

# New or little-known Coleoptera from Japan and its adjacent Regions, XII.\*

By

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## CICINDELIDAE

As to the fauna of the Japanese Cicindelids Dr. Yushiro Miwa (1936) wrote a synopsis as one of the series of 'Fauna Nipponica'. In this book he followed entirely the system proposed by Dr. W. Horn of the Deutsches Entomologisches Institut, Berlin Dahlem, and described and illustrated nearly all the species hitherto known from Japan, Loochoo, Formosa, Korea and Saghalien. But a series of recent studies of Prof. K. Mandl and Mr. A. Rivalier on the Palaearctic Cicindelids suggest us that the revision of the Japanese Cicindelidae must be inevitable. Since 1950 I have been engaged in the revision of the Japanese Cicindelids with special reference to their male genitalia and found some new forms, which will be mentioned below.

*Therates alboobliquatus* W. Horn (Pl. II, Figs. 1-4.)

*Therates clavicornis alboobliquatus*, W. Horn, Notes Leyden Mus., xxxi, 1909, p. 186.

This species has hitherto been known from Formosa, but in the last three years several examples belonging to this species were collected from Yakushima Is., south of Kyushu, by Prof. T. Shirozu and Messrs. Y. Kurosawa and M. Koyama. The examples of Yakushima are somewhat smaller than that of Formosa in size, the punctuation of the elytra is a little coarser in the middle, the oblique fasciae are more linear and the apex of each elytron is more distinctly sinuate. I name here this race as:

subsp. *yakushmanus*, nov. (Pl. II, Fig. 4.)

Holo- and allotype: 1 ♂ 1 ♀ Kosugidani, Yakushima, 1. VIII. 1951, M. Koyama leg. (in coll. Nakane)

A male example collected by Mr. Koyama is peculiar in having 4-dentate front margin of labrum, instead of 6-dentate. I will name it ab. *koyamai* nov. (Pl. II, Fig. 2)

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\* I. Mordellidae-Mordellinae. Trans. Kansai Ent. Soc., 15 (1): 1-17, 9 figs. 1950 (in collaboration with S. Nomura).

II. Erotylidae. Entom. Rev. Japan, 5 (1): 6-13, 3 figs. 1950.

III. Endomychidae. Ins. Matsum., 17 (3/4): 113-118, 3 figs. 1951.

IV. Drilidae. Mushi, 21 (3): 29-31. 1950.

V. Mordellidae-Mordellinae II. Trans. Kansai Ent. Soc., 15 (2): 20-24, 1 fig. 1950.

VI. Coprophagous Lamellicornia. Entom. Rev. Japan, 5 (2): 69-72. 1951.

VII. Dascillidae. Sci. Rep. Saikyo Univ. (Nat. Sci. & Liv. Sci.), 1 (1): 35-41, 7 figs. 1952.

VIII. Caraboidea. Entom. Rev. Japan, 6 (1): 1-3, pl. 1. 1952.

IX. Caraboidea II. Sci. Rep. Saikyo Univ. (Nat. Sci. & Liv. Sci.), 1 (2): 93-102, 1 map, 18 figs. 1953.

X. Descriptions of some new species from Shikoku, Japan. Trans. Shikoku Ent. Soc., 4 (1): 7-15, 10 figs. 1954.

XI. Oedemeridae. Sci. Rep. Saikyo Univ. (Nat. Sci. & Liv. Sci.), 1 (4): 171-188, 2 figs. & 6 pls. 1954.

*Note:* Dr. Horn considered *alboobliquatus* to be a subspecies of his *T. clavicornis* from Tonkin, but reading the descriptions of two forms I have come to form an opinion that they may be specifically separated from each other.

*Cicindela sachalinensis* Morawitz (Pl. I, Fig. 4.)

*Cicindela sachalinensis* Moraw., Bull. Acad. St. Petersburg, v, 1862, p. 187.

In the course of his study on *C. sachalinensis*, Prof. Mandl found a small series of examples with reduced median fasciae from 'Yokohama' and named them subsp. *anguste-fasciata*. I have examined the male genitalia of my specimens from Saghalien, Hokkaido and Honshu, and compared them with the figures illustrated by Mandl. The outline of penis (median lobe) in this species is rather variable, but any distinctive character for the separation of races has not yet been discovered, except the point that the penis is a little robuster in the specimens from Saghalien. The chitin tooth in the inner sac of penis is also useless for the separation. As to the external characters the examples from Honshu are indeed less robust than that of Saghalien and the median fasciae of the elytra are narrower and more sharply winding usually, but in Hokkaido both forms have been found and there are intermediate forms between them. In the result if we consider the Japanese form as distinct from the typical one from Saghalien, the subspecific name *niohozana* Bates (Trans. Ent. Soc. London, 1883, p. 213) may be valid for the former and the name *anguste-fasciata* Mandl (Arb. morph. taxon. Ent. Berlin-Dahlem, iv, 3, 1937, p. 238) may represent a form from very limited localities. I have now another interesting form of this species and name it here as:

ab. *kisokoma* nov.

In this form three markings on each elytron are completely connected by a longitudinal stripe along the lateral margin at their outer part, the humeral lunule is, of course, entire and the posterior round spot is larger than usual.

1 ♂ Mt. Komagatake, Kiso, Honshu, 4-5. VIII. 1946, S. Osawa leg.

*Cicindela japana* Motschulsky

*Cicindela japana*, Motsch., Etudes Entom., vi, 1857, p. 18, t. 1, f. 2.

The examples of *japana* from Hokkaido are bearing always more or less visible apical lunules at the apex of the elytra and some of the examples from the northern end of Honshu are also bearing them. According to Miwa (1936) *C. gemmata* Faldermann occurs abundantly in Hokkaido and has been often confounded with *C. japana*, but the figure given in his synopsis, as shown the elytral pattern of *C. 'gemmata'*, is corresponding with the pattern of the northern form of *C. japana*.

*Cicindela gemmata* Faldermann (Pl. I, Fig. 3.)

*Cicindela gemmata*, Falderm., Mém. Acad. St. Petersburg, ii, 1835, p. 350, t. 3, f. 1.

In this species there is a similar relationship to *C. sachalinensis*, between the examples from Honshu, Hokkaido and the continent. The specimens from Honshu are less robust than that of northern Korea and the median fasciae of the elytra are more oblique, and the examples from Hokkaido have the same tendency with the former. Accordingly if we prefer to separate the Japanese form from the continental, the name *aino* Lewis (Ent. Monthly Mag., xxvii, 1891, p. 20) will become valid.

*Cicindela chinensis* Degeer (Pl. I, Fig. 8 a.)

*Cicindela chinensis*, Degeer, Mém. Ins., iv, 1774, p. 119, t. 17, f. 23.

Mr. Kaku Sato of the Yokohama Animal and Plant Quarantine Station offered me kindly a small series of examples of *C. chinensis* from Korea and I have compared them with the examples of so-called 'var. *japonica* Thunberg' which are commonly found in Japan.

The apical and basal zone of the pronotum as well as the head are coppery green in *chinensis*, whereas they are violescent blue in *japonica*. The subhumeral white spot is much smaller in the former than in the latter, and the median fascia is conspicuously constricted and sinuate in the middle in *japonica*. Further the penis of *chinensis* is much longer but slenderer and much more thickened at the tip than that of *japonica*. Regarding these differences between two forms I have decided to treat them as separate species.

*Cicindela japonica* Thunberg (Pl. I, Fig. 8 b.)

*Cicindela japonica*, Thunb., Dissert. Ent. Nov. Ins. Spec., i, 1781, p. 25, t. 1, f. 39.

Some of the examples of this species from Yakushima have a small subhumeral spot on each elytron as *chinensis*.

As I have previously reported the species of *chinensis*-group (Groupe VI of Rivalier) are peculiar in having the penis hooked dorsally just before the tip and with a voluminous calotte at the median orifice. The peculiarity may be observed also in the mode of coloration of the body above as well as in 5-dentate labrum. I propose here a new subgeneric name *Sophiodela* nov. for this group of beetles (type: *Cicindela japonica* Thunberg).

*Note*: W. Horn and Miwa included *C. chinensis* and *C. aurulenta* Fabricius (Syst. Eleuth., i, 1801, p. 239) in the same group of '*Cicindela*', but the structure of the inner sac of the penis is quite different in each species. *C. aurulenta* has a *Lophyra*-type inner sac in the penis.

The genus *Apterodela* Rivalier (Pl. I, Fig. 5-7.)

In 1950 Rivalier expressed his view on the classification of the old genus *Cicindela* in the Palaearctic region and tried to divide this genus into several genera, with special reference to the male genitalia, chaetotaxy of labrum and the elytral pattern. Although his grouping proposed may be natural, I have met with a few doubtful cases. At the time he erected the genus *Apterodela* for our species *Cicindela ovipennis* Bates (Trans. Ent. Soc. London, 1883, p. 214) because of its ovate elytra and the absence of hind wings, etc., but according to my investigation a Formosan species *C. shirakii* W. Horn (Wiener Ent. Zeitg., xlv, 1927, p. 41) is very closely related to *C. ovipennis* in the male genitalia as well as in the poorness of hairs on the under surface of the body, though *shirakii* is bearing rather quadrate elytra and well developed hind wings. As regards the male genitalia both species have also a close resemblance to *C. gracilis* Pallas (Reisen Russ. Reichs, ii, Anhang, 1777, p. 28). It has been well-known that the hind wings in Carabidae are often degenerate in some species of certain genera or even in some individuals of one species. Consequently the characteristics of genus *Apterodela* mentioned are not of generic value and the ovate elytra are the result of the apterism.

*Cicindela nivicincta* Chevrolat (Pl. II, Fig. 5-13)

*Cicindela nivicincta*, Chevr., Rev. Zool., viii, 1845, p. 98.

The specimens belonging to *nivicincta*-group from the Pacific coast of Honshu, Japan, are always distinguishable from the typical form in having the lateral whitish stripes of elytra interrupted at the posterior part of the lateral margin and the labrum is more transverse. Here I name this form as

subsp. *yusai* nov. (Pl. II, Fig. 5, 12.)

Holo-and allotype.: 1 ♂ 1 ♀ Johgashima, Misaki, Honshu, 1. VII. 1940, T. Nakane leg. (in coll. Nakane)

subsp. *yodo* nov. (Pl. II, Figs. 6, 7, 10, 13.)

There occurs another form of *nivicincta*-group in the coast of the Seto Inland Sea, and it differs from the typical form in the following points: labrum bearing three teeth as in the typical one, but the toothed part not protruded and the median tooth less prominent than the lateral, elytra shorter and the apical emargination distinctly deeper, especially in the female, the penis of male less stout and the apical appendage much longer.

It seems to be more closely allied to subsp. *inspecularis* W. Horn from Shanghai, but the labrum is tridentate in front, with a obtuse median tooth.

Types: holotype (♂), allotype (♀) and paratypes (10 ex.) River Yodo, near Osaka, 9. VIII. 1941, M. Goto leg. (in coll. Nakane, Goto & Iga); paratypes (2 ♂ 1 ♀) Saeki, Kyushu, VII. 1948, K. Kurosa leg. (in coll. Nakane)

*Cicindela (Hypaetha) anchoralis punctatissima* Schaum

*Cicindela punctatissima*, Schaum, Jour. Ent. ii, 8, 1863, p. 58.

Miwa (1936) erroneously introduced W. Horn as the author of this form and it must be corrected as above.

Note: On other species of the Japanese Cicindelids, see 'Coleoptera of Japan' (Shin Konchu, vi, 2 & 4, 1953).

## CARABIDAE

### Tribe Carabini

I have reported on this group of beetles provisionally in 'Coleoptera of Japan' (Shin Konchu, v, 11 & 12, 1952) and in other papers.

*Euleptocarabus* subgen. nov.

Genotype: *Carabus porrecticollis* Bates, 1883.

In external features this new subgenus resembles closely *Leptocarabus*, but may be distinguished from the latter subgenus by the following characteristics:

1. Elytra very roughly sculptured with distinct granules or aciculate tubercles, primary chain striae of elytra well-marked and interrupted by rather small but distinct impressions, secondary costae narrow but also well developed, tertiary costae rather obsolete, bearing a number of aciculate tubercles.

2. Penis very robust, broad and compressed, with a claw-like sclerite in the inner sac near the median orifice.

In the structure of penis it is related to *Limnocarabus*, but in the latter subgenus the body is much broader, the prothorax strongly transverse and narrowed anteriorly, and the impressions in the primary chain striae are much larger and more conspicuous.

*Carabus (Euleptocarabus) porrecticollis* Bates

*Carabus porrecticollis*, Bates, Trans. Ent. Soc. London, 1883, p. 225.

The southern form of this species is differentiated from the typical (northern) one by the narrower body and the more clearly sculptured elytra and further often bearing an obsolete serration at anterior part of elytral outer margin. The specimens from central Japan, however, represent intermediate forms between them.

*Carabus (Asthenocarabus) harmandi* Lapouge (Pl. II, Fig. 14.)

*Carabus (Leptocarabus) procerulus* var. *harmandi*, Lap., Echange, xxv, 1909, p. 190.

Through the courtesy of Messrs. Y. Kurosawa and S. Uéno I could examine three

specimens of this species. The elytra of the male are much narrower than that of the female.

Specimens examined: 1 ♂ Tobichi, Takabayashi, Nasu, Honshu, 23. VII. 1949, R. Matsumoto leg.; 1 ♂ Nikko, Honshu, 15. VII. 1912, S. Hirayama leg.; 1 ♀ Hasezawa, Oze, Honshu, 7. VIII. 1950, S. Uéno leg.

*Carabus (Leptocarabus) tenuiformis* Bates (Pl. I, Fig. 1; Pl. III, Fig. 15.)

*Carabus tenuiformis*, Bates, Trans. Ent. Soc. London, 1883, p. 226.

This species was originally described from Niohozan and Chiuzenji, Nikko, and Breuning (1932) considered it to be identical with *C. exilis* Bates. (Trans. Ent. Soc. London, 1883, p. 226) from Sado. In my previous paper I have temporarily followed Breuning's opinion, because I have examined only one specimen of this form. At my request Mr. Y. Kurosawa offered me readily several specimens of this form and I could examine their male genitalia. The penis of this form is markedly different from that of *exilis* or other species of *Leptocarabus*, i. e. it is strongly thickened or widened at the middle.

*Procrustes (Megodontus) aino* (Rost) subsp. *kosugei* subsp. nov.  
(Pl. I, Fig. 2; Pl. III, Fig. 16.)

This subspecies is characterized by the primary costae of the elytra interrupted, forming chain striae, and the prothorax and elytra broader. Upper surface of head and pronotum coppery red and elytra coppery green with suture and chain striae reddish. Under surface black with steely tinges. Body length: 24 mm.

Holotype: 1 ♂ Otaru, Hokkaido, 20. VI. 1943, T. Hase leg. (in coll. K. Kosuge). Paratype (1 ♂) from the same locality is preserved in K. Sakaguti's collection.

I have had the opportunity to examine a female example probably belonging to *P. aino* (Rost) (Deutsche Ent. Zeitschr., 1908, p. 32) by the courtesy of Prof. M. Okada of the Hokkaido University (Aizankei, Mt. Daisetsu, Hokkaido, 5, VIII. 1952, M. Inoue leg.). The subspecies here described differs from Okada's specimen of *aino* in having the elytral intervals very strongly seriate-punctate, besides the characters mentioned above.

## SCARITIDAE

### *Dyschirius emdeni* Kult

*Dyschirius Emdeni* Kult, Acta Soc. Ent. Czech., xlv, 3-4, 1949, p. 130.

Mr. Kenzo Kosuge in Fukuchiyama, Kyoto, readily offered me his possession of beetles belonging to *Dyschirius* for my study, and I have found three examples of *D. emdeni* in his material, two of which are labelled as 'Tsingtao, China, 15-25-VI. 1937, Coll. Yoshio Yano' and the other one 'Tonegawa, Musashi (Japan), 18. IV. 1937, Coll. Yoshio Yano'. This species was originally described from East China.

### *Dyschirius batesi* Andrewes

*Dyschirius batesi*, Andr., Ann. Mag. Nat. Hist., 9, xvii, 1926, p. 379.

In the last summer I collected this species at Abashiri, Hokkaido. This is the first record from Hokkaido.

5 ex. Abashiri, 1. VIII. 1954, T. Nakane leg.

### *Dyschirius ovicollis* Putzeys

*Dyschirius ovicollis*, Putzeys, Ann. Soc. Ent. Belg., xvi, 1873, p. 14.

I collected this species at Kayanuma near Kushiro, Hokkaido, together with *D. yezoensis* and *D. glypturus* of Bates (Trans. Ent. Soc. London, 1883, p. 233)

6 ex. Kayanuma, 30. VII. 1954, T. Nakane leg.

## STAPHYLINIDAE

*Lathrobium nomurai* sp. nov. (Pl. III, Fig. 17)

♂. Reddish brown, with eyes, mandibles (except the base) and base of antennal joint 1 to 9 blackish or darker.

Elongate, shining, moderately convex. Head suborbicular, a little broader than prothorax, labrum transverse, broadened to apex and deeply excised in front, eyes very small, anterior border and median longitudinal narrow area impunctate, coarsely but not closely punctured, Antennae with all joints longer than broad, 1st joint long and stout, but constricted at base, 2nd shorter than 3rd, 4th to 10th oval, narrowed at base, gradually decreasing in length, 11th longer than 10th, fusiform, with apex obtusely pointed. Prothorax longer than broad, oblong-oval, widest just before middle, sides slightly rounded in front and behind, disc moderately closely and coarsely punctured, with the median longitudinal line impunctate. Elytra shorter than, and about as wide as, the thorax, as broad as long, somewhat rugosely and moderately closely punctured. Abdomen moderately closely aciculate-punctate, base of each segment alutaceous, sternites more roughly aciculate-punctate than tergites. Head beneath sparsely and rather finely punctured, prosternum nearly impunctate, transversely strigose, with a median longitudinal costa arising from a little behind the front margin to the pointed apex of prosternal process, anterior border irregularly and longitudinally strigose, 6th sternite triangularly emarginate at middle of apical margin. Legs rather stout, profemora thickened, hollowed beneath near apex, protibiae at base also hollowed beneath and bearing 4 or 5 comb-like transverse setae rows in the excavation.

Body length: 14 mm. (abdomen expanded by alcohol impregnation)

Holotype: 1 ♂ Tsuruoka-Do Cave, Saeki, Kyushu, 3. X. 1954, Shigeru Nomura leg. (in coll. Nakane)

This species is quite distinct from other members of the genus *Lathrobium* from Japan in its uniformly reddish coloration and large size of the body.

## SILPHIDAE

*Apteroloma gotoi* sp. nov.

Blackish brown, with labrum, mouth parts, side margins of prothorax and elytra, legs, epipleura, basal half of antennae, extreme borders of suture more or less reddish or testaceous, sometimes the elytra are wholly testaceous or reddish (probably immature).

Oval in shape, shining and rather depressed above. Head of moderate size, distinctly and irregularly punctured, labrum transverse, slightly convex, smooth, deeply emarginate and fringed with hairs in front, with a long hairs on each side before base, clypeus very transverse, subquadrate, smooth, with a pair of long hairs on each side, frons somewhat uneven, finely punctured but smooth on each side of middle in front and at middle between eyes, with a longitudinal impression inside the antennal insertion on both sides, posterior half gently convex and strongly punctured, with a pair of rufous spot (probably the rudiments of ocelli) at the height of posterior margin of eyes. Eyes far apart, prominent laterally, oval in profile. Antennae a half as long as body, filiform, 1st joint not so long, weakly thickened, 2nd short, 3rd longer than 1st,

4th to 7th progressively diminishing their length, 7th somewhat thickened to apex, 8th to 10th pubescent and thickened apically, 11th oblong-oval, also pubescent, with its tip rounded. Terminal joint of maxillary palpi slender, subcylindrical, gently acuminate near apex. Prothorax about twice as broad as the length in middle, anterior margin broadly emarginate, but nearly straight in middle of emargination, sides broadly explanate, strongly but sparsely punctured, with margins regularly arcuate and distinctly sinuate before base, front angles produced anteriorly with the tip rounded, hind ones rectangular, base sublinear, disc slightly convex, not closely and rather finely punctured, but partly smooth in middle, before base with a roundish fovea at middle and a transverse impression near hind corner on each side. Scutellum triangular, impunctate. Elytra broader than pronotum at base, oval, widest behind middle and then acuminate posteriorly, convex, 9-striate, striae regular and well-marked, closely punctate throughout, intervals feebly convex, impunctate, except a few setiferous punctures on sutural, 2nd, 4th and 6th striae, side margins narrowly explanate and feebly and sparsely serrate, except the apical portion. Body beneath alutaceous, sparsely pubescent, epipleura of elytra coarsely punctured anteriorly on inner half, mesepisternum and metasternum finely punctulate, abdomen 6-segmented, finely and transversely aciculate-punctate. Legs rather slender, femora feebly thickened and finely punctured and pubescent, tibiae slender, nearly straight, with fine but long setae and pubescence, tarsal joints not dilated except male protarsi a little thickened, 1 or 2 penultimate joints feebly lamellate beneath.

Body length: ca. 6 mm.

Types: holotype (♂), allotype (♀) and 4 paratypes, Shimashima, Shinano, Honshu, 20-21. VII. 1942, M. Goto leg.; 3 paratypes, Kamikochi, Shinano, 1 ex. 20. VI. 1951. T. Nakane, leg., 1 ex. 7-11. VIII. 1950, S. Tabuchi leg., 1 ex. 25. VII. 1951. H. Ishida leg.: 1 paratype, Yumoto, Nikko, 25. V. 1936, S. Asahina leg. (in coll. Nakane)

The present new species is closely related to *Apteroloma calathoides* (Portevin) (Bull. Mus. Hist. Nat, Paris, 1905, p. 421), but may be easily distinguished from the latter in the following points: body usually blackish, at least partly fuscous; hind angles of prothorax not obtuse but rectangular or rather acute.

*Apteroloma rufovittatum* sp. nov.

Body blackish brown, with 2 basal and 1 apical joints of antennae, lateral margins of pronotum, mouth-parts, palpi, tarsi and parts of underside more or less reddish or testaceous. Elytra with outer explanate borders, posterior half of sutural intervals, humeral prominences and 4th intervals (except the apical inclined part) bright reddish or yellowish testaceous.

Head rather small, scarcely longer than broad, above rather depressed, labrum rather large, transverse, bearing a few long hairs in front, clypeus also glabrous and transverse, frontal suture finely impressed and foveate on both sides, frons sparingly and irregularly scattered with punctures; with a small impression at middle between eyes and with a pair of rufous rudiment of ocelli at the height of posterior margin of eyes. Eyes hemispherical, rather small but prominent laterally, far apart. Neck a little constricted and glabrous. Antennae slender, filiform, 1st joint moderate, slightly thickened, 2nd shorter than 1st, 3rd and 4th subequal, longer than 1st, 5th and 6th a little shorter than 4th, 7th subequal to 4th, 8th to 11th slightly thickened and pubescent, 8th subequal to 5th in length, 9th shorter than 8th, 10th still shorter, 11th subequal to 10th and oblong-oval, with the apex acuminate. Maxillary palpi slender, 1st visible joint rather long, slightly curved, a half longer than 2nd, 3rd very slender, cylindrical, with the apex obtusely pointed. Terminal joint of labial palpi fusiform. Prothorax transverse, nearly twice as broad as long, subcordate, widest just before middle, anterior margin feebly bisinuate, sides explanate and reflexed with their margin rounded in anterior half and convergent to base poste-

riorly, hind angles distinct, subrectangular, but somewhat obtuse, base sublinear but very slightly sinuous, disc gently convex, nearly glabrous, but with an oblong impression in middle and with a few strong punctures irregularly set in the impressions and on anterior area, before base with a deep roundish or subquadrate impression at middle and a smaller one on each side near hind angle, lateral grooves bearing a sparse row of coarse punctures on anterior half. Scutellum triangular, smooth and impunctate. Elytra very broadly oval, more than twice as broad as prothorax, convex strongly behind middle, shoulders broadly rounded and indistinct, sides broadly explanate with their margin feebly but distinctly serrate (except the apex), disc regularly 9-striate, the punctures in the striae closely set and rather strong, and much larger near apex and sides than that of dorsum, intervals slightly convex and glabrous, with a few setiferous punctures on sutural, 2nd and 4th intervals. Underside: prosternum alutaceous, propleura broad and impunctate, mesosternum rugose and shagreened, sparsely bearing hairs, mesopleura alutaceous, metasternum finely punctured and shagreened at sides, feebly alutaceous and sparingly pubescent in middle, epipleura broad anteriorly and gently narrowing posteriorly, very coarsely and irregularly punctured on inner half, metapleura narrow, with a few distinct punctures in a series, abdomen with 6 (♀) or 7 (♂) visible segment, alutaceous, bearing a transverse row of fine setiferous punctures on each sternite along apical border, 7th of male divided into two lobes and small. Legs slender, femora a little thickened, with sparse rather long hairs, tibiae very slender, nearly straight, with 2 apical spurs, tarsi also slender, 1 or 2 penultimate joints feebly lamellate beneath and basal joints of male protarsi slightly dilated.

Body length: 6-6.5 mm.

Holotype: 1 ♂ Kamikochi, Shinano, Honshu, 20. VI. 1951, T. Nakane leg. (in coll. Nakane); allotype: 1 ♀ Yunohana, Aizu, Honshu, 21. VII. 1947, Y. Kurosawa leg. (in coll. Nat. Sci. Mus., Tokyo); paratype: 1 ♀ Omogo, Iyo, Shikoku, 20. V. 1952, S. Hisamatsu leg. (in coll. Ent. Lab., Matsuyama Agr. College)

This species is very peculiar in shape, especially in the broad elytra, and I cannot find any allied species. The pattern of the elytra is also very remarkable.

## SCARABAEIDAE

### *Ohkubous ferrieri* (Nonfried) (Pl. III, Fig. 18.)

*Parastasia Ferrieri*, Nonfr., Berliner Ent. Zeitschr., x1, 3, 1895, p. 289.

Above black, with pronotum (except margins and outside the lateral foveae infuscate) and a patch on each elytron clear reddish brown. Elytral patch situated a little before middle, broadly obcordate in outline with its anterior margin produced at middle and the posterior emarginate.

Body oval, smooth and shining, compact and very convex, not closely clothed with tawny hairs, which are sparse on median area of pronotum and on elytra. Head shallowly and rugosely but coarsely and densely punctured, clypeus quadrate, twice as broad as long, parallel-sided, with two rather obtuse but distinct reflexed teeth at front margin and a slighter one at each side angle, eyes large, far apart, very deeply and narrowly incised at middle of front margin, vertex with an obtuse arcuate smooth carina just in front of base. Pronotum rather sparingly punctured, and the punctures fine in middle and coarser and ocellate at sides, frontal margin broadly emarginate, distinctly and rather broadly bordered, with a tubercle at middle, side margins narrowly furrowed, anterior half of disc broadly depressed in middle, base slightly arcuate-produced, obtusely emarginate on both sides. Scutellum broadly triangular, with side margins gently rounded, finely and not closely punctured. Elytra bearing feebly impressed striae, and the punc-



tures in the striae shallowly ocellate and somewhat irregular, intervals very feebly convex, with scattered fine punctures, and some of them with several ocellate punctures irregularly and partly subseriately set. Pygidium rugose basally and laterally, and bearing shallow punctures on disc. Hind body beneath roughly rugose, except median part of metasternum and apical margin of each abdominal sternite. Outer claw of middle and hind legs deeply cleft, front tibia bearing two sharp outer teeth at and near apex, outer margin of four hinder tibiae roughly serrate, terminating in a sharp process.

Body length: 13-13.5 mm.

Specimens examined: 2 ♂ Amami-Oshima, Loochoo, without exact date. (in coll. National Science Museum, Tokyo)

H. Sawada (1950) mentioned that his *Ohkubous quadridentatus* and *Parastasia formosana* Ohaus (Arch. f. Naturg., xci, 1925, A, 5, p. 122, f. 1) may be identical with this species, and synonymized the two with the latter. His treatment is, however, obviously incorrect and at least *O. ferrieri* is not identical with other two, which are unicolorous above and smaller in size. In the male genitalia the parameres of *O. ferrieri* are longer than that of *O. formosana* or *O. quadridentatus*.

#### *Onthophagus ohbayashii* Nomura

*Onthophagus ohbayashii*, Nomura, Nippon no Kochu, iii, 1, 1939, p. 35, f.

This very interesting species was described at first from Onomichi, Bizen, Honshu, and then plentifully collected at Nara, Yamato, Honshu. After the war Mr. K. Shirahata in Sakata kindly gave me two male specimens of this species from South China, collected by himself (Shaoyang, Hunan, China. IV. 1945).

#### *Onthophagus solivagus* Harold

*Onthophagus solivagus*, Harold, Deutsche Ent. Zeitschr. xxx, 2, 1886, p. 290.

This is also a remarkable species in having prolonged male protibiae as the preceding, and has hitherto been known from Amur and Korea. I received quite recently a few examples of this species from Mr. H. Torigai, who collected them at Nitsuya near Takayama, Hida, Honshu.

#### Genus *Caelius* Lewis (Pl. I, Fig. 11.)

*Caelius*, Lewis, Ann. Mag. Nat. Hist., 6, xvi, 1895, p. 381.

As already pointed out by S. Nomura the present genus is not of the subfamily Aphodiinae and probably belonging to Aegialiinae (or Aegialiini). Balthasar (1952) claimed that the genus *Caelius* is actually Aphodiine and that our *Mozartius* Nomura et Nakane should be included in *Caelius*, but I cannot understand his opinion on this problem. *Mozartius* is, I think, a valid genus belonging to Aphodiinae.

Landin (1949) erected a new subfamily of Laparostict Lamellicornia, Silluviinae, for a new genus *Silluvia* (Ark. Zool. n. s. i, 2, 1949, p. 3; type: *elongata* Landin from Burma). Reading his description I found that his genus may perhaps be identical with *Caelius*. I have compared our *Caelius denticollis* Lewis (Ann. Mag. Nat. Hist., 6, xvi, 1895, p. 382, f. 5; genotype!) with the figures of *Silluvia elongata* given by Landin and could not find any remarkable difference between them.

#### *Aegialia (Dimalia) kamtschatika* Motschulsky (P. I, Fig. 9.)

*Aegialia kamtschatica*, Motsch., Schrenck's Reisen Amurl., ii, 1860, p. 132, t. 9, f. 3.

*Psammodyus comis*, Lewis, Ann. Mag. Nat. Hist., 6, xvi, 1895, p. 384. (n. syn.)

*Aphodius (Orodalus) pusillus*, Kono (nec Herbst), Ins. Matsum., (n. syn.)

*A. kamtschatica* has been known from Kamtschatka and Dauria, and *P. comis* from Honshu, Japan. Dr. H. Kôno reported *A. pusillus* from Kurile Is. I could examine recently

the following examples from Honshu, Hokkaido, Saghalien and Kurile Is. and confirm the synonymy cited above.

Saghalien: 1 ex. Shisuka, 8. VIII. 1914, Adachi & Isshiki leg.

Kurile Is.: 2 ex. Etorofu, Rubetsu, 2-10. VII. 1935, Y. Sugihara leg.

Hokkaido: 7 ex. Horomi Pass, Tokachi, 26. VII. 1954, T. Nakane leg.; 1 ex. Sounkyo, 31. VII. 1950, T. Shibanaï leg.

Honshu: 7 ex. Kamikochi, Shinano, 2. VI. 1951, T. Nakane leg.

*Aegialia (Dimalia) hybrida* Reitter (Pl. I, Fig. 10)

*Aegialia (Dimalia) hybrida*, Reitt., Verh. Naturf. Ver. Brünn, xxx, 1892, p. 251.

This East Siberian species also occurs in Hokkaido. I have examined following specimens:

6 ex. Sapporo, 9. V. 1910, S. Matsumura leg. (in coll. Ent. Lab., Hokkaido Univ.);

2 ex. Kotonî near Sapporo, 17. V. 1951, Y. Nishio leg.; 8 ex. Horomi Pass, Tokachi, 26. VII. 1954, T. Nakane leg.; 5 ex. Abashiri, 1. VIII. 1954, T. Nakane leg.; 2 ex. Bankei near Sapporo, 13. VI. 1954, K. Homma leg.

*Aphodius (Acrossus) unifasciatus* Nomura et Nakane subsp. *hayashii* subsp. nov.

The present new subspecies differs from the typical form in the point that the colour of the elytra is blackish principally and the humeral patches (occupying the area between 4th stria and outer margin), apical part and the sides are yellowish.

Holotype: 1 ♀ Sagami Oyama, Honshu, Japan, 26. IV. 1949, N. Hayashi leg. (collected from *Fomes pinicola*!) (in coll. Nakane)

*Psammobius ainu* Lewis

*Psammobius ainu*, Lewis, Ann. Mag. Nat. Hist., 6, xvi, 1895, p. 384.

It was described from Hokkaido and up to the present time no further record has been given. Some time ago Mr. Masuhisa Tsukamoto gave me kindly several examples of this species from Kanazawa, Kaga, Honshu (9. V. 1948, M. Tsukamoto leg.), and Mr. Y. Kurosawa sent me an example from Aizu-Wakamatsu.

*Rhyssemus samurai* Balthasar

*Rhyssemus samurai*, Balth., Ent. Blätt., xxxvii, 2, 1941, p. 92.

*Rhyssemus tuberculatus*, Nomura et Nakane, Kontyu, xix, 2, 1951, p. 45, f. (n. syn.)

Dr. V. Balthasar presented me readily a lot of reprints of his works, and I could confirm the synonymy of two forms cited above. The two were described from the same locality (Tokyo!). Balthasar's paper on this species was unknown to us at the time of preparation of our manuscript, owing to the interruption of mutual communication during the war.

## MELYRIDAE

*Laius kishiii* sp. nov. (Pl. I, Fig. 14; Pl. III, Fig. 19.)

♂. Black and shining, with basal 3 joints of antennae, palpi testaceous, and abdomen reddish brown or dark brown with lateral and apical margins of each sternite reddish. Elytra nigro-caeruleous, with a broad orange red fascia just before middle, which widened at suture and on lateral margins. Body above bearing suberect pallid hairs and sparsely long erect hairs.

Moderately elongate, gently convex and shining above. Head rather narrowly protruded anteriorly, with a deep longitudinal sulcus in middle, extending from base to apex,

minutely and not so closely punctured. Eyes rather large, oval, moderately prominent. Antennae: 1st joint long, strongly dilated to apex, compressed laterally and gently curved, 2nd very short, 3rd extraordinarily dilated, rounded subtrapezoidal and somewhat ear-shaped, deeply, broadly and obliquely hollowed in basal half from basal inner edge to centre, inner edge thickened and bearing an elongate appendage at base of excavation, 4th to 10th subequal, distinctly longer than broad but less than twice as long, 4th to 6th a little more thickened than the rest, 11th elongate, distinctly longer than the preceding. Terminal joint of maxillary palpi cupuliform, with apex broadly and somewhat obliquely truncate. Prothorax nearly as broad as long, longitudinally convex, sides thickly cribrate-punctate behind and finely and moderately closely punctured in front, broadly and longitudinally smooth in middle where minutely and sparsely punctured, with a broad deep transverse groove before base, front margin gently arcuate-produced, side margins subparallel in anterior third, then strongly constricted posteriorly and again subparallel before base, which is subtruncate and finely but distinctly margined. Elytra oblong-ovate, slightly broadened posteriorly and together broadly rounded at apex, rather coarsely and closely punctured in middle, finely and sparsely so at base and before apex. Thorax beneath densely but finely punctured, but metasternum minutely and not closely so except sides. Punctures on abdomen also fine, but not so closely set. Legs rather slender, protibiae simple.

♀. unknown.

Body length: 3—4 mm.

Types: holotype (♂) & paratypes (30 ♂), Hozukyo, Kyoto, Honshu, Japan, 24 & 30. VI. 1953, T. Kishii leg. (Holotype in coll. Nakane, paratypes in coll. Nakane, Kishii and Wittmer)

The 3rd antennal joint of male of this species somewhat resembles that of *L. sinensis* Pic (Echange, xxvi, 1910, p. 87), but the elytral fascia is not interrupted and the body above is shining.

### Record of Melyridae from the Island of Tsushima

Some time ago Prof. T. Shirozu of the Kyushu University kindly offered me several examples of Melyrids from Tsushima, north of Kyushu, for my study. The specimens are all labelled 'Tsushima: Hitakatsu-Nishidomari-Gongenyama, 12. IV. 1941, T. Shirozu leg.' and including following 4 species.

*Hypebaeus oblongulus* Kiesenwetter (Berliner Ent. Zeitschr., xviii, 1874, p. 287) 4 ♂.

It was originally reported from 'Japonia' without exact locality, and I have examined 5 specimens from Shikoku and Kyushu. (1 ♂ 2 ♀ Sata, Ohsumi, Kyushu, 27 & 30. V. 1952, H. Hasegawa & T. Nakane leg.; 1 ♂ Omogo, Iyo, Shikoku, 20. V. 1952, S. Hisamatsu leg.; 1 ♀ Matsuyama, Iyo, Shikoku, 1. V. 1949, T. Yano leg. (No. 85).

*Attalus elongatulus* Lewis (Ann. Mag. Nat. Hist. 6, xvi, 1895, p. 117) 4 ♀.

*Attalus japonicus* Kiesenwetter (Berliner Ent. Zeitschr., xviii, 1874, p. 286) subsp. nov.? 1 ♀.

The unique example differs from other specimens from Japan in the impression of its pygidium.

*Malachius eximius* Lewis (Ann. Mag. Nat. Hist., 6, xvi, 1895, p. 117) 4 ♂.

### LYCIDAE

*Mesolycus atrorufus* (Kiesenwetter)

*Eros atrorufus*, Kiesw., Deutsche Ent. Zeitschr., xxiii, 2, 1879, p. 305.

var. *mediozonatus* nov.

This new variety is separated from the typical form in having a broad blackish fascia or zone behind the middle of elytra (with its anterior margin situated before the middle and the posterior near the apex).

1 ♀ Mt. Tsurugi, Awa, Shikoku, 28. VII. 1953, Masao Hirai leg.

**EROTYLIDAE***Megalodacne lewisi* Nakane

*Megalodacne lewisi*, Nak., Entom. Rev. Japan, v, 1, 1950, p. 12, f. 3.

This species was originally reported from Amami-Oshima, Loochoo, and I collected 2 examples of this in Nakano-shima, Tokara Is. (6. VI. 1953). The examples from Tokara are somewhat different from that of Amami-Oshima in the punctuation of head and pronotum a little more strong.

subsp. *hayashii* subsp. nov.

This new subspecies is very closely allied to the typical form, but differs from the latter in the following points:

1. Head and pronotum much more strongly punctured,
2. Eyes more rounded laterally,
3. Antennal joints robuster and the 4th joint hardly longer than, or as long as, broad,
4. Anterior fascia of elytra narrower and hind dentations on 2nd and 4th interval much strongly protruded backwards,
5. Posterior fascia of elytra produced forwards along suture and 4th interval,
6. Punctures on elytral intervals fine but a little more strongly impressed than that of the typical form, and microsculpture of body more distinct.

Types: holotype (♂) and allotype (♀), Maruyama, Sapporo, Hokkaido, 17. V. 1951, Nodoka Hayashi leg. (in coll. Nakane & Hayashi); paratype 1 ex. Maruyama, Sapporo, 19. VII. 1950, M. Okada leg. (in coll. Okada)

I am much indebted to Prof. M. Okada and Mr. N. Hayashi for their kind help.

**TETRATOMIDAE***Tetratoma sakagutii* sp. nov. (Pl. I, Figs. 12, 13.)

Body above blackish brown, shining, head and pronotum with greenish, and elytra with greenish blue, tinges (in the paratype head and prothorax greenish blue, and elytra violaceous), labrum, clypeus in front, basal joints of antennae, palpi, mouth-organs and body beneath more or less reddish.

Oblong, subparallel-sided, convex. Head gently convex, strongly but not closely and unevenly punctured, frontal suture linear, deeply impressed, clypeus flattened and truncate in front, labrum rather small, transverse, finely punctured and hairy. Eyes large, emarginate behind the antennal insertions. Antennae rather robust, 1st joint stout, subovate, 2nd distinctly shorter and narrower than 1st, 3rd longer than 2nd, 4th subequal to 2nd, 5th and 6th shorter and transverse, apical 4 joints large, opaque and thickly covered with pubescence, forming an elongate laxly-articulated club, 8th to 10th scarcely longer than broad, terminal oblong but shorter than 2 precedings combined. Maxillary palpi rather short, 1st joint constricted at base, dilated to apex, 2nd short but broad, 3rd subovate, with its apex obliquely truncate. Pronotum very transverse, fully twice as

broad as long, convex, widest just behind middle and narrowed towards base as well as apex, sides reflexed and narrowly margined, front margin very feebly arcuate-produced with front angles rounded, basal margin somewhat sinuous on both sides and a little produced and subtruncate before the scutellum, sulcate along the margin, with an impression at middle and an impression on each side before sulcus, disc punctured as head. Scutellum transverse, pentagonal, subparallel-sided but obtusely angulate-produced apically, finely punctured. Elytra oblong, twice as long as broad, parallel and together rounded apically, a little more coarsely and closely punctured, with traces of 3 costae, which are abbreviated at base and before apex. Body beneath not closely clothed with yellowish fine recumbent hairs; prosternum rather finely and sparsely punctured, very transverse, propleura sparsely punctured, mesosternum roughly and rugosely punctured in middle, not closely so at sides, as well as in mesopleura, metapleura large, rather finely and sparsely punctured in middle, roughly so at sides, except before apical margin, with an impressed punctate line along apical margin on both sides, metapleura distinctly and more closely punctured, abdomen rather finely but distinctly punctured, last sternite simple in female, with a broad transverse impression in middle in male. Legs normal, femora finely and not closely punctured and pubescent, tibiae thickly punctured and pubescent.

Body length: 5—6 mm.

Holotype: 1 ♂ Kyoto (Mt. Daimonji), Honshu, Japan, 6. XI. 1944, K. Sakaguti leg. (under bark of beech); allotype: 1 ♀ Kuwanohara, Mishima, Osaka, Honshu, 16. XI. 1954, Y. H. Kôno leg. (in coll. Nakane); paratype: 1 ♀ Mt. Amagi, Izu, Honshu, Japan, 5. I. 1940, K. Sakaguti leg. (in coll. Sakaguti)

It appears to be related to *T. desmaresti* Latreille (Gen. Crust. Ins. ii, 1807, p. 180) from Europe, but the body much larger and nearly glabrous above.

*Tetratoma nobuchii* sp. nov.

*Tetratoma* sp., Nakane, Shin Konchû, vii, 13, 1954, p. 41, f.

Black and shining, with prothorax clear orange yellow, and mouth parts, legs and abdomen or under side wholly more or less reddish or brownish.

Oblong-oval in shape, convex and sparsely bearing short hairs above. Head gently convex, strongly but not so closely punctured, the punctures fine on clypeus and labrum, frontal suture deeply impressed, transverse and sublinear at middle and extending obliquely to the inside of eyes on both sides, clypeus slightly convex, truncate and delicately margined in front, labrum transverse, eyes rather large, emarginate in front, prominent laterally, vertex with a feeble impression at middle. Antennae robust, 1st joint short but stout, subovate, 2nd smaller than 1st, obconic, 3rd longer than 2nd but shorter than 1st, 4th and 5th shorter than 2nd and a little transverse, 6th and 7th still shorter but a little broader, 8th to 11th strongly thickened, forming a loosely articulated, pubescent club, 8th and 9th nearly as long as broad, 10th rather transverse, and 11th subovate, acuminate apically and obtusely rounded at the tip. Prothorax very transverse, more than twice as broad as long (about two and a half times as broad as long), moderately convex, widest behind middle, anterior margin sublinear and very narrowly margined, lateral ones bordered and reflexed, rounded but weakly sinuate-emarginate just before middle, front angles rounded together with anterior part of lateral margins, hind ones obtuse, base bisinuate and the plainly produced median lobe feebly emarginate at middle, disc strongly but not closely punctured, with a roundish impression on each side a little behind the middle and with a short longitudinal sulcus on each side of basal border. Scutellum subpentagonal, transverse, sparsely and rather finely punctured. Elytra about twice as long as broad, oval and widest behind middle, rounded acuminate posteriorly, very convex, strongly and not closely and confusedly punctured. Under surface: thorax strongly punctured and somewhat sparsely on prothorax and finely and sparsely in middle of

metathorax, abdomen rather closely and distinctly punctured, with greyish hairs not closely set. Maxillary palpi short but rather stout, with 2nd joint transverse and terminal one oval and acuminate at apex.

Body length: 4.5—5 mm.

Holotype: 1 ♂ Mt. Kongo, Nara, Honshu, Japan, 23. XI. 1941, K. Sakaguti leg.; allotype: 1 ♀ Kibune, Kyoto, Honshu, Japan, 9. IV. 1950, A. Nobuchi leg. (in coll. Nakane)

This new species is somewhat allied to *T. fungorum* Fabricius (Skrivt. Naturh. Selsk., i, 1790, p. 217), but the body is broader and the elytra are black, without cyaneous tinges.

## MORDELLIDAE

### *Pentaria ohkurai* sp. nov.

Reddish testaceous, with eyes black, sometimes head, and metasternum, metepisterna and abdomen partly darker in colour.

Elongate, moderately convex above, thoroughly covered with fulvous adpressed pubescence. Head convex, circular in outline with eyes, finely transversely strigose in front, concentrically so behind, front margin of clypeus truncate, labrum transverse, a little narrowed anteriorly. Eyes large and oval, emarginate in front. Antennae short and rather stout, scarcely reaching base of pronotum, 1st joint not long, less than a half as long again as broad, 2nd scarcely as long as 1st, 3rd shorter and narrower than 2nd, 4th again shorter but wider, nearly as broad as long, 5th longer and wider than 4th, transverse, 6th a little longer than 5th, 7th to 10th distinctly broader, submoniliform, 11th oval, a half longer than 10th. Terminal joint of maxillary palpi securiform, very obliquely cut off at apex, with its apical margin distinctly longer than inner margin. Prothorax a half broader than long, widest at base, markedly narrowed forwards, sides together with front margin arcuate, surface finely and closely strigose transversely, base feebly bisinuate. Scutellum rather small, broadly triangular, obtusely angulate at apex. Elytra similarly sculptured to prothorax, as broad as prothorax at base, widest before middle, sides slightly arched, together twice and a half as long as broad, with each apex bluntly rounded. Epipleura narrow, gradually narrowing posteriorly, reaching 4th abdominal sternite. Sculpture of under surface similar to that of upper side, but less distinct in abdomen, 6th abdominal sternite distinct, but short and small. Legs rather slender, hind tibiae longer than 2 basal tarsal joints combined, but a little shorter than 3 combined, with apex obliquely cut, terminal spurs subequal, about one-third as long as 1st tarsal joint, 4 hinder tibiae bearing irregular row or rows of brownish setae along upper edge.

Body length: 2.5—3 mm.

Holotype: 1 ex. (♀?) Tado, Kitayamakyō, Kii, Honshu, 30. VII. 1951, M. Ohkura leg. (in coll. Osaka Munic. Mus. Nat. Hist.); paratypes: 3 ex. Mt. Koya, Kii, Honshu, VII. 1949, M. Hayashi leg.; 2 ex. Mt. Ohdai, Kii, Honshu, 21, 22. VII. 1953, T. Nakane leg. (in coll. Nakane); 1 ex. Matsuyama, Iyo, Shikoku, 8. VII. 1949, T. Yano leg. (in coll. Yano).

The present new species differs from *P. elongata* (Kôno) in having the antennae being concolorous and the short 3rd joint.

### *Pentaria elongata* (Kôno)

*Anthobates elongata*, Kôno, Ins. Matsum., iii, 2, 1929, p. 84.

Through the kindness of Mr. K. Shirahata I have examined 3 specimens, belonging to *Pentaria* (s. l.), collected by himself at Kanayama Pass, Yamagata Pref., Honshu. They agree fairly well with the description of Dr. Kôno. If my determination is correct, how-

ever, Kono's species may not be a typical *Pentaria*, because the hind tibiae of the specimens examined bears irregular longitudinal rows of blackish setae along the outer margin, as in *Striganaspis* Ermisch, which is based upon certain African species.

## CHRYSOMELIDAE

### *Haltica fragariae* sp. nov. (Pl. III, Fig. 20)

Body black with a metallic blue or greenish blue lustre, shining, antennae and tarsi lacking metallic tinges, and sometimes pronotum being less metallic.

Head with median carina well-marked, frontal tubercles transverse, subquadrate and the hind border obsoletely indicated with a transverse sulcus behind it, vertex impunctate. Antennae: 1st joint slightly curved and thickened to apex, 2nd much shorter than 1st, 3rd shorter than 1st, but longer than 2nd, 4th and 5th subequal and a little longer than 3rd. Prothorax transverse, nearly twice as broad as long, antebasal transverse sulcus linear, not sinuate on its whole length, disc impunctate, widest before middle, gently rounded anteriorly and very slightly converging posteriorly, with four angles obtuse. Scutellum impunctate. Elytra distinctly but not coarsely and closely punctured, shining, the interspace scattered with very minute punctures and irregularly and feebly reticulate, the reticulation often invisible partly. Body beneath rather sparsely bearing greyish white pubescence, and abdomen finely punctured not closely and pubescent. Legs also bearing greyish white pubescence.

Body length: 3.5—4 mm.

Types: holotype (♂), allotype (♀) and 1 paratype (♂), Zentsuji, Sanuki, Shikoku, 2. I. 1950, T. Kobayashi leg.; 2 paratypes (♂), Tokushima, Awa, Shikoku, 20. IV. 1954, T. Kobayashi leg. (in coll. Nakane)

This species is very closely related to *H. coerulescens* and *H. viridicyanea* of Baly (Trans. Ent. Soc. London, 1874, p. 190 & 191), but may be distinguished by the following characteristics: frontal tubercles of head not oblique or triangular, but transverse and subquadrate, and their hind margin ill-defined with a sulcus behind it; microsculpture of elytra very feebly impressed, not distinctly shagreened as in *viridicyanea*, not entirely absent as in *coerulescens*; antebasal sulcus of pronotum straight on its whole length.

### *Linnaeidea aenea* (Linné)

*Chrysomela aenea*, Linné, Syst. Nat. ed. x, 1758, p. 369.

This widely distributed species occurs also in Japan and is including two following forms, besides the typical.

#### subsp. *insularis* (Chûjô) comb. nov.

*Chrysomela adamsi insularis*, Chûjô, Kontyû, xiv, 2, 1940, p. 78.

It was described from Shikoku as a form of *C. adamsi* (Baly) from Manchuria and resembles the latter species in coloration, but surely belongs to *L. aenea* in general features.

#### subsp. *tsutsuii* subsp. nov.

The present subspecies may be at once distinguishable from the typical in having clear reddish legs and not infusate basal joints of antennae. It may be also separated from the preceding form by the coloration of pronotum (metallic green, not reddish brown).

Types: 4 ex. Mt. Ohdai, Honshu, 21. VII. 1953, T. Nakane leg.; 10 ex. Kitayama-kyo, VI. 1951, O. Sato leg.

It seems to be confined to Kii Peninsula only.

## ANTHRIBIDAE

*Caccorhinus oculatus* Sharp

*Caccorhinus oculatus*, Sharp, Trans. Ent. Soc. London, 1891, p. 321.

In this species there is an entirely black variety and it is rather commonly found in Tokyo together with the typical form. It may be called:

var. *niger* Nakane et Uno, nov.

Specimens examined: 5 ex. Tokyo, Honshu, 5. VII. 1949, T. Nakane leg.; 1 ex. Tokyo, 2. VII. 1939, S. Asahina leg.

## EXPLANATION OF PLATES.

## Plate I

- Fig. 1. *Carabus* (*Leptocarabus*) *tenuiformis* Bates ♂.
- Fig. 2. *Procrustes* (*Megodontus*) *aino kosugei* subsp. nov. ♂.
- Fig. 3. *Cicindela gemmata* Faldermann, male genitalia in profile.  
a. from Honshu, b. from Hokkaido, c. from N. Korea.
- Fig. 4. *Cicindela sachalinensis* Morawitz, male genitalia.  
a. from Saghalien, b. from Honshu.
- Fig. 5. a. *Cicindela ovipennis* Bates, male genitalia.  
b. *Cicindela shirakii* W. Horn, male genitalia.
- Fig. 6. *Cicindela ovipennis* Bates, inner sac of penis dissected and mounted.
- Fig. 7. *Cicindela shirakii* W. Horn, ditto.
- Fig. 8. a. *Cicindela chinensis* Degeer from Korea, male genitalia.  
b. *Cicindela japonica* Thunberg from Kyushu, male genitalia.
- Fig. 9. *Aegialia* (*Dimalia*) *kamtschatica* Motschulsky.
- Fig. 10. *Aegialia* (*Dimalia*) *hybrida* Reitter.
- Fig. 11. *Caelius denticollis* Lewis.
- Fig. 12. *Tetratoma sakagutii* sp. nov. ♂.
- Fig. 13. *Tetratoma sakagutii* sp. nov. ♀.
- Fig. 14. *Laius kishiii* sp. nov. ♂.

## Plate II and III

- Fig. 1. *Therates alboobliquatus* W. Horn, labrum.
- Fig. 2. *Therates alboobliquatus yakushimanus* ab. *koyamai* nov., labrum.
- Fig. 3. *Therates alboobliquatus* W. Horn, apex of right elytron.
- Fig. 4. *Therates alboobliquatus yakushimanus* subsp. nov., ditto.
- Fig. 5. *Cicindela nivicineta yuasai* subsp. nov., right elytron.
- Fig. 6. *Cicindela nivicineta yodo* subsp. nov. ♂, right elytron.
- Fig. 7. *Cicindela nivicineta yodo* subsp. nov. ♀, apex of right elytron.
- Fig. 8. *Cicindela nivicineta* Chevrolat from Loochoo, ♀, ditto.
- Fig. 9. *Cicindela nivicineta* Chevrolat from Loochoo, ♂, ditto.
- Fig. 10. *Cicindela nivicineta yodo* subsp. nov., labrum.
- Fig. 11. *Cicindela nivicineta* Chevrolat, ditto.
- Fig. 12. *Cicindela nivicineta yuasai* subsp. nov., penis. in profile.
- Fig. 13. *Cicindela nivicineta yodo* subsp. nov., ditto.
- Fig. 14. *Carabus* (*Asthenocarabus*) *harmandi* Lapouge, male genitalia.  
a. dorsal view, b. c. lateral view.
- Fig. 15. *Carabus* (*Leptocarabus*) *tenuiformis* Bates, male genitalia.  
a. dorsal view, b. c. lateral view.



- Fig. 16. *Procrustes* (*Megodontus*) *aino kosugei* subsp. nov., male genitalia.  
a. dorsal view, b, c. lateral view.
- Fig. 17. *Lathrobium nomurai* sp. nov., anal part in ventral view.
- Fig. 18. *Ohkubous ferrieri* Nonfried, male genitalia.  
a. lateral view, b. dorsal view.
- Fig. 19. *Laius kishiii* sp. nov. ♂, antenna (right).
- Fig. 20. *Haltica fragariae* sp. nov., penis.  
a. dorsal view, b. ventral view.

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1 2 9 10 11

3 a b c 4 a b 12

5 a b

6 a b

7 a b

8 a b

13 14

Plate I.

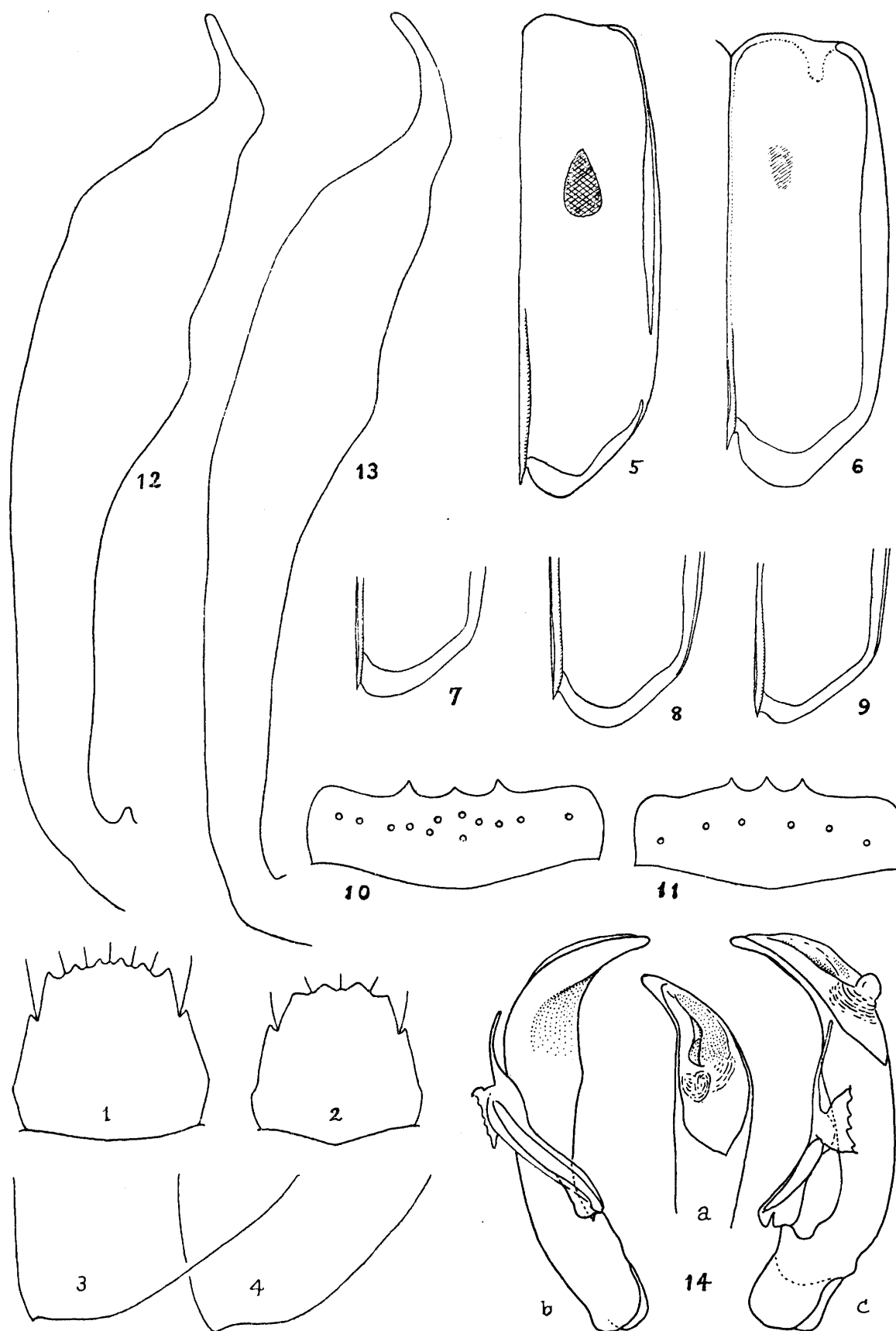


Plate II.

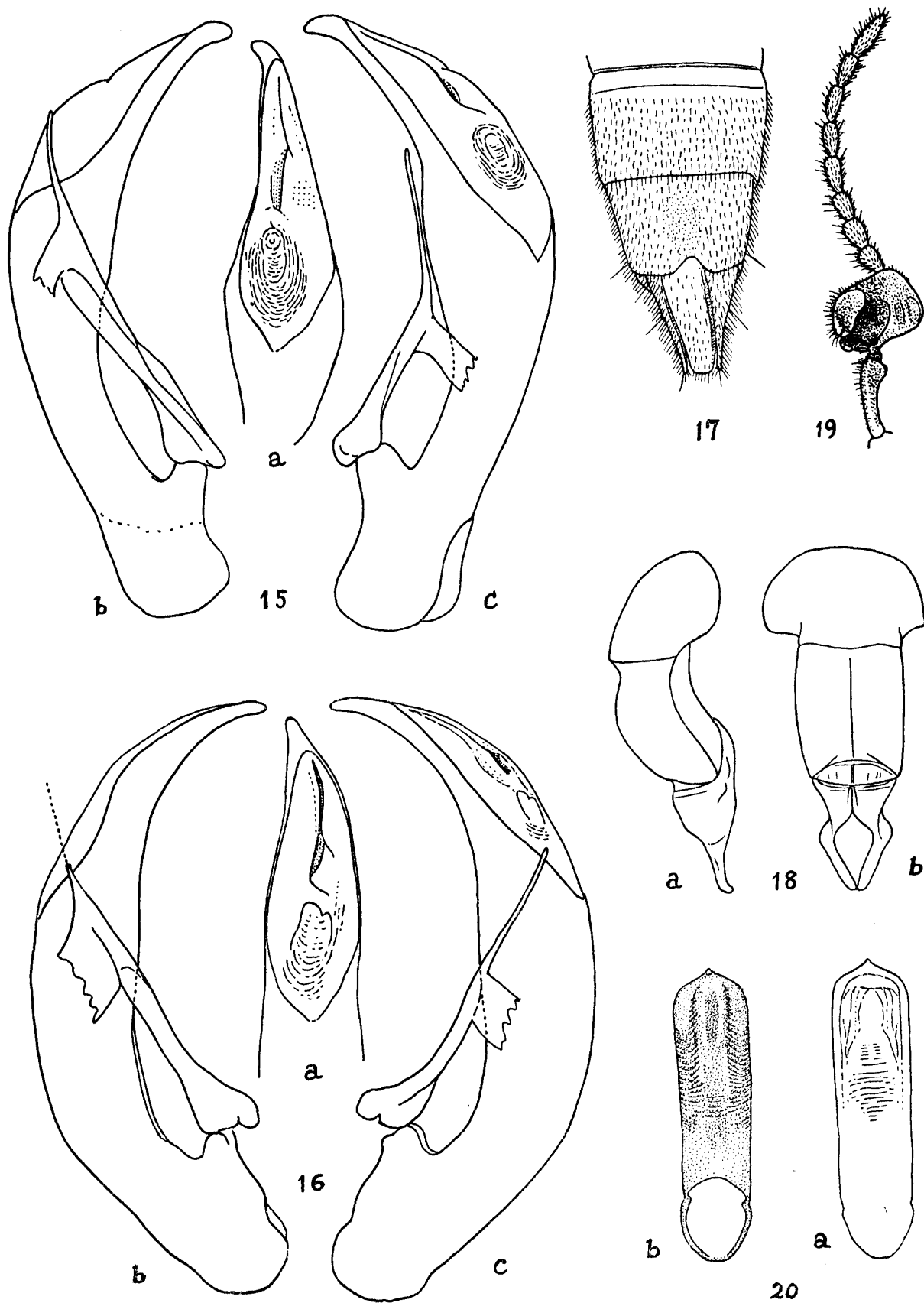


Plate III.