.).

This new subspecies may be separated from the nominate form by the shiny dorsal surface of the body.

Explanation of Plates 3–5.

Plate 3.
Odochilus convexus sp. nov., ♀

Plate 4.
Odochilus setosus BOUCOMONT, ♀

Plate 5.
Fig. 1. *Trichoserica pilosa* sp. nov., ♂; Fig. 2. ditto, ♀;
Fig. 3. *T. incurvata* sp. nov., ♂; Fig. 4. ditto, ♀;
Fig. 5. *T. opacifrons* sp. nov., ♂; Fig. 6. ditto, ♀;
Fig. 7. *T. nitidiceps* sp. nov., ♂;
Fig. 8. *T. ovata* sp. nov., ♂; Fig. 9. ditto, ♀.

References

(*Odochilus*)

BALTHASAR, V., 1964: Monogr. Scarabaeidae u. Aphodiidae d. palaearkt. u. oriental. Region, 3.

BOUCOMONT, A., 1914: Les Coprophages de l'archipel malais, Ann. Soc. ent. Fr., LXXXIII: 238–350.

HAROLD, E. v., 1877: Enumération des Lamellicornes Coprophages rapportés de l'Archipel malais, Ann. Mus. Civ. Stor. Genova, X: 38–109.

SCHMIDT, A., 1910: Genera Insectorum, 110.

SCHMIDT, A., 1922: Das Tierreich, 45.

(*Trichoserica*)

ARROW, G. J., 1946: Entomological result from the Swedish Expedition 1934 to Burma and British India, Col. Melolonthidae, Arkiv för Zoologi., 38A, 9: 1–33.

BRENSKE, E., 1897: Die *Serica*-Arten der Erde, I, Berl. Ent. Zeitschr.: 345–438.

DALLA TORRE, K. W., 1912: Col. Cat. pars 45, Melolonthinae I.

KONTKANEN, P., 1956: Zur Kenntnis der paläarktischen Käferfauna, I, Suomen Hyönteistieteelinen Aikakauskirja, 22, 2: 55–63.

LEWIS, G., 1895: On the Lamellicorn Coleoptera of Japan, Ann. Mag. Nat. Hist., (6) XVI: 374–408.

MEDVEDEV, S. I., 1952: Fauna SSSR, X, 2, Scarabaeidae, Melolonthinae 2.

MURAYAMA, J., 1954: Icones of the Scarabaeid-beetles from Manchuria and Korea, I.

NAKANE, T., 1960: Descriptions of new forms of Lamellicornia from Japan, Ent. Rev. Japan, XII, 1: 1–6.

NIIJIMA Y. & KINOSHITA E., 1923: Die Untersuchungen über japanische Melolonthiden, II, Res. Bull. Coll. Agr. Hokkaido Imp. Univ., Sapporo, Japan, vol. 2, no. 2.

NOMURA, S., 1959: Notes on the Japanese Scarabaeidae with two subspecies from Formosa, Tôhô-Gakuhô, 9: 39–54.

REITTER, E., 1896: Uebersicht der mir bekannten palaearktischen, mit der Coleopteren-Gattung *Serica* verwandten Gattung und Arten, Wien. Ent. Zeit., XV: 180–188.

REITTER, E., 1901 (1902): Bestimmungs-Tabelle der Melolonthidae aus der europäischen und angrenzenden Länder, III (Best.-Tab. d. europäischen Coleopteren, Heft 50): 93–303.

SAWADA, H., 1937: On the genus *Serica* of Japan (Scarabaeidae) with descriptions of new species and varieties, Nippon no Kôchu, I, 1: 8–36.

WATERHOUSE, C. O., 1875: On the Lamellicorn Coleoptera of Japan, Trans. Ent. Soc. London: 71–116.

ヒメハナムグリ本州に産す

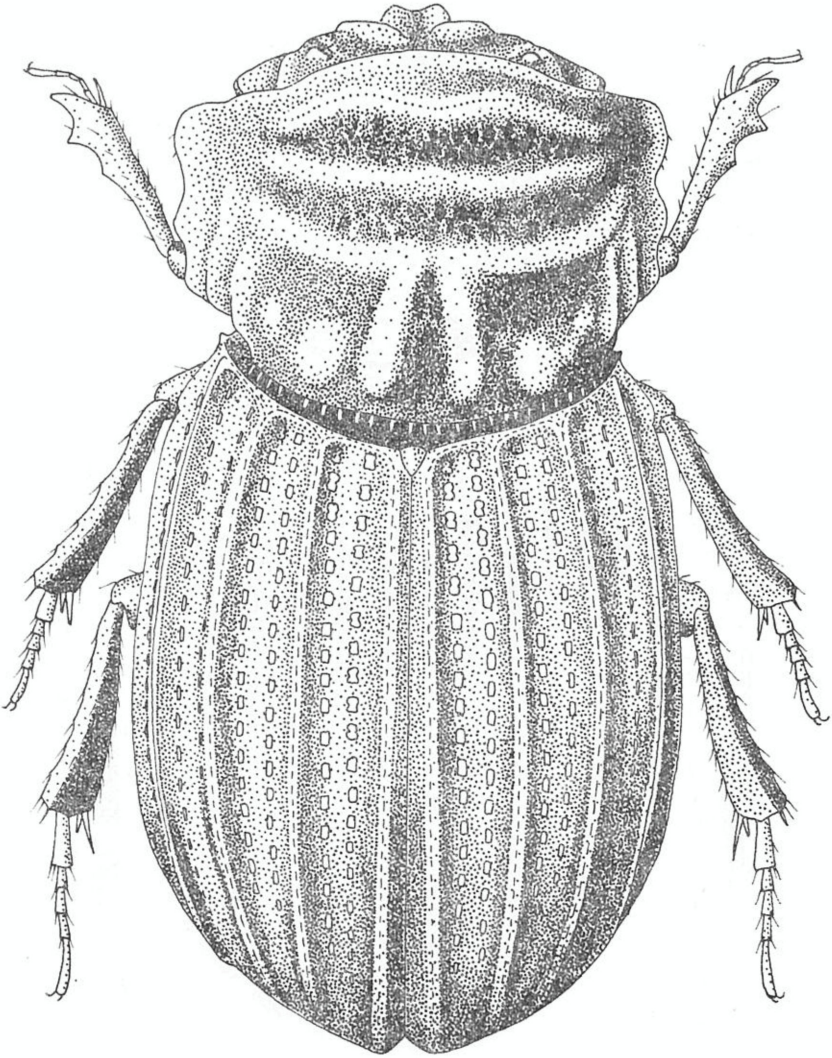
楠　井　善　久

Oxycetonia forticula (JANSON) ヒメハナムグリは沖縄本島・奄美大島・トカラ諸島・九州でそれぞれ亜種化の傾向を示しながら分布しているが，本州の記録は未だ知らない．筆者は本種を和歌山県下において採集しているので，ここに報告しておく．なお，各個体の特徴は九州産のものによく似ている．

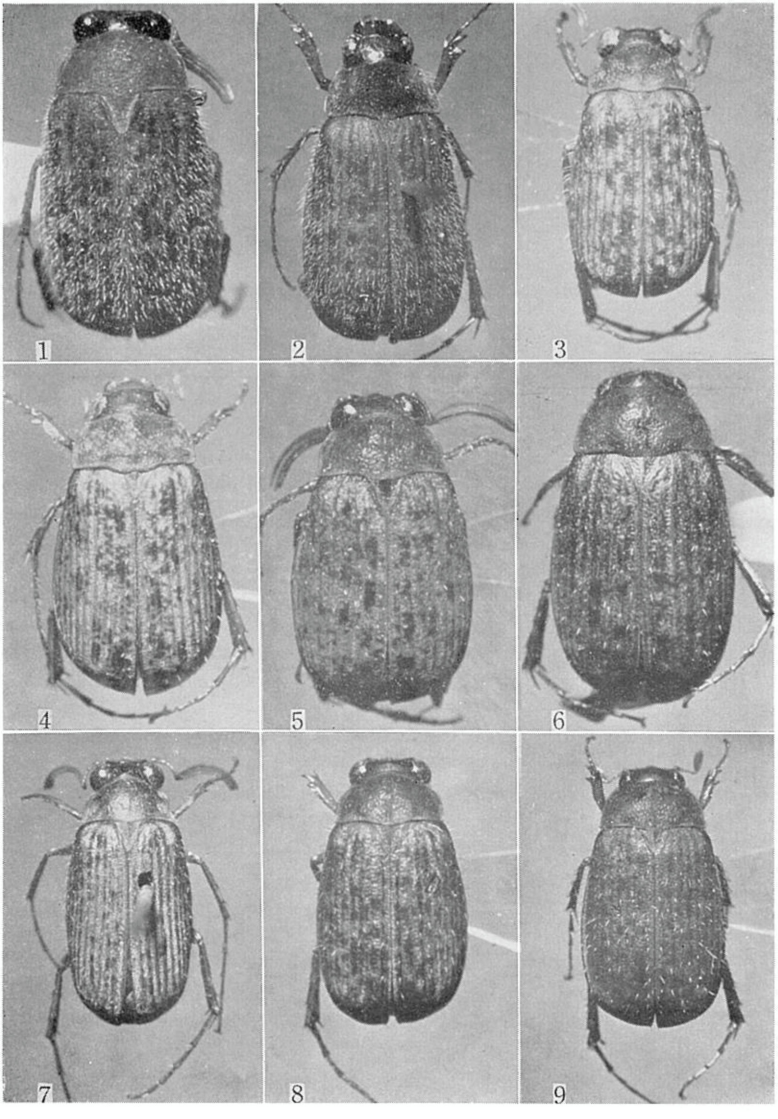
Yuasa (1 ex., Sept. 1 1959, Y. KUSUI leg.; 1 ex., April 24 1960, Y. KUSUI leg.; 1 ex., Sept. 19 1960, M. YAMAMOTO leg.); Mt. Kameyama (5 exs., May 17 1964, Y. KUSUI leg.).

本種はかって *O. jucunda* FALDERMANN コアオハナムグリの1亜種とされていたが，九州において両種がともに産するので，野村鎮氏により別種として取扱われるようになった．本種は湯浅町の低山地において多数のコアオハナムグリの中に稀にみられる程度であるが，亀山ではほぼ同数またはそれ以上の個体がみられた．

なお，本種の同定には野村鎮氏にご確認をいただいた．明記して深謝の意を表する．



(S. NOMURA del.)



(S. NOMURA photo.)

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Notes on the Chrysomelidae from Taiwan VI[1)2)]

By SHINSAKU KIMOTO

Biological Laboratory, Pre-Medical Course
School of Medicine, Kurume University, Kurume.

Subfamily Alticinae III

Aphthonoides beccarii JACOBY, 1885

Wulai, Taipei Hsien (2 exs., 27. V. 1965, Y. MIYATAKE leg.; 1 ex., 27. V. 1965, K. MORIMOTO leg.).

Ilan, Ilan Hsien (1 ex., 18. VIII. 1966, H. KAMIYA leg.).

Penpuchi, Nantou Hsien (5 exs., 9. VII. 1965, H. KAMIYA leg.).

Nanshanchi, Nantou Hsien (1 ex., 30. IV. 1965, T. SHIRÔZU leg.).

Wushe, Nantou Hsien (1 ex., 14. VI. 1965, S. UÉNO leg.).

Sungkang-Tsifeng, Nantou Hsien (4 exs., 29. VI. 1965, S. KIMOTO leg.).

Sungkang, Nantou Hsien (1 ex., 16. VII. 1966, H. KAMIYA leg.).

Fenchihu, Chiayi Hsien (9 exs., 10. IV. 1965, S. MIYAMOTO leg.; 7 exs., 10. IV. 1965, Y. HIRASHIMA leg.; 3 exs., 12. IV. 1965, T. SAIGUSA leg.; 19 exs., 7. VII. 1965, 1 ex., 8. VII. 1965, S. KIMOTO leg.; 1 ex., 7. VII. 1965, T. NAKANE leg.; 1 ex., 22. VII. 1966, H. KAMIYA leg.).

5-10 km S. of Fenchihu, Chiayi Hsien (2 exs., 11. IV. 1965, Y. HIRASHIMA leg.).

Chiaoliping, Chiayi Hsien (8 exs., 13. IV. 1965, T. SAIGUSA leg.).

Alishan, Chiayi Hsien (1 ex., 4. VII. 1965, S. KIMOTO leg.; 1 ex., 28. VII. 1966, H. KAMIYA leg.).

Liyuchih, Hualien Hsien (1 ex., 15. VIII. 1966, H. KAMIYA leg.).

Chulu, Taitung Hsien (1 ex., 9. VIII. 1966, H. KAMIYA leg.).

Kuantzuling, Tainan Hsien (24 exs., 6. IV. 1965, T. SAIGUSA leg.; 16 exs., 6. IV. 1965, 2 exs., 7. IV. 1965, S. MIYAMOTO leg.).

Distribution: Sumatra, Java, China, Taiwan, Japan.

Batophila acutangula HEIKERTINGER, 1921

Yangmingshan, Taipei Hsien (1 ex., 25. V. 1965, K. MORIMOTO leg.; 1 ex., 24. VIII. 1966, H. KAMIYA leg.).

Pahsienshan (=Hassenzan), Taichung Hsien (3 exs., 26. VI. 1934, J. L. GRESSITT leg.).

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2) Part 1, 1967, Kontyû 35 (4): 368-374; Part 2, 1969, Esakia 7: 1-68; Part 3, 1970, Kontyû 38 (2): 176-183; Part 4, 1970, ibid. 38 (3): 203-221; Part 5, 1970, ibid. 38 (4): 292-313.

[Ent. Rev. Japan, Vol. XXIII, No. 2, pp. 73-87, Sept., 1971]

Sungkang-Tsifeng, Nantou Hsien (1 ex., 4. V. 1965, T. SHIRÔZU leg.; 268 exs., 29. VI. 1965, S. KIMOTO leg. ; 9 exs., 29. VI. 1965, T. NAKANE leg.).

Sungkang, Nantou Hsien (8 exs., 29. VI. 1965, T. YAMASAKI leg.; 3 exs., 16. VII. 1966, H. KAMIYA leg.).

Tsifeng, Nantou Hsien (6 exs., 10. VII. 1966, H. KAMIYA leg.).

Yuanfeng-Kunyang, Nantou Hsien (34 exs., 1. VII. 1965, S. KIMOTO leg.; 18 exs., 1. VII. 1965, T. NAKANE leg.; 3 exs., 1. VII. 1965, T. YAMASAKI leg.).

Fenchihu, Chiayi Hsien (10 exs., 7. VII. 1965, S. KIMOTO leg.; 3 exs., 12. IV. 1965, T. SHIRÔZU leg.; 1 ex., 12. IV. 1965, T. SAIGUSA leg.).

Alishan (=Arisan), Chiayi Hsien (5 exs., 18. VIII. 1947, J. L. GRESSITT leg.; 7 exs., 8. IV. 1965, T. SHIRÒZU leg.; 6 exs., 9. IV. 1965, Y. HIRASHIMA leg.; 2 exs., 8. IV. 1965, 4 exs., 9. IV. 1965, S. MIYAMOTO leg.; 2 exs., 8. IV. 1965, 4 exs., 9. IV. 1965, T. SAIGUSA leg.; 21 exs., 5. VII. 1965, 18 exs., 6. VII. 1965, S. KIMOTO leg.; 1 ex., 5. VII. 1965, 3 exs., 6. VII. 1965, Y. KUROSAWA leg.; 2 exs., 5. VII. 1965, T. YAMASAKI leg.; 1 ex., 5. VII. 1965, 1 ex., 6. VII. 1965, T. NAKANE leg.; 1 ex., 27. VII. 1966, 3 exs., 28. VII. 1966, 1 ex., 29. VII. 1966, H. KAMIYA leg.).

Tungpu (=Tonpogoe), Chiayi Hsien (4 exs., 28. III. 1967, T. SHIRÔZU leg.).

Tungpu-Taataka Pass, Chiayi Hsien (7 exs., 10. IV. 1965, T. SAIGUSA leg.).

Taataka Pass (=Vicinity of Taataka-anbu), Chiayi Hsien (1 ex., 3. IV. 1967, T. SHIRÔZU leg.).

Distribution: Siberia, China, Japan, Taiwan.

Aphthonomorpha collaris (BALY, 1877)

Shuangchi, Hsintien, Taipei Hsien (1 ex., 20. VI. 1965, T. NAKANE leg.).

Wulai, Taipei Hsien (1 ex., 27. V. 1965, S. KIMOTO leg.).

Yangmingshan, Taipei Hsien (1 ex., 26. VI. 1965, S. KIMOTO leg.).

Liyuchih, Hualien Hsien (4 exs., 15. VIII. 1966, H. KAMIYA leg.).

Distribution: Indo-China, China, Taiwan, Japan.

Manobidia simplicithorax CHEN, 1934

Sinensia, 5 (3/4): 350, 360 (Tonkin).

=*Aphthonomorpha fulva* CHÛJÔ, 1957, Kontyû, 25 (1): 16 (Amami-Oshima). **New Synonymy**

Kuantzuling, Tainan Hsien (5 exs., 7. IV. 1965, Y. HIRASHIMA leg.).

Kenting, Pingtung Hsien (4 exs., 2. IV. 1965, Y. HIRASHIMA leg.; 2 exs., 2. IV. 1965, T. SAIGUSA leg.; 1 ex., 2. IV. 1965, S. MIYAMOTO leg.; 1 ex., 2. VII. 1965, S. KIMOTO leg.).

Distribution: Indo-China, Hainan Is., China, Taiwan, Ryukyu Is.

Manobia nigrita CHÛJÔ, 1936

Fenchihu, Chiayi Hsien (10 exs., 7. VII. 1965, 2 exs., 8. VII. 1965, S. KIMOTO leg.; 3 exs., 8. VII. 1965, T. NAKANE leg.; 1 ex., 7-8. VII. 1965, T. YAMASAKI leg.).

Alishan (=Arisan), Chiayi Hsien (1 ex., 18. VIII. 1947, J. L. GRESSITT leg).

Kuantzuling, Tainan Hsien (1 ex., 6. IV. 1965, T. SAIGUSA leg.).

Distribution: Taiwan.

Manobia formosana CHÛJÔ, 1936

Sungkang-Tsifeng, Nantou Hsien (1 ex., 4. V. 1965, T. SHIRÔZU leg.).

Fenchihu, Chiayi Hsien (1 ex., 24. VII. 1966, H. KAMIYA leg.; 1 ex., 12. IV. 1965, T. SAIGUSA leg.).

Alishan, Chiayi Hsien (4 exs., 8. IV. 1965, 13 exs., 9. IV. 1965, S. MIYAMOTO leg.; 1 ex., 8. IV. 1965, T. SHIRÔZU leg.; 1 ex., 5. VII. 1965, 2 exs., 6. VII. 1965, S. KIMOTO leg.; 1 ex., 5. VII. 1965, T. NAKANE leg.; 1 ex., 5. VII. 1965, Y. KUROSAWA leg.; 1 ex., 5. VII. 1965, T. YAMASAKI leg.).

According to my study on the type of *Manobia formosana* CHÛJÔ, preserved in the Taiwan Agricultural Research Institute, Taipei, the type series of this species is the complex of two distinct species, and each specimen of the type series is indicated merely as "cotype" and the holotype is not selected. A part of the type series is identical with *Manobia lewisi* JACOBY and the lest of the series is an undescribed species before him. The original description of *Manobia formosana* is more agreeable with the later species. The present species is separable from *lewisi* JACOBY, in having the elytral humeri hardly raised, the postbasal areas very strongly raised and the latero-basal margins of elytra completely visible from above.

Distribution: Taiwan.

Manobia lewisi JACOBY, 1885

Shuangchi, Hsintien Hsien (1 ex., 23. VI. 1965, S. KIMOTO leg.).

Wulai, Taipei Hsien (5 exs., 17. IV. 1965, S. MIYAMOTO leg.; 2 exs., 27. V. 1965, K. MORIMOTO leg.; 1 ex., 4. VII. 1966, H. KAMIYA leg.).

Yangmingshan, Taipei Hsien (1 ex., 28. III. 1965, S. MIYAMOTO leg.; 2 exs., 25. V. 1965, K. MORIMOTO leg.).

Ilan, Ilan Hsien (5 exs., 15. IV. 1965, Y. HIRASHIMA leg.).

Penpuchi, Nantou Hsien (1 ex., 9. VII. 1966, H. KAMIYA leg.).

Meichi, Nantou Hsien (1 ex., 16. V. 1965, T. SHIRÔZU leg.).

Chuchi, Chiayi Hsien (2 exs., 14. IV. 1965, S. MIYAMOTO leg.).

Chiaoliping, Chiayi Hsien (4 exs., 13. IV. 1965, T. SAIGUSA leg.).

Fenchihu, Chiayi Hsien (22 exs., 12. IV. 1965, T. SAIGUSA leg.; 12 exs., 10. IV. 1965, 2 exs., 12. IV. 1965, S. MIYAMOTO leg.; 4 exs., 13. IV. 1965, T. SHIRÔZU leg.; 4 exs., 10. IV. 1965, Y. HIRASHIMA leg.; 10 exs., 7. VII. 1965, 2 exs., 8. VII. 1965, T. NAKANE leg.; 5 exs., 7. VII. 1965, S. KIMOTO leg.; 1 ex., 8. VII. 1965, R. ISHIKAWA leg.; 1 ex., 24. VII. 1966, H. KAMIYA leg.).

Kuantzuling, Tainan Hsien (3 exs., 6. IV. 1965, 5 exs., 7. IV. 1965, S. MIYAMOTO leg.; 5 exs., 6. IV. 1965, T. SAIGUSA leg.).

Kenting, Pingtung Hsien (1 ex., 4. IV. 1965, T. SAIGUSA leg.).

This species is here recorded for the first time from Taiwan.

Distribution: Japan, Taiwan.

Manobia puncticollis n. sp.

Body above pitchy black, shining; antennae entirely reddish brown, but in some

specimens basal joints slightly paler; body beneath pitchy black; legs reddish brown with tibiae blackish.

Head with vertex nearly impunctate, except for a pair of large setigerous pores of puncture situated behind eyes; frontal tubercles distinct, subtriangular, smooth, distinctly delimited from behind by a distinct furrow; clypeus and labrum rather closely covered with yellowish pubescence. Antennae nearly ⅔ as long as length of body; first joint longest, robust, club-shaped, second short, nearly ⅔ as long as first and slenderer, third nearly as long as second but much slenderer, fourth subequal to third in length and shape, fifth 1⅓ times as long as fourth, fifth to tenth subequal to each other in length but gradually widened towards terminal joints; eleventh 1½ times as long as tenth and its apex pointed. Pronotum one and half times as broad as long, lateral margins nearly straight, subparallel-sided, anterior margin slightly rounded anteriorly, anterior angles obliquely truncate, basal margin produced posteriorly at middle; surface convex, distinctly and rather closely punctate and interstices of punctures smooth and shining, ante-basal transverse impression shallow but distinct. Scutellum small, semicircular, surface smooth, shining, impunctate. Elytra convex, with a shallow depression slightly behind subbasal area, and with regularly arranged eleven longitudinal rows of punctures, and their interstices nearly impunctate, smooth and slightly raised especially on lateral portion.

Length: 1.6–2.0 mm.

Holotype: Kenting, Pingtung Hsien (4. IV. 1965, T. SAIGUSA leg.).

Paratopotypes: 20 exs., same as the holotype.

Paratype: 1 ex., same as the holotype but collected by S. MIYAMOTO.

This new species differs from *Manobia lewisi* JACOBY and *M. formosana* CHÛJÔ in having the pronotum distinctly and closely punctate and the lateral margins almost subparallel-sided.

Distribution: Taiwan.

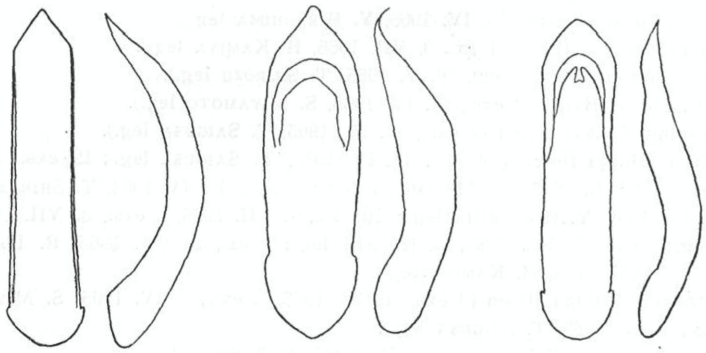

Fig. Male genitalia: a, *Manobia puncticollis* KIMOTO, n. sp.; b. *Orthocrepis taiwanensis* KIMOTO, n. sp.; c, *O. asahinai* KIMOTO, n. sp.

Orthocrepis taiwanensis n. sp.

Head dark reddish brown with frontal tubercles paler; pronotum and scutellum

dark reddish brown, elytra bluish black; antennae reddish brown with basal joints paler; ventral surface blackish brown; legs entirely reddish brown; in some specimens vertex and pronotum largely bluish black.

Head with vertex nearly impunctate; frontal tubercles large, subquadrate, separated to each other by a short longitudinal furrow and not well separated from behind, surface smooth, impunctate; inter-antennal space relatively wide, distinctly convex; clypeus and labrum rather closely covered with yellowish pubescence. Antennae nearly ⅔ as long as length of body; first joint longest, robust, club-shaped, second short, nearly half as long as first and slenderer, third nearly as long as second but slenderer, fourth subequal to third in length and shape, fifth 1¼ times as long as fourth, fifth to tenth subequal to each other in length but gradually widened towards terminal joints; eleventh 1½ times as long as tenth and its apex pointed. Pronotum one and half times as broad as long, sides distinctly rounded, widest at middle and narrowed towards anteriorly and posteriorly; anterior angle obliquely truncate, and its posterior angle pointed and produced laterally; anterior margin rounded anteriorly, and basal margin produced posteriorly at middle; surface convex, closely impressed with minute punctures, ante-basal transverse impression distinct and delimited sides by a pair of distinct short longitudinal impressions. Scutellum semi-circular, surface impunctate, slightly wrinkled. Elytra convex, distinctly widened posteriorly and rounded at apex, surface impressed with two kinds of large and small punctures on whole surface and their interstices smooth.

Length: 2.0–2.3 mm.

Holotype: Kenting, Pingtung Hsien (3. VII. 1965, S. KIMOTO leg.).

Paratopotypes: 4 exs., same as the holotype.

Paratypes: Kenting, Pingtung Hsien (4 exs., 3. VII. 1965, T. NAKANE leg.).

This new species resembles *Orthocrepis adamsii* (BALY), from Japan, but differs from it in having the body length longer, and antennae and legs much paler.

Distribution: Taiwan.

Orthocrepis asahinai n. sp.

Head reddish brown with vertex shining black; pronotum yellowish to reddish brown with medio-basal portion infuscate; scutellum and elytra cupreous; antennae almost entirely reddish brown; ventral surface pitchy black; legs reddish brown with femora much darker.

Head with vertex nearly impunctate; frontal tubercles large, oblong, slightly raised, contiguous, not well separated from behind, surface smooth, shining; inter-antennal space convex, relatively wide; clypeus and labrum rather closely covered with yellowish pubescence. Antennae nearly ⅔ as long as length of body; first joint longest, robust, club-shaped, second short, nearly half as long as first and slenderer, third nearly as long as second but slenderer, fourth subequal to third in length and shape, fifth 1¼ times as long as fourth, fifth to tenth subequal to each other in length but gradually widened towards terminal joints; eleventh 1½ times as long as tenth and its apex pointed. Pronotum 1⅔ times as broad as long, sides distinctly rounded, widest at ⅓ from basal margin and strongly narrowed towards anteriorly and less strongly so posteriorly; anterior angle obliquely truncate, and its posterior

angle pointed and produced laterally; anterior margin rounded anteriorly and basal margin produced posteriorly at middle; surface convex, nearly impunctate, smooth, shining, ante-basal transverse impression distinct and delimited each side by a distinct short longitudinal impression. Scutellum semi-circular, surface nearly impunctate, slightly wrinkled. Elytra convex, distinctly widened posteriorly and rounded at apex, surface distinctly but not closely punctate.

Length: 2.7–3.0 mm.

Holotype: Alishan, Chiayi Hsien (5. VII. 1965, S. KIMOTO leg.).

Paratopotypes: 4 exs., same as the holotype.

The scientific name of this new species is dedicated to Dr. S. ASAHINA, chief of the project team, "Zoogeography and Ecology of the Pacific Area Insects," as a part of the Japan-U.S. Cooperative Science Program.

This new species resembles *Orthocrepis taiwanensis* KIMOTO, but differs from it in having the pronotum nearly impunctate, elytra with the punctures finer, the body length longer and the different coloration of the dorsal surface.

Distribution: Taiwan.

Mellipora shirozui CHÛJÔ, 1965

Pahsienshan (=Hassenzan), Taichung Hsien (3 exs., 26. VI. 1934, J. L. GRESSITT leg.).

Sungkang, Nantou Hsien (1 ex., 16. VII. 1966, H. KAMIYA leg.).

Sungkang-Tsifeng, Nantou Hsien (9 exs., 29. VI. 1965, S. KIMOTO leg.).

Alishan, Chiayi Hsien (1 ex., 6. VII. 1965, T. NAKANE leg.; 1 ex., 6. VII. 1965, S. KIMOTO leg.; 2 exs., 27. VII. 1966, H. KAMIYA leg.).

Distribution: Taiwan.

Phygasia ornata BALY, 1876

Shuangchi, Hsintien, Taipei Hsien (1 ex., 23. VI. 1965, R. ISHIKAWA leg.).

Liyuchih, Hualien Hsien (1 ex., 15. VIII. 1966, H. KAMIYA leg.).

Chichiawanchi at the Eastern foot of Mt. Hsuehshan, 1800 m, Taichung Hsien (1 ex., 20. VI. 1961, S. UÉNO leg.).

Nanshanchi, Nantou Hsien (1 ex., 1. VI. 1965, B.-S. CHANG leg.; 1 ex., 30. VI. 1965, T. YAMASAKI leg.).

Sungkang, Nantou Hsien (1 ex., 16. VII. 1966, H. KAMIYA leg.).

Sungkang-Tsifeng, Nantou Hsien (1 ex., 29. VI. 1965, Y. KUROSAWA leg.).

Distribution: S. China, Taiwan, Andaman Is., Burma.

Phygasia diluta CHÛJÔ, 1963, New Status

=*Phygasia ornata diluta* CHÛJÔ, 1963, Ann. Hist.-Nat. Mus. Nat. Hungarici, 55: 400 (Taiwan: Takao, Kanshirei, Taihanroku).

Kenting, Pingtung Hsien (1 ex., 3. VII. 1965, S. KIMOTO leg.).

Oulanpi, Pingtung Hsien (1 ex., 2. VIII. 1966, H. KAMIYA leg.).

Distribution: Taiwan.

Ogloblinia flavicornis (BALY, 1874)

Shuangchi, Hsintien, Taipei Hsien (1 ex., 23. VI. 1965, S. KIMOTO leg.).
Penpuchi, Nantou Hsien (1 ex., 2. V. 1965, T. SHIRÔZU leg.).
This species is here recorded from Taiwan for the first time.
Distribution: Japan, Ryukyu Is., Taiwan.

Zipanginia sakishimana KIMOTO & GRESSITT, 1966

Ilan, Ilan Hsien (1 ex., 15. IV. 1965, Y. HIRASHIMA leg.).
Sungkang, Nantou Hsien (1 ex., 16. VII. 1966, H. KAMIYA leg.).
Sungkang-Tsifeng, Nantou Hsien (1 ex., 29. IV. 1965, S. KIMOTO leg.).
Tsifeng, Nantou Hsien (1 ex., 10. VII. 1966, H. KAMIYA leg.).
This species is here recorded from Taiwan for the first time.
Distribution: Ryukyu Is., Taiwan.

Zipangia amamiana (OHNO, 1961)

Tahu (=Taiko)-Sungan (=Nihonmatsu), Miaoli Hsien (2 exs., 9. IV. 1967, T. SHIRÔZU leg.).
Peikeng (=Hokukô)-Hushan (=Kaminoshima-Onsen), Miaoli Hsien (1 ex., 11. IV. 1967, T. SHIRÔZU leg.).
Mt. Nanhupeishan, Ilan Hsien (6 exs., 17. VI. 1961, S. UÉNO leg.).
Pahsienshan (=Hassenzan), Taichung Hsien (2 exs., 26. VI. 1934, J. L. GRESSITT leg.).
Sungkang, Nantou Hsien (1 ex., 29. VI. 1965, T. SHIRÔZU leg.; 3 exs., 16. VII. 1966, H. KAMIYA leg.).
Sungkang-Tsifeng, Nantou Hsien (1 ex., 29. VI. 1965, T. NAKANE leg.; 1 ex., 29. VI. 1965, Y. KUROSAWA leg.; 1 ex., 29. VI. 1965, T. YAMASAKI leg.).
Alishan, Chiayi Hsien (1 ex., 9. IV. 1965, Y. HIRASHIMA leg.; 1 ex., 5. VII. 1965, 2 exs., 6. VII. 1965, T. NAKANE leg.; 18 exs., 6. VII. 1965, S. KIMOTO leg.).
Tungpu (=Tonpogoe), Chiayi Hsien (9 exs., 28. III. 1967, T. SHIRÔZU leg.).
This species is here recorded for the first time from Taiwan.
Distribution: Ryukyu Is., Taiwan.

Altica deserticola (WEISE, 1889)

Mt. Hsuehshan, 3400-3600m, Taichung Hsien (1 ex., 27. VI. 1961, S. UÉNO leg.).
This species is here recorded for the first time from Taiwan.
Distribution: E. Europe, Caucasus, C. Asia, Mongolia, N. & W. China, Taiwan.

Altica cyanea (WEBER, 1801)

Kuangyin, Taoyuan Hsien (1 ex., 10. IX. 1966, B.-S. CHANG leg.).
Minhsiung, Chiayi Hsien (19 exs., 15. IV. 1965, S. MIYAMOTO leg.).
Chuchi, Chiayi Hsien (1 ex., 13. IV. 1965, Y. HIRASHIMA leg.).
Distribution: Sunda Is., Malaya, India, Burma, Indo-China, China, Japan, Taiwan, Philippines, New Guinea, Queensland.

Altica himensis (SHUKLA, 1960)

Taipingshan (=Taiheizan), Ilan Hsien (1 ex., 16. IV. 1933, K. SATÔ leg.).

Yuangfeng-Kunyang, Nantou Hsien (3 exs., 1. VII. 1965, T. YAMASAKI leg.; 1 ex., 1. VII. 1965, T. NAKANE leg.; 1 ex., 1. VII. 1965, S. KIMOTO leg.).

Alishan (=Arisan), Chiayi Hsien (1 ex., 2. VI. 1932, J. L. GRESSITT leg.).

This species is here recorded for the first time from Taiwan.

Distribution : Nepal, India, Taiwan.

Altica coerulea (OLIVIER, 1791)

Encycl. Meth., 6: 590 (India).

=*Altica brevicosta* WEISE, 1922, Tijdschr. Ent., 65: 110 (Luzon, Java, Canton, Darjeeling).

Minhsiung, Chiayi Hsien (36 exs., 15. IV. 1965, S. MIYAMOTO leg.).

According to my study on the type of *Altica brevicosta* WEISE, preserved in the Swedish Museum of Natural History, Stockholm, the type of *brevicosta* is identical with the species which has been identified as *coerulea* OLIVIER by many authorities on the Alticinae, viz. BALY, JACOBY, HEIKERTINGER and so on. I would like to treat *Altica brevicosta* WEISE as one of the synonym of *coerulea* OLIVIER. Since I followed the WEISE's identification, the identifications of *Altica coerulea* OLIVIER by GRESSITT & KIMOTO (1963) from China and KIMOTO (1966) from Taiwan should be corrected as *Altica birmensis* JACOBY. The name, *Altica birmensis* JACOBY has been treated as one of the synonym of *Haltica cyanea* WEBER, after MAULIK (1926, Fauna India, Chrysom. & Halt., p. 422). However, *birmensis* is clearly separable from *cyanea* WEBER in having the elytron with a feebly impressed longitudinal sulcus situated at the same level as humerus and elytral punctures less closely and less distinctly impressed compared with *cyanea*.

Distribution: Philippines, Taiwan, S. China, Indo-China, Java, India.

Altica birmensis (JACOBY, 1896)

=*Altica coerulea*: KIMOTO, 1966, Esakia, 5: 35 (Kosempo, Pinlau, Taihorin, Hoozan, Taihanroku).

Wulai (=Urai), Taipei Hsien (3 exs., 1. V. 1932, J. L. GRESSITT leg.).

Shuangchi, Hsintien, Taipei Hsien (2 exs., 23. VI. 1965, T. YAMASAKI leg.).

Keelung, Taipei Hsien (1 ex., VI. 1954, T.-C. MAA leg.).

Pingling, Taipei Hsien (35 exs., 23. VI. 1965, Y. KUROSAWA leg.).

Yangmingshan, Taipei Hsien (1 ex., 28. III. 1965, T. SHIRÔZU leg.; 11 exs., 26. VI. 1965, T. NAKANE leg.; 5 exs., 26. VI. 1965, T. YAMASAKI leg.; 2 exs., 24. VI. 1965, Y. KUROSAWA leg.; 1 ex., 24. VI. 1965, S. ITÔ leg.).

Ilan, Ilan Hsien (1 ex., 16. IV. 1965, Y. HIRASHIMA leg.).

Sungan, Miaoli Hsien (1 ex., 27. VI. 1967, B.-S. CHANG leg.).

Tahu (=Taiko)-Sungan (=Nihonmatsu), Miaoli Hsien (7 exs., 9. IV. 1967, T. SHIRÔZU leg.).

Sungan (=Nihonmatsu)-Peikeng (=Hokukô), Miaoli Hsien (2 exs., 10. IV. 1967, T. SHIRÔZU leg.).

Puli (=Hori), Nantou Hsien (4 exs., 8. VII. 1966, H. KAMIYA leg.).

Shuilikeng (=Suiriko)-Namakaban, Nantou Hsien (5 exs., 30. V. 1932, J. L. GRESSITT leg.).

Penpuchi, Nantou Hsien (1 ex., 29. V. 1965, B.-S. CHANG leg.; 1 ex., 9. VII. 1966, 3 exs., 13. VII. 1966, 1 ex., 14. VII. 1966, H. KAMIYA leg.).

Nanshanchi, Nantou Hsien (2 exs., 8. V. 1965, B.-S. CHANG leg.; 3 exs., 30. VI. 1965, Y. KUROSAWA leg.; 2 exs., 30. VI. 1965, T. YAMASAKI leg. ; 4 exs., 30. VI. 1965, S. ITÔ leg.; 1 ex., 30. VI. 1965, T. NAKANE leg.; 1 ex., 12. VII. 1966, H. KAMIYA leg.).

Wushe, Nantou Hsien (2 exs., 14. VI. 1961, S. UÉNO leg.; 4 exs., 15. VII. 1966, B.-S. CHANG leg.).

Sungkang, Nantou Hsien (2 exs., 29. VI. 1965, T. YAMASAKI leg.; 1 ex., 29. VI. 1965, T. NAKANE leg.).

Sungkang-Tsifeng, Nantou Hsien (5 exs., 29. VI. 1965, Y. KUROSAWA leg.; 2 exs., 29. VI. 1965, S. KIMOTO leg.; 1 ex., 29. VI. 1965, S. ITÔ leg.).

Tsifeng, Nantou Hsien (1 ex., 10. VII. 1966, H. KAMIYA leg.).

Fenchihu, Chiayi Hsien (2 exs., 7. VII. 1961, S. UÉNO leg.; 33 exs., 10. IV. 1965, Y. HIRASHIMA leg.; 4 exs., 10. IV. 1965, 24 exs., 12. IV. 1965, 5 exs., 13. IV. 1965, T. SHIRÔZU leg.; 9 exs., 10. IV. 1965, S. MIYAMOTO leg.; 7 exs., 10. IV. 1965, M. SASAKAWA leg.; 12 exs., 8. VII. 1965, S. ITÔ leg.; 8 exs., 8. VII. 1965, S. KIMOTO leg.; 2 exs., 8. VII. 1965, T. NAKANE leg.; 2 exs., 8. VII. 1965, R. ISHIKAWA leg.; 2 exs., 8. VII. 1965, T. YAMASAKI leg.; 20 exs., 22. VII. 1966, 2 exs., 23. VII. 1966, 2 exs., 24. VII. 1966, H. KAMIYA leg.).

5-10 km S. of Fenchihu, Chiayi Hsien (1 ex., 11. IV. 1965, Y. HIRASHIMA leg.).

Alishan, Chiayi Hsien (33 exs., 5. VII. 1965, 16 exs., 6. VII. 1965, S. KIMOTO leg.; 21 exs., 6. VII. 1965, R. ISHIKAWA leg.; 34 exs., 6. VII. 1965, S. ITÔ leg.; 12 exs., 5. VII. 1965, 12 exs., 6. VII. 1965, T. NAKANE leg.; 1 ex., 5. VII. 1965, Y. KUROSAWA leg.; 1 ex., 6. VII. 1965, T. YAMASAKI leg.).

Kuantzuling, Tainan Hsien (1 ex., 7. IV. 1965, S. MIYAMOTO leg.).

Hohuanshan, Hualien Hsien (1 ex., 16. VII. 1966, B.-S. CHANG leg.).

Hsipao, Hualien Hsien (2 exs., 18. VII. 1966, B.-S. CHANG leg.).

Chihpen, Taitung Hsien (2 exs., 10. VIII. 1966, H. KAMIYA leg.).

Chulu, Taitung Hsien (1 ex., 11. VIII. 1966, H. KAMIYA leg.).

Chirifu, Kaohsiung Hsien (1 ex., 18. V. 1934, J. L. GRESSITT leg.).

Nanwan (=Taihanroku), Pingtung Hsien (2 exs., 27. III. 1932, J. L. GRESSITT leg.).

Tashulin (=Daijirin), Pingtung Hsien (39 exs., 16. IV. 1932, J. L. GRESSITT leg.).

This species is here recorded for the first time from Taiwan.

Distribution: Burma, Taiwan.

Supplement to Part I

Subfamily Donaciinae

Donacia (*Cyphogaster*) *provostii* FAIRMAIRE, 1885

Kueitzuchiao (=Kuraru), Pingtung Hsien (1 ex., 30. VIII. 1921, T. ESAKI leg.).

Distribution: E. Siberia, Korea, Japan, China, Taiwan, Indo-China.

Subfamily Megalopodinae

Temnaspis shirakii (CHÛJÔ, 1932)

Sungkang, Miaoli Hsien (1 ex., 27. VI. 1967, B.-S. CHANG leg.).
This specimen slightly differs from the nominate form in having the lateral portions of pronotum brownish instead of entirely blackish.
Distribution: Taiwan.

Subfamily Criocerinae

Lema coronata BALY, 1873

Kuangyin, Taoyuan Hsien (1 ex., 10. IX. 1966, B.-S. CHANG leg.).
Distribution: Taiwan, China, Ryukyu Is., Japan.

Lema postrema BATES, 1866

Kueitzuchiao (=Kuraru), Pingtung Hsien (1 ex., 2. IX. 1921, T. ESAKI leg.).
Distribution: Taiwan.

Lilioceris neptis (WEISE, 1922)

Kueitzuchiao (=Kuraru), Pingtung Hsien (1 ex., 15. X. 1931, A. UMENO leg.).
Hengchun (=Koshun), Pingtung Hsien (1 ex., 20. V. 1934, K. KOTAHIRA leg.)
Distribution: S. China, Taiwan.

Lilioceris egena (WEISE, 1922)

Hengchun (=Koshun), Pingtung Hsien (2 exs., 10. VIII. 1934, J. L. GRESSITT leg.).
Distribution: SE. China, Taiwan.

Crioceris quatuordecimpunctata (SCOPOLI, 1763)

=*Crioceris issikii* CHÛJÔ, 1951.
Puli (=Horisha)-Wushe (=Musha), Nantou Hsien (1 ex., 14. VIII. 1921, T. ESAKI leg.).
Distribution: Europe, Siberia, Manchuria, China, Japan, Taiwan.

Subfamily Clytrinae

Physauchenia bifasciata (JACOBY, 1888)

Keelung, Taipei Hsien (1 ex., VI. 1954, T.-C. MAA leg.).
Puli (=Hori)-Wushe (=Musha), Nantou Hsien (1 ex., 14. VIII. 1921, T. ESAKI leg.).
Wushe (=Musha)-Sungkang (=Tattaka), Nantou Hsien (1 ex., 16. VIII. 1921, T. ESAKI leg.).
Kueitzuchiao (=Kuraru), Pingtung Hsien (1 ex., 29. VIII. 1921, 2 exs., 5. IX. 1921,

T. ESAKI leg.).

Distribution: Tonkin, Hainan, S. China, Taiwan.

Smaragdina nipponensis (CHÛJÔ, 1951)

Tahu (=Taiko)-Sungan (=Nihonmatsu), Miaoli Hsien (1 ex., 9. IV. 1967, T. SHIRÔZU leg.).

Sungan (=Nihonmatsu)-Peikeng (=Hokukô), Miaoli Hsien (1 ex., 10. IV. 1967, T. SHIRÔZU leg.).

Distribution: Japan, Ryukyu Is., Taiwan, China.

Smaragdina octomaculata (CHÛJÔ, 1952)

Sungan (=Nihonmatsu)-Peikeng (=Hokukô), Miaoli Hsien (1 ex., 10. IV. 1967, T. SHIRÔZU leg.).

Rarashan (="Montes Rara"), Taipei Hsien (1 ex., VI. 1939, ARAKAWA leg.).

Distribution: Taiwan.

Smaragdina nigrifrons (HOPE, 1842)

Tailuko (=Taroko), Hualien Hsien (1 ex., 29. IX. 1921, T. ESAKI leg.).

Hsinhsing, Miaoli Hsien (2 exs., 28. VI. 1967, B.-S. CHANG leg.).

Chiaopanshan (=Kappanzan), Taoyuan Hsien (2 exs., 7. IX. 1921, T. ESAKI leg.).

Wushe (=Musha), Nantou Hsien (2 exs., 15. VIII. 1921, T. ESAKI leg.).

Sungkang (=Tattaka)-Meichi (=Baikei), Nantou Hsien (1 ex., 20. VIII. 1921, T. ESAKI leg.).

Hengchun (=Koshun), Pingtung Hsien (1 ex., 21. VII. 1934, K. KOTAHIRA leg.).

Kueitzuchiao (=Kuraru), Pingtung Hsien (2 exs., 31. VIII. 1921, 2 exs., 1. IX. 1921, 1 ex., 2. IX. 1921, 1 ex., 4. IX. 1921, 3 exs., 6. IX. 1921, T. ESAKI leg.).

Distribution: Japan, Korea, China, Taiwan.

Host records

The following observations on the host plants of the Chrysomelid beetles were communicated by Prof. T. SHIRÔZU of the Kyushu University. The identification of host plants of 1) and 3) are made by Prof. T.-S. LIU of the National Taiwan University and of 2) is by Prof. S. HATSUSHIMA of the Kagoshima University.

1) *Platycorynus sauteri* (CHÛJÔ) (Eumolpinae) (*Trachelospermus jasminoides* LEMAIRE; Nanshanchi, Nantou Hsien, 30. IV. 1965).

2) *Phyllobrotica shirozui* KIMOTO (Galerucinae) (*Clenodendron trichotomus* THUNBERG; Fenchihu, 12. IV. 1965).

3) *Dactylispa insulicola* CHÛJÔ (Hispinae) (*Robus glandulosa-calycinus* HAYATA; Fenchihu, 13. IV. 1965).

Index of locality names

The following is a list of the locality names transliterated by the Roman alphabet from the Chinese characters. All the locality names treated in the following papers are also listed.

KIMOTO, S. 1965. A list of specimens of Chrysomelidae from Taiwan preserved in the Naturhistorisches Museum, Wien. Ann. Naturhist. Mus., Wien, 68 : 485-490.

KIMOTO, S. 1966. A list of the Chrysomelid specimens of Taiwan preserved in the Zoological Museum, Berlin. Esakia, 5: 21-38.

Alikang, Kaohsiung Hsien. 高雄県阿里関.

Alishan, Chiayi Hsien. 嘉義県阿里山 (2,300 m).

Anping, Tainan, Tainan Hsien. 台南県台南市安平.

Batakan in Tailukohsia, Hualien Hsien. 花蓮県太魯閣峡山胞村落.

Buruburu nr. Kuanshan, Taitung Hsien. 台東県関山附近山胞村落.

Botel Tobago Is. see Lan Hsu (蘭嶼).

Chaoping, Alishan, Chiayi Hsien. 嘉義県阿里山沼平.

Charngchuenchyan, Hualien Hsien. 花蓮県長春橋.

Chiahsien, Kaohsiung Hsien. 高雄県甲仙 (=甲仙埔).

Chiaobaotai in Pahsienshan, Taichung Hsien. 台中県八仙山佳保台 (1,050 m).

Chiaoliping, Chiayi Hsien. 嘉義県交力坪 (900 m).

Chiaopanshan, Taoyuan Hsien. 桃園県角板山.

Chiayi, Chiayi Hsien. 嘉義県嘉義.

Chihpen, Taitung Hsien. 台東県知本.

Chihsinliao, Chiayi Hsien. 嘉義県渓心寮 (450 m).

Chichi, Nantou Hsien. 南投県集集)=Chip Chip).

Chichiawanchi, at east foot of Hsuehshan, Taichung Hsien. 台中県雪山東麓七家湾渓.

Chientapu, Tainan Hsien. 台南県前大埔.

Chirifu, Kaohsiung Hsien. 高雄県桃源郷山胞村落 (=池鯉鮒).

Chofengssu, Takangshan, Kaohsiung Hsien. 高雄県大崗山超峰寺 (=岩仔,=Gyamma).

Chuangtou, Ilan Hsien. 宜蘭県圳頭.

Chuchi, Chiayi Hsien. 嘉義県竹崎 (120 m).

Chulaoshu, Pingtung Hsien. 屏東県猪勝束 (=Teraso).

Chulu, Taitung Hsien. 台東県初鹿.

Chungcheng, Nantou Hsien. 南投県中正.

Chutzuhu, Taipei Hsien. 台北県竹子湖.

Fenchihu, Chiayi Hsien. 嘉義県奮起湖.

Fengshan, Kaohsiung Hsien. 高雄県鳳山.

Fengyuan, Taichung Hsien. 台中県豊原 (=葫蘆墩, =Koroton, =Kuroton).

Fushan, Taipei Hsien. 台北県福山 (800 m) (=Rimogan).

Gyamma (岩仔) see Chofengssu (超峰寺).

Haliwei, Chiayi Hsien. 嘉義県哈里味.

Hengchun, Pingtung Hsien. 屏東県恒春.

Hohuanshan, Hualien Hsien. 花蓮県合歓山 (3,416 m).

Hotso, Nantou Hsien. 南投県合作 (=蘆山温泉).

Hsiaotoukeng, Taipei Hsien. 台北県小粗坑.

Hsinchu, Hsinchu Hsien. 新竹県新竹.

Hsinkaochienshan, Chiayi Hsien. 嘉義県新高前山 (玉山一支峰) (3,100 m).

Hsinhsing, Miaoli Hsien. 苗栗県新興.

Hsinpo, Taoyuan Hsien. 桃園県新坡.

Hsintien, Taipei Hsien. 台北県新店.

Hsipao, Hualien Hsien. 花蓮県西宝.

Hsuehien, Miaoli Hsien. 苗栗県雪見.

Hsuehshan, border of Miaoli Hsien and Taichung Hsien. 台中県苗栗県境雪山 (3,600m) (=次高山, =Mt. Sylvia).

Hsuehshantungfeng, Taichung Hsien. 台中県雪山東峯 (=次高東山, Tzukaotungshan).

Huanshan in Tachiachi, Taichung Hsien. 台中県大甲渓環山 (=平岩山).

Hushan, Miaoli Hsien. 苗栗県虎山(600 m) (=上の島温泉).

Ilan, Ilan Hsien. 宜蘭県宜蘭.

Jiuyuehtan, Nantou Hsien. 南投県日月潭 (750 m)(=Sun Moon Lake, Lake Candidius).
Juisui, Hualien Hsien. 花蓮県瑞穂.
Kaimosu nr. Kuanshan, Taitung Hsien. 台東県関山附近山胞村落.
Kangkou, Pingtung Hsien. 屏東県港口.
Kankow, Taipei Hsien. 台北県乾溝.
Kaohsiung, Kaohsiung Hsien. 高雄県高雄.
Kaoshifat, Pingtung Hsien. 屏東県高士佛 (160 m) (=Kusukusu).
Kenting, Pingtung Hsien. 屏東県墾丁.
Kotzulin, Chiayi Hsien. 嘉義県科子林 (850 m).
Kuangyin, Taoyuan Hsien. 桃園県観音.
Kuangyinshan, Taipei Hsien. 台北県観音山.
Kuanhsi, Hsinchu Hsien. 新竹県関西.
Kuanshan, Taitung Hsien. 台東県関山(=里壟).
Kuantzuling, Tainan Hsien. 台南県関子嶺.
Kuanyuan, Hualien Hsien. 花蓮県関原.
Kuaru see Kueitzuchiao (亀仔角).
Kueitzuchiao, Pingtung Hsien. 屏東県亀仔角 (=Kuaru, =Kuraru).
Kueishan, Taipei Hsien. 台北県亀山.
Kukuan in Tachiachi, Taichung Hsien. 台中県大甲渓谷関 (=明治).
Kunyang, Nantou Hsien. 南投県昆陽 (3,100 m).
Kuraru see Kueitzuchiao (亀仔角).
Kuroton and Koroton see Fengyuan (豊原).
Kusukusu see Kaoshifat (高士佛).
Lake Candidius see Jiuyuehtan (日月潭).
Lan Hsu. 蘭嶼 (=紅頭嶼).
Liming in Pahsienshan, Taichung Hsien. 台中県八仙山黎明 (2,325 m)
Lishan in Tachiachi, Taichung Hsien. 台中県大甲渓梨山 (=Saramao).
Liukuei, Kaohsiung Hsien. 高雄県六亀.
Liyuchih, Hualien Hsien. 花蓮県鯉魚池.
Liyushan, Taitung City, Taitung Hsien. 台中県台中市鯉魚山.
Lulinshan, Chiayi Hsien. 嘉義県鹿林山 (3,150 m).
Lu Tao. 緑島 (=火焼島).
Magan, Taipei Hsien. 台北県境内山胞村落.
Meichi, Nantou Hsien. 南投県眉渓 (880 m).
Meifeng, Nantou Hsien. 南投県梅峯.
Meiyuan, Nantou Hsien. 南投県眉原.
Minhsiung, Chiayi Hsien. 嘉義県民雄.
"Montes Rara" see Rarashan.
Mt. Morrison see Yushan (玉山).
Mt. Sylvia see Hsuehshan (雪山).
Mutanshe, Pingtung Hsien. 屏東県牡丹社.
Namakaban, Nantou Hsien. 南投県信義郷山胞村落 (=楠仔脚厂).
Nanhupeishan, Ilan Hsien. 宜蘭県南湖北山.
Nanhutashan, Ilan Hsien. 宜蘭県南湖大山 (3,792 m).
Nanshan (南山) see Pinan (壁南).
Nanshanchi, Nantou Hsien. 南投県南山渓 (800 m).
Nanwan, Pingtung Hsien. 屏東県南湾 (=大板埒).
Neichiao, Tainan Hsien. 台南県内角.
Neihu, Taipei Hsien. 台北県内湖.
Oluanpi, Pingtung Hsien. 屏東県鵝鑾鼻
Pahsienshan, Taichung Hsien. 台中県八仙山.
Paiho, Tainan Hsien. 台南県白河.
Peikeng, Miaoli Hsien. 苗栗県北坑.
Peinan, Taitung Hsien. 台東県卑南 (=Pilam).
Peitou, Taipei Hsien. 台北県北投.
Penpuchi, Nantou Hsien. 南投県本部渓 (750 m).
Pianan see Pinan (壁南).
Piawaikei in Tachiachi, Taichung Hsien. 台中県大甲渓一支流.
Pilam see Peinan (卑南).
Pinan, Ilan Hsien. 宜蘭県壁南(=Pianan).
Pinglin, Taipei Hsien. 台北県坪林.
Pingtung, Pingtung Hsien. 屏東県屏東.
Polisha see Puli (埔里).
Puli, Nantou Hsien. 南投県埔里 (=Polisha).
Rahau, Taipei Hsien. 台北県境内山胞村落.

Rarashan, Taipei Hsien. 台北県文山区境内山名.
Rimogan see Fushan (福山).
Saramao see Lishan (梨山) in Tachiachi (大甲溪).
Senlin Park, Taipei Hsien. 台北県台北市森林公園.
Shenkeng, Taipei Hsien. 台北県深坑.
Shikikun see Ssuchi (四季).
Shinbajinshan, Ilan Hsien. 宜蘭県南湖大山一支峰 (=審馬陣山) (3,137 m).
Shuangchi, Hsintien Chen, Taipei Hsien. 台北県新店鎮双溪 (=双溪口).
Shuangchi, Shuangchi Hsiang, Taipei Hsien. 台北県双溪郷双溪.
Shuilikeng, Nantou Hsien. 南投県水裡坑.
Shuitao, Chiayi Hsien. 嘉義県水道 (220 m).
Ssuchi, Ilan Hsien. 宜蘭県四季 (=Shikikun).
Ssuchungchi, Pingtung Hsien. 屏東県四重溪.
Sungan, Miaoli Hsien. 苗栗県松安 (1,100-1,200 m) (=二本松).
Sungkang, Nantou Hsien. 南投県松崗 (2,000 m) (=立鷹).
Sun Moon Lake see Jiyuehtan (日月潭).
Taataka Pass, near Lulinshan, border of Nantou Hsien and Chiayi Hsien. 南投県嘉義県境鹿林山一鞍部.
Tabito in Tailukohsia, Hualien Hsien. 花蓮県太魯閣峡山胞村落.
Tachiachi, Taichung Hsien. 台中県大甲溪.
Tahu, Miaoli Hsien. 苗栗県大湖.
Taichung, Taichung Hsien. 台中県台中.
Tailuko, Hualien Hsien. 花蓮県太魯閣.
Tainan, Tainan Hsien. 台南県台南.
Taipei, Taipei Hsien. 台北県台北.
Taipingshan, Ilan Hsien. 宜蘭県太平山.
Taitung, Taitung Hsien. 台東県台東.
Talin, Chiayi Hsien. 嘉義県大林 (=大甫林).
Taomei, Nantou Hsien. 南投県桃米.
Taruling, Hualien Hsien. 花蓮県大禹嶺.
Tashulin, Pingtung Hsien. 屏東県大樹林.
Tatashan, Alishan, Nantou Hsien. 南投県阿里山大塔山 (2,600 m).
Teraso see Chulaoshu (猪膀東).
Toganoo in Taipingshan, Ilan Hsien. 宜蘭県太平山山胞村落.
Tienhsiang, Hualien Hsien. 花蓮県天祥.
Tsifeng, Nantou Hsien. 南投県翠峰 (2,300 m) (=追分).
Tsoying, Kaohsiung, Kaohsiung Hsien. 高雄県高雄市左営.
Tuikaoshan, Alishan, Chiayi Hsien. 嘉義県阿里山対高山 (2,300 m).
Tsukeng, Ilan Hsien. 宜蘭県粗坑.
Tungpu, Chiayi Hsien. 嘉義県東埔 (2,500 m) (=東埔越).
Tungpu, Nantou Hsien. 南投県東埔 (=東埔温泉).
Tzeen, Hualien Hsien. 花蓮県慈恩.
Tzuchung, Chiayi Hsien. 嘉義県自忠 (2,370 m).
Tzukaotungshan (次高東山) see Hsuehshantungfeng (雪山東峰).
Wucheng, Nantou Hsien. 南投県五城 (=茅埔庄).
Wulai, Taipei Hsien. 台北県烏来.
Wulai in Tachiachi, Taichung Hsien. 台中県大甲溪烏来.
Wushe, Nantou Hsien. 南投県霧社.
Yangmei, Taoyuan Hsien. 桃園県楊梅.
Yangmingshan, Taipei Hsien. 台北県陽明山 (=草山).
Yehliu, Taipei Hsien. 台北県野柳.
Yencheng, Tainan, Tainan Hsien. 台南県塩埕 (=塩埕埔).
Yuanfeng, Nantou Hsien. 南投県鳶峰 (2,800 m).
Yuchih, Nantou Hsien. 南投県魚池.
Yushan, border of Chiayi Hsien, Nantou Hsien and Kaohsiung Hsien. 嘉義県南投県高雄県境玉山 (=新高山; =Mt. Morrison).
Yushankou, Chiayi Hsien. 嘉義県玉山口 (2,320 m) (=新高口).
Yushih, Nantou Hsien. 南投県幼獅 (1,750 m) (=見晴).

The following is a list of reference of the Japanese to the Chinese pronounciation on the locality names of Taiwan. Also, several locality names were changed after the World War II.

Amping (安平) as Anping; Arisan (阿里山) as Alishan; Baikei (眉渓) as Meichi; Batansha (牡丹社) as Mutanshe; Baibara (眉原) as Meiyuan; Chipon (知本) as Chihpen; Chusei (中正) as Chungchen; Daijirin (大樹林) as Tashulin; Fuhosho (=Fuhoshow) (茅埔庄) as Wucheng (五城); Funkiko (奮起湖) as Fenchihu; Garanbi (鵝鑾鼻) as Oluanpi; Gôkanzan (合観山) as Hohuanshan; Gyochi (魚池) as Yuchih; Hassenzan (八仙山) as Pahsienshan; Heiganzan (平岩山) as Huanshan (環山); Heitô (屏東) as Pingtung; Hokukô (北坑) as Peikeng; Honbukei (本部渓) as Penpuchi; Hori (埔里) as Puli; Horisha (埔里社) as Puli; Hozan (=Hoozan) (鳳山) as Fengshan; Jitsugetsutan (日月潭) as Jiuyuehtan; Kagi (嘉義) as Chiayi; Kahodai (佳保台) as Chiaobaotai; Kaminoshima-Onsen (上の島温泉) as Hushan (虎山); Kankau (港口) as Kangkou; Kankô (乾溝) as Kankow; Kansai (関西) as Kuanhsi; Kanshirei (関子嶺) as Kuantzuling; Kanzan (関山) as Kuanshan; Kappanzan (角板山) as Chiaopanshan; Karaping (交力坪) as Chiaoliping; Karinzan (鹿林山) as Lulinshan; Kashôtô (火焼島) as Lu Tao (緑島); Keishinryô (渓心寮) as Chihsinliao; Kôsempo (甲仙埔) as Chiahsien; Kôshun (恒春) as Hengchun; Kôtôsho (紅頭嶼) as Lan Hsu (蘭嶼); Kuaru (=Kuraru) (亀仔角) as Kueitzuchiao; Meiji (明治) as Kukuan (谷関); Miharashi (見晴) as Yushih (幼獅); Mizuho (瑞穂) as Juisui; Mt. Kannon (観音山) as Kuangyinshan; Musha (霧社) as Wushe; Nanzankei (南山渓) as Nanshanchi; Nihonmatsu (二本松) as Sungan (松安); Niitakaguchi (新高口) as Yushankou (玉山口); Niitakayama (新高山) as Yushan (玉山); Oiwake (追分) as Tsifeng (翠峰); Pianan-anbu as Pinan (壁南); Reimei (黎明) as Liming; Rigyosan (鯉魚山) as Liyushan; Riran (里壟) as Kuanshan (関山); Rokki (六亀) as Liukuei; Rozan-Onsen (蘆山温泉) as Hotso (合作); Shinchiku (新竹) as Hsinchu; Shinkô (深坑) as Shenkeng; Shiu Shiu (集集) as Chi Chi; Sôzan (草山) as Yangmingshan (陽明山); Sôkei (双渓) as Shuangchi; Suiriko (水裡坑) as Shuilikeng; Syu Syu (集集) as Chi Chi; Taataka-anbu as Taataka Pass; Taihanroku (大板埒) as Nanwan (南湾); Taiheizan (太平山) as Taipingshan; Taihoku (台北) as Taipei; Taihorin (大甫林) as Talin (大林); Taihorinsho (大甫林庄) as Talin (大林); Taiko (大湖) as Tahu; Taikôkei (大甲渓) as Tachiachi; Takao (高雄) as Kaohsiung; Takezaki (竹崎) as Chuchi; Taroko (太魯閣) as Tailuko; Tattaka (立鷹) as Sungkang (松崗); Tomi (桃米) as Taomei; Tompo-goe (東埔越) as Tungpu (東埔) in Chiayi Hsien; Tsugitakayama (次高山) as Hsuehshan (雪山); Urai (烏来) as Wulai; Yentempo (塩埕埔) as Yencheng; Zentai (前大; =前大埔) as Chientapu.

The following locality names are recorded by KIMOTO (1966, Esakia, 5: 21-38), based on the SAUTER's collection, preserved in the Zoological Museum, Berlin. However, it seems to be difficult at present to trace these names from the present Taiwan localities.

1) Chikutogo. 2) Goryo. 3) Pinlau. 4) Toyenomongi b. Tainan.

Corrections of the locality names in Part I: Shungchi, Hsientien, in p. 370, line 15, p. 371, line 9 from bottom and line 4 from bottom, p. 372, line 1 from bottom and p. 373, line 21 read as *Shuangchi, Hsintien*; Kueichiauliu in p. 371, line 15 read as *Kueitzuchiao.*

Die bisher aus China und Formosa bekannten *Dianous*-Arten (Coleoptera, Staphylinidae)

110. Beitrag zur Kenntnis der Steninen

Von VOLKER PUTHZ

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Von verschiedenen Institutionen habe ich chinesisches *Dianous*-Material erhalten, das eine Revision der bisher aus diesem Gebiet bekannten Arten erforderte. Die Ergebnisse lege ich hier vor.

Allen, die mich mit Material unterstützt haben, besonders aber Dr. H. DYBAS vom Field Museum of Natural History, Chicago, möchte ich auch an dieser Stelle meinen Dank aussprechen.

Die Gattung *Dianous* ist in der Nordhemisphäre nur durch wenige, nah verwandte Arten vertreten. Die Hauptmasse der bekannten Taxa lebt in der orientalischen Faunenregion.

Dianous freyi L. BENICK 1940

Dianous freyi L. BENICK 1940, Mitt. münch. ent. Ges., 30: 593, ff.

Dianous freyi: L. BENICK, 1942, Stettin. ent. Ztg., 103: 76–79, figs.

Außer dem von BENICK gemeldeten Material sah ich von dieser Art noch folgende Stücke: 1♂, 1♀: Che-kiang: Ning-po (Field Museum, Chicago) und 18♂♂, 19♀♀: Kiang-su: Ku-ling near Kiu Kiang, 18. X. 1919, H. F. LOOMIS (U. S. National Museum und coll. m.).

Dianous taiwanensis nov. spec.

Diese neue Art sieht auf den ersten Blick dem *Dianous banghaasi* täuschend ähnlich und ist seine Schwesterart. Eine ausführliche Beschreibung erübrigt sich, besonders auch deswegen, weil *Dianous banghaasi* in den meisten Sammlungen zum Vergleich vorhanden ist.

Die wesentlichen Unterschiede liegen in der Größe der Elytrenmakel, der Elytrenpunktierung und in den Sexualcharakteren: Während bei *banghaasi* die Elytrenmakel bei Dorsalansicht auf die Elytrenseiten übergreift, ist sie bei *taiwanensis* deutlich von diesen getrennt. Insgesamt ist die Elytrenpunktierung der neuen Art dichter und furchig, vor allem in der Vorderhälfte fließen die Punkte schräg nach außen zusammen, während sie bei *banghaasi* getrennt sind.

[Ent. Rev. Japan, Vol. XXIII, No. 2, pp. 88–92, Sept., 1971]

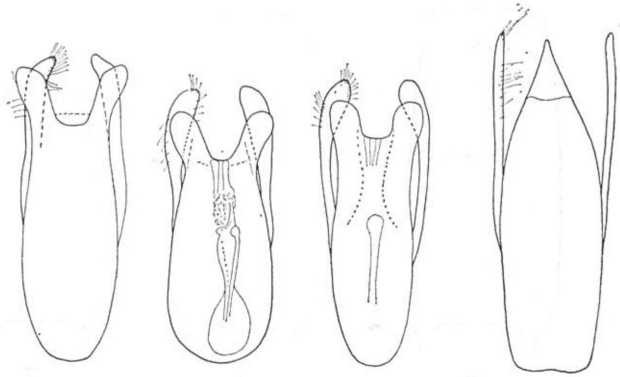
Die vorderen Lappen des Medianlobus sind bei *taiwanensis* deutlich runder, stehen weniger weit auseinander, die Parameren sind vorn breiter (fig. 2, vgl. fig. 1).

♂-Holotypus: Formosa: Taiheizan, 6. V. 1932, L. GRESSITT leg. Holotypus im U. S. National Museum, Washington.

Dianous banghaasi BERNHAUER 1916

Dianous Bang-Haasi BERNHAUER 1916, Arch. Naturgesch., (A) 81 (1915): 27, f.
Dianous Bang-Haasi: L. BENICK, 1940, Mitt. münch. ent. Ges., 30: 575, fig.
Dianous banghaasi: PUTHZ, 1970, Proc. R. ent. Soc. Lond., (B) 39: 32.
Dianous pilosus CHAMPION 1919, Entomologist's mon. Mag., 55: 54. **nov. syn.**

Aus dem Field Museum of Natural History, Chicago erhielt ich die Typen des *D. banghaasi*, aus dem British Museum Natural History, London diejenigen des *D. pilosus*: beide sind konspezifisch, weswegen der Name *pilosus* eingezogen wird. Außerdem, aus den Zitaten ersichtlichen Material sah ich noch 5 Exemplare von Ning-po (Museum für Naturkunde, Berlin und coll. m.), 1 ♂ aus Kiautschou (Museo Civico di Storia Naturale die Milano) und 1 ♂ aus der Provinz Kiang-su: Ku-ling near Kiu-kiang, 18. X. 1919, H. F. LOOMIS (U. S. National Museum, Washington). Den Aedoeagus eines Paratypus gibt fig. 1 wieder, das 9. Sternit fig. 5.



Dianous chinensis BERNHAUER 1916

Dianous chinensis BERNHAUER 1916, Arch. Naturgesch., (A) 81 (1915): 28.

Auch von dieser Art untersuchte ich die Typen, ein weiteres ♀ von Kiang-si befindet sich im Museum Mailand.

Beim Männchen ist das Abdomen ventral überall grob und dicht punktiert und behaart, das 7. Sternit flach eingedrückt, äußerst dicht punktiert und besonders vor dem Hinterrand sehr dicht beborstet. 8. Sternit (Länge: Länge der Ausrandung=88: 23). 9. Sternit (fig. 6). Aedoeagus (fig. 3).

Beim Weibchen ist das 8. Sternit in einen runden Lappen vorgezogen.

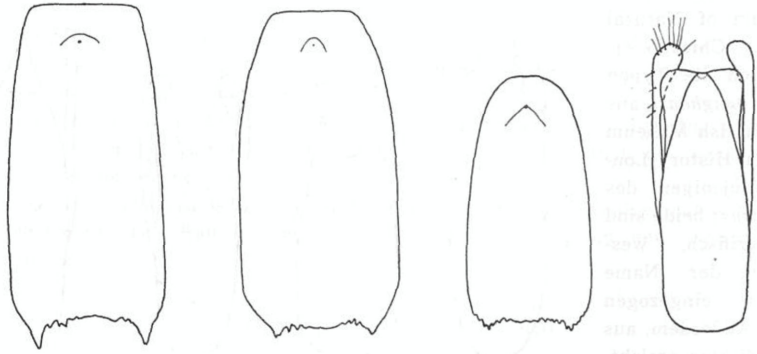
Dianous hummeli BERNHAUER 1936

Dianous hummeli BERNHAUER 1936, Ark. Zool., 27A (19): 3.

Dianous szechuanus BERNHAUER 1936, l. c., 3, f. **nov. syn.**

Von beiden Arten lagen mir die Typen aus coll. BERNHAUER vor. Die vom Autor in seiner Diagnose des *szechuanus* angeführten Differenzen zu *hummeli* kann ich nicht sehen, auch ist der Holotypus des *szechuanus* nicht 6–6.5 mm, sondern nur höchstens 5.5 mm groß: an der Konspezifität beider Taxa besteht also für mich kein Zweifel.

Beim Männchen sind die Vordersternite fein und ziemlich dicht punktiert, zwischen den Punkten genetzt, das 7. Sternit ist am Hinterrand nicht ausgerandet, vor dem Hinterrand kaum abgeflacht, in der hinteren Mitte feiner und dichter als die Vordersternite punktiert und dicht, anliegend, rückwärts über den Sternithinterrand hinausragend behaart. 8. Sternit (Länge: Länge der Ausrandung=65: 17). 9. Sternit (fig. 7). Aedoeagus (fig. 8).



5 6 7 8

Dianous arachnipes nov. spec.

Diese neue Art sieht dem *Dianous gracilipes* CHAMPION sehr ähnlich, einer Art, die ausreichend beschrieben und daher leicht zu erkennen ist. Zur Kennzeichnung der neuen Art genügt es, die Unterschiede zu *gracilipes* hervorzuheben.

Länge: 7.0–8.0 mm.

Einfarbig schwarz, Kopf, Pronotum und Abdomen mit sehr schwachem olivenem Schimmer, Antennen dunkelbraun, die Endglieder etwas heller, auch die Beine etwas bräunlich, die Endglieder der Tarsen bräunlich. Der auffallendste Unterschied liegt in der Punktierung des Kopfes: während die Punktzwischenräume hier bei *gracilipes* überall kleiner als die Punkte sind, erreichen sie bei *arachnipes* zumindest in der Umgebung der Augen punktgröße oder übertreffen die Größe der Punkte. Auch die Elytren sind deutlich feiner und weitläufiger punktiert. Im Tarsenbau entsprechen sich die beiden Arten, allerdings sind bei *arachnipes* die Klauen deutlich kleiner.

Beim Weibchen ist das 8. Sternit fast gleichmäßig abgerundet.

♀-Holotypus: Formosa: Mt. Daikou (1,024 m) near Mt. Ari, 6. VI. 1938, Y. YANO; ♀-Paratypus: Formosa: Niitakaguchi, 6. VI. 1941, Y. YANO.

Von drei anderen ähnlichen *Dianous*-Arten unterscheidet sich die neue wie folgt: von *D. assamensis* CAMERON durch feinere und weitläufigere Punktierung des Pronotums

und ziemlich tief gelapptes 4. Tarsenglied sowie geringere Größe, von *D. pallitarsis* L. BENICK durch die Färbung, die —zumindest am Pronotumhinterrand— deutliche Punktierung und die Lappung des 4. Tarsengliedes, von *D. latitarsis* L. BENICK durch die Färbung, breiteren Kopf, weitläufigere Punktierung der Stirn und dünnere Tarsen.

Holotypus in coll. NAKANE, Tokyo, Paratypus in meiner Sammlung.

Dianous inaequalis CHAMPION 1919

Dianous inaequalis CHAMPION 1919, Entomologist's mon. Mag., 55: 45.

Dianous inaequalis: CAMERON, 1930, Faun. Brit. Ind. Col. Staph., I: 415, f.

Von dieser Art, die bisher nur aus Indien bekannt war, liegt mir ein Männchen (Aedoeagus fig. 4) von folgendem Fundort in China vor: Sze-chuan: Tsiten tang near Wa-shan, 4,000 ft., D. C. GRAHAM (U. S. National Museum, Washington): neu für China.

Key of the *Dianous*-species of China (incl. Taiwan)

1 (12) Elytra with reddish-yellow spot on each.

2 (5) Puncturation only around elytral spot coarsely tortuous, legs partly brownish red.

3 (4) Smaller: 4.3–4.6 mm. Abdomen with the puncturation coarser and sparser, ground sculpture only on last segments. Male: notch of sternite 8 deeper, apex of median lobe distinctly excised, only apices of parameres have setae (fig. 12, BENICK 1942). Fukien. ····· *klapperichi* L. BENICK

4 (3) Larger: 5.0–5.5 mm. Abdomen with the puncturation finer and less dense, all interstices of punctures finely reticulated. Male: notch of sternite 8 less deep, apex of median lobe acute, whole inner sides of parameres have setae (fig. 11, BENICK 1942). NW-China, Che-kiang, Kiang-su, Fukien.··· *freyi* L. BENICK

5 (2) Puncturation around elytral spot not coarsely tortuous, at least tortuous on basal portion of elytra, legs dark or blackish, not partly brownish red.

6 (7) Basal portion of elytra with the puncturation coarse, rugose, tortuous, and oblique. Male: edeagus (fig. 2). 4.5–5.0 mm. Taiwan. ····· *taiwanensis* n. sp.

7 (6) Basal portion of elytra with different puncturation.

8 (9) Elytral spot larger, in dorsal aspect not separated from elytral side margins, puncturation coarser and sparser, distinctly separated. Male: edeagus (fig. 1). 4.8–5.7 mm. Kiautschou, Kiang-su, Kiang-si, Che-kiang, Hu-nan. ····· ····· *banghaasi* BERNHAUER

9 (8) Elytral spot smaller, in dorsal aspect distinctly separated from elytral side margins, puncturation less coarse and much denser, partly coalescent.

10 (11) Elytra larger, longer than broad, nowhere rugosely punctured, spot about as large as 6–7 punctures together, base of tergite 3 laterally very densely punctured and deeply coriaceous. Male: edeagus (fig. 3). 4.8–5.5 mm. Kiang-si. ····· *chinensis* BERNHAUER

11 (10) Elytra smaller, about as long as broad, puncturation near spot rugose, spot smaller, at least as large as 4–5 punctures together, base of tergite 3 laterally less densely punctured, interstices smooth. Male: edeagus (fig. 8). 5.0–5.5 mm. Sze-chuan. ····· *hummeli* BERNHAUER

12 (1) Elytra without such marking.

13 (14) Larger. First segment of posterior tarsi much longer than the four following segments together, pronotum indistinctly punctured, nearly impunctate. Male: unknown. 7.0–8.0 mm. Taiwan. ····· *arachnipes* n. sp.

14 (13) Smaller. First segment of posterior tarsi about as long as the three following segments together, about as long as the fifth segment, pronotum with a distinct and moderately coarse puncturation. Male: edeagus (fig. 4). 5.8–7.0 mm (8.0 mm when highly extended). Sze-chuan, India. ····· *inaequalis* CHAMPION

Summary

The author gives a key to all hitherto known species of the genus *Dianous* from China and Taiwan. Two species are synonymized (*D. pilosus* CHAMPION=*D. banghaasi* BERNHAUER; *D. szechuanus* BERNHAUER=*D. hummeli* BERNHAUER) and two species —the first ones from Taiwan— are described as new: *D. taiwanensis*, sister-species of *D. banghaasi* BERNHAUER and *D. arachnipes*, closely resembling the Indian *D. gracilipes* CHAMPION. Figures of the genitalia are given.

Literature

BENICK, L., 1940: Ostpaläarktische Steninen (Col. Staph.). - Mitt. münch. ent. Ges., 30: 559–575.

—— 1942: Entomological Results from the Swedish Expedition 1934 to Burma and British India. Coleoptera: Staphylinidae. gesammelt von RENÉ MALAISE. - Ark. Zool., 33 A (17): 48 pp.

—— 1942: Weitere ostchinesische Steninen (Col. Staph.). - Stettin. ent. Ztg., 103: 63–79.

BERNHAUER, M., 1916: Kurzflügler aus dem deutschen Schutzgebiete Kiautschau und China. - Arch. Naturgesch. (A) 81: 27–34.

—— 1936. in: Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas... 39, Col. 7. - Ark. Zool., 27 A (19).

CAMERON, M., 1930: The Fauna of British India···Col. Staph. I., 471 pp., 3 pl., 1 map, London.

CHAMPION, G. C., 1919: The genus *Dianous* SAMOUELLE, as represented in India and China (Coleoptera). - Entomologist's mon. Mag., 55: 41–55.

PUTHZ, V., 1970: On a collection of Steninae from China (Coleoptera: Staphylinidae). - Proc. R. ent. Soc. Lond., (B) 39: 29–32.

Explanation of figures

fig. 1–4: edeagi (simplified) of *Dianous banghaasi* BERNHAUER (type) (1) - *Dianous taiwanensis* n. sp. (holotype) (2) - *Dianous chinensis* BERNHAUER (type) (3) - *Dianous inaequalis* CHAMPION (Szechuan) (4), same scale.

fig. 5–7: 9th sternites of males: *Dianous banghaasi* BERNHAUER (5) - *Dianous chinensis* BERNHAUER (6) - *Dianous hummeli* BERNHAUER (7) - fig. 8: edeagus of *Dianous hummeli* BERNHAUER (type) (8), same scale.

The Cerambycidae from Ryukyu and Satsunan Islands, II. (Coleoptera)

By HAJIME YOKOYAMA

As the second report of this series, I hope to describe four new species, three new subspecies and a new form, also report some new records.

The materials used in this paper were mainly collected by myself, yet some valuable materials were added through the courtesy of Messrs. K. MIZUNO, T. KAMAKARI, M. MOGI, S. FUKUDA, H. KAWAI and M. YOKOYAMA.

Before going further, I wish to express my heartiest thanks to above mentioned coleopterologists for their kindness.

The type specimens are mainly preserved in my collection.

Lepturinae

Necydalini

1. *Necydalis* (*Necydalis*) *brevicornis* sp. nov. (Pl. 6, fig. 1)

♀, Body slender, head, prothorax and elytra reddish brown. Prothorax wholly margined with black, also annulated with black on preapical constriction. Elytra darkened along suture and narrowly so on apical halves of lateral margins. Antennae brown, apical half of fourth joint and the succeeding joints darkened. Under side of body black, latero-apical portion of fourth abdominal sternite and fifth reddish brown. Legs reddish brown, anterior tarsi and basal parts of middle and hind femora blackish, hind tarsi yellow. Body sparsely covered with yellow erect hairs except abdomen. Tempora, latero-apical and basal parts of prothorax, sutural portion and apical elevation of elytra, mesepimeron and apex of metepimeron clothed with golden pubescence.

Head as broad as prothorax, wholly rugged, frons separated into two areas by two oblique furrows, anterior area strongly closely punctured, tempora expanded laterally.

Eyes large, under lobe about 1.9 times as long as gena.

Antennae short, about 0.46 times as long as body, scape stout, comparative length of each antennal joint as follows:— 14 : 5 : 16 : 13 : 20 : 19 : 19 : 15 : 14 : 11 : 13.

Prothorax a little broader than long, broadly constricted at apical quarter, more shallowly so near base, roundly expanded laterally at middle, disc well convex dorsally, with a shallow indistinct median furrow, strongly densely punctured and like the mesh except central portion of disc.

Scutellum rugulose, triangular, angulated apically.

Elytra as long as basal width, straightly more or less strongly narrowed posterior-

[Ent. Rev. Japan, Vol. XXIII, No. 2, pp. 93–101, pl. 6, Sept., 1971]

ly, narrowly rounded at apex, disc strongly densely punctured, nearly mesh, with a broad deep depression along suture on apical half, apical portion of elytra broadly elevated along apical margin, the elevation almost impunctate.

Hind wings attainning at middle of fifth abdominal sternite.

Under side of body (except abdomen) very closely punctured, first abdominal sternite slender, shining, with a few punctures on basal half, the succeeding sternites opaque, impunctate, thinly covered with golden pubescence, third sternite broadest, fifth triangular, strongly narrowed posteriorly, with a small emargination at middle of apical margin.

Legs slender, hind tibia somewhat strongly dilated apically, first joint of hind tarsus distinctly longer than twice length of second and third united.

Length, 23–26 mm.; width, 3.5–4.3 mm.

Holotype, ♀, Miyanoura, Is. Yakushima, Iss. Satsunan, July 15, 1970.

Paratypes, 2♀♀, same locality, July 13–14, 1970.

This new species is allied to *N. major* LINNÉ (1758) and *N. gigantea* KANO (1933), but it may be distinguished from the latters in having the following points:—

The larger closer punctation of body, shorter antennae, broader head and prothorax, narrower elytral apex, slender first abdominal sternite, different apex of fifth abdominal sternite, more strongly dilated hind tibia, unicoloured hind tibiae and femora, quite different colouration, etc., also this new species is closely allied to *N. moriyai* KUSAMA (1970) from Is. Amami-Ôshima, N. Ryukyu, but it differs from the latter in having the larger closer punctation of body, less constricted and broader prothorax which rounded laterally and with less golden pubescence, rugose scutellum, different colouration of body, etc.

Cerambycinae

Clytini

2. *Cyrtoclytus caproides* BATES subsp. *kamakarii* nov. (Pl. 6, fig. 2)

This new subspecies is closely allied to the original one, but may be distinguished from the latter in the following characters:—

The body more slender, entirely black, prothorax without basal yellow band, obliquely curved yellow band of elytra narrower, posterior yellow band of elytra rather reduced far from suture, also narrowed laterally and not arriving at lateral margin, elytral apex not yellow.

Length, 16 mm.; width, 3.5 mm.

Holotype, ♂, Kurio, Is. Yakushima, Iss. Satsunan, July 20, 1970.

Paratype, ♂, Miyanoura, Is. Yakushima, Iss. Satsunan, July 18, 1970, leg. T. KAMAKARI (in coll. KAMAKARI).

Lamiinae

Mesosini

3. *Mesosa* (*Metamesosa*) *nomurai* HAYASHI

Ent. Rev. Japan, XVII (2), p. 71, fig. 2, 1964.

Material examined: 1♂, Miyanoura, Is. Yakushima, July 24, 1969.

This species is firstly reported besides the type locality (Is. Tanegashima), the specimen is quite agreeable with the original description. (New to Yakushima).

Hippopsini

4. *Pothyne albolateralis* sp. nov. (Pl. 6, fig. 3)

Body slender, brown, blackish brown on prothorax, covered with greyish pubescence which partly mixed with reddish brown on head and abdominal sternites. Antennae closely fringed below with long blackish brown hairs from third to seventh joints and sparsely so on first and eighth joints, annulated basally with silver grey pubescence from fourth to ninth joints. Prothorax with five reddish brown stripes. Mesepisternum, mesepimeron and metepisternum clothed with characteristic greyish white pubescence. Elytra provided with five reddish brown stripes including sutural one on basal part, margined laterally with closer greyish pubescence and scattering small pale brown markings which are very indistinct besides lateral margins.

Head with a distinct longitudinal median line from frons to occiput and a pair of glabrous longitudinal carinae at middle of occiput, interspace of the carinae with several punctures, frons with many large punctures which are as broad as interspaces.

Eyes emarginate, under lobe distinctly longer than broad and about 1.2 times as long as gena.

Antennae slender, cylindrical, about 1.5 times as long as body in ♂, relative length of each joint as follows:— 53 : 6 : 60 : 46 : 40 : 35 : 33 : 31 : 29 : 27 : 25 : 26.

Prothorax cylindrical, as long as broad, broadest behind middle, weakly constricted before base, with indistinct large punctures, disc irregularly transversely ridged, rather deeply strongly so on central portion.

Scutellum transverse, broadly rounded apically.

Elytra slender, about 3 times as long as basal width, slightly constricted on basal half, narrowest before middle, (the ratio of basal width: narrowest width=70: 65), then almost parallel-sided, narrowed posteriorly on apical one-fifth, broadly transversely truncate at apex, disc largely closely punctured on basal quarter, punctures gradually becoming smaller and shallower apically, lacking on extreme apical part.

Abdominal sternites shallowly sparsely punctured, apical margin of fifth sternite shallowly broadly (♂) or narrowly (♀) emarginate.

Length, 19.5 mm.; width, 4.8 mm.

Holotype, ♂, Izumi, Is. Okinawa, C. Ryukyu, Aug. 19, 1961, leg. M. Mogi (in coll. Yokoyama).

Paratype, ♀, same data, leg. M. Mogi (in coll. Mizuno).

This new species differs from the *silacea-albolineata* group by the elytra without characteristic white stripes.

In several points, the present species would be belonged to the *hayashii-variegata* group, but may be easily distinguishable from *P. hayashii* Breuning from Is. Amami-Ôshima and *P. variegata yayeyamana* Breuning et Ohbayashi from Is. Ishigaki and Is. Iriomote in having the following points:—

Elytra almost lacking many distinct blackish brown markings, broadly trans-

versely truncate at apex, mesepisternum, mesepimeron and metepisternum are white (instead of reddish brown), apical emargination of fifth abdominal sternite shallower and broader, colouration of pubescence quite different, etc.

According to SAMUELSON's key of this group (Pacific Ins., VII (1), p. 123, 1965), the specimens designated by SAMUELSON as *P. hayashii* BREUNING from Is. Okinawa are probably this new species, because *P. hayashii* has many distinct blackish brown markings on elytra as well as in *P. variegata*.

5. *Pseudocalamobius leptissimus okinawanus* SAMUELSON

Pacific Ins., VII (1), p. 125, fig. 5, 1965.

This subspecies was described by ♀ from Is. Okinawa, but I have been examined the following specimens including ♂.

Materials examined: 1 ♂, Hiji Falls, Is. Okinawa, April 23, 1965, leg. M. YOKOYAMA; 1 ♀, Mikyo, Is. Tokunoshima, April 11, 1964, leg. H. KAWAI. (New to Tokunoshima).

In ♂, antennae about 3.8 times as long as body, abdominal sternites with large deep punctures on first and basal halves of second and third, sparsely on fourth, last sternite broadly transversely truncate at apex, the posterior margin more or less arcuate and with a very small triangular emargination at middle.

Pteropliini

6. *Pterolophia* (*Hylobrotus*) *lunigera formosana* SCHWARZER (Pl. 6, fig. 4)

Pterolophia lunigera var. *formosana* SCHWARZER, Ent. Blätt., XXI (2), p. 66, 1925.
Pterolophia lunigera ssp. *formosana*: MITONO, Cat. Col. Japonic., VIII, p. 173, 1940.
Pterolophia lunigera formosana: GRESSITT, Longic., II, p. 470, 1951.
Pterolophia lunigera formosana: SAMUELSON, Pacific Ins., VII (1), p. 108, 1965.

So far as I know, there is no correct record concerning this subspecies since the original description was published, but through the courtesy of Mr. K. MIZUNO of Kyoto, I fortunately could examine a female example collected by Mr. M. MOGI from Is. Okinawa, and it seems to me that this is the unique specimen yet found from Iss. Ryukyu.

As a result of my examination, a female example is as follows:—

Body robust, blackish brown, closely covered with reddish brown pubescence which mixed with white ones on antennae, legs and elytral base. Head and prothorax broadly whitish along median line from frons to prothoracic base, the whitish zone margined with distinct black stripes along both sides from posterior margin of upper eye lobe to basal quarter of prothorax. Prothorax with a small white spot at each latero-apical margin. Antennae fringed below with brown erect hairs which being closest and longest on apical halves of third joints, each joint not annulated basally with white pubescence, the inner side of fourth joint (except apical quarter) decorated with white ones. Each elytron provided with following markings:—

1. On basal one-fifth, a narrow oblique white line from humerus to suture.
2. On central half, a semicircularly arched white marking which margined with

black pubescence along both sides, enclosing a very small snow white spot just at middle of lateral margin of elytra, most approaches to suture behind middle, the anterior extreme not arriving at lateral margin but posterior one touching it. This marking is very large and conspicuous.

3. On apical one-fifth, a narrow obliquely curved white line which is parallel with a semicircular marking from suture to latero-preapical margin.

Head with a distinct longitudinal furrow from frons to occiput, shallowly sparsely punctate on frons and vertex, under eye lobe as long as gena.

Antennae reaching apical one-fifth of elytra, third joint equal in length to scape and fourth, the succeeding joints gradually shortened.

Prothorax well convex dorsally, broader than long, broadest at apical third, slightly narrowed to apical and basal margins, closely subuniformly punctate.

Scutellum semicircular.

Elytra straightly slightly narrowed towards apical one-fifth, then strongly so to apex which obliquely narrowly truncated, lateral angle angulate, the disc of each elytron without a basal crest, on central half with three short costae which are vanished near basal and apical quarters, closely strongly punctured on basal quarter, somewhat sparsely so on the rest, the punctation becoming finely and sparsely behind apical quarter.

Length, 11 mm.; width, 4 mm.

Material examined: 1♀, Yona, Is. Okinawa, C. Ryukyu, Aug. 20, 1961, leg. M. MOGI (in coll. MIZUNO).

This species is very easily distinguished from the known congeners from Formosa and Iss. Ryukyu in having the following points:—

Each antennal joint not annulated basally with white pubescence, prothorax well convex dorsally, elytron not rough, without a basal crest, with three costae and a very conspicuous semicircular white marking on central portion, etc.

This species is somewhat similar to *Peritrox niveilateralis* THOMSON from South America in colouration and elytral design.

Agnini

7. *Blepephaeus ziczac* (MATSUSHITA) comb. nov.

Etymestia ziczac MATSUSHITA, Ins. Matsum., XIV (2/3), p. 54, 1940.
Etymestia ziczac: MITONO, Cat. Col. Japonic., VIII, p. 152, 1940.
Cereopsius ziczac: GRESSITT, Longic., II, p. 377, 1951.
Cereopsius ziczac: SAMUELSON, Pacific Ins., VII (1), p. 90, 1965.

Recently I have had an opportunity to study two examples of this species from Formosa through the kindness of Mr. S. FUKUDA of Tokyo.

After the examination, I confirmed that the species should be better to include in the Genus *Blepephaeus* by the prosternal process deeply depressed between procoxae.

8. *Blepephaeus ishigakianus* sp. nov. (Pl. 6, fig. 5)

Body oblong, blackish brown, darkened on head, prothorax and each femur, lighter

brown on antennae and tibiae, thinly covered with greyish white pubescence above, closely so on ventral surface, in ♀ elytral ones sometimes brownish. Antennae annulated basally with white pubescence from third to sixth joints. Elytra decorated with two white bisinuate bands at basal and apical one-thirds, in ♂ anterior band frequently reduced or quite vanished. The apical halves of meso- and metatibiae closely covered with erect black hairs above.

Head narrower than prothorax, deeply triangularly concaved between antennal tubercles, with a fine median longitudinal furrow from frons to occiput, impunctate besides several punctures which are along inner sides of upper eye lobes.

Eyes finely faceted, fairly emarginate, under lobe large and distinctly longer than broad (the ratio of length: width=20:12), about 2.5 times as long as gena.

Antennae cylindrical, about 1.7 times (♂) or 1.4 times (♀) as long as body, scape weakly broadened apically, comparative length of each joint as follows:— 10: 1: 13: 12.5: 11.8: 9.6: 7: 5.4: 4.8: 4.2: 6 (♂).

Prothorax broader than long, provided with large tubercles laterally at middle, broadly strongly constricted near apical and basal margins, anterior margin of basal constriction bisinuate, disc with two dull circular elevations which transversely arranged behind apical constriction and a triangular one which broadened basally on central portion, these elevations impunctate and separated each other by a very shallow depression which sparsely coarsely punctured, but a bound frequently indistinct.

Scutellum triangular, margined with white pubescence.

Elytra elongate, about 2.4 times (♂) or 2.3 times (♀) as long as basal width, vaguely constricted laterally near basal quarter, almost parallel-sided to apical quarter, then gradually narrowed posteriorly, distinctly emarginate at apex, marginal angles strongly extended backward, sutural ones rounded (Text fig. 1), disc largely coarsely punctured on basal one-third, the punctures becoming larger and closer laterally, and as wide as interspaces on humeral parts, then gradually smaller and sparser posteriorly.

Ventral surface impunctate, mesosternal process provided with a distinct (♀) or very dull (♂) elevation.

Length, 17–22 mm.; width, 5.5–7 mm.

Holotype, ♂, Mt. Banna, Is. Ishigaki, S. Ryukyu, April 21, 1965.

Paratypes, 1♂ 1♀, same locality, April 9, 1965, leg. M. YOKOYAMA; 5♂♂ 6♀♀, same locality, April 15–21, 1965.

This new species is easily distinguishable from the known congeners from C. and S. Ryukyus in having the elytra with two zigzag white bands, but it is closely allied to *B. ziczac* (MATSUSHITA) from Formosa, however, it differs from the latter by the following points:—

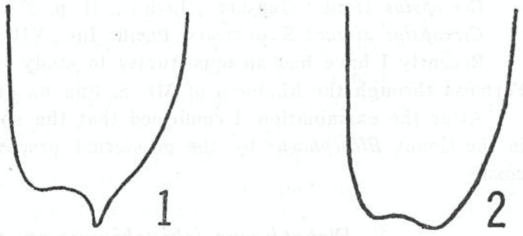


Fig. 1. *Blepephaeus ishigakianus* sp. nov.; 2. *Blepephaeus ziczac* (MATSUSHITA)

B. ishigakianus sp. nov.

Pubescence of dorsal surface shorter and thin, grey or greyish brown, but ventral ones always grey.

Antennae shorter, a cicatrix of scape smaller, the third joint a little longer than fourth.

An elevation of mesosternal process very dull in ♂.

Punctures of prothorax closer, elytral ones larger.

Elytral zigzag bands narrower.

Elytral apex strongly emarginate, marginal angles prolonged (Text fig. 1).

Erect hairs of meso- and metatibiae black.

B. ziczac (MATSUSHITA)

Pubescence of dorsal, ventral surfaces close, yellowish brown.

Antennae about 1.9 times as long as body in ♂, a cicatrix of scape well developed, the third joint equal in length to fourth.

An elevation of mesosternal process well developed in ♂.

Punctures of prothorax sparse, elytral ones smaller than in *B. ishigakianus*.

Elytral zigzag bands broad.

Elytral apex weakly so, both angles rounded (Text fig. 2).

Erect hairs of meso- and metatibiae yellowish brown.

A specimen reported by Dr. M. HAYASHI as *Cereopsius ziczac* (MATSUSHITA) from Is. Ishigaki (Ent. Rev. Japan, XVI (1), p. 11, 1963) is probably this new species.

9. *Acalolepta fraudatorix* BATES subsp. *yakushimana* nov.

This new subspecies is similar to the original one, but may be distinguished from the latter in having the following points:—

Pubescence of body darker reddish brown in ♂, under eye lobe about 2.4 times (♂) or 2.2 times (♀) as long as gena, antennae longer, about 2.3 times (♂) or 1.6 times (♀) as long as body, instead of less than twice (♂) or 1.4 times (♀) in the original subspecies, elytra broader, about 2.3 times as long as basal width, basal impression of disc shallower, latero-median and preapical ones indistinct, the marble patterns with less silky lustre.

Length, 17–23.5 mm.; width, 4.9–7 mm.

Holotype, ♂, Miyanoura, Is. Yakushima, Iss. Satsunan, July 23, 1969.

Paratypes, 1♂ 2♀♀, Miyanoura, July 23, 1969; 1♂, Kosugidani, July 28, 1969; 1♂ 1♀, Onoaida, May 30, 1960; 1♀, Hirauchi, June 1, 1960; 1♀, Kurio, July 31, 1969; 1♂, Anbo, July 19, 1969; 10 exs., Miyanoura, Kurio, Kosugidani, Is. Yakushima, July 10–24, 1970 (in coll. YOKOYAMA); 12 exs., Miyanoura, Kurio, Is. Yakushima, July 16–24, 1970, leg. T. KAMAKARI (in coll. KAMAKARI).

Rhodopinini

10. *Mimectatina meridiana* (MATSUSHITA)

Doius meridianus MATSUSHITA, JI. Fac. Agric. Hokkaido Imp. Univ., XXXIV (2), p. 380, pl. 4, fig. 8, 1933.

Materials examined: 2 exs., Mt. Shindake, Is. Kuchinoerabu, June 4. 1960; 10 exs., Is. Nakanoshima, Iss. Tokara, June 23–July 2, 1962; 1 ex., Kannondo, Is. Takarajima, Iss. Tokara, July 11, 1962. (New to Kuchinoerabu and Tokara).

11. *Rhodopina orientalis* sp. nov. (Pl. 6, fig. 6)

Body elongate, head, prothorax and elytra dark brown, antennae lighter, scape and apical two-thirds of third to eleventh joints darkened, legs and under side of body chestnut brown. Head and prothorax covered with fulvous pubescence, elytra and scutellum rather closely so. Prothorax with three longitudinal fulvous stripes, central one of which narrow. Elytra irregularly scattered with small black markings and bearing a pair of not clearly defined large ones sublaterally behind middle.

Head deeply triangularly concaved between antennal tubercles, closely punctured on occiput, rather sparsely so on frons.

Eyes emarginate, under lobe longer than broad, about 1.2 times as long as gena.

Antennae slender, about 3 times as long as body, scape just one-half as long as third joint which is equal in length to fourth, not so strongly clavate apically, apical half of third joint clavate.

Prothorax subquadrate, closely punctured on central portion of disc, sparsely so on the rest, provided with comparatively large tubercles laterally at middle.

Scutellum trapezoidal, broadly rounded at apex.

Elytra about 2.1 times as long as basal width, almost parallel-sided on basal two-thirds, then gradually narrowed posteriorly, transversely truncate at apex and lateral angles rounded, disc closely punctured on central portion of basal quarter, not closely so on humeral parts, the punctures becoming shallower and sparser apically.

Under side of body impunctate.

Length, 14 mm.; width, 4.5 mm.

Holotype, ♂, Shinmura, Is. Kuchinoerabu, Iss. Satsunan, June 4, 1960.

At first glance, this new species is closely allied to *R. okinoerabuana komiyai* HAYASHI (1968) from Iss. Izu in elytral design and colouration, but it differs from the latter in having the following points:—

Prothorax not transverse, lateral tubercles smaller, punctures of prothoracic disc smaller sparser, antennal scape less strongly clavate apically, a club of third joint shorter and smaller, elytral punctures shallower sparser, etc.

Acanthocinini

12. *Eryssamena insularis* HAYASHI

Ent. Rev. Japan, XIV (2), p. 35, pl. 7, fig. 7, 1962.

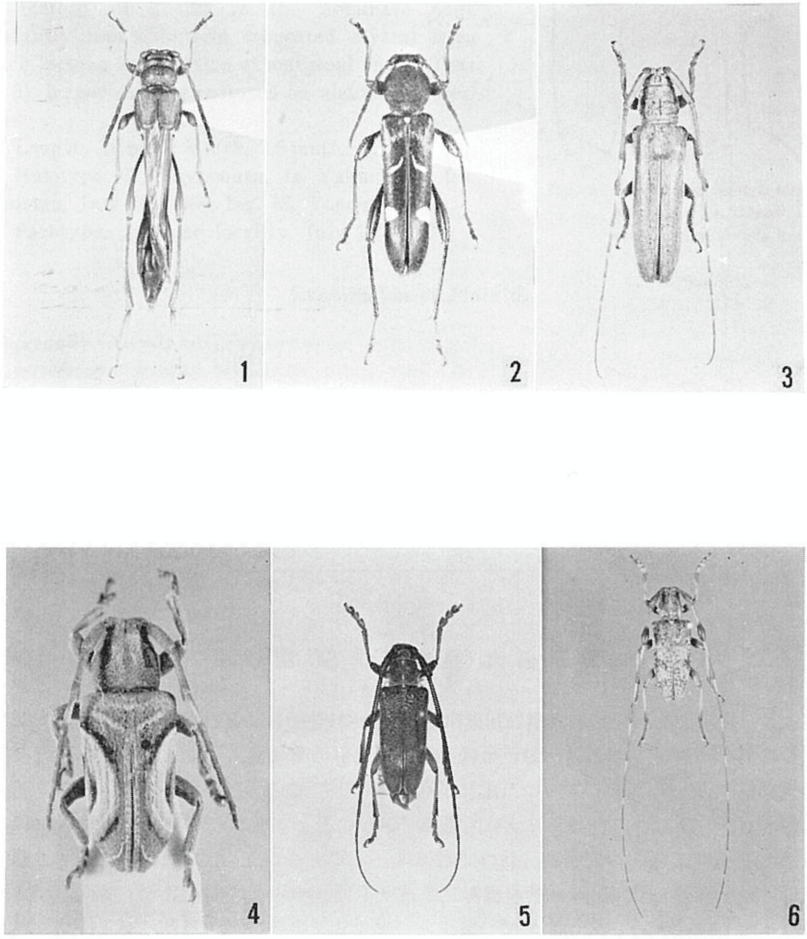
Materials examined: 2 exs., Miyanoura, Is. Yakushima, May 26, 1960; 1 ex., same locality, July 16, 1970. (New to Yakushima).

Saperdini

13. *Pareutetrapha magnifica* (SCHWARZER) f. *unicolor* nov.

This new form is closely allied to the original species, but differs from the latter in having the body entirely covered with greyish cobalt pubescence, instead of greyish yellow on head and prothorax.

Types, 1 ♂, Shirahama, Is. Iriomote, S. Ryukyu, March 27, 1965; 1 ♀, same locality, March 29, 1965.



(H. YOKOYAMA photo.)

14. *Oberea nigriventris* BATES subsp. *michikoi* nov.

This new subspecies differs from the nominate one in having the larger concavity on vertex, deeper median longitudinal furrow on frons which rather elevated, longer antennae which surpassing elytral apex in the extreme of ninth joint even in ♀, broader prothorax (the ratio of length: broadest width=28: 31, instead of 27:27 in the nominate one), straightly less obliquely truncated elytral apex which lacking a projection of marginal angle (Text fig. 3), larger closer punctures on abdominal sternites.

Length, 16 mm.; width, 2.5 mm.

Holotype, ♀, Miyanoura, Is. Yakushima, Iss. Satsunan, July 15, 1969, leg. M. YOKOYAMA.

Paratype, ♂, same locality, July 13, 1970.

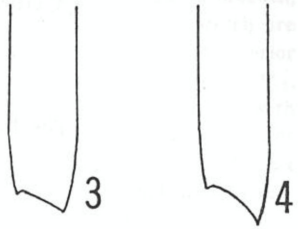


Fig. 3. *Oberea nigriventris michikoi* subsp. nov.; 4. *Oberea nigriventris nigriventris* BATES

Explanation of Plate 6.

1. *Necydalis* (*Necydalis*) *brevicornis* sp. nov., ♀.
2. *Cyrtoclytus caproides kamakarii* subsp. nov., ♂.
3. *Pothyne albolateralis* sp. nov., ♂.
4. *Pterolophia* (*Hylobrotus*) *lunigera formosana* SCHWARZER, ♀.
5. *Blepephaeus ishigakianus* sp. nov., ♂.
6. *Rhodopina orientalis* sp. nov., ♂.

第22回（昭和45年度）大会記録

第22回大会を昭和45年11月23日午後1時から大阪市東区の府立労働会館にて開催した．

河野幹事の司会により，大倉幹事から会務会計報告が行なわれた後，澤田高平氏の“紀伊半島海浜のハネカクシ”林匡夫氏の“ボルネオ島の昆虫について”草間慶一氏（林匡夫氏代演）“MOTSCHULSKY の天牛のタイプについて”の講演がそれぞれ行なわれた．一旦休憩の後“隔離と種の分布について”のシンポジュームが行なわれ，盛会裡に午後5時終了した．

当日の出席者（敬称略）はつぎのとおりである．青野孝昭・朝田武雄・番野　拡・藤田国雄・林　匡夫・林　靖彦・穂積俊文・生谷義一・石田　裕・桂　孝次郎・河合　弘・小林昇・河野　洋・的場　績・松田　潔・水野弘造・中川真次・中川宗次郎・中山紘一・奈良一・西川喜朗・大倉正文・岡田俊典・坂口佳史・佐々治寛之・佐藤正孝・澤田高平・田村保・寺村周太郎・塚口茂彦・宇野弘之・横山　創・横山美千子．（大倉）

On the Larvae of the Genus *Chrysolina* MOTSCHULSKY in Japan. (Coleoptera : Chrysomelidae)

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Up to present thirteen species of the genus *Chrysolina* MOTSCHULSKY are known to occur in Japan. With regard to the larvae, however, only two of those thirteen species have been described by KIMOTO (1962). The author will give in this paper descriptions of the larvae of nine species, including seven hitherto unknown larvae, together with a note on the occurrence of the viviparity in *Chrysolina pirka* TAKIZAWA. The terminology of the tubercles and the parts of the body wall used here is the same as that adopted by KIMOTO (1962).

On this occasion the author wishes to express his sincere gratitude to Prof. C. WATANABE of Hokkaido University for his continuous guidance.

The larvae of the genus may be distinguishable from those of other Japanese Chrysomelinae by the following characters:

Last instar larvae. Body strongly convex on dorsal side, broadened posteriorly, yellowish white to dark brown; head dark brown except for anterior part lighter; granular tubercles usually dense and strong; tubercles generally small or lacking; setae long and dense or extremely short and sparse; a pair of sack-like glands present dorsally on 8th abdominal segment; pseudopods lacking. Head with frontal sutures long, arised near posterior margin, running side by side, divaricate near basal ⅓ toward antennal sockets. Prothorax with tubercles in D-DL-EP type. Meso- and metathorax lacking dorsal and dorso-lateral tubercles except for DLe, or with small primary tubercles, Dai, Dae, Dpi, Dpe, DLi and DLe; mesothoracic spiracle situated on EPa. Abdomen generally lacking tubercles in dorsal and dorso-lateral regions, when present tubercles consisted of small Dai, Dae, Dpi, Dpe, DLai, DLae and DLe; 8th and 9th segments generally with large D-DL or D-DL-EP on dorsal side.

First instar larva. Tubercles generally of typical type: Prothorax with D-DL-EP, P, SS and ES; meso- and metathorax with Dai, Dae, Dpi, Dpe, DLi, DLe, EPa, EPp, P, SS and ES; abdomen with Dai, Dae, Dpi, Dpe, DLai, DLae, DLp, EP, P, PS-SS and ES; egg-bursters consisted of DLi on meso- and metathorax and DLp on 1st abdominal segment; 8th and 9th segments like those of last instar larva.

Larvae solitarily living, generally feeding on leaves at night, while in daytime mostly hiding on the ground-surface, moulting thrice to attain full growth; pupation

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taking place in the soil.

1) *Chrysolina aino* TAKIZAWA, 1970

Last instar larva. Body yellowish white, 10 mm. in length and 4 mm. in breadth, covered wholly with long secondary setae and strong granular tubercles, which are rather round in shape (Fig. 40). Head (Fig. 18): frons slightly emarginate at anterior margin, with about 21 pairs of long setae; frontal sutures arised near basal 1/11, divaricate near basal 1/7, weakly curved anteriorly; vertex wholly covered with dark small spots, which are somewhat raised, with about 27 pairs of setae. Clypeus sinuate at anterior margin. Labrum deeply incised at anterior margin. Prothorax (Fig. 4): D-DL-EP wholly covered with long or short setae; SS sometimes weakly tuberculate; ES with about 6 to 10 setae. Meso- and metathorax dorsally with about 6 small tubercles beside large DLe including primary ones; EPa and EPp weakly tuberculate; sternal region with about 10 short setae on mesothorax, with about 20 ones on metathorax except for those on tubercles. Abdomen sometimes weakly tuberculate around the bases of 7 primary and some secondary setae; EP sometimes weakly tuberculate; P not developed; PS-SS and ES weakly tuberculate; sternal region with about 15 to 25 short setae except for those on tubercles.

Host plants. *Artemisia* sp., *Aster glehni*, *Cacalia hastata*, *Cirsium* sp., *Eupatorium chinense*, *Petasites japonicus*, *Senecio cannabifolius*, *Solidago virgaurea* and *Astilbe thunbergii* var. *congesta*.

Specimens examined. A lot of larvae were collected at Zenibako-toge, Otaru in Hokkaido on 23rd June, 1968 and 15th June, 1969.

Note. The first instar larva shows the typical arrangement of tubercles: meso- and metathorax with Dai, Dae and Dpe smaller than Dpi; egg-bursters (DLp) on 1st abdominal segment situated near DLai and DLae; abdomen with Dpi large, provided with two setae; Dae, Dpi, DLp and DLai nearly in equal size; Dai and DLai smaller. The second and third instar larvae are like the last instar one.

2) *Chrysolina angusticollis* (MOTSCHULSKY, 1860)

Last instar larva. Body yellowish white, 8.5 mm. in length and 4.5 mm. in breadth; setae short and sparse, extremely short on dorsum; granular tubercles small and dense (Fig. 41). Head (Fig. 14): frons weakly emarginate at anterior margin and rather strongly depressed medially, with about 15 pairs of setae; frontal sutures short, arised at basal 1/8, divaricate near basal 1/4, anteriorly straight; endo-carina anteriorly indistinct; vertex covered with dark small spots, which are weakly raised, with about 5 long and 15 to 20 shorter setae on each side. Clypeus weakly sinuate at anterior margin. Prothorax (Fig. 5): D-DL-EP with about 50 to 60 short setae chiefly arranged near the border, the setae being longer on lateral part; sternal region with about 7 setae; ES weakly tuberculate. Meso- and metathorax: DLe with about 10 setae; mesothorax in dorsal and dorso-lateral regions with about 6 short setae anteriorly and 10 short ones posteriorly; metathorax in dorsal and dorso-lateral regions with about 15 short setae anteriorly and 12 ones posteriorly; EPp not tuberculate, with a few setae; sternal region with about 15 short setae; ES with a seta.

Abdomen in dorsal and dorso-lateral regions with about 15 short setae beside 7 primary ones which are a little longer; epipleural region with about 7 setae; pleural region with about 5 setae; EP and P sometimes weakly tuberculate; sternal region with about 10 setae; PS-SS and ES weakly tuberculate.

Host plants. *Cacalia hastata, Eupatorium chinense* and *Petasites japonicus.*

Specimens examined. 5 larvae and 2 pupae, Sapporo, Hokkaido, VI. 1966-1968.

Note. The second and third instar larvae are like the last instar one, nearly glabrous on the dorsum. The newly emerged adult continues feeding on host plants in summer and lays eggs in autumn. Winter is passed in the form of eggs.

3) *Chrysolina aurichalcea* (MANNERHEIM, 1825)

Last instar larva. Body yellowish white, 8 mm. in length and 4 mm. in breadth, densely covered with secondary setae, which are about half as long as primary ones; granular tubercles small and round (Fig. 42). Head (Fig. 13) black with frons anteriorly and mouth-parts light brownish; frons strongly raised near anterior margin, weakly emarginate at anterior margin, with about 25 pairs of setae; frontal sutures arised near basal $1/12$, divaricate near basal $1/3$, curved medially; vertex covered with round dark small spots, with about 40 pairs of setae. Clypeus sinuately curved at anterior margin. Labrum yellowish, with anterior part brownish. Prothorax (Fig. 6): D-DL-EP wholly covered with dense setae; sternal region with about 10 short setae except for those on ES, which is weakly tuberculate. Meso- and metathorax: each tubercles of D group small with a long seta; DLi weakly tuberculate, about 4 times as large as Dpi, with about 4 long and a few short setae; DLe large with about 25 long setae; mesothorax with setae rather sparse anteriorly; sternal region with about 12 short setae; ES weakly tuberculate. Abdomen: each tubercle of D and DL groups as small as Dai on mesothorax, with a long seta; EP oval with about 8 long and 5 short setae; sternal region with about 25 short setae except for those on tubercles; PS-SS and ES weakly tuberculate.

Host plants. *Arctium lappa, Artemisia* sp., *Kalimerus Yomena* and *Petasites japonicus.*

Specimens examined. 1 larva, Amagi-san, Sizuoka, 17. V. 1966; 1 larva, Tokyo, 3. V. 1968; 2 pupae, Takao-san, Tokyo, 5. V. 1969; 1 larva, Yahiko, Niigata, 21. V. 1966; 6 larvae & 1 pupa, Sapporo, Hokkaido, V-VI. 1965-1968; 1 larva, Nukabira, Hokkaido, 17. VI. 1966.

Note. The second and third instar larvae are like the last instar larva. The last instar larva was described recently by KIMOTO (1962). Winter is passed in the form of eggs.

4) *Chrysolina exanthematica* (WIEDEMANN, 1821)

Last instar larva. Body greyish brown, 12 mm. in length and 5 mm. in breadth; setae extremely short and sparse, the dorsum being nearly glabrous; granular tubercles dense, strongly chitinized (Fig. 43.). Head (Fig. 16): frons emarginate at anterior margin, with about 7 pairs of setae; frontal sutures arised at basal $1/10$, divaricate near basal $1/3$, indistinct anteriorly; vertex covered with small dark spots, with

about 7 pairs of setae. Clypeus almost membranous and whitish. Labrum well chitinized, broadly incised at anterior margin. Maxillary palpus with last segment dome-shaped. Prothorax (Fig. 7): D–DL–EP scattered with small dark spots medially, with 20 to 40 micro setae arranged near the border; sternal region with several setae; ES weakly tuberculate. Meso- and metathorax in dorsal and dorso-lateral regions with about 15 micro setae; DLe with about 8 short setae; both EPa and EPp weakly tuberculate, with about 5 or 2 setae respectively; sternal region with about 10 setae; ES weakly tuberculate. Abdomen in dorsal and dorso-lateral regions with about 20 micro setae; epipleural and pleural regions with about 5 or 7 setae respectively; EP and P sometimes weakly tuberculate; PS–SS with three setae; sternal region with about 7 setae except for those on tubercles.

Host plants. *Mentha piperata.*

Specimens examined. 20 larvae and 3 pupae, Sapporo, Hokkaido, V–VI. 1968–1969.

Note. The first instar larva of this species looks like the last instar larva, being wholly covered with strong granular tubercles without any tubercles except for those on thorax, egg-bursters and large ones on 8th and 9th segments; egg-bursters (DLi on thorax and DLp on 1st abdominal segment) transversely elliptical; tubercles on ventral side weakly chitinized; dorsal and dorso-lateral tubercles absent, each of 7 primary ones being represented by a short seta respectively. This species passes winter as eggs near Sapporo. KIMOTO (1962) has given descriptions of the first and last instar larvae and of the pupa.

5) *Chrysolina brunneipennis lamii* TAKIZAWA, 1970

Last instar larva. Body pale yellowish brown, 9 mm. in length and 3.5 mm. in breadth; setae, around the bases of which are sometimes weakly tuberculate, short and sparse. Head (Fig. 17): frons with about 7 pairs of setae; endo-carina indistinct anteriorly; frontal sutures long, arised at basal 1/9, divaricate at basal 1/3; vertex scattered with small dark spots except for anterior part, with about 7 pairs of setae. Prothorax (Fig. 8): D–DL–EP scattered with small dark spots, with about 50 short setae; ES with 4 setae. Meso- and metathorax: DLe with about 8 setae; mesothorax in dorsal and dorso-lateral regions with 5 short setae anteriorly and 10 short ones posteriorly; metathorax in dorsal and dorso-lateral regions with about 12 short setae anteriorly and with 10 ones posteriorly; sternal region with about 10 short setae. Abdomen in dorsal and dorso-lateral regions respectively with about 12 short setae anteriorly and posteriorly; epipleural region with about 7 short setae; pleural region with about 5 short setae; sternal region with a few setae except for those on tubercles; 7th segment with D and DL weakly tuberculate, D on both sides united.

Host plants. *Lamium album.*

Specimens examined. A lot of specimens were observed throughout the whole life at Sapporo, Hokkaido, from May to June in 1965 and 1966.

Note. The first instar larva shows the typical arrangement of the tubercles. The second instar larva is like the first instar with some additional setae. The third instar larva is like the last one with setae in smaller number. Winter is passed in

the form of the adult. The adult appears in middle May near Sapporo and soon begins to lay eggs on the host plant, clustered in a mass on the underside of the leaves. The egg, which is bright red in colour and oblong-oval, needs about 4 days to hatch. Each of the four larval and the prepupal stage is about 4 days long. The fully grown larva enters into the soil and after the motionless prepupal stage changed into the pupa. The pupal stage is about 7 to 10 days long. The newly emerged adult feeds on the host plant and soon disappears in August near Sapporo.

6) *Chrysolina nikolskyi* (JACOBSON, 1898) (?)

Last instar larva (not fully grown). Body greyish brown, 8 mm. in length and 4 mm. in breadth; setae extremely short and sparse, the dorsum being almost glabrous; granular tubercles strong and dense, connected each other in epipleural and pleural regions, weaker on ventral side (Fig. 45). Head with clypeus and frons anteriorly light brownish (Fig. 15); frons with about 10 pairs of setae; frontal sutures arised near basal 1/8, rather widely apart each other from the base, strongly curved medially; vertex together with posterior part of frons impressed with irregular polygonal patterns, with about 8 pairs of setae. Prothorax (Fig. 9): D-DL-EP with about 50 micro setae; SS developed, with a seta; sternal region with about 8 setae except for those on tubercles; ES weakly tuberculate with 4 setae. Meso- and metathorax in dorsal and dorso-lateral regions with about 20 setae respectively; DLe weakly tuberculate, with about 14 setae; SS developed, with a seta; ES with 5 setae; sternal region with about 6 setae except for those on tubercles. Abdomen in dorsal and dorso-lateral regions with about 20 short setae; EP and P not developed; PS-SS and ES rather weakly tuberculate.

Specimens examined. 3 larvae, Mt. Risiri-dake, Hokkaido, 14. VII. 1968.

Note. Because of the failure in bringing them into the adult stage, the species-name above given is supposed on the basis of the habitat, which was the top of Mt. Risiri-dake (1,718 m. above sea level). So far as I am aware, only two species of the genus are known there, namely *Chrysolina pirka* TAKIZAWA and *C. nikolskyi* (JACOBSON). While the third instar larva of this species is quite different from that of *pirka*, being like the last instar larva. The adult of *nikolskyi* is found there in a large number, feeding on *Artemisia* sp. In addition, the fact that the larva shows close resemblance to that of *C. exanthematica*, with which *nikolskyi* is grouped as the subgenus *Lithoptheroides* STRAND, may give further support to the assumption.

7) *Chrysolina pirka* TAKIZAWA, 1970

Third instar larva. Body yellowish white, 6 mm. in length and 2.5 mm. in breadth; head, tubercles, spiracles and legs light brown to brownish; setae long and sparse, on dorsum rounded at apex except for those on prothorax. Head (Fig. 21) around the bases of setae brownish; frons granulate posteriorly with 12 pairs of setae; frontal sutures arised near basal 1/10, divaricate near 3/10; endo-carina indistinct anteriorly; vertex wholly granulate with about 16 pairs of setae. Prothorax (Fig. 10): D-DL-EP granulate with about 40 long or short setae chiefly arranged near the border. Mesothorax in dorsal region with 3 small secondary tubercles beside 4 primary

ones, each of all those tubercles with a seta; DLi with about 3 setae; sternal region with several setae except for those on tubercles. Metathorax in dorsal region in addition to 4 primary tubercles, with 4 small tubercles and a few short setae anteriorly, and with 5 small ones and a few setae posteriorly; DLi small with 3 setae. Abdomen in dorsal and dorso-lateral regions in addition to 7 primary tubercles, with about 9 anterior setae and 7 posterior setae, around the bases of some secondary setae tuberculate; P, EP, PS, SS and ES well tuberculate.

Host plants. *Pedicularis* sp.

Specimens examined. About 50 larvae reared from adults, Mt. Risiri-dake, Hokkaido, VII. 1966–1968.

Note. The first instar larva is of typical type of the tubercles, while the second instar larva is like the third instar larva. This is the only viviparous beetle of Chrysomelinae ever known in Japan. Three females collected at Mt. Risiri-dake on 30th July, 1966, laid twenty-two larvae in total from 3rd to 6th August in laboratory. I observed a female depositing a larva, which was laid with the head downward against leaf-surface. It took about five minutes for the female to lay down the larva. The larva was yellowish orange when deposited, but in a few minutes became yellowish white and began to feed.

8) *Chrysolina watanabei* TAKIZAWA, 1970

Last instar larva. Body yellowish brown, 7.5 mm. in length and 4 mm. in breadth; setae dense, evenly distributed on whole surface, on ventral side shorter; granular tubercles small, round and weak (Fig. 47). Head (Fig. 19): frons with about 25 long and 10 short setae on each side, sometimes lacking shorter setae; frontal sutures arised near $1/13$, divaricate near $2/7$; endo-carina sometimes indistinct near anterior margin ; vertex covered with small spots medially and postero-laterally, with about 30 long and 30 short setae on each side. Prothorax (Fig. 11): D–DL–EP wholly and densely covered with long or short setae; ES and SS weakly tuberculate, with a seta respectively. Meso- and metathorax lacking tubercles on dorsum except for DLe, each of 5 primary tubercles being represented by a long seta ; mesothorax with setae on dorsum sparser anteriorly; EPa with about 10 setae, EPp with about 7 setae, both weakly tuberculate. Abdomen in dorsal and dorso-lateral regions with 7 primary tubercles represented by a long seta respectively; EP, P, PS–SS and ES weakly tuberculate.

Host plants. *Aster glehni.*

Specimens examined. 9 larvae & 4 pupae, Sapporo, Hokkaido, VI. 1966–1968.

Note. The first instar larva of this species shows the typical arrangement of the tubercles. Each anterior tubercle of dorsal and dorso-lateral regions is smaller than the corresponding posterior ones on each segment. The second and third instar larvae are unknown yet. Winter is passed in the form of egg.

9) *Chrysolina yezoensis* (MATSUMURA, 1912)

Last instar larva. Body yellowish white, 8 mm. in length and 3 mm. in breadth, practically glabrous; head and legs dark brown; granular tubercles weak and dense

(Fig. 48); dorsum lacking tubercles except for those on thorax. Head (Fig. 20): frons wrinkled, rather broadly emarginate at anterior margin, with 5 pairs of short setae; frontal sutures arised near basal 1/7, divaricate a little anteriorly to basal 1/3; vertex wrinkled and covered with dark small spots, with about 8 pairs of setae. Labrum triangularly and sharply incised at middle of anterior margin. Prothorax (Fig. 12): D-DL-EP light brownish in colour with about 20 micro setae; ES with a seta. Meso- and metathorax in dorsal and dorso-lateral regions with about 20 micro setae; EPa lacking seta and on metathorax vestigial; EPp absent; SS absent, being represented by a short seta; ES weakly tuberculate with a short seta; sternal region with a few short setae. Abdomen lacking tubercle; dorsal and dorso-lateral regions with about 25 to 30 micro setae; epipleural region with a few micro setae; pleural region with about 3 micro setae; sternal region with about 6 setae; ES, SS and PS may slightly tuberculate around the bases of setae; 8th and 9th segments may very slightly tuberculate on dorsal surface.

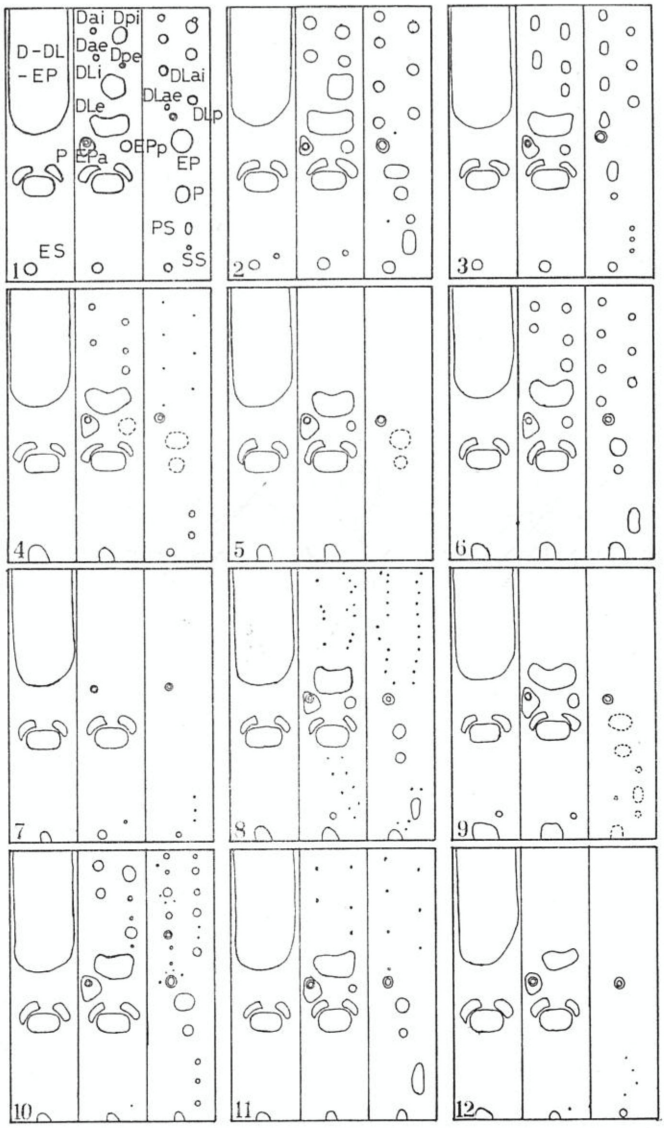
Host plants. *Hypercium* sp.

Specimens examined. 9 larvae & 2 pupae, Sapporo, Hokkaido, 4. VI. 1969.

Note. The third instar larvae are like the last instar larva, being nearly glabrous. The adults are found on the host plant from July to August. This species may overwinter in the stage of eggs.

Key to the species mentioned, based on the larvae

1. Body covered with dense setae or with distinct long setae on dorsum. ····· 2
— Body practically glabrous on dorsum. ····· 5
2. Body above covered with dense secondary setae. ····· 3
— Body with distinct small, elevated tubercles, without such dense setae; head light brownish; granular tubercles as in Fig. 46. ····· *pirka* (3rd instar larva)
3. Abdomen with small but distinct primary tubercles on dorsum; anterior part of frons strongly raised; clypeus weakly sinuate at anterior margin; granular tubercles as in Fig. 42. ····· *aurichalcea*
— Abdomen without distinct primary tubercles on dorsum, at most weakly tuberculate around the bases of primary setae; clypeus straight or weakly concave at anterior margin. ····· 4
4. Head with setae sparser, frons with about 21 pairs of long setae, vertex with about 27 pairs of setae; meso- and metathorax with tubercles on dorsum rather distinct; granular tubercles as in Fig. 40. ····· *aino*
— Head with setae denser, frons with about 25 long and 10 short setae on each side, vertex with about 30 long and 30 short setae on each side; meso- and metathorax without tubercles except for DLe; granular tubercles as in Fig. 47. ····· *watanabei*
5. 7th abdominal segment largely tuberculate, with D and DL, the former on both sides united; granular tubercles as in Fig. 43. ····· *brunneipennis lamii*
— 7th abdominal segment like the preceding segment, not largely tuberculate. ····· 6
6. Granular tubercles extremely strong and dense, connecting each other in part. ····· 8
— Granular tubercles not as above, small and rather sparse. ····· 7
7. 8th and 9th abdominal segments distinctly tuberculate on dorsum; setae denser and longer; frons with about 15 pairs of setae, vertex with about 20 pairs of



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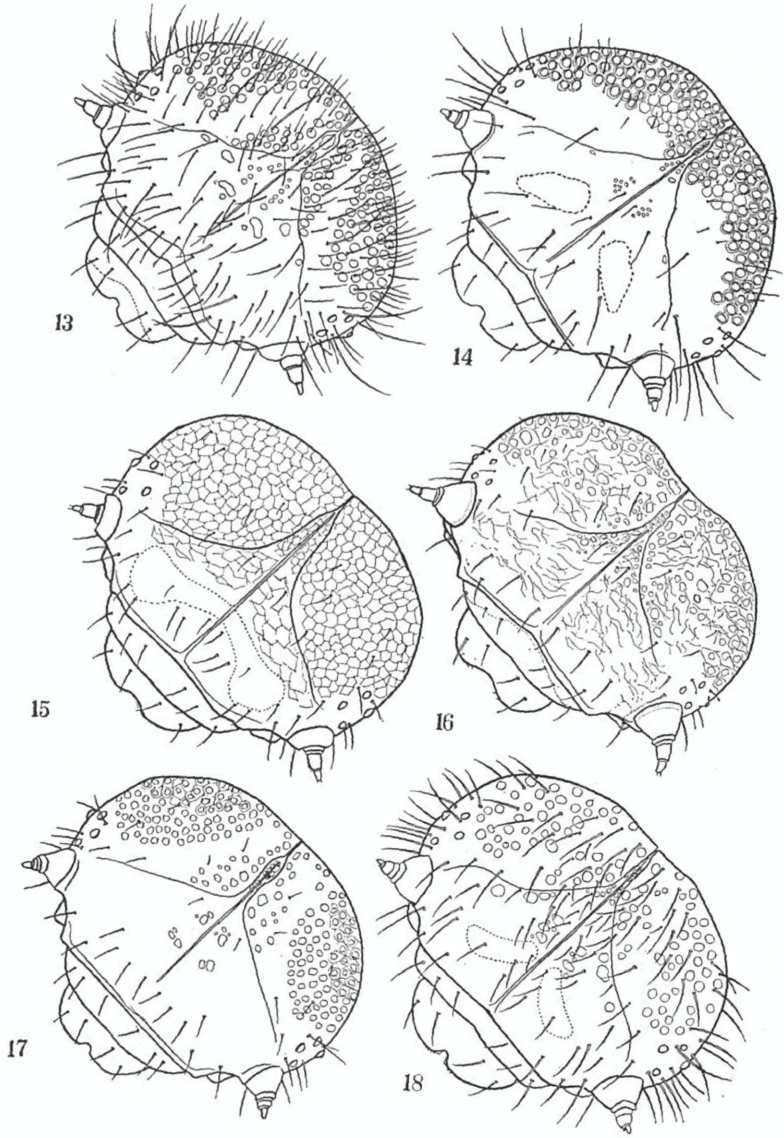

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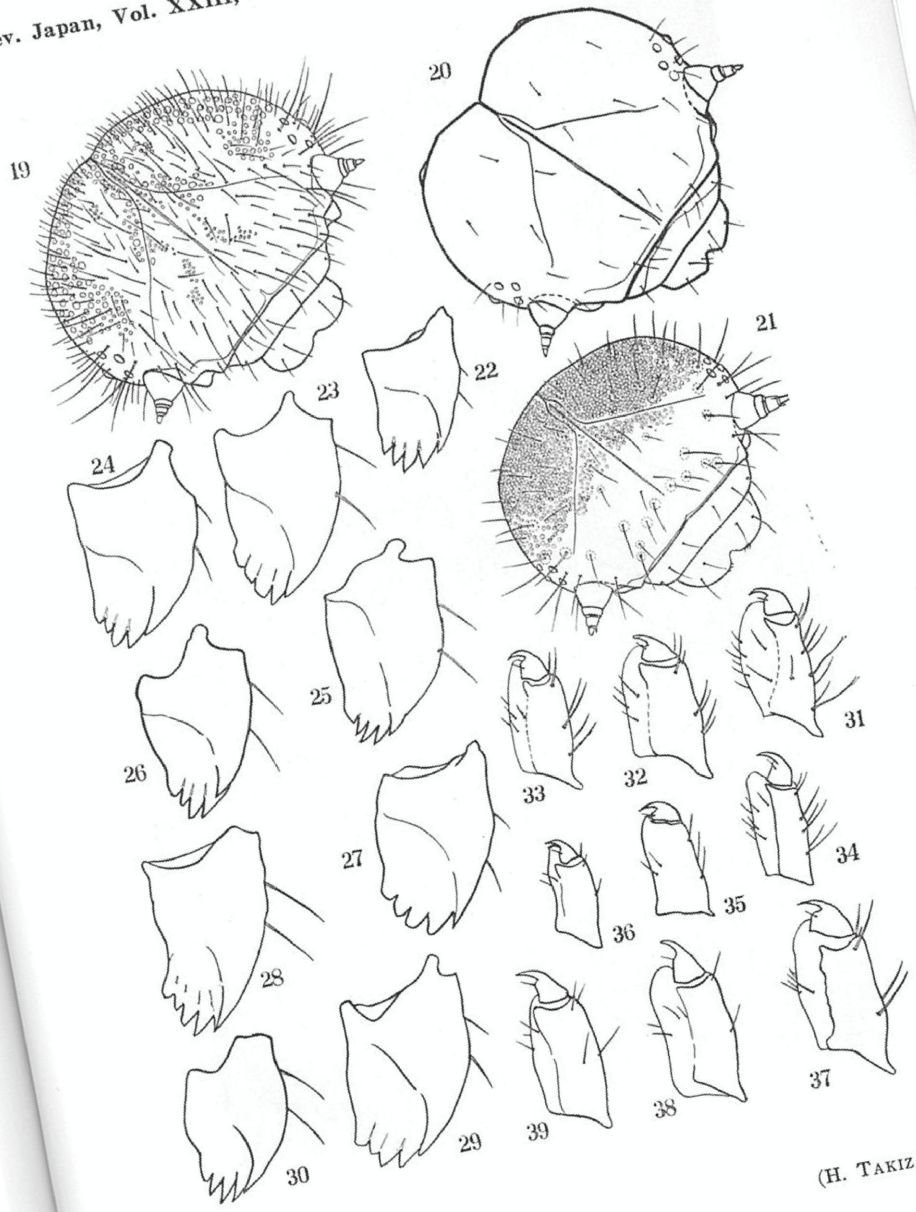
Ent. Rev. Japan, Vol. XXIII, Pl. 9.



(H. TAKIZAWA del.)

setae; granular tubercles as in Fig. 41. ..... *angusticollis*

— 8th and 9th abdominal segments practically without tuberculation on dorsum; setae sparser and shorter; frons with about 5 pairs of setae, vertex with about 10 pairs of setae; granular tubercles as in Fig. 48. ..... *yezoensis*

8. Larger species, 12 mm. in length; frontal sutures not widely apart basally; vertex covered with dark spots; granular tubercles as in Fig. 44. ..... *exanthematica*

— Smaller species, 8 mm. in length; frontal sutures rather widely apart basally; vertex impressed with small polygonal patterns; granular tubercles as in Fig. 45. .... *nikolskyi* (?)

Explanation of plates 7–10.

Plate 7. Tubercular arrangement of pro- and mesothorax and 2nd abdominal segment (left to right) of:

1, *Chrysolina aino* (1st instar larva); 2, *C. brunneipennis lamii* (ibid.); 3, *C. pirka* (ibid.); 4, *C. aino* (last instar larva); 5, *C. angusticollis* (ibid.); 6, *C. aurichalcea* (ibid.) 7, *C. exanthematica* (ibid.); 8, *C. brunneipennis lamii* (ibid.); 9, *C. nikolskyi* (?) (ibid.); 10, *C. pirka* (3rd instar larva); 11, *C. watanabei* (last instar larva); 12, *C. yezoensis* (ibid.).

Plate 8. Head capsule of:

13, *C. aurichalcea* (last instar larva); 14, *C. angusticollis* (ibid.); 15, *C. nikolskyi* (?) (ibid.); 16, *C. exanthematica* (ibid.); 17, *C. brunneipennis lamii* (ibid.); 18, *C. aino* (ibid.).

Plate 9. Head capsule of:

19, *C. watanabei* (last instar larva); 20, *C. yezoensis* (ibid.); 21, *C. pirka* (3rd instar larva).

Right mandible of:

22, *C. yezoensis*; 23, *C. angusticollis*; 24, *C. aino*; 25, *C. brunneipennis lamii*; 26, *C. watanabei*; 27, *C. exanthematica*; 28, *C. aurichalcea*; 29, *C. nikolskyi* (?); 30, *C. pirka* (3rd instar larva).

Tarsus of middle leg of:

31, *C. watanabei*; 32, *C. angusticollis*; 33, *C. aino*; 34, *C. aurichalcea*; 35, *C. pirka*; 36, *C. yezoensis*; 37, *C. brunneipennis lamii*; 38, *C. exanthematica*; 39, *C. nikolskyi* (?).

Plate 10. Granular tubercles (posterior parts of dorsal region on 2nd abdominal segment) of:

40, *C. aino*; 41, *C. angusticollis*; 42, *C. aurichalcea*; 43, *C. brunneipennis lamii*; 44, *C. exanthematica*; 45, *C. nikolskyi* (?); 46, *C. pirka*; 47, *C. watanabei*; 48, *C. yezoensis*.

Selected literature

KIMOTO, S., 1962, A phylogenic consideration of Chrysomelidae based on immature stages of Japanese species (Coleoptera). Jour. Fac. Agr. Kyushu Univ., 12 (2): 67–116, pls. 6.

TAKIZAWA, H., 1970, Descriptions of five new species of the genus *Chrysolina* MOTSCHULSKY in Japan (Coleoptera: Chrysomelidae). Kontyû, 38 (2): 117–125.

Note on the Pupae of the Genus *Chrysolina* MOTSCHULSKY in Japan (Coleoptera : Chrysomelidae)

By HARUO TAKIZAWA

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This small paper, dealing with descriptions of pupae of Japanese *Chrysolina*-species, is complementary to the "On the larvae of the genus *Chrysolina* MOTSCHULSKY in Japan" by myself. As in the case of larvae, we have very limited knowledge on the pupa of the genus, so far as I am aware, a single species *Chrysolina exanthematica* (WIEDEMANN) has been described of the pupal stage in Japan. In this paper, herein, short descriptions of the pupae of seven species of the genus will be given. The materials studied is the same as that mentioned in my paper on the larvae.

This genus may be characterized on the basis of the pupa as follows:

Body reddish orange, setae, spiracle and small tubercles brown to dark brown; setae long or short, rather dense; 9th abdominal segment produced apically into a slender process, with tip strongly pointed and chitinized; pupation taking place in the soil.

1) *Chrysolina aino* TAKIZAWA, 1970

Pupa. Body orange yellow, 8 mm. in length and 4.5 mm. in breadth; head tuberculate around the bases of setae, with about 8 pairs of setae; pronotum tuberculate around the bases of setae, densely covered with long setae; mesothorax generally with a pair of setae dorsally; abdominal segment with about 14 pairs of setae dorsally; 9th segment with apex rather robust; female with distinct ovipositor-like process on ventral side.

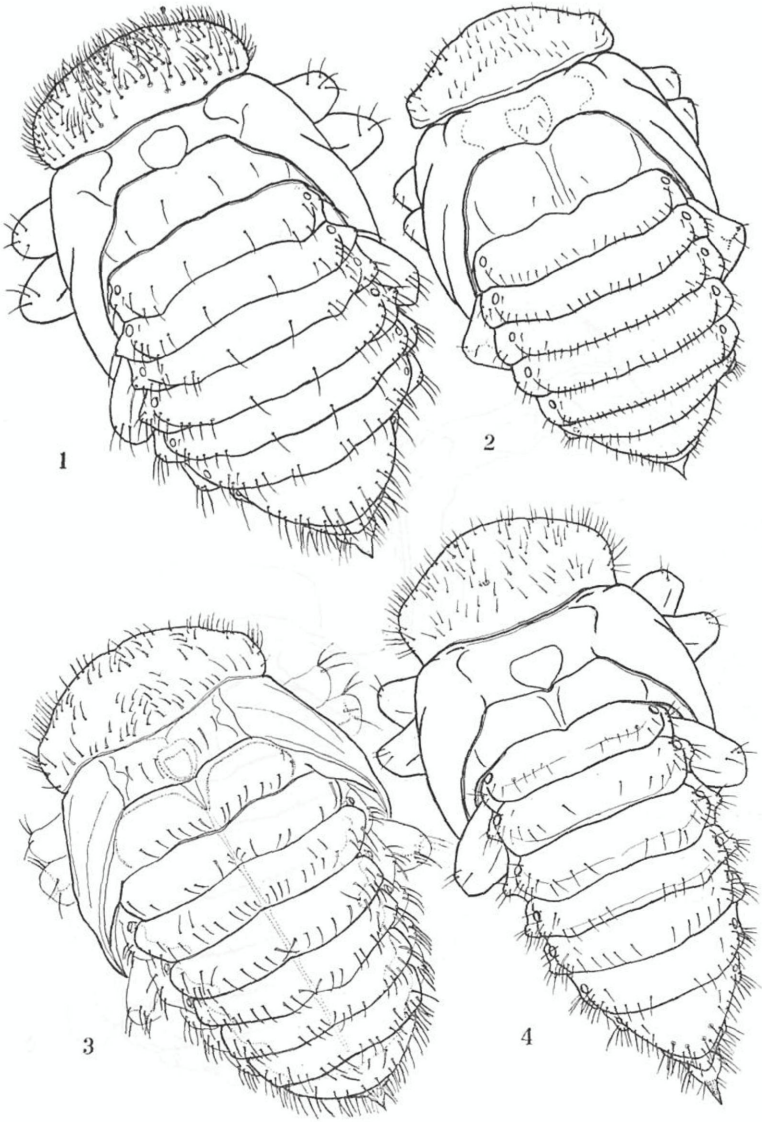
2) *Chrysolina angusticollis* (MOTSCHULSKY, 1860)

Pupa. Body reddish yellow, 6.5 mm. in length and 4.2 mm. in breadth; head with about 12 to 16 pairs of setae; pronotum densely covered with short setae; meso- and metathorax glabrous dorsally, sometimes with one or two pairs of setae; abdominal segment dorsally with 10 to 16 pairs of setae; apex of 9th segment slender, pointed and strongly chitinized; female with ovipositor-like process on ventral side.

3) *Chrysolina aurichalcea* (MANNERHEIM, 1825)

Pupa. Body reddish orange, 8 mm. in length and 4 mm. in breadth; head with

〔Ent. Rev. Japan, Vol. XXIII, No. 2, pp. 110–111, pl. 11–14, Sept., 1971〕



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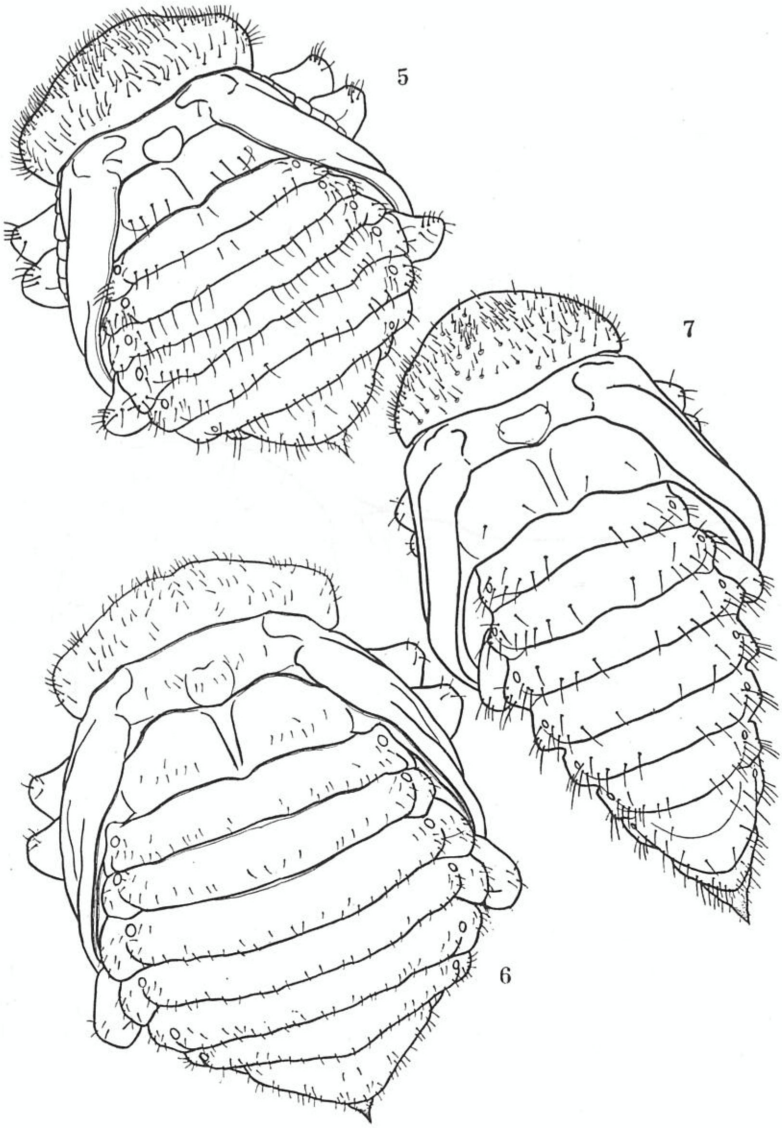

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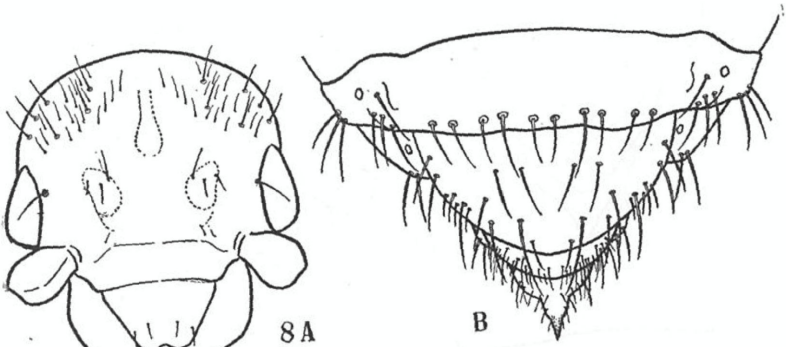

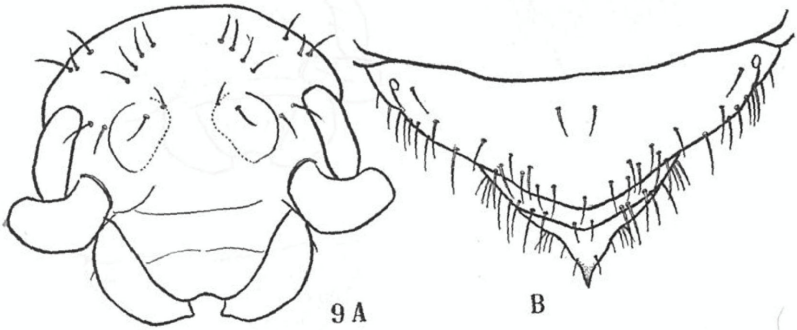

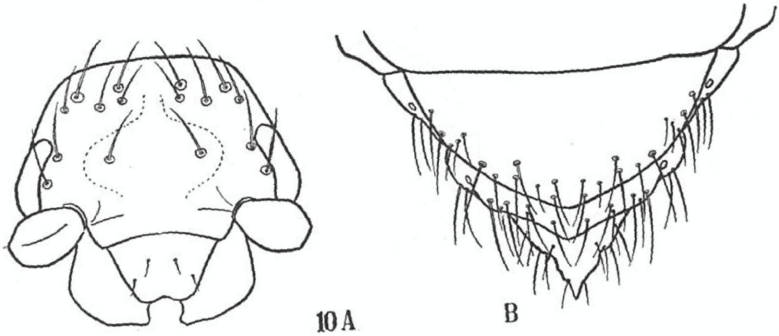

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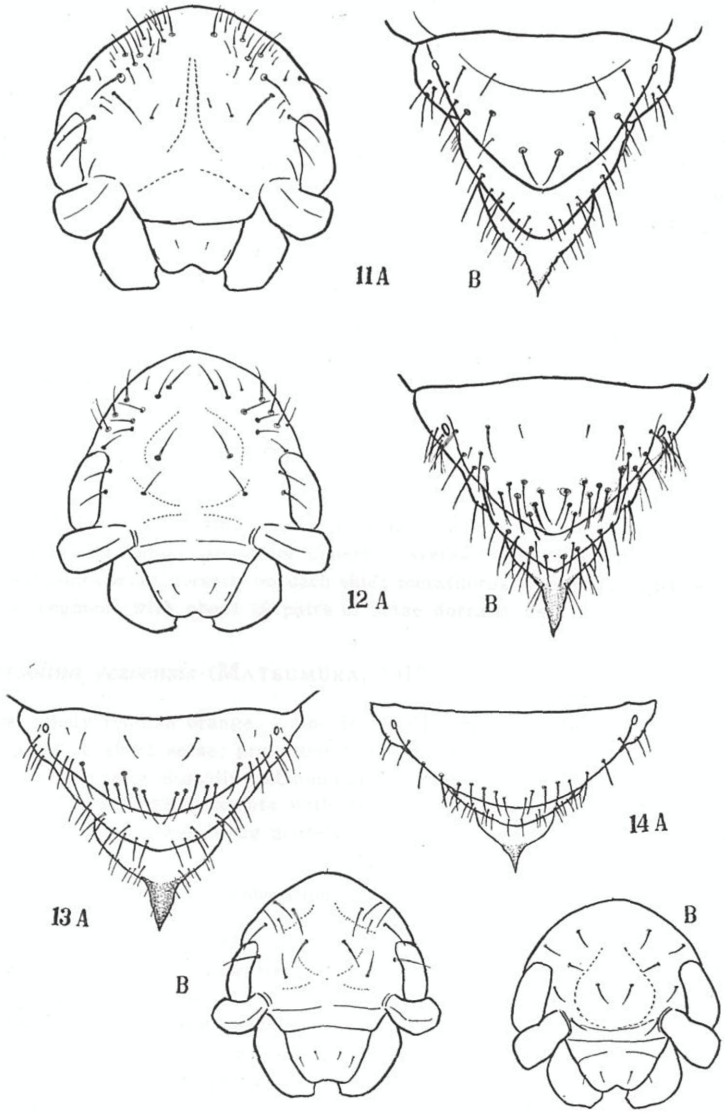

(H. TAKIZAWA del.)

about 20 to 25 pairs of long or short setae; prothorax covered with short setae dorsally; meso- and metathorax with 1 or 2 pairs of short setae respectively; abdominal segment dorsally with about 12 pairs of setae; 9th segment produced, strongly pointed at apex, hardly chitinized.

4) *Chrysolina exanthematica* (WIEDEMANN, 1821)

Pupa. Body reddish yellow, 8 mm. in length and 5 mm. in breadth; head with about 10 to 15 pairs of setae; pronotum densely covered with short setae; meso- and metathorax dorsally with about 7 pairs of short setae respectively; abdominal segment with about 30 pairs of short setae dorsally; 9th segment produced at apex.

5) *Chrysolina brunneipennis lamii* TAKIZAWA, 1970

Pupa. Body reddish orange, 7.5 mm. in length and 4.5 mm. in breadth; head with about 7 pairs of setae; pronotum covered with short setae; meso- and metathorax dorsally with about 4 or 9 pairs of setae respectively; abdominal segment dorsally with about 15 to 18 pairs of setae.

6) *Chrysolina watanabei* TAKIZAWA, 1970

Pupa. Body reddish yellow, 8 mm. in length and 5 mm. in breadth; head with about 35 pairs of setae; pronotum densely covered with short setae; mesothorax with a few micro setae dorsally on each side; metathorax with about 4 pairs of setae; abdominal segment with about 20 pairs of setae dorsally.

7) *Chrysolina yezoensis* (MATSUMURA, 1912)

Pupa. Body reddish orange, 7 mm. in length and 4 mm. in breadth; head with about 6 pairs of short setae; pronotum with about 70 setae; meso- and metathorax each with a few setae dorsally; abdominal segment dorsally with about 15 pairs of short setae; 6th and 7th segments with spiracles light brownish; 9th segment produced at apex, the process being acutely pointed and weakly chitinized.

Explanation of plates 11–14.

Plate 11, Pupa (dorsal view) of:
1, *Chrysolina aino*; 2, *C. yezoensis*; 3, *C. brunneipennis lamii*; 4, *C. angusticollis*.
Plate 12, Pupa (dorsal view) of:
5, *C. watanabei*; 6, *C. exanthematica*; 7, *C. aurichalcea*.
Plate 13, Pupa: head (A) & 7th–9th abdominal segments (B) of:
8, *C. watanabei*; 9, *C. exanthematica*; 10, *C. aino*.
Plate 14, Pupa· head (A) & 7th–9th abdominal segments (B) of:
11, *C. aurichalcea*; 12, *C. angusticollis*; 13, *C. brunneipennis lamii*; 14, *C. yezoensis*.

Pristilophus chujoi MIWA, 1939 という台湾産のコメツキムシについて

大　平　仁　夫

Notes on *Pristilophus chujoi* MIWA, 1939 from Formosa (Coleoptera : Elateridae)

By HITOO ÔHIRA

Pristilophus chujoi MIWA, 1939 チュウジョウコメツキは，中條道夫博士が台湾において採集された標本にもとづいて，三輪勇四郎博士が新種として記載した種であるが，体が美麗で大形であること，個体数が少ないなどの理由によって，台湾産甲虫類の中でも商品価値の高い種として扱われており，一般の甲虫愛好者間でも比較的よく知られている種である．筆者は最近になって芝田太一氏のご好意で，本種を直接調べることができたので，その結果について報告する．

三輪(1939)の原記載によると "A couple of this species have been collected by Mr. M. CHUJÔ on July 21, 1935, at Seto, about 100 meter in altitude, in Shintiku district, ……" とされており，他に埔里近くで得られたものも検しておられる．また中條博士は，本種を採集したときのことを詳しく覚えておられ，筆者あてに次のような手紙を頂いた．"本種は２度目のフトオアゲハ調査旅行に新竹州奥地の井上温泉付近へ行ったときの採集品です．この温泉地域に最初は素木先生と，２度目は私１人で行きました．問題のコメツキムシは，温泉宿の裏手の山へ登って行ったとき，一服した道の片側に立っていた穀斗科の大木の心腐れのものの洞中に累積している泥状の腐質をネットの柄でかき廻したら現われ出たも

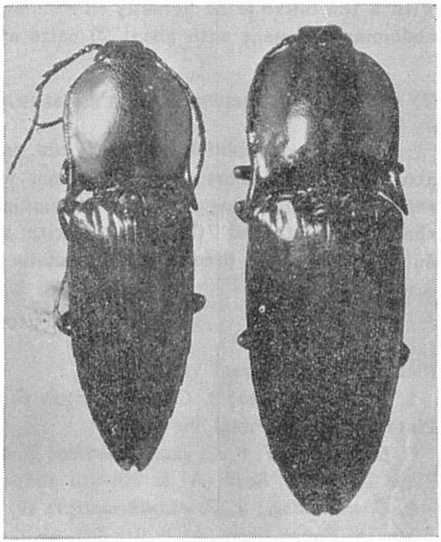

Fig. 1. *Anthracalaus chujoi* (MIWA, 1939) from Formosa, male (left) and female (right).

〔昆虫学評論，第23巻，第２号，112–115頁，1971年，９月〕

のです.”また中條博士によれば，埔里の木星昆虫所に行けば沢山のストックがあるそうである．筆者が今度調べることのできた標本もここから購入されたもので，今まで多くの方が台湾に採集に出掛けておられるが，本種を野外で採集したり，生態などについての報告が全く見当らないのは，本種が我々の入山できないような特殊地域にのみ分布しているためかも知れない．

本種は図示したように，雄は体がやや細長くて体長 18〜20 mm で，雌はやや巾広くて体長 23〜30 mm くらいあり，雄は雌に比して触角が第 4 節から鋭く鋸歯状をしている．体はやや扁平状で，体毛はほとんど生じなく，表面は平滑で光沢を有し黒色であるが，前胸背板の両側部と前胸腹板を除く腹面の大部分は赤褐色で，触角と脚は黒色である．本種は *Campsosternus*属のコメツキムシにみられるような金属性の佳麗な美しさとは異なって，東洋人の好みによくマッチした落着いた漆器のもつ美しさをそなえており，本種が日本や台湾のコメツキムシとしては稀な美麗種として一般の同好者に人気があるのも，実はこのあたりに原因があるのではないかと思われる．

本種は台湾特産種と思われ，種小名については今後問題になることはないと思われるが，属名と本種が所属する亜科の位置については若干問題があるように思われる．三輪 (1939) は本種を *Pristilophus* 属に属する種として扱われ，その論文の摘要から判断してヒラタコメツキ亜科（Ctenicerinae）に所属するものと考えておられたようである．しかしこの属はその後の MÉQUIGNON (1930) の研究によって *Pseudopristilophus* 属におきかえられているが，この属もやはりヒラタコメツキ亜科に所属する属であることには変りはない．しかしこのチュウジョウコメツキを詳しく調べてみると，外形は上記のヒラタコメツキ亜科のものにきわめてよく似ているが，前胸腹板線の前端部は不完全ではあるが明らかに凹溝状をしており，爪の内側部（爪と爪の間の基部ではない）には明らかに剛毛を生じていることなどから判断して，本種はヒラタコメツキ亜科のものではなく，これとは全く関係のないウバタマコメツキ亜科（Chalcolepidiinae）に位置する種であることが判断される．

一方，古く FAIRMAIRE (1888) は，Java 産の *Alaus westermanni* CANDÈZE, 1857 を type-species にして *Anthracalaus* 属を新設し，印度支那から *Anthracalaus moricii* という種を記載した．この属は CANDÈZE (1891) によると “*Alaus* à téguments tout à fait glabres” としてウバタマコメツキ属の近くに位置させており，JUNK (1925) のカタログでも同様に処理されている．また FLEUTIAUX (1927) は “Ce genre se rapproche beaucoup des Corymbitinae” としながらも CANDÈZE や JUNK などに従ってウバタマコメツキ属の近くに位置させている．しかし FLEUTIAUX (1947) は，ここで決断をしてこの *Anthracalaus* 属は Ctenicerinae 亜科（＝Corymbitinae 亜科）に所属するものとして，この亜科に移して処理している．

筆者は，台湾のチュウジョウコメツキの正しい属名は *Anthracalaus* ではないかと思っていたが，FLEUTIAUX (1947) によって属の所属する亜科の位置が大きく変えられたことから，もう一度よく調べる必要にせまられ，Paris の Muséum National d'Histoire Naturelle に保管されている印度支那産の *Anthracalaus moricii* FAIRMAIRE, 1888 を借用して詳しく調

査したが，この種の特徴は FLEUTIAUX (1947) が考えたように Ctenicerinae 亜科に所属するものではなく，最初に FAIRMAIRE (1888) や CANDÈZE (1891) などが判断したようにウバタマコメツキ属にきわめて近いものであることがわかった．また属の形態は，台湾のチュウジョウコメツキともよく一致した．したがって，台湾のチュウジョウコメツキの正しい属名は *Anthracalaus* であり，この属の所属する亜科はウバタマコメツキ亜科 (Chalcolepidiinae) が現在の段階では最も正しいものと判断する次第である．JUNK (1925) のカタログによれば，この属は東洋区に3種知られているが，筆者の考えでは，Ctenicerinae 亜科の *Pseudopristilophus* 属の中に，この *Anthracalaus* 属の特徴をもったものが混入しており，種類数はまだ若干ふえるものと思われるし，琉球産の2種も，広義の *Anthracalaus* 属のものと信ぜられるが，この処理は別に行なう予定である．

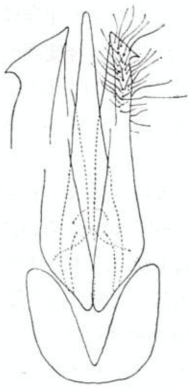

Fig. 2. Aedeagus of *Anthracalaus chujoi* (MIWA, 1939).

おわりに貴重な標本を貸与された大阪市の芝田太一氏，本種の生態などについてご教示いただいた香川大学の中條道夫博士に心からお礼申しあげる．

引用文献

CANDÈZE, E. 1891; Catalogue Méthodique des Élatérides: 30 (Liège).

FAIRMAIRE, M. L. 1888; Descriptions de Coléoptères de l'Indo-Chine. Ann. Soc. ent. France, (6) VIII: 349–350.

FLEUTIAUX, E. 1927; Les Élatérides l'Indo-Chine Française. Faune Colonies Franç.: 101–102.

—— 1947; Révision des Élatérides (Coléoptères) de l'Indo-Chine Française. Notes d'Ent. Chinoise (Musée Heude), XI (8): 322–331.

平山修次郎，1940；原色甲虫図譜：73, pl. 27, f. 23 (三省堂).

MÉQUIGNON, A. 1930; Notes synonymiques sur les Élatérides (Col.). Bull. Soc. ent. France: 91–96.

MIWA, Y. 1939; Description of a new species belonging to the family Elateridae from Formosa. Trans. Nat. Hist. Soc. Formosa, XXIX (186): 65–66.

SCHENKLING, S. 1925; Coleopterorum Catalogus (JUNK), par 80, Elateridae, I: 42.

Summary

Pristilophus chujoi was originally described from Formosa by Dr. Y. MIWA in 1939 based on the collection of Dr. M. CHÛJÔ. Studing this species, the author has found some new details as follows.

Anthracalaus chujoi (MIWA, 1939), comb. nov.

Pristilophus chujoi MIWA, 1939, Trans. Nat. Hist. Soc. Formosa, XXIX (186) : 65 (Formosa).

FLEUTIAUX (1947) pointed out that the genus *Anthracalaus* FAIRMAIRE, 1888 is to be belonged to the subfamily Ctenicerinae. His opinion is not correct unfortunately, but this genus should be belonged to the subfamily Chalcolepidiinae by the structures of the prosternal sutures and usually having the setae at each inner side of the claws.

木曽駒ケ岳のナガクチキムシ

横　山　美千子

筆者が1961年から1968年の間，木曽駒ケ岳で採集したナガクチキムシのうち，以下の種は記録しておいた方がよいと思われるので報告します．

1. *Anisoxya ocularis* NOMURA et KATÔ　オオメホソナガクチキムシ　VII-24, 1967
2. *Dircaeomorpha validicornis* LEWIS　ムツモンナガクチキムシ　VII-24, 1964
3. *Phloeotrya rufoventris* NOMURA　ハラアカホソナガクチキムシ　VII-17, 1966
4. *Phloeotrya trisignata* NOMURA　コモンホソナガクチキムシ　VII-26, 1966
5. *Stenoxylita trialbofasciata* HAYASHI et KATÔ　ミスジナガクチキムシ　VII-24, 1964
6. *Dapsiloderus nomurai* NAKANE et HAYASHI　ヒイロホソナガクチキムシ　VII-25, 1967
7. *Eumelandrya obsoletomaculata* NOMURA　ウスモンナガクチキムシ　VI-7, 1966
8. *Melandrya flavipennis* NAKANE et HAYASHI　キバネナガクチキムシ　VII-26, 1968
9. *Melandrya quadricostata* HAYASHI　ヨツスジナガクチキムシ　V-31, 1961
10. *Melandrya atricolor* LEWIS　クロナガクチキムシ　V-31, 1961
11. *Melandrya mongolica* SOLSKY　アカアシナガクチキムシ　V-28, 1962
12. *Melandrya quadrisignata* NAKANE et HAYASHI　ヨツモンナガクチキムシ　VI-4, 1967

下甑島のコガネムシ主科

楠　井　善　久

Notes on Some Scarabaeoidea from Shimokoshiki Island, Kyushu

By Yoshihisa Kusui

下甑島は鹿児島県薩摩郡に属し，九州本土より 24 km の海上に東北から南西にかけて 38 km にわたる甑島列島の中にあり，島嶼中最大で面積は 58 km^2，標高は 604.3 m の尾岳を最高に 510.8 m の青潮岳等の低山地があり，暖流の影響を受け樹木はシイ・アコウ・タブ・ハマビワ・シャリンバイ・ネム・アカメガシワ・ヤブツバキ・ヤマアサ・ネズミモチ等が多く，またカノコユリの群落が全島にみられる．

筆者は，本島において入江平吉氏により1970年6月に採集された多数のコガネムシ主科を検する機会を与えられ，1新亜種を含め20種を検し得た．本島における採集者は少なく，その記録も知らないので，その知見をここに発表する．

採集地はいずれも下甑島下甑村青瀬のものであり，採集日は1970年6月中旬であるため，種名の次に頭数とカッコ内にその日付けのみを記した．

この小文を草するに当り三宅義一氏には多大のご指導を賜った．また，文献については白水隆博士にご教示願い，Mr. N. James，三宅純夫両氏のご協力も仰いだ．貴重な標本をご恵与いただいた入江平吉氏のご厚意とともに厚くお礼申しあげる．

Lucanidae クワガタムシ科

1. *Prosopocoilus inclinatus inclinatus* Motschulsky　ノコギリクワガタ
   1♂ (19th).
2. *Dorcus titanus pilifer* Vollenhoven　ヒラタクワガタ
   1♂ (17th).
3. *Macrodorcus rectus rectus* Motschulsky　コクワガタ
   2♂ (18th), 1♂ 3♀ (19th).

採集されている個体は♂♀大小の別なくすべて暗赤褐色の傾向がみられ，一般的な黒色の個体はみられない．今後時期の異なった個体が採集されれば，一層はっきりするものと思われる．

Scarabaeidae　コガネムシ科

4. *Rhyparus azumai* Nakane　セスジカクマグソコガネ

〔昆虫学評論，第23巻，第2号，116-118頁，1971年，9月〕

2 exs. (17th).

5. *Ectinohoplia obducta* MOTSCHULSKY ヒメアシナガコガネ
1 ex. (19th).

6. *Apogonia amida* LEWIS ヒメカンショコガネ
1 ex. (17th), 2 exs. (18th), 6 exs. (21st).

7. *Lachnosterna kiotonensis* BRENSKE クロコガネ
1 ex. (19th).

8. *Heptophylla picea iriei* subsp. nov. ナガチャコガネ亜種

Black or fuscous and shining, with legs and abdomen more or less reddish, but antennal club is brown and opaque.

In the male, the fifth antennal joint is much longer than the sixth one, that is, about nine-tenths the length of the sixth joint.

Length: 9.7–11.4 mm; width: 5.4–5.9 mm.

Holotype: ♂, 21. VI. 1970, Aose, Shimokoshiki Is., H. IRIE leg.; Paratype: 1♂, 18. VI. 1970; 4♂♂, 19. VI. 1970; 1♂, 20. VI. 1970; 4♂♂, 21. VI. 1970, Aose, Shimokoshiki Is., H. IRIE leg. (in the collection of the auther, Mr. Y. MIYAKE and Mr. H. IRIE)

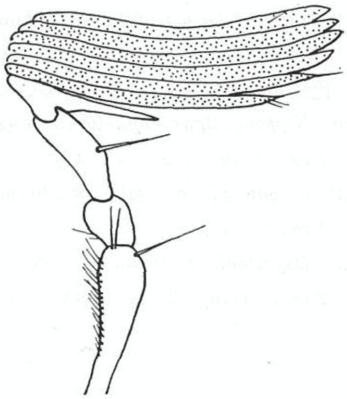

Fig. The dorsal aspect of the male antenna.

This new subspecies differs from the nominate form in the coloration and the character of the male antenna.

9. *Popillia japonica* NEWMANN マメコガネ
5 exs. (20th), 2 exs. (21st).

10. *Adoretus tenuimaculatus* WATERHOUSE コイチャコガネ
1 ex. (17th), 1 ex. (18th), 4 exs. (19th).

11. *Anomala albopilosa albopilosa* HOPE アオドウガネ
1 ex. (21st).

12. *Anomala cuprea* HOPE ドウガネブイブイ
2 exs. (21st).

13. *Anomala japonica japonica* ARROW ヤマトアオドウガネ
1 ex. (18th).
本種は九州本島においてもあまり多い種類ではない.

14. *Anomala triangularis kyushuensis* NOMURA サンカクスジコガネ
1 ex. (21st).

基亜種はトカラ列島宝島以南，沖縄本島まで記録され，比較的多産しているが，本亜種の記録は長崎，鹿児島（屋久島を含む）等の県下から報告されているのみで，あまり多くない．

15. *Anomala rufocuprea rufocuprea* MOTUCHULSKY　ヒメコガネ

1 ex. (18th), 2 exs. (20th), 3 exs. (21st).

背面は一般に緑色であるが，頭部および前胸背が銅緑色で，上翅がやや褐色になる傾向がみられる．

16. *Anomala daimiana* HAROLD　サクラコガネ

1 ex. (20th), 4 exs. (21st).

背面が緑色で側面がわずかに茶褐色の1個体があった．

17. *Blitopertha orientalis* WATERHOUSE　セマダラコガネ

1 ex. (17th), 1 ex. (18th), 4 exs. (21st).

比較的黒色部分の少い個体が多いようである．

18. *Nipponovalgus angusticollis angusticollis* WATERHOUSE　ヒラタハナムグリ

1 ex. (17th), 3 exs. (21st).

19. *Cetonia pilifera pilifera* MOTSCHULSKY　ハナムグリ

1 ex. (21st).

20. *Oxycetonia forticula* JANSON　ヒメハナムグリ

2 exs. (17th), 2 exs. (19th), 1 ex. (20th), 3 exs. (21st).

沖永良部島における未記録のコガネムシ2種

楠　井　善　久

沖永良部島において採集された多数のコガネムシ類を入江平吉氏のご好意により検する機会を与えられたが，そのうち下記2種の未記録種が採集されていたので，新産地としてここに記録する．

1. *Apogonia bicarinata bicarinata* LEWIS　フタスジカンショコガネ

1 ex., Mt. Ohyama, Okinoerabu Is., 9 VII 1970, H. IRIE leg.

本原亜種は九州・トカラ中之島・宝島・奄美大島・徳之島において記録され，沖縄本島では subsp. *okinawana* NOMURA が産する．本島は本原亜種の分布の南限かと思われる．

2. *Anomala xanthopleura* ARROW　リュウキュウドウガネ

1 ex., Mt. Ohyama, Okinoerabu Is., 9 VII 1970, H. IRIE leg.

多数の *A. albopilosa yashiroi* SAWADA　オキナワアオドウガネに混って採集されていた．

なお，両種の同定に際して三宅義一氏のご教示を得た．末尾ながら入江平吉氏のご好意とともに両氏に深く感謝の意を表する．

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