

A TAXONOMIC STUDY ON THE CHRYSOMELIDAE (INSECTA-COLEOPTERA) FROM FORMOSA

PART VI SUBFAMILY LAMPROSOMINAE

By

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Subfamily LAMPROSOMINAE

- Lamprosomidees (Lamprosominiæ)** LACORDAIRE, Monogr. Phytoph., II (Mém. Soc. Roy. Sci. Liège, V); pp. 8 & 559-564 (1848).
- Lamprosomidees** LEFÈVRE, Ann. Soc. Ent. France, (5), II, p. 377 (1872).
- Lamprosomides** CHAPUIS, in LACORDAIRE, Hist. Nat. Ins.: Gen. Col., X, p. 212 (1874).
- Lamprosomatini** BEDEL, Faune Col. Bassin Seine, V, p. 107 (1891). - Chen, Sinensia, XI, 3-4, pp. 189-191 & 201-202 (1940); l. c., 5-6, p. 475 (1940).
- Lamprosomini** HEYNE et TASCHENBERG, Exot. Kaf., p. 249 (1908). - SCHAUFUSS, in CALWER, Käferbuch. ed. 6, II, p. 923, 1907-1916 (1913).
- Lamprosominiæ** JACOBY, Fauna Brit. India, incl. Ceylon and Burma: Col. II, Chrysom. 1, pp. 280-281 (1908). - ACHARD, in WYTSMAN, Gen. Ins., CLIX, Col. Phytoph.: Fam. Chrysom. - Subfam. Lamprosominiæ, pp. 1-3 (1914). - CHŪJŌ, Trans. Nat. Hist. Soc. Formosa, XXIV, 133, p. 242 (1934). - Chen, Sinensia, XI, 5-6, pp. 455, 462, 466, 467, 470 & 471, f-18 (1940). - Gressitt, Lingnan Sci. Journ., XX, 2-4, p. 275 (1942).

General characters (Figs. 1-10): Body small, oblong, oblong-oval, oval, rotundate-oval, subpentagonal, etc. in outline, with dorsum very highly and hemispherically convex, and glabrous, but more or less pubescent on the head and underside together with antennae and legs, generally metallic in coloration and strongly lustrous.

Head suborbiculate, deeply inserted in prothorax, strongly inflected to the longitudinal axis of body; clypeus transverse, generally limited from frons by an inter-antennal transverse depression, with front margin more or less emarginated and finely pubescent. Mouth-parts: labrum transverse-subquadrate, with front corners round, front margin straight or emarginate and finely pubescent; mandibles robust, strongly curved inwardly, bi- or trifidate at the apex, or simply pointed with a large tooth on the middle of the upper margin of inner face; maxillary palpi short, rather robust, with 1st segment much smaller than any one of the three followings, 2nd strongly clubate, 3rd nearly truncate-obconical and shorter than the 2nd, 4th nearly oblong, narrowed at the apical portion and truncated at the tip; ligula longer than wide, narrowly rounded and sparsely pubescent at the apex; labial palpi robust, with 1st segment very much smaller than any one of the two succeeding, 2nd strongly thickened terminally and rather shorter than the 3rd, the latter nearly oblong or oblong-ovate, narrowed at the apical portion and truncated at the apical extremity. Eyes placed on each side of the face, somewhat convex, reniform, with inner margin lightly notched. Antennae inserted before

the eyes, widely separated at base from each other, short, robust, more or less pubescent; 1st segment longest, narrowed at the base, elongate, strongly thickened and somewhat curved, 2nd nearly conical or ovate and notched internally at the base, 3rd to 6th slender, 7th to 11th distinctly dilated, but sometimes 8th very much smaller than either 7th or 9th. Pronotum transverse, closely fitted to elytra and nearly as wide as at the base, strongly narrowed anteriorly, with dorsum distinctly convex, medio-basal area more or less produced posteriorly and named the "basal lobe" of pronotum, all the angles always distinct, and the front ones bears a setigerous pore on each. Scutellum small, generally obtrigonate. Elytra more or less longer than wide, widest at a little behind the base, gently narrowed posteriorly from the widest portion, with apex rounded and completely or incompletely covering the abdomen; dorsum very strongly convex, most highly so behind the scutellum, punctate, the punctures arranged in longitudinal rows in many cases, with latero-basal area angularly produced downwardly and called the "epipleural lobe;" epipleura distinct from the base to near the middle, thence strongly narrowed posteriorly and disappeared before the apex, often provided with three foveae which are accepted the knees of legs when in repose.

Underside: prosternum very large, subquadrate, generally flat and rather variable in the close structure on the surface; pro-episterna large, subtrigonate, with front corner somewhat distanced from the front corner of pronotum, raised and formed a groove at sides of prosternum for the reception of antennae when in repose; metasternum strongly transverse, with medio-anterior area produced as far as prosternum, hollowed on each side for the reception of a part of femur and tibia when in repose; abdomen: 1st sternite much longer than any one of the three followings, with medio-anterior area produced between the hind-coxae and an oblique groove on each side for the reception of hind-tibiae when in repose, 2nd to 4th sternites short, 5th narrower but much longer than any one of the three precedings and finely denticulated at the lateral and apical margins. Legs short, robust; fore-coxae subglobular and somewhat prominent, middle-coxae transverse-ovate and a little prominent, hind-coxae strongly transverse and not markedly prominent; femora strongly dilated medially, not protruded beyond the elytra, with a sulcus on each underside into which the tibia can be placed when in repose; tibiae more or less thickened and dilated terminally, sometimes very strongly curiously dilated, carinate, unarmed the spur; tarsi short, broad, with two basal segments nearly obtrigonate, 3rd deeply divided or bilobed, claw-segment gently widened terminally or nearly parallel-sided and a little curved, claws simple or simply angulated at each base or distinctly appendiculate.

Without very distinct external sexual characters.

Wings: MP simple, gently but distinctly sinuate and connected to Cu1 by a well-marked long cross-vein; Cu forms two distinct Cubital cells (1Cuc and 2Cuc) with Pcu; Cu1 divaricates or not so at its apical part, and the character of this divarication is unstable between not only the different species but the different individuals of the same species; Pcu distinct in general, but in some species it is disappeared at its median part.

Male genitalia: Median lobe tubular, somewhat curved, well chitinized, with the apical part uneven. Tegmen Y-shaped, attached to near the anterior edge of median foramen which is strongly elongate, with the basal part partly laterally and partly dorso-ventrally flattened, and without distal lobe.

Geographical distribution: The members of this Subfamily are most abundant in the Tropical America as those in the Subfamily *Chlamisiinae* and particularly most abundant in Brazil (including more than 50 species) and next in Mexico (including about 40 species).

Guatemala (including about 20 species), Cayenne (including about 15 species), Panama (including about 15 species) and Colombia (including about 10 species) are following to Mexico, and besides these there are a few species having been recorded respectively from various parts of the South and Central America. Besides the former districts in the New World, there are a few species occurring in the southern part of the United States of America, but we have almost no record of the species from the southern part of the South America (Argentine and Chile).

In the Old World, there are a few species in the southern part of Africa, two species in Europe, and several species in India, Sumatra, China, Japan, Loo-Choo and Formosa respectively.

The present Subfamily is divided in two Tribes as follows:

Key to the Tribes

- a'. Pygidium exposed *Sphaerocharini*
 a'. Pygidium not exposed *Lamprosomini*

Tribe *Sphaerocharini* includes two genera and the members of them (only three species in all) are known from Brazil only.

Tribe LAMPROSOMINI

Lamprosomini CLAVAREAU, in JUNK et SCHENKING, Col. Cat., LIII, p. 223 (1913) (nom. nud.).

General characters are as those of the Subfamily, with pygidium completely covered by the apical area of elytra.

This tribe contains two genera, of which the one - *Lychnophaes* LACORDAIRE - occurring in South America (including about 10 species) and southern part of Africa (including only one species), and the other one - *Lamprosoma* KIRBY - with a relation to the fauna of Formosa.

Genus *Lamprosoma* KIRBY

Lamprosoma KIRBY, Trans. Linn. Soc. London, Zool. XII, p. 445 (1818). - LACORDAIRE, Monogr. Phytoph., II (Mém. Soc. Roy, Sci. Liège, V), pp. 564 & 574-575 (1884). - CHŪJŌ, Trans. Nat. Hist. Soc. Formosa, XXIV, 133, pp. 242-243 (1934). - Chen, Sinensia, XI, 3-4, pp. 202-203 (1940).

Genotype: *Lamprosoma bicolor* KIRBY, Trans. Linn. Soc. London, Zool. XII, p. 445, pl. XII, f. 15 (1818) from Brazil [Designated by M. JACOBY, Fauna Brit. India, incl. Ceylon and Burma: Col. II, Chrysom. 1, p. 281 (1908)].

Range: Same with that of the Subfamily.

General characters are as those of the Subfamily and Tribe.

Underside of thorax deeply and widely excavated on each side for the reception of legs when in repose. 1st abdominal sternite with also an oblique distinct groove on each side for the reception of hind-tarsus when in repose.

By the character of antennae the present genus is divided in two subgenera as follows:

Key to the Subgenera

- a. Antennae robust, short, not extend to the base of pronotum when turned them back, with 8th segment equal in shape and size to each one of the 7th and 9th. *Lamprosoma*
 s. str.

a'. Antennae slender, rather longer, extend a little beyond the base of pronotum when turned them back, with 8th segment very much smaller than any one of the 7th and 9th. *Oomorphus* CURTIS

There is no species belonging to the Subgenus *Lamprosoma* s. str. in Formosa at present.

Subgenus *Oomorphus* CURTIS

Oomorphus CURTIS, British Ent., VIII, No. 347, pl. cccxlviii (1831). - STEPHENS, Illustr. British Ent., Mandib. V, p. 411 (1832). - BRULLÉ, Hist. Nat. Ins., V, 2, p. 355 (1834). - STEPHENS, Man. British Col., p. 147 (1839). - ERICHSON, in GERMAR, Zeitschr. Ent., I, p. 369 (1839). - CASTELNAU, Hist. Nat. Ins., Col. II, p. 39 (1840). - REITTER, Berliner Ent. Zeitschr., XIV, p. 230, pl. i, f. 8a-h, 1870 (1871). - CHAPUIS, in LACORDAIRE, Hist. Nat. Ins.: Gen. Col., X, p. 218 (1874). - WEISE, Naturg. Ins. Deutschlands, VI, p. 279 (1882). - EVERTS, Col. Neerlandica, II, pp. 392 & 426 (1903). - ACHARD, in WYTSMAN, Gen. Ins., CLIX, Col. Phytoph.: Fam. Chrysom. - Subfam. Lamprominae, pp. 4 & 10-11 (1914). - CHŪJŌ, Trans. Nat. Hist. Soc. Formosa, XXIV, 133, pp. 242-243 (1934).

Byrrhus STURM, Deutschlands Ins. Käf., II, p. 109 (1807). - STEPHENS, Illustr. British Ent., Mandib. III, p. 139 (1830).

Phalacrus STEPHENS, Illustr. British Ent., Mandib. II, p. 197 (1829).

Lamprosoma LACORDAIRE, Monogr. Phytoph., II (Mém. Soc. Roy. Sci. Liège, V), p. 631 (1848). - FAIRMAIRE, in JACQUELIN DU VAL, Gen. Col. d'Europe, IV, p. 216 (1868). - LEFÈVRE, Ann. Soc. Ent. France, (5), II, pp. 377-378 (1872). - REITTER, Fauna Germanica, IV, pp. 104 & 106, pl. cxliv, f. 3a-b (1912). - KUHN, Illustr. Best.-Tab. Käf. Deutschlands, pp. 803 & 834, f. 23a-c (1913). - SCHEERPELTZ et WINKLER, in BROHMER, etc., Tierwelt Mitteleuropas, V, ii, 2, p. XII-223, pl. xlii, f. 1035 (1930). - JOY, Pract. Handb. British Beetles, I, pp. 396 & 398, pl. cxv, f. 10 (1932).

Subgenotype: *Byrrhus corcolor* STURM, Deutschlands Ins., Käf. II, p. 109 (1807) from Germany [Fixed by J. CURTIS, British Ent., VIII, No. 347 (1831)].

Range: Europe, Japan, Formosa, Sumatra, N. America, Mexico and Panama.

General characters are as those in the descriptions of the Subfamily, Tribe and Genus, and the subgeneric characters as in the above-mentioned Key.

Key to the Species

1. Body larger, 3.0-3.5 mm. in length; clypeus wholly depressed and distinctly pubescent-punctate, punctures on the elytra not striate and all of them similar in size; general colour bronzy, with brassy or coppery shimmer, and underside less metallic than on the dorsum *formosense* CHŪJŌ
- 1'. Body smaller, 2.25-2.75 mm. in length; clypeus neither wholly depressed nor distinctly pubescent-punctate, elytra strongly striate-punctate and interstices of these primary striae of strong punctures bears a stria of smaller punctures on each (2)
2. General colour bronzy, with brassy or coppery lustre, sometimes entirely bears a dark bluish green or dark blue, with underside less metallic; clypeus somewhat obliquely placed to the frons, with surface flat and finely shagreened, pronotum and elytra more strongly punctured, a pair of oblique groove on the 1st abdominal sternite not touched to the hind margin of present sternite. *alienum* BATES

2. General colour violaceous black, lustrous, with elytra more violaceous than the others and underside less so; clypeus strongly and sharply ridged between the roots of antennae, more or less distinctly depressed on the middle of the ridge, very strongly obliquely placed to the frons and finely shagreened, a pair of oblique groove on the 1st abdominal sternite touched to the hind margin of present sternite *violaceonigrum* sp. nov.

1. *Lamprosoma* (*Oomorplus*) *formosense* CHŪJŌ

Lamprosoma formosensis CHŪJŌ, Trans. Nat. Hist. Soc. Formosa, XXIV, 133, pp. 243 & 245-246 (1934) (Formosa: Musha & Taiheizan).

Body ovate, with dorsum very strongly convex. General colour bronzy, with brassy or coppery shimmer; underside and legs less metallic than on the dorsum; antennae pitchy black to deep black, with two basal segments (more or less cupreous or bronzy on each dorsum) and the apex of 11th segment dark yellowish brown to piceous; mandibles with each apical half pitchy red to pitchy black.

Head: frons somewhat convex, rather sparsely pubescent-punctate, the punctuation thicker on the lateral areas than on the middle, with a small longitudinal fovea on the middle of upper area and another larger and deeper longitudinal depression (which is widened anteriorly) on a little beyond the former fovea, these fovea and depression sometimes connected to each other, the area surrounding these fovea and depression always finely shagreened and moreover finely strigose or rugose in some cases, sulcate on each side along the inner margin of eye and bearing a distinct small fovea on the upper end of the sulcus; clypeus not delimited from frons, more or less depressed entirely, distinctly emarginated at the front margin, strongly and rather thickly pubescent-punctate, with their interspaces finely shagreened and rather rugose. Antennae short, with 1st segment strongly thickened and somewhat curved, 2nd nearly trigonate-conical, 3rd to 6th slender, flat and gradually diminishing their length terminally, 7th and 9th to 10th distinctly widened terminally, 8th very much smaller than the 7th or 9th and rather wider than, but nearly equal in length to, the 6th, 11th much longer than the 10th and gradually narrowed terminally with apex rounded. Pronotum more than twice as wide as it is long, strongly narrowed anteriorly; front margin trisinate and mostly immarginated but narrowly bordered on each side in a short distance, all the angles nearly 90° or rather less than 90° in angulation, lateral margins sharply ridged and gently sinuate, basal margin sinuate and sharply ridged, but the ridge covered by the basal area of elytra in general; dorsum strongly convex, thickly punctured. Scutellum small, obtrigonate, longer than wide, impunctate and smooth on the surface. Elytra widest at a little behind the humeral area and distinctly wider than pronotum at this area, narrowed posteriorly, rounded at the apex, very strongly convex and thickly punctured (the punctures rather larger than on the pronotum) on the dorsum.

Underside rather thickly pubescent-punctate, finely shagreened on each side, the punctures on the metasternum much larger and deeper than those on the other areas; prosternum sharply ridged at the front margin, rather obtusely ridged at the lateral and hind margins, flat on the surface, finely shagreened and rather sparsely pubescent-punctate; 1st abdominal sternite with a pair of wide and deep groove which is not extending to the hind margin of present sternite; claws distinctly appendiculate.

♂ : Body broadly ovate and much wider than female, pronotum about two and a half

times as wide as it is long; elytra narrowed posteriorly with a distinct curvature on each side, last abdominal sternite more strongly depressed at the apical area than in female.

♀: Body ovate, pronotum rather more than twice as wide as it is long, but not so transverse as in male, elytra nearly straightly narrowed posteriorly, last abdominal sternite slightly depressed on the apical area.

Length: ♂, 3.00 - 3.25 mm.; ♀, 3.5 mm.

Loc. Distr. - Hakurei (altitude about 1800 metres) in Mt. Taihei-zan, Taihoku-Syū (1♂, *Paratype*, 7. V. 1942, A. TANAKA leg.); Akebono (altitude about 1850 metres) in Mt. Taihei-zan, Taihoku-Syū (1♂ & 1♀, *Paratype*, 8. V. 1942, A. TANAKA leg.); Miharasi (altitude about 1880 metres) in Mt. Taihei-zan, Taihoku-Syū (3♂♂ & 2♀♀, *Paratype*, 9. V. 1942, S. ISSIKI leg.).

Musha and Taihei-zan (after M. CHŪJŌ, 1943).

Gen. Distr. - Formosa.

2. *Lamprosoma (Oomorplus) alienum* BATES (Fig. 11)

Lamprosoma alienum BATES, Proc. Zool. Soc. London, p. 353 (1866) (Formosa). - CLAVAREAU, in JUNK et SCHENKLING, Col. Cat., LIII, p. 1224 (1913) (Formosa). - MIWA, Syst. Cat Formosa, Col., p. 186 (1931) (Formosa: Tainan). - CHŪJŌ, Trans. Nat. Hist. Soc. Formosa, XXIV, 133, pp. 243 & 244 (1934) (Formosa: Taihoku, Urai, Shinchiku, Shiigao, Horisha, Musha, Arisan, Tainan, Kuraru, Kwarenko, Hoorin & Taito).

Oomorplus alienus GEMMINGER et HAROLD, Cat. Col., XI, p. 3358 (1874) (Formosa). - ACHARD, in WYTSMAN, Gen. Ins., CLIX, p. 11 (1914) (Formosa).

Body very broadly ovate, with dorsum very strongly convex. General colour bronzy, with brassy or coppery shimmer, sometimes entirely bearing a dark bluish green or dark blue (in these cases the elytra more strongly bluish than the others), with underside and legs generally less metallic; mandibles with each apical half pitchy red to pitchy black; antennae dark yellowish brown to piceous, with upper surfaces of the two basal segments bronzy.

Head: frons somewhat convex, finely but sparsely punctulate, with a longitudinal faint impression on the middle of lower portion in many cases, sparsely pubescent on each side, finely shagreened along the inner margin of each eye and bearing a distinct small fovea near the upper end of each eye; inter-antennal area somewhat raised in a weak arch, the upper area from the arched elevation declined in a short distance, the lower area from the arched elevation declined in a rather long distance and entirely finely shagreened, with front margin distinctly emarginated. Antennae short, with 1st segment strongly incrassate and somewhat curved, 2nd nearly trigonate-conical, 3rd to 6th slender and flat, 3rd longer than any one of the three followings, 5th rather wider but much shorter than the 3rd, 4th rather shorter and narrower than the 5th, 6th nearly equal in width to, but slightly shorter than, the 4th, 7th and 9th to 10th strongly dilated, 8th nearly equal in length to, but rather thicker than, the 6th and very much smaller than the 7th or 9th, 11th nearly oval in outline and bluntly pointed at the apex. Pronotum more than twice as wide as it is long, strongly narrowed anteriorly with a light curvature or gentle sinuation; front margin weakly trisinate and most part of the margin immarginate but narrowly bordered on each side, front angles nearly 90° in angulation, lateral margins sharply ridged, basal angles rather larger than 90° in angulation, basal margin strongly arched posteriorly at the median portion but slightly sinuate on each side and entirely sharply bordered, but the border generally covered by

the basal area of elytra; dorsum strongly convex, strongly deflexed on each side (especially at the latero-anterior areas), rather thickly punctate with their interspaces very minutely punctulate, with a distinct setigerous puncture on each side near the front corner, Scutellum small, obtrigonal, rather longer than wide, with basal angles rounded, apical angle rather sharp or obtuse, flat and impunctate or with a shallow impression. Elytra wider about the humeral region than the base of pronotum, strongly narrowed posteriorly, rounded at the apex; dorsum very strongly convex, punctate-striate, the punctures much larger and deeper than those on the pronotum, interstices of these longitudinal rows of strong punctures sparsely punctulate, these latter punctures generally very small but sometimes rather larger, on the lateral and apical areas the striated punctures becoming distinctly smaller and not so different in size with the interstitial punctures.

Underside finely and thickly shagreened on each side, very strongly and rather sparsely pubescent-punctate on the metasternum, rather thickly pubescent-punctate on the abdomen; prosternum strongly narrowed at the middle, sharply ridged at the front margin, immarginated at the lateral and hind margins, with surface rather convex on the middle but flat or rather depressed on the anterior and posterior areas and finely but very sparsely pubescent-punctate; 1st abdominal sternite with a pair of oblique groove which is nearly approached to the hind margin of present sternite; claws distinctly appendiculate.

♂ : Pronotum rather more than as wide as it is long; but not so wide as in female; last abdominal sternite finely and very thickly granulose on the apical area.

♀ : Pronotum about two and a half times as wide as it is long; last abdominal sternite finely and rather thickly punctulate.

Length: ♂, 2.25-2.50 mm.; ♀, 2.50-2.75 mm.

Food-plant: *Tetrapanax papyrifera* C. KOCH (Japanese name: *Kami-yatude* or *Tu-so*).

Loc. Distr. - Mizuho, Tamazato-Gun, Karenkô-Tyô (1♂, 23. III. 1935, M. CHÛJÔ leg.); Mt. Hinoki-yama, Bunzan-Gun, Taihoku-Syû (4♂♂ & 4♀♀, 5. IV. 1940, M. CHÛJÔ leg.); Tyakon, Bunzan-Gun, Taihoku-Syû (1♂ & 1♀, 5. IV. 1940, M. CHÛJÔ leg.); Rimogan, Bunzan-Gun, Taihoku-Syû (2♀♀, 5. IV. 1940, M. CHÛJÔ leg.); Hatonosawa in Mt. Taihei-zan, Taihoku-Syû (2♂♂, 15. VII. 1940; 3♂♂ & 2♀♀, 23. VII. 1940, M. CHÛJÔ leg.); Hakurei in Mt. Taihei-zan, Taihoku-Syû (1♀, 16. VII. 1940, M. CHÛJÔ leg.); Mt. Hituroku-zan, Karenkô-Tyô (3♂♂ & 1♀, 14. VIII. 1940, M. CHÛJÔ leg.).

Tainan (after Y. MIWA, 1931); Taihoku, Urai, Shinchiku, Shiigao, Horisha, Musha, Arisan, Tainan, Heito, Koshun, Kuraru, Kwarenko, Hoorin and Taito (after M. CHÛJÔ, 1934).

Gen. Distr. - Formosa.

3. *Lamprosomea* (*Oomorplus*) *violaceonigrum* sp. nov.

Body very broadly ovate, with dorsum very strongly convex. General colour violaceous black, lustrous; elytra more violaceous than the others, underside and legs less violaceous than the others; mandibles with each apical half pitchy red to pitchy black.

Head: frons somewhat convex, rather thickly or rather sparsely punctate, sparsely pubescent on each side, finely shagreened along the inner margin of each eye, with a small fovea on each side closely along the upper end of eye and a longitudinal impression (which

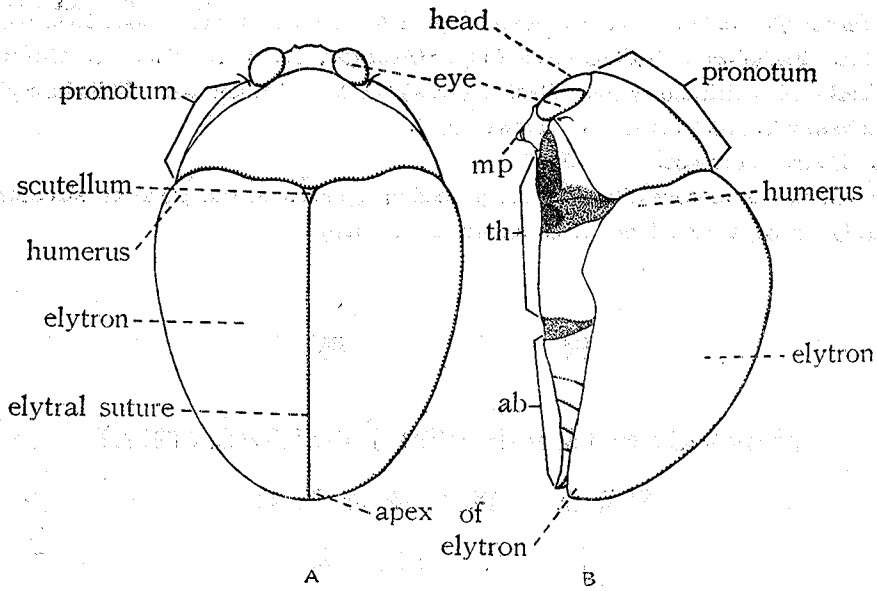


Fig. 1. *Lamprosoma (Oomorplus) cupreatum* BALY, from Japan; A - dorsal aspect; B - lateral aspect, antenna and legs removed.

ab.....abdomen, mp.....mouth-parts, th.....thorax.

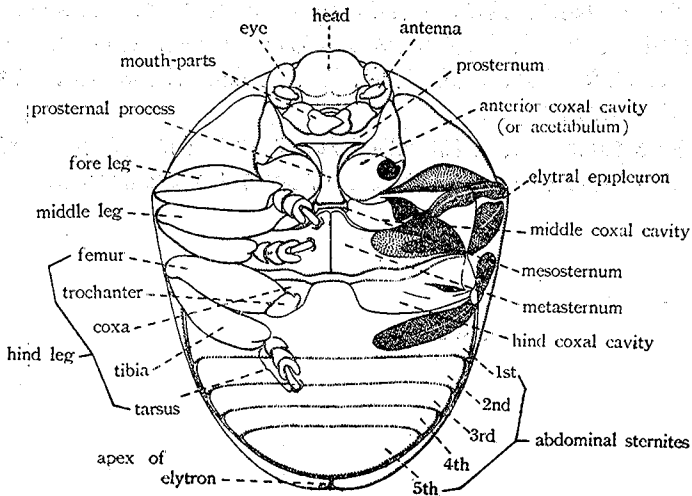


Fig. 2. *Lamprosoma (Oomorplus) cupreatum* BALY, from Japan; ventral aspect, ten terminal segments of antennae and left-legs removed.

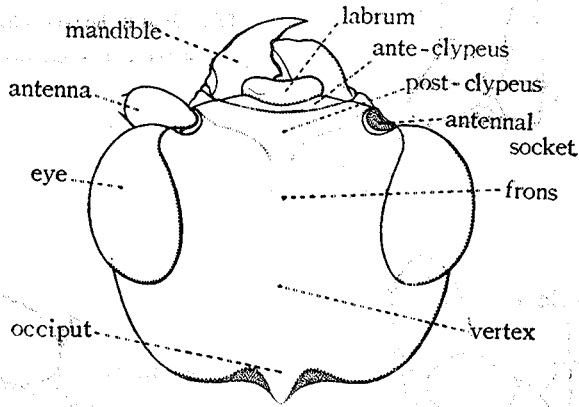


Fig. 3. *Lamprosoma (Oomorpus) cupreatum* BALY, from Japan; head, dorsal view, right-antenna and terminal ten segments of left-antenna removed.

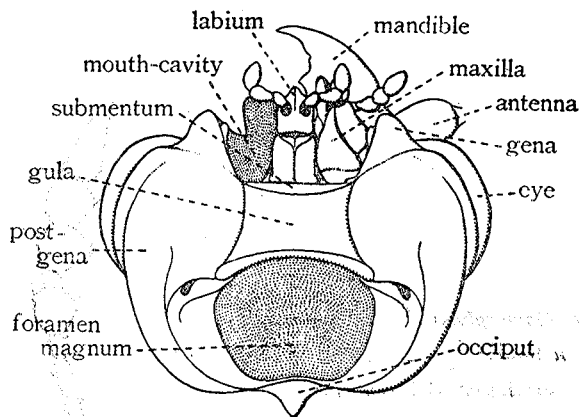


Fig. 4. *Lamprosoma (Oomorpus) cupreatum* BALY, from Japan; head, ventral view, right-mandible, right-maxilla, right-antenna and terminal ten segments of left-antenna removed.

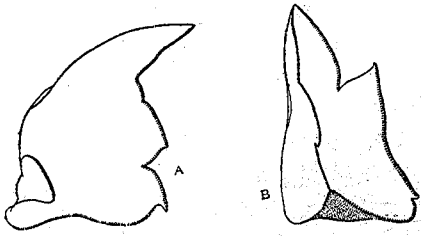


Fig. 5. *Lamprosoma (Oomorpha) cupreatum* BALY, from Japan; left-mandible: A - dorsal aspect, B - latero-ventral aspect.

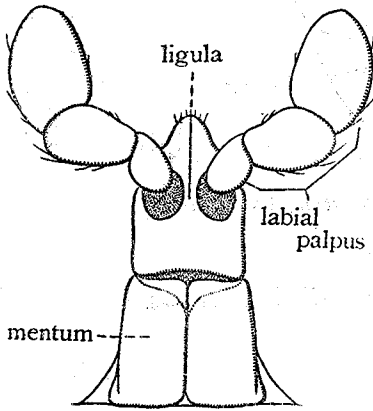


Fig. 6. *Lamprosoma (Oomorpha) cupreatum* BALY, from Japan; labium, ventral aspect.

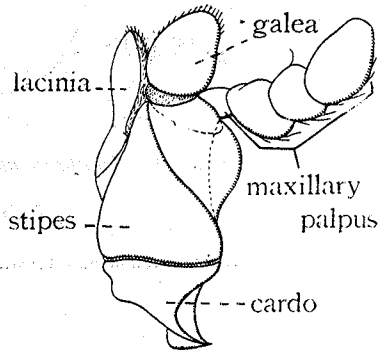
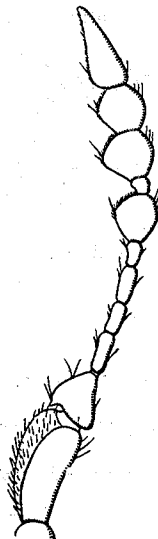


Fig. 7. *Lamprosoma (Oomorpha) cupreatum* BALY, from Japan; left-maxilla, ventral aspect.

Fig. 8. *Lamprosoma (Oomorpha) cupreatum* BALY, from Japan; right-antenna, dorsal aspect.



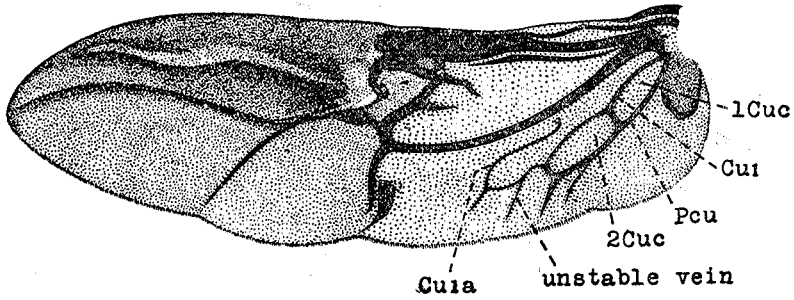


Fig. 9. *Lamprosoma (Oomorplus) cupreatum* BALY, from Japan; left-wing, dorsal aspect.

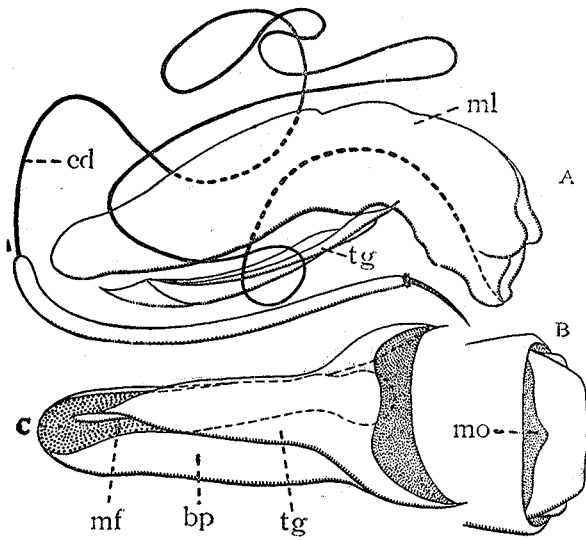


Fig. 10. *Lamprosoma (Oomorplus) cupreatum* BALY,

from Japan; male genitalia: A - lateral aspect of the whole, B - ventral aspect of the apical part of median lobe, C - ventral aspect of tegmen and the basal part of median lobe:----- bp basal part of median lobe, ed-----ejaculatory duct, mf-----median foramen, ml-----median lobe, mo-----median orifice, tg-----tegmen.

Fig. 11. *Lamprosoma (Oomorplus) alienum* BATES

