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A Remarkable Convergence Found in Malayan Buprestid Beetles, with Description of Two New Species from Thailand and Hainan

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It was some years ago while the author was revising the genera in the tribe Chrysochroini of the family Buprestidae, especially the heterogeneous *Chrysochroa* SOLIER, 1833, that he noticed a remarkable convergence among Malayan buprestid beetles. At first, the author recognized the affinity between *Chrysochroa purpureiventris* H. DEYROLLE, 1864, and *Callopistus castelnaudii* H. DEYROLLE, 1864, in the coloration and the shape of body. And then, he became aware that some of the other Malayan buprestids belonging to the genera *Micropistus*, *Philocteanus*, *Iridotaenia* and *Chrysodema* might also be included in this convergent group, and finally now comes to the conclusion that this group contains eight species in seven genera. Though not entirely confident, he is inclined to regard this convergent group as a mimetic one. This minetic group contains a total of eight species of seven genera, of which one genus and four species are new to science. In the following lines, the author is going to describe these genera and species to discuss on this mimetic group.

Descriptions

This mimetic group is characterized by the posteriorly attenuate body with prominent humeri, the concolorous bright golden green or metallic green body above and the purpurascent or cuprescent body beneath. It contains the following eight species: *Chrysochroa purpureiventris* H. DEYROLLE, 1864, *Descarpentriesia* (gen. nov.) *resplendens* (Gory, 1840), *Callopistus castelnaudii* H. DEYROLLE, 1864, *Micropistus dilatatus* Y. KUROSAWA, sp. nov., *Philocteanus malayicus* Y. KUROSAWA, sp. nov., *Philocteanus laticollis* Y. KUROSAWA, sp. nov., *Iridotaenia sumptuosa* (CASTELNAU et GORY, 1835), and *Chrysodema igai* Y. KUROSAWA, sp. nov.

These seven genera, containing eight species mentioned above, are distinguished by the following key.

Key to the Genera of the Mimetic Group

1. Antennae serrate from the third segment.....2
— Antennae serrate from the fourth segment.....4
2. Apical two segments of antennae conglutinated with each other.....

..... *Philocteanus* H. DEYROLLE, 1864
— Apical two segments of antennae normally separated, not conglutinated.....3
3. Metasternum strongly produced and somewhat gibbose anteriorly at the middle
..... *Callopistus* H. DEYROLLE, 1864
— Metasternum normal, neither produced nor gibbose..... *Micropistus* THÉRY, 1922
4. Scutellum visible 5
— Scutellum dorsally invisible 6
5. Pronotum with the median longitudinal groove.... *Iridotaenia* H. DEYROLLE, 1864
— Pronotum with the median longitudinal carina.....
..... *Chrysodema* CASTELNAU et GORY, 1835
6. Metasternum more or less produced and swollen anteriorly in lateral aspect
..... *Descarpentriesia* Y. KUROSAWA, nov.
— Metasternum normal, neither produced nor swollen.... *Chrysochroa* SOLIER, 1833

It is interesting that, in the Chalcophorini of Buprestinae, the genera having the compact antennae serrate from the third segment are all confined their occurrence in tropical Africa and tropical Asia west of Wallace's line except for a species known from Celebes. Occurrence of this group of genera has not been reported in the Philippines, the Lesser Sunda Islands, the Moluccas, New Guinea, Australia and the other Oceanic islands.

From a recent study by Mr. Masao TÔYAMA, the serration of antennae has a great taxonomic value, and the group having the antennae serrate from the third segment had better be regarded as more advance than those having the antennae serrate from the fourth segment, which is the common characteristics in the Buprestidae.

Genus ***Philocteanus*** H. DEYROLLE, 1864

Philocteanus H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 10.

Type-species: *Chrysochroa leucophthalma* CASTELNAU et GORY, 1835 (=*Buprestis rubroaureus* DEGEER, 1778) (China) (original designation).

Body moderate to large, ovate or subcuneiform, and metallic coloured.

Head moderate to large, usually larger in male than in female; frons broad, subtrapezoidal, broader than long at the anterior part between antennal cavities, not excavated between eyes, with the median groove more or less distinct; eyes oblique, converging above and more strongly produced laterally in male than in female; anterior margin of clypeus deeply emarginate, with the lateral lobes angulate and produced, though the emargination deeper in male than in female; mandibles normal (female) or large, bipartite in dorsal aspect into brownish interior part and metallic exterior part the latter of which is strongly swollen and produced exteriorly, and, in lateral aspect, bipartite into upper and lower parts by sharply defined longitudinal carina (male); antennae short and compact, serrate from the third segment, with the serrate segments from the fourth to ninth as long as wide (fourth) or distinctly wider than long and strongly dilated exteriorly, apical one conglutinated with the tenth, and sensory pores

diffused on both sides of each serrate segment.

Pronotum transverse, widest at the base, with the sides attenuate anteriorly, median line of the disc impunctate, sometimes very obsoletely grooved, marginal carinae sharply defined in the posterior two-thirds, and strongly curved inferiorly in front, causing the anterior angles abased and produced inferiorly; posterior margin bisinuate with the median lobe broadly produced and obtusely angulate at the antescutellar part. Scutellum dorsally invisible.

Elytra very obsoletely costate; sides irregularly dentato-serrate near apices, which are separately unidentate.

Body beneath somewhat navicular, with the anterior part of first ventral segment of abdomen between posterior coxae slightly produced in lateral aspect; prosternum, with the anterior margin subtruncate, flattened on the process, which is not defined from prosternum proper in front; metasternum flattened in the middle; first ventral segment of abdomen somewhat swollen between posterior coxae; last ventral segment of abdomen bilobed or deeply emarginate (male) or simply rounded (female) at apex.

Legs short and robust, with anterior tibiae distinctly curved at the base; tarsi compact.

Range: India, Assam, Burma, S. China, Indochina, Thailand, Malay Peninsula, Borneo, Sumatra, Nias.

The centre of dispersal of this genus seems to be in Furtherindia. Though there are several species in the main parts of Sundaland and Nias, none have been known from Java, Palawan and Celebes.

Philocteanus malayicus sp. nov.

(Fig. 1; Pl. 1, figs. 1f, 2n)

Body subcuneiform, widest at humeri; dorsum entirely bright golden-green, with pronotum somewhat tinged with aeneous and the anterior part of frons reddish; ventral, together with the underside of femora, cupreous with a distinct brassy or golden tinge; antennae blackish, sometimes with the basal one or two segments more or less tinged with blue or bluish-green.

Head moderate, larger and broader in male than in female, distinctly broader than (male) or as broad as (female) the anterior margin of pronotum; frons broad, almost flattened, distinctly broader than long, even in the breadth between the upper tips of eyes, coarsely punctate and obsoletely depressed along the eyes causing the parts along the eyes somewhat reflexed, with the median groove deeply sulcate at the middle, but the punctuation becomes sparser and disappears towards the middle, where it is sparser in male than in female; clypeal suture absent; clypeus not defined from the anterior part of frons and narrowly impunctate and shagreened along the anterior margin, which is deeply and W-shapedly (male) or ∪-shapedly (female) emarginate between angulate and produced lobes; antennal cavities subtriangular, surrounded neither with carina nor with impression; antennae short and compact, not reaching the middle of sides of

pronotum, serrate from the third segment, with the first segment stout, subtriangular, the second subglobular, the shortest, the third subtriangular, longer than wide, about as long as the first and distinctly longer than twice the length of the second, and about 1.5 times as long as the fourth, the fourth subtriangular, about as long as wide, the fifth to ninth distinctly wider than long, strongly dilated exteriorly and somewhat pectinate (male) or strongly serrate (female) exteriorly, and the apical one formed by conglutinated tenth and eleventh as wide as or slightly wider than long.

Pronotum transverse, about 1.6 times as broad as long, and widest at the base; sides attenuate from base to front, but slightly swollen and rounded in the posterior two-fifths, and slightly reflexed from the middle to near the posterior angle; anterior margin distinctly broader than a half of the posterior margin, somewhat ∽-shaped with a small incision at the middle, but without median lobe; posterior margin bisinuate, with the median lobe broadly produced and angulate at the antescutellar part; posterior angles subrectangular, and not or feebly produced; anterior angles acute and slightly produced in dorsal aspect, but they are abased, broadly rounded and ill-defined in lateral aspect; marginal carinae sharply defined in the posterior two-thirds, simply curved and abased anteriorly and somewhat ill-defined in anterior third; disc with median line broadly impunctate but neither carinate nor grooved, and sometimes with an indistinct obsolete depression just inferior to each posterior angle; surface coarsely and irregularly punctate except for the median line, but the punctuation becomes denser and confluent towards the sides. Scutellum dorsally invisible.

Elytra moderately convex, distinctly broader than pronotum at the base, about 1.5 times (male) or about twice (female) as long as wide, about 4 times as long as pronotum and widest at humeri; sides dilated laterally and rounded at humeri, then obliquely (male) or gradually and arcuately (female) attenuate to apices, which are sharply and separately pointed and unidentate, with the outer margin irregularly dentato-serrate near apex; humeral dilatation stronger in male than in female; lateral margin almost entirely reflexed; disc obsoletely 4-costate from humeri to apices; surface irregularly punctured, but the punctuation becomes sparser and finer towards the suture, with a row of larger punctures or punctiform depressions arranged along both sides of each costa.

Body beneath finely punctured and clothed with short, inconspicuous, semirecumbent, cinereous hairs, though the punctuation becomes denser towards the sides. Prosternum punctate, obsoletely impressed along the anterior margin, which is subtruncate and reflexed; the punctuation becomes sparser and somewhat rugose (male) or denser (female); prosternal process broad and flattened, scattered with a few coarse punctures at the sides, with the sides arcuately constricted by the insertion of anterior coxae, produced laterally just behind them, then obliquely and sinuously attenuate to broadly rounded apex. Metasternum flattened and smooth with a few small punctures in the middle, with the anterior margin triangularly produced into mesosternum at the middle. Abdomen beneath with the first ventral segment smooth and somewhat swollen between posterior coxae, and the last ventral segment broadly and shallowly bilobed

(male) or simply rounded (female) at apex.

Legs more robust in male than in female, with anterior tibiae curved more strongly at the base in male than in female, and dilated exteriorly.

Length: 31.5–34.2 mm (with mandibles); width: 11.0–12.0 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malay Peninsula, ix. 1967; allotype: ♀, do., iv. 1979; paratypes: 1 ♀, do., iv. 1977; 1 ♀, Tapah Hills, Perak, Malay Peninsula, v. 1976.

Distr.: Malay Peninsula.

This species, together with the following, stands next to *P. capitatus* KERREMANS, 1893, described from "Borneo" perhaps based upon a single male specimen. However, the shape of the lateral sides of pronotum, which is the main point separating this from the next species, is not exactly delineated in the original description of *capitatus*.

Philocteanus laticollis sp. nov.

(Fig. 2; Pl. 1, figs. 1e, 2m)

Agrees with the preceding species, *malayicus* m. in every respect, with the exception of the shape of pronotum, which is broader, about 1.7–1.8 times as broad as long, and widest at the base, with the sides subparallel in the posterior half and rounded in the middle, not attenuate from base to front, and of the excavation of anterior margin of clypeus which is more deeply emarginate than that of *malayicus*.

Length: 31.6–35.8 mm (with mandibles); width: 11.8–13.5 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malay Peninsula, 1977–'78; allotype: ♀, do., ix. 1976; paratype: 1 ♀, Tapah Hills, Perak, Malay Peninsula, v. 1976.

Distr.: Malay Peninsula.

Genus ***Callopistus*** H. DEYROLLE, 1864

Callopistus H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 9, pl. 1, fig. 2.

Type-species: *Callopistus castelnaudii* H. DEYROLLE, 1864 (Malacca, Borneo) (original designation).

Head comparatively small; frons excavated between eyes, with the median groove more or less impressed or sulcate; eyes oblique, converging above; antennae short and compact, serrate from the third segment, with the serrate segments, except for the third and the apical ones, as long as wide or wider than long, and the sensory pores diffused on both sides of each serrate segment.

Pronotum transverse, broad, with the sides strongly attenuate anteriorly, median line of disc very inconspicuous or absent, marginal carinae defined in the posterior half, causing the anterior angles not defined, and the posterior margin subtruncate, without median lobe. Scutellum dorsally invisible.

Elytra with four costae which are more or less distinct, and the sides irregularly dentato-serrate posteriorly.

Body beneath somewhat navicular in lateral aspect, with the anterior part of metasternum gibbose and projected anteriorly; prosternal process deplanate, smooth and forming a long quadrate plate; sternal cavity formed by meso- and metasterna; metasternum swollen, subgibbose and so strongly projected anteriorly at the middle as to cover the posterior part of sternal cavity. Abdomen normal; first ventral segment convex, neither sulcate nor depressed anteriorly in the middle; anal segment triangularly excavated (male) or rounded (female) at apex.

Legs normal, rather short, with the first segment of posterior tarsi longer than the second; tibiae normal.

This genus is peculiar in the Chalcophorini in the form of metasternum and the subtruncate posterior margin of pronotum.

Range: Sundaland (Malay Peninsula, Borneo, Sumatra, Java), Celebes.

Callopistus castelnaudii H. DEYROLLE, 1864

(Fig. 3, Pl. 1, figs. 1c, 2k)

Callopistus castelnaudii H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 9, pl. 1, fig. 2.
Callopistus quedenfeldti RICHTER, 1890, Berl. ent. Z., **35**, p. 133.
Callopistus atrovirens NONFRIED, 1895, Berl. ent. Z., **40**, p. 296.
Callopistus nigripes THÉRY, 1922, Ann. Soc. ent. Belg., **62**, p. 200.

Body more or less cuneiform, abruptly attenuate in front from humeri and gradually behind; above entirely bright golden green, with the exception of elytral apices and tibiae which are slightly tinged with aeneous, and frons, clypeus and mouthparts, which are cupreous; beneath and the underside of femora concolorously beautiful cupreopurpureous; antennae blackish, with the exception of the basal two or three segments tinged with green.

Head comparatively small, not broader than the anterior margin of pronotum, excavated between eyes, with the median groove absent or obsolete in the anterior half of frons, though deeply sulcate at the centre of frons; frons narrow, distinctly longer than wide, coarsely but sparsely punctate at the sides, almost impunctate in the middle, and with a large $\wedge$-shaped impression in the posterior part of each antennal cavity; clypeal suture absent; clypeus thin, with the anterior margin broadly, arcuately and deeply emarginate; antennal cavities moderate, with the posterior part swollen, though not carinate; antennae short and compact, not extending beyond the posterior third of pronotum, serrate from the third segment, with the first segment fusiform, the longest, and about 4 times as long as the second, which is subglobular, and the shortest, the third subtriangular, about 1.5 times as long as wide, about 3 times as long as the second and about 1.5 times as long as the fourth, which is about as long as wide, the following segments from fifth to tenth strongly dilated exteriorly and distinctly wider than long, and the eleventh subelliptical, slightly longer than the tenth and slightly longer than width.

Pronotum transverse, strongly attenuate anteriorly from base to the anterior margin

about 2.2 times as broad as long, and widest at the base; sides arcuately attenuate from base to front, but they are often somewhat angulate just behind the middle, and somewhat reflexed in the posterior third; anterior margin narrow, a little broader than a half of basal margin, and arcuately but feebly emarginate, without median lobe; posterior margin subtruncate, feebly sinuate on each side, with a small projection at the antescutellar part; posterior angles acute, but not produced; anterior angles acute and slightly produced in dorsal aspect, though abased and ill-defined in lateral aspect; marginal carinae sinuate, but sharply defined only in the posterior half of pronotum; disc loosely convex, obsoletely depressed along the anterior margin causing the margin itself reflexed, without any other depression or impression and distinct median carina or groove; surface strongly and coarsely punctate, but the punctuation becomes sparser and weaker forming a rugoso-reticulate sculpture at the sides. Scutellum dorsally invisible.

Elytra broadly convex, about twice as long as wide, about 5.3 times as long as pronotum, and widest at humeri; sides obliquely truncate at humeri, which are somewhat angulate, sinuate just behind humeri to the part of anterior fourth, where they are broadly angulate, then arcuately but gradually attenuate to apices, which are broadly rounded and separately end in sutural dentation of each elytron; lateral margins entirely reflexed and irregularly dentato-serrate in the posterior fifth; disc slightly costate, but the costae become stronger and more distinct towards the sides; surface punctate by fine small punctures, but the punctuation becomes stronger, coarser, and confluent towards the sides.

Body beneath more shining than above, with very sparse fine punctures and sparsely scattered with semirecumbent silver-greyish short hairs. Prosternum concentrically rugose around the process, with the anterior margin subtruncate, and somewhat lobed on each side; prosternal process deplanate, subquadrate, distinctly defined from prosternum itself anteriorly by a transverse groove, smooth, very sparsely scattered with minute punctures, with the sides subparallel, somewhat dilated and angulate just behind anterior coxal cavities, then suddenly and obliquely attenuate to apex, which is broadly subtruncate. Metasternum gibbose, impunctate and projected anteriorly to cover the posterior part of sternal cavity. Abdomen beneath with the first ventral segment convex and produced between posterior coxae, and the last ventral segment broadly and triangularly emarginate (male) or rounded (female) at apex.

Legs normal, with anterior tibiae the longest among the species of this mimetic group and somewhat curved at the basal part.

Length: 36.8–45.0 mm; width: 14.0–17.8 mm.

Specimens examined: More than fifty males and females from the Cameron Highlands, Pahang of the Malay Peninsula.

Distr.: Malay Peninsula, Sumatra, Borneo, Java.

The expansion of the sides of pronotum varies individually; sometimes it is angulate posteriorly, but sometimes it is rather straight and oblique or simply arcuate. The colour of the upper surface of the body is sometimes tinged with bluish shimmer.

Though the species has been recorded from other parts of Sundaland such as Borneo, Sumatra and Java, the author has never examined the specimens from localities other than that of the Malay Peninsula. From the insufficient descriptions of *C. triangularis* KERREMANS, 1908, and *C. moultoni* KERREMANS, 1910, both known from Borneo, it is impossible to decide to which genus they really belong, since they may fall in the genus *Descarpentriesia* m. as well. *Callopistus carteri* KERREMANS, 1908, has golden and slenderer body with less prominent humeri than that of *castelnaudii*, though it apparently belongs to this genus. At a glance, it looks like *Chrysochroa purpureiventris* H. DEYROLLE, and it may be the most primitive species in the genus *Callopistus*. Described from Celebes, this species is unique in getting over Wallace's line among the species having the antennae serrate from the third segment.

Genus ***Micropistus*** THÉRY, 1922

Micropistus THÉRY, 1922, Ann. Soc. ent. Belg., **62**, p. 203.

Type-species: *Micropistus microcephalus* THÉRY, 1922 (=*Philocteanus igneiceps* E. SAUNDERS, 1872) (New Guinea) (by monotypy).

Body subcuneiform, and attenuate posteriorly.

Head moderately small; froms more or less excavated between eyes, with the median groove more or less impressed or sulcate; eyes subparallel or slightly converging above; antennae short and compact, serrate from the third segment, with serrate segments from the fourth to the tenth as long as wide or wider than long, apical one distinctly separated from the tenth, and the sensory pores diffused on both sides of each serrate segment.

Pronotum transverse, with the sides attenuate anteriorly, median line of disc inconspicuous or absent, marginal carinae defined in the posterior two-thirds and strongly curved inferiorly in frons causing the anterior angles obscure and produced inferiorly; posterior margin bisinuate. Scutellum dorsally invisible.

Elytra irregularly punctato-striate, with the interstices obsoletely costate at least in the posterior half; sides irregularly dentato-serrate near apices, which are separately unidentate.

Body beneath somewhat navicular in lateral aspect and deplanate in the middle of metasternum; prosternum subtruncate anteriorly and flattened on the process which is not defined from prosternum in front; first ventral segment of abdomen swollen and produced between posterior coxae in lateral aspect; first ventral segment triangularly emarginate (male) or rounded (female) at apex.

Legs normal, rather short and slender, with anterior tibiae slightly curved at the base, and the basal segment of each tarsus more or less longer than the second.

Range: Burma, Indochina, Thailand, Malay Peninsula.

Micropistus microcephalus THÉRY, 1922, the type-species of this genus, was described from New Guinea. Later, however, this species was correctly regarded as a synonym of *Philocteanus igneiceps* E. SAUNDERS, 1872, described from Burma and Laos.

The locality "New Guinea" was regarded by A. THÉRY himself as the mislabelling of Indochina. Though the genus is monotypic at present and its range is confined to the Indochinese Peninsula, the second remarkable species was found from the Malay Peninsula as described herein.

Micropistus dilatatus sp. nov.

(Fig. 4; Pl. 1, figs. 1b, 2j)

Body subcuneiform, dilated above, and closely similar to *Descarpentriesia resplendens* (GORY, 1840); above entirely bright golden green, with the exception of frons, clypeus and mouth parts cupreous, and tibiae slightly tinged with aeneous; body beneath and the underside of femosa concolorously cupreo-purpureous, slightly tinged with aeneous; antennae dark aeneous or blackish with the exception of the basal three segments which are somewhat tinged with green.

Head small, not broader than the anterior margin of pronotum, broadly and shallowly excavated between eyes, with the median groove deeply sulcate in front; frons broad, about as broad as long in the anterior part, coarsely, sparsely and irregularly punctate, with an obsolete oblique carina at the posterior part of each antennal cavity; clypeal suture absent; clypeus thin, with the anterior margin arcuately emarginate, each side of emargination being lobed; antennal cavities moderate, not surrounded posteriorly by carina or groove; antennae short and compact, not reaching the middle of the sides of pronotum, serrate from the third segment, with the first segment stout, swollen, subfusiform, and about twice as long as the second, which is subglobular and the shortest, the third the longest, more than 2.5 times as long as the second, and distinctly longer than the first, and dilated exteriorly towards apex, the fourth similarly formed to, though slightly shorter than, the third, and about as long as the first, the fifth slightly shorter than the fourth, distinctly longer than wide, the sixth to the tenth dilated exteriorly and as long as wide or wider than long, and the apical one distinctly separated from the tenth.

Pronotum transverse, about 1.8 times as broad as long, and widest at the base; sides subparallel or feebly attenuate in front in the posterior half, somewhat angulate at the middle, then strongly and obliquely attenuate to the anterior margin, and narrowly reflexed in the posterior half; anterior margin simply and arcuately emarginate, narrow, slightly broader than a half of the basal width; posterior margin bisinuate, with the median lobe broadly produced and dentate at the antescutellar part; posterior angles acute and somewhat produced posteriorly as to cover each shoulder; anterior angles abased, ill-defined, produced downwards, but the tip is rounded; marginal carinae defined in the posterior two-thirds of the margin, strongly curved downwards anteriorly; disc rather deplanate, with a small obsolete round depression at the inferior side of each posterior angle, and the median line impunctate, but it is neither carinate nor impressed; surface strongly, coarsely and irregularly punctate, but the punctuation becomes denser and confluent towards the sides. Scutellum dorsally invisible.

Elytra less convex, somewhat deplanate, about twice as long as wide, about 4.4 times as long as pronotum, and widest at humeri; sides dilated laterally and rounded at humeri, then gradually, obliquely and arcuately attenuate to apices, which are projected into a separate sharp spine, with the outer margin irregularly dentato-serrate near apex; lateral margins reflexed almost entirely, with the exception of serrate part unreflexed; disc puncto-striate, but the punctuation is more distinct in the anterior half and becomes finer and more irregularly striate in the posterior half, with the intervals somewhat elevated and becoming costiform in the posterior half; surface minutely and finely punctured on the intervals.

Body beneath finely punctured, but the punctuation becomes denser towards the sides and rather impunctate and smooth in the middle, and clothed with fine, semirecumbent, cinereous hairs. Prosternum rugoso-punctate, obsoletely impressed along the anterior margin, which is subtruncate and reflexed; prosternal process very obsoletely carinate in the middle, coarsely punctate on each side of the carina in the anteior half, and shallowly and obscurely depressed at apex, with the sides somewhat arcuately constricted by the insertion of anterior coxae, then obliquely emarginate to apex, which is broadly truncate. Metasternum flattened and smooth, with a few punctures in the middle, finely and densely punctured towards the sides. Abdomen beneath sparsely punctured in the middle, densely towards the sides, with the first ventral segment swollen or subgibbose between posterior coxae, and the last ventral segment rounded (female) at apex.

Legs normal, short and slender, with anterior tibiae subcylindrical, slightly curved at base and not dilated at apex.

Length: 32.6–34.2 mm; width: 12.6–13.4 mm.

Male unknown to the author.

Holotype: ♀, Tapah Hills, Perak, Malay Peninsula, v. 1976; paratype: 1 ♀, Cameron Highlands, Pahang, Malay Peninsula, v. 1977.

Distr.: Malay Peninsula.

This peculiar species is distinguished from the allied species by the structure of antennae and the swollen first ventral segment of abdomen. From Indochinese *M. igneiceps* (E. SAUNDERS, 1872), the type species of this genus, it is distinguished by the coloration and the form of the body.

Genus ***Descarpentriesia*** gen. nov.

Type-species: *Callopistus resplendens* (GORY, 1840).

Head small, longitudinally grooved at the middle, but not excavated between eyes; eyes oblique, converging above; antennae rather short, slender, lax, and serrate from the fourth segment, with each serrate segment longer than wide and the sensory pores diffused on both sides.

Pronotum transverse, with the sides obliquely attenuate anteriorly, the median line of disc obsolete and impunctate, marginal carinae entire, and with the anterior angles

distinct and well-defined.

Elytra more or less costate, with the sides irregularly serrate posteriorly.

Body beneath somewhat navicular, slightly produced and obtusely angulate in lateral aspect; prosternal process planate or feebly convex; sternal cavity formed by mesosternum and metasternum; metasternum swollen and raised anteriorly at the middle, but not so strongly gibbose as in *Callopistus*. Abdomen normal; first ventral segment of abdomen convex, neither sulcate nor depressed in the middle anteriorly; anal segment of abdomen rounded (female) at apex.

Legs normal, rather short and slender, with each first tarsal segment always longer than the second.

Range: Malay Peninsula.

This genus stands closer to the genus *Chrysochroa* SOLIER, 1833, than to the genus *Callopistus* H. DEYROLLE, 1864, in the latter of which this species was previously placed, in the structure of antennae. It is distinguished from *Chrysochroa* by the entire marginal carinae of pronotum and by the form of metasternum which is swollen and raised anteriorly at the middle.

Descarpentriesia resplendens (GORY, 1840)

(Fig. 5; Pl. 1, figs. 1a, 2i)

Chrysochroa resplendens GORY, 1840, Monogr. Bupr., Suppl., **4**, p. 61, pl. 11, fig. 61.
Callopistus resplendens: H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 10.

Body above entirely bright golden green, concolorous, with the exception of tibiae which are more or less tinged with aeneous or slight cupreous; body beneath and the underside of legs entirely cupreous with somewhat aenescent shimmer. Body above somewhat deplanate with expanded shoulders, and more strongly and obliquely attenuate anteriorly towards the small head than in any other species of this mimetic group.

Head small, not broader than the anterior margin of pronotum, broadly but shallowly depressed between eyes, with the median groove entire, narrow, though deep; frons punctate sparsely upwards, densely and confluently downwards and impressed along the posterior margin of each antennal cavity; clypeal suture distinct and transverse; clypeus very thin, with the anterior margin somwhat triangularly excavated; antennal cavities rounded and rather large, surrounded posteriorly with oblique carina; antennae short and slender, not reaching the base of pronotum, serrate from the fourth segment, with the basal segment fusiform, the second the shortest and subquadrate, not dilated apically, the third slightly shorter than the basal one, about three times as long as the second, and slightly longer than the fourth, which is slightly and somewaht triangularly dilated apico-exteriorly, those from the fifth to apical ones broadly dilated exteriorly, but each segment is always longer than wide.

Pronotum transverse, subtrapezoidal, strongly attenuate anteriorly from base to the anterior margin, about twice as broad as long, and widest at the base; sides oblique,

slightly but arcuately swollen just before the base, somewhat reflexed in the middle third; anterior margin narrow, slightly narrower than a half of the basal margin, and arcuately emarginate, without median lobe; posterior margin bisinuate, with the median lobe broadly and arcuately produced; posterior angles somewhat acute, but not produced; anterior angles abased, acute and produced in dorsal aspect, produced downwards and broadly rounded at apex in lateral aspect; marginal carinae entire, sharply defined, and slightly curved anteriorly; disc rather deplanate, with an obsolete reduced depression just interior to each basal angle, median line impunctate and feebly carinate; surface coarsely punctate, but the punctuation is irregular, sparser in the middle, denser, coarser and somewhat confluent towards the sides. Scutellum dorsally invisible.

Elytra less convex, somewhat deplanate in basal and humeral parts, about twice as long as wide, about 5 times as long as pronotum, and widest at humeri; sides gradually and arcuately attenuate from humeri to apices, and coarsely and irregularly serratodenticulate in the posterior third; humeri expanded laterally; basal lobes obsolete; apices furcate and separately unidentate in a sharp spine on each elytron; disc ten to eleven striated, with the interstices alternately convex and carinate, forming four costae; surface punctate, but the punctures become finer and sparser towards the suture and stronger, denser, coarser and confluent towards the sides.

Boby beneath with fine punctures which become denser towards the sides and sparser towards the middle, being clothed with inconspicuous, silver-brownish or -greyish, semirecumbent, short hairs, which become denser towards the sides. Prosternum somewhat rugose, with the anterior margin subtruncate; prosternal process deplanate, distinctly defined by a transverse groove from prosternum itself anteriorly, smooth, sparsely scattered with small round punctures, with the sides subparallel, slightly dilated and angulate just behind anterior coxal cavities, then sinuously and obliquely attenuate to apex, which is broadly lobed and produced. Metasternum convex, scattered with fine punctures in the middle. Abdomen beneath with the first ventral segment convex, and the anal segment broadly rounded or arcuate (female) at the apex.

Legs normal, but slenderer than those of *Chrysochroa purpureiventris* and *Callopistus castelnaudii*.

Length: 36.2 mm; width: 13.5 mm.

Male unknown to the author.

Specimens examined: 1 ♀, Cameron Highlands, Pahang, Malay Peninsula, iv. 1970; 1 ♀, Malay Peninsula (Syntype) (Coll. Muséum National d'Histoire Naturelle, Paris).

Distr.: Malay Peninsula.

In spite of its similarity to the *Callopistus* and *Micropistus* species in general appearance, this species stands close to *Chrysochroa* in every respect. Deceived by its appearance, H. DEYROLLE erroneously transferred *Chrysochroa resplendens* GORY, 1840, to his new genus *Callopistus* in 1864. The author examined a "syntype" of *resplendens*

preserved in the Muséum National d'Histoire Naturelle, Paris, and noticed that this species does not belong to *Callopistus* but to this new genus. This is one of the rarest species in this mimetic group. Besides the "syntype" mentioned above, the author was able to examine only one specimen. The "syntype" preserved in the Museum National d'Histoire Naturelle, Paris, is herewith designated as the "lectotype" of this species.

Genus ***Chrysochroa*** SOLIER, 1833

Chrysochroa SOLIER, 1833, Ann. Soc. ent. France, **2**, p. 270, pl. 10, fig. 4.
Pyranthe GISTL, 1834, Ins. Doubl. Graf. Jenison-Walworth, p. 12.
Euchloris BILLBERG, 1837, Bull. Soc. Nat. Moscou, **10** (8), p. 29.
Catoxantha: JAKOBSON, 1912, Zuki Rossii, p. 778.

Type-species: *Buprestis fulminans* FABRICIUS, 1787 (Java) (present designation).

Body moderate to large, elongate and metallic coloured.

Head moderate, larger in male than in female; frons narrow, longer than wide, subtrapezoidal, and excavated between eyes, with the median groove distinct; eyes oblique, converging above, and larger, more strongly swollen and produced laterally in male than in female; anterior margin of clypeus deeply emarginate; mandibles normal; antennae slender or compact, variable, serrate from the fourth segment, with serrate segments usually longer than wide, rarely about as long as wide, and the apical segment free from the tenth.

Pronotum transverse, widest at or just before the base, with the sides attenuate anteriorly, median line more or less grooved posteriorly or rarely entirely absent, marginal carinae sharply defined posteriorly, curved downwards anteriorly and becoming obsolete anteriorly, causing the anterior angles obsolete; anterior margin slightly bisinuate, with the median lobe obsolete; posterior margin bisinuate, with the median lobe broadly produced. Scutellum dorsally invisible.

Elytra variable, costate or striated, sometimes smooth, with the sides unarmed or serrate near apices which are separately emarginate, or sinuate, or unidentate.

Body beneath more or less navicular in lateral aspect; prosternum with anterior margin subtruncate or broadly sinuate with a broad median lobe; prosternal process variable, feebly convex, flattened, or rarely slightly sulcate; metasternum flattened in the middle, with the median line feebly grooved; first ventral segment of abdomen flattened, but not convex between posterior coxae; last ventral segment of abdomen emarginate or rounded, but the emargination is larger and deeper in male than in female.

Legs normal, with anterior tibiae feebly arcuate basally, and the basal segment of each tarsus always longer than the second.

Range: E. Africa, India, Burma, Andamans, China, Korea, Japan, Formosa, Indochina, Thailand, Malay Peninsula, Sumatra, Nias, Borneo, Java, Lesser Sunda Islands, Celebes, Palawan, Philippines, S. & N. Moluccas.

This genus which spreads over whole of the Oriental Region and includes more than fifty species is rather heterogeneous and may be divided into several genera. The

unique character common to them is the shape of antennae which are serrate from the fourth segment. From this point, the preceding genus, *Descarpentriesia* m. stands close to *Chrysochroa* than to *Callopistus*.

Chrysochroa purpureiventris H. DEYROLLE, 1864

(Fig. 6; Pl. 1, figs. 1d, 2l)

Chrysochroa purpureiventris H. DEYROLLE, 1864, Ann Soc. ent. Belg., **8**, p. 6.
Chrysochroa corporaali OBENBERGER, 1922, Tijds. Ent., **65**, p. 174 **(syn. nov.)**.

Body entirely metallic green to reddish green dorsally, and golden-purpulish ventrally, with the dorsal surface of legs usually tinged with blue; antennae blackish, with the exception of the first segment which is golden green or aeneous.

Head moderate, slightly broader than (male) or about as broad as (female) the anterior margin of pronotum; frons excavated between eyes, distinctly (male) or slightly (female) longer than wide, and coarsely, irregularly, confluently and variolately sculptured, with median groove deeply impressed, and the inferior part of each eye obliquely edged and carinate; clypeal suture arcuate but inconspicuous; clypeus broad, more than twice as broad as long, with the anterior margin broadly and triangularly emarginate, but the emargination is deeper in male than in female; antennal cavities large, surrounded neither with carina nor with impression; antennae rather compact, extending to about middle of each side of pronotum, serrate from the fourth segment, with the first segment elongate, fusiform, and the longest, the second subglobular, the shortest, the third dilated apically, more than 3 times as long as the second and distinctly longer than the fourth, which is subtriangular, longer than wide, and about 1.5 times as long as the fifth, the fifth to tenth dilated exteriorly and about as long as wide or a little wider than long, and the apical one elliptical.

Pronotum transverse, about 1.65 times as broad as long, and widest at the base; sides attenuate from base to front, but they are arcuate or rarely somewhat angulate at the anterior third or just before the middle; anterior margin rather simply arcuate, without distinct median lobe, or a slight obsolete incision at the middle; posterior margin bisinuate, with a broad median lobe; anterior angles acute, slightly produced in dorsal aspect, though they are abased and ill-defined in lateral aspect; posterior angles subrectangular or somewhat acute and slightly produced; marginal carinae sharply defined and arcuate in the posterior two-thirds, but they are ill-defined in the anterior third; disc with the median line slightly impressed just before scutellum, without any other depression or impression, but rarely with a small, shallow, round impression on each side of median line at the anterior third; surface punctate, but the punctuation becomes sparser towards the middle, denser, coarser and strongly confluent towards the sides, with the intervals rugose. Scutellum dorsally invisible.

Elytra moderately convex, broader than pronotum at humeri, about twice as long as wide, about 4.5 times as long as pronotum, and widest at humeri or at the middle; sides obliquely truncate or arcuate at humeri, which are rounded or slightly angulate,

gradually attenuate or subparallel to a part just behind the middle, where they are arcuately rounded, then arcuately and obliquely attenuate to apices, which are sharply unidentate at the sutural angle; lateral margin neither reflexed nor denticulate; disc 4-costate from base to apex, with the exception of smooth scutellar part, the interstices weakly elevated and subcostate between the costae; surface irregularly punctate, but the punctuation becomes denser and confluent towards the sides.

Body beneath finely punctured, and clothed with short, inconspicuous, semirecumbent, cinereous hairs, the punctuation and pubescence becoming denser towards the sides. Prosternum coarsely and sparsely punctate, the punctuation sometimes becoming transversely rugose along the anterior margin, which is subtruncate; prosternal process densely (male) or sparsely (female) punctate and shallowly and obsoletely sulcate, with the lateral parts impunctate and sharply edged, and the sides subparallel or feebly constricted between anterior coxal cavities, slightly dilated and angulate just behind them, then obliquely and sinuously attenuate to apex which is subtruncate. Metasternum flattened and smooth with a few minute punctures in the middle, with the anterior margin produced between mesosternum and broadly truncate at apex. Abdomen beneath smooth and flattened or feebly convex between posterior coxae and triangularly emarginate (male) or bilobed (female) at apex.

Legs normal, rather short and robust, more robust in male than in female; anterior tibiae almost straight, not curved.

Length: 26.8–39.8 mm; width: 8.9–13.8 mm.

Specimens examined: More than one hundred males and females from the Cameron Highlands, Pahang, Malay Peninsula; more than 60 males and females from Gopen, Kedah, Malay Peninsula; 1 ♂, Assam; 1 ♂ 1 ♀, Java; 2 ♂♂ 1 ♀, W. Java, iv. 1979; 1 ♀, Langkawit, Papar, Kota Kinabalu, N. Borneo, 16. iv. 1982, S. LANTOH lgt.

Distr.: Assam, Indochina, Malay Peninsula, Sumatra, Borneo, Java.

This species was orginally described by H. DEYROLLE in 1864 from the "Péninsule de Malacca", based upon the famous collection made by M. WALLACE in the Malayan Archipelago. Afterwards, the species was recorded from Java (Ch. KERREMANS, 1908, Monogr. Bupr., **3**, p. 43) and Laos (A. BAUDON, 1966, Mem. Soc. R. Ent. Belg., **30**, p. 25). *C. corpolaari* OBENBERGER, 1922, described from Sumatra has no specific character separating it from *purpureiventris*. All the diagnostic characters mentioned by OBENBERGER seem to fall within the range of individual variation.

Though the specimens from Assam, Gopen of the Malay Peninsula and Java, examined by the present author, have golden or reddish golden body above with humeri not prominent, those from the Cameron Highlands, Central Malaya, have golden green body above with prominent humeri. The individuals having such characters as the bright golden-green body above, cupreopurpureous body beneath and prominent humeri seem to occur in a small confined area around the Cameron Highlands and are presumed to have been caused by a mimetic convergence endemic to that area. The fact that such a place as Gopen of Kedah, Malay Peninsula, which is situated at the opposite side of the same mountain range to the Cameron Highlands of Pahang, Malay

Peninsula, harbours specimens with normally coloured body indicates that the convergence occurred in rather a recent geological age.

Genus ***Iridotaenia*** H. DEYROLLE, 1864

Iridotaenia H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 25.

Type-species: *Chrysodema sumptuosa* CASTELNAU et GORY, 1835 (present designation).

Body moderate to large, ovate or subcuneiform, sometimes very slender and usually more slender in male than in female.

Head moderate; frons narrow, longer than wide, excavated between eyes, with a distinct median groove; eyes moderate, slightly larger in male than in female, and slightly converging above, with the inferior margin somewhat sinuate; clypeal suture obsolete or almost absent; clypeus thin, with the anterior margin deeply emarginate between angulate lateral lobes; mandibles normal; antennal cavities moderate, subtriangular or rounded, surrounded interiorly by an oblique carina; antennae short and slender, not or hardly reaching the middle of the sides of pronotum, serrate from the fourth segment, with the first and third segments fusiform, the second subglobular, the shortest, the fourth to tenth more or less dilated exteriorly and diffused with sensory pores on both sides, and the apical one rounded at apex.

Pronotum transverse, subtrapezoidal, more or less wider than long, widest at the base, with the sides attenuate anteriorly, median line of disc more or less grooved or impressed, marginal carinae sharply defined in the posterior two-thirds to three-fifths, and the anterior angles ill-dafined in lateral aspect; posterior margin variable in form, arcuately produced, bisinuate, or sometimes subtruncate. Scutellum small but distinct, rounded or subtrapezoidal.

Elytra either widest at humeri and attenuate from there to apices, or widest and rounded at the part just behind the middle and then attenuate to apices, with the sides irregularly denticulate posteriorly and epipleura more or less dentate at the posterior end.

Body beneath more or less navicular, swollen from mesosternum to abdomen in lateral aspect; prosternum with the anterior margin feebly but somewhat arcuately emarginate, and the process flattened, angulate and dilated laterally just behind anterior coxal cavities, and subtruncate at apex which is broadly produced; mesosternum divided; metasternum arcuately produced anteriorly between middle coxal cavities; first ventral segment almost smooth, flattened or feebly sulcate in the middle; apex of the last ventral segment of abdomen broadly and triangularly emarginate (male) or with a small triangular emargination or incision, or bilobed (female).

Legs normal, rather short and robust, with anterior tibiae somewhat curved at the base and the basal segment of each tarsus more or less longer than the second. Claws simply cleft.

Range: Tropical Africa, Seychells, India, Andamans, Burma, Indochina, Hainan,

Thailand, Malay Peninsula, Sumatra, Borneo, Java, Lesser Sunda Islands, Celebes, Palawan, Philippines, Moluccas, New Guinea, Bismark Islands, Solomons, Australia.

The genus includes several different types of species groups. Some species described under this genus may be transferred to other related genera. One of the Malayan species, *I. sumptuosa* CASTELNAU et GORY, 1835, which is designated here as the type species of this genus and distributed in the Sundaland, is included in this mimetic group.

Iridotaenia sumptuosa (CASTELNAU et GORY, 1835)

(Fig. 7; Pl. 1, figs. 1g, 2o)

Chrysodema sumptuosa CASTELNAU et GORY, 1835, Monogr. Bupr., **1**, p. 2, pl. 1, fig. 1.
Iridotaenia sumptuosa: H. DEYROLLE, 1864, Ann. Soc. ent. Belg., **8**, p. 27.

Body above entirely metallic green to golden green with the exception of frons igneous red and pronotum and elytral apex often tinged with golden bronzy; body beneath bright cupreopurpureous; legs golden green, with femora concolorous with body beneath; antennae blackish, with the basal three or four segments tinged with bronzy green or red.

Head small to moderate, not broader than anterior margin of pronotum; frons wider in female than in male, excavated between eyes, distinctly (male) or slightly (female) longer than wide, coarsely, sparsely, sometimes confluently punctate, with the median groove deeply impressed and somewhat carinate along the inferior rim of each eye posteriorly; clypeal suture absent or almost absent; clypeus thin, with the anterior margin deeply, arcuately or semicircularly emarginate between sharply dentate projections; antennal cavities moderate, with the posterior and interior rims reflexed; antennae rather compact, not extending beyond the middle of the sides of pronotum, and serrate from the fourth, with the first segment fusiform, about as long as the third or fourth, the second the shortest, subglobular, the third fusiform, about twice as long as the second, the fourth subtriangular, about as long as the third, distinctly longer than the fifth, and distinctly longer than wide, the fifth subtriangular, dilated exteriorly, and slightly longer than wide, from the sixth to the tenth subtriangular, dilated lateroapically, and about as long as wide, and the apical one elliptical.

Pronotum transverse, about 1.7 times as wide as long, and widest at the base; sides attenuate from base to front, but they are more or less angulate or swollen at the anterior third; anterior margin simply but slightly and arcuately emarginate or slightly bisinuate with a very obsolete median lobe and often with a minute incision at the middle; anterior angles acute and produced in dorsal aspect, strongly abased and ill-defined in lateral aspect; posterior margin bisinuate or somewhat trisinuate, with the median lobe broadly angulate just before scutellum; posterior angles subrectangular or slightly acute, though hardly produced; disc with the median line slightly impressed and somewhat foveolate just before scutellum, but without distinct depression or impression on each side of median line; surface irregularly and coarsely punctate, the punctuation becoming stronger, denser and confluent towards the sides. Scutellum small,

subtrapezoidal, longer than wide, deplanate, smooth and impunctate.

Elytra moderately convex, deplanate basally around scutellum, much broader than pronotum at humeri, about twice as long as wide, about 4.4 times as long as pronotum and widest at humeri; sides strongly expanded at humeri, which are rounded, sinuously attenuate from humeri to the part just behind the middle, where they are broadly rounded, then obliquely attenuate to apices, which are sharply and separately dentate at the sutural angle; lateral margin distinctly reflexed in anterior half, and strongly dentato-serrate in posterior half; disc obsoletely 4-costate, but the costae become inconspicuous basally, and subtriangularly or longitudinally impressed at the inferior part of each humerus; surface irregularly and somewhat confluently punctate.

Body beneath navicular in lateral aspect, finely punctured and clothed with semi-recumbent, short, inconspicuous cinereous hairs, the punctuation and pubescence becoming denser towards the sides and much finer and sparser, sometimes smooth towards the middle. Prosternum rugose and slightly impressed along the anterior margin, which is truncate or feebly emarginate; prosternal process broad and flattened, or feebly sulcate, and sparsely scattered with a few punctures, with the sides arcuately constricted by anterior coxal cavities, expanded laterally and subrectangularly just behind them, then deeply emarginate and attenuate to broadly truncate apex. Metasternum shallowly and broadly sulcate along the median line, the anterior margin arcuately produced. Abdomen beneath with the first ventral segment somewhat smooth between posterior coxae and somewhat swollen just behind them, suture between the first and second ventral segments ∽-shaped with a small incision at the middle, anal segment triangularly emarginate (male) or bilobed or subtruncate (female) at apex.

Legs normal, with anterior tibiae feebly curved at the base.

Length: 30.9–40.0 mm; width: 12.0–15.8 mm.

Specimens examined: 1 ♂, 6 ♀♀, Cameron Highlands, Pahang, Malay Peninsula, ix. 1976, v. 1977, vi. 1978; 1 ♀, Tempino, Jambi Pref., Sumatra, 2. vii. 1942, T. KANEKO lgt.; 1 ♂ 2 ♀♀, Borneo, 1930, OMORI lgt.

Distr.: Malay Peninsula, Sumatra, Borneo.

The material from the Cameron Highlands of the Malay Peninsula is somewhat brighter than that from other localities.

Genus ***Chrysodema*** CASTELNAU et GORY, 1835

Chrysodema CASTELNAU et GORY, 1835, Monogr. Bupr., **1**, p. 1, pl. 1, fig. a.
Chalcophora: LACORDAIRE, 1857, Gen. Col., **4**, p. 21 (pars).
Pseudochrysodema E. SAUNDERS, 1874, Cist. Ent., **1**, p. 223.
Gelaeus WATERHOUSE, 1905, Ann. Mag. nat. Hist., (7), **15**, p. 584.

Type-species: *Chrysodema sonnerati* CASTELNAU et GORY, 1835 (Ceylon) (present designation). That of *Pseudochrysodema* E. SAUNDERS, 1874, is *Pseudochrysodema badeni* E. SAUNDERS, 1874 (Yap Island of Micronesia), and that of *Gelaeus* WATERHOUSE, 1905, is *Pseudochrysodema walkeri* WATERHOUSE, 1892 (Macassar of S. Celebes).

Body moderate to large, ovate, attenuate both anteriorly and posteriorly, and more or less navicular in lateral aspect.

Head moderate; frons broad, broader in male than in female, about as long as wide or slightly longer than wide, broadly excavated between eyes, with the medain groove more or less distinct and the lateral sides of the excavation more of less carinate along the interior side of each eye posteriorly; eyes moderate, converging above, with the interior rim oblique and straight; clypeal suture transverse between antennal cavities of often obsolete; clypeus thin, with the anterior margin emarginate between angulate or produced lateral lobes; mandibles normal, sometimes a little swollen; antennal cavities moderate or large, not surrounded or obsoletely surrounded posteriorly by an oblique carina; antennae long and slender, reaching the middle of the sides of pronotum, serrate from the fourth segment, with the first segment fusiform, the longest, the second the shortest and subglobular, the third long and subcylindrical, the fourth to the tenth dilated lateroapically, though they are always longer than wide, the apical one elliptical.

Pronotum transverse, broader than long, widest at the base, with the sides attenuate from base to front and more or less swollen at or near the middle, median line more or less carinate, marginal carinae sharply defined in the posterior half to three-fifths, and the anterior angles ill-defined in lateral aspect; posterior margin more or less bisinuate. Scutellum small, rounded or subtrapezoidal.

Elytra widest at humeri or just behind the middle, then attenuate to apices, which are denticulate and unidentate at the sutural angle; sides reflexed anteriorly and dentatoserrate posteriorly, with the marginal carinae almost entire; disc striate or costate, often ornamented with irregular-sized depressions or impressions filled with confluent punctures; in fresh examples, surface entirely pulverulent with yellowish powder; epipleura sinuate or dentate posteriorly.

Body beneath more or less navicular in lateral aspect; prosternum more or less sulcate in the middle, with the anterior margin subtruncate or somewhat arcuately emarginate, without lateral lobe or projection; prosternal process rather narrow, broadly sulcate and coarsely punctate in the middle, more or less dilated just behind anterior coxal cavities, and narrowly rounded at apex; mesosternum divided; metasternum flattened or slightly sulcate at the middle, and produced and rounded anteriorly between middle coxae; first ventral segment of abdomen flattened or somewhat sulcate longitudinally between posterior coxal cavities; apex of anal segment triangularly emarginate or strongly bilobed (male) or rounded or projected, sometimes with a small incision at the middle (female).

Legs normal, with afrior tibiae almost straight or feebly curved at the base, and the basal segment of each tarsus more or less longer than the second. Claws simply cleft.

Range: Ceylon, India, Andamans, Indochina, Thailand, Formosa, Ryukyus, Japan, Philippines, Palawan, Borneo, Malay Peninsula, Sumatra, Nias, Mentaways, Java, Lesser Sunda Islands, Celebes, S. & N. Mollucas, New Guinea, Key Islands, Aru

Islands, Australia, Bismark Archipelago, Solomons, Micronesia.

The Philippine genus *Thymedes* WATERHOUSE, 1905, which was treated by Ch. KERREMANS, 1908, as a subgenus of *Chrysodema* CASTELNAU et GORY, 1835, is, as previously pointed out by the author in 1979, generically different from *Chrysodema*, though it stands closely to the latter.

Chrysodema igai sp. nov.

(Fig. 8; Pl. 1, figs. 1h, 2p)

Body above entirely greenish-golden to golden, pronotum more strongly tinged with golden or aeneous than elytra; body beneath golden coppery or reddish coppery; legs metallic green, partially tinged with blue or copper; antennae blackish, with the exception of the basal two segments which are greenish.

Head rather large, about as broad as the anterior margin of pronotum; frons broadly excavated between eyes, distinctly broader than long anteriorly, coarsely, irregularly and sparsely punctate, with the median groove entire, and deeply impressed, and the interior part of each eye broadly and obsoletely carinate; clepeal suture arcuate between the anterior parts of antennal cavities; clypeus thin, and arcuate, with the anterior margin arcuately or rather semicircularly emarginate; antennal cavities large, surrounded exteriorly with carina; antennae slender and lax, extending far beyond the middle of the sides of pronotum, serrate from the fourth segment, with the first segment long and fusiform, the second subglobular, the shortest, the third subcylindrical, about as long as the the first, and about three times as long as the second, the fourth more than twice as long as wide, and about as long as the third, the fifth slightly shorter than the fourth, less than twice as long as wide, the sixth to tenth becoming gradually shorter towards the apical one, though usually of the same width, and the apical one dilated exteriorly and rounded at apex.

Pronotum transverse, subtrapezoidal, about 1.5 times as broad as long, and widest at the base; sides oblique and attenuate from base to front, feebly or somewhat sinuate just before the base and sometimes a little swollen just behind the anterior angle; anterior margin broadly and slightly bisinuate, with the median lobe broadly but slightly arcuate; posterior margin bisinuate, with the median lobe broadly and arcuately produced; anterior angles acute and projected in dorsal aspect, abased and not defined in lateral aspect; posterior angles acute and somewhat produced; marginal carinae sharply defined in posterior half, but they are not defined or ill-defined in anterior half; disc with the median carina obsolete, and somewhat shortly impressed just before scutellum, obsoletely and arcuately impressed on each side of the median carina, with a small obsolete depression at the posterior third of each side causing the margin somewhat but shortly reflexed there; surface rather coarsely and densely punctate, the punctuation becoming denser and confluent towards the sides. Scutellum small, rounded, depressed above, and broadly touching the posterior margin of pronotum.

Elytra moderately convex, broader than pronotum at humeri, about 2.2 times

as long as wide, about 4 times as long as pronotum, and widest at humeri or just behind the middle; sides rounded and somewhat prominent at humeri, slightly sinuate and attenuate to just behind the middle, where they are arcuately rounded, then gradually and arcuately attenuate to apices, which are somewhat conjointly unidentate; lateral margins carinate and reflexed in the anterior two-thirds, and sparsely denticulato-serrate in the posterior third, but the denticulation is rather lax; disc 4-costate, ornamented with a round depression at the centre of anterior third between first and second costae on each elytron and a transverse depression at the part just before posterior third extending from the second costa to the fourth beyond the third, but the first and second costae anteriorly in the anterior third, the third one entirely, and the fourth in the anterior two-thirds, obsolete; surface densely and irregularly punctured, the punctuation becoming denser and somewhat confluent towards the sides and very sparse or absent on the costae.

Body beneath finely punctured, and clothed laterally with semircumbent, short, inconspicuous, cinereous hairs. Prosternum coarsely, irregularly and confluently punctate in the middle, with the anterior margin arcuately but very feebly emarginate; prosternal process broadly sulcate and strongly and confluently punctate at the middle, subparallel or feebly and somewhat arcuately constricted between anterior coxal cavities, slightly dilated laterally and somewhat angulate just behind them, then arcuately and obliquely emarginate and attenuate to apex, which is narrowly rounded. Metasternum flattened and smooth with the median line somewhat impressed, and the anterior margin produced anteriorly and rounded between middle coxal cavities. Abdomen beneath with the suture between the first and second segments belobed and somewhat ~~-shaped; apex of anal segment narrowly pointed and clothed with dense short brownish hairs (female).

Legs normal, rather robust, with anterior tibiae almost straight.

Length: 31.8 mm; width: 10.2 mm.

Holotype: ♀, Main Range, Perak, Malay Peninsula, 1975, ABORINGINES lgt.

Distr.: Malay Peninsula.

Only one specimen mentioned above was available for the author's study. This species is named in honour of the late Mr. Masahiro Iga, who offered this valuable specimen to the present author in his lifetime.

Discussion

Numerical mimicry—Three different types of mimicries are usually recognized: 1) Only one or few species poisonous for birds and other animals occur in a given area, and at the same time, there occur several other species which are harmless but similar in the colour pattern and behavior to poisonous ones (Batesian mimicry). 2) Many poisonous species mutually similar in the form and colour pattern occur in the same area; all of them behave in a similar way, and by doing so, make the damage from predators least (Müllerian mimicry). 3) Combination of the first and second; many

poisonous and non-poisonous species, all similar in the form, colour pattern and behaviors, coexist in a given area.

In the case of the Malayan buprestid beetles, there is no poisonous species among themselves, and any poisonous species having similar form and colour pattern have not been found among other group of insects, either. The convergence seen in these Malayan buprestid beetles differs from the usual mimicry, in which convergence always takes place towards one or several poisonous species. However, the convergence of buprestids seen in the Central Malay Peninsula may not have been caused by accident. It should be considered as a kind of warning pattern of colour, since the beetles have converged not into a kind of protective colour pattern but into an attractive one showing beautifully brilliant golden-green upper and golden-coppery or purpureous red under surfaces of body. The fact that numerous species of different lineages but similar in the form and colour pattern occur in such a small area as the Cameron Highlands of the Central Malay Peninsula seems to support this opinion.

It is a famous fact that in the Philippines, numerous species of the weevil tribe Pachyrrhinchini are mimicked not only by other kinds of weevils but also by many other families of beetles, bugs, and even spiders. In this case, the weevils are not poisonous for birds and other animals, but have very stiff body not crushed by human fingers. It is doubtful that the single character of having a stiff body is responsible for producing such number of mimetic species as seen in the Philippines. Though the Malayan mimetic buprestid beetles also have large and stiff body, it is difficult to regard it as a character protecting them against the attack of birds and other animals. Actually, *Chrysochroa holstii* WATERHOUSE, 1890, of the Bonin Islands, which is closely related to a member of this converging group, *C. purpureiventris*, is often preyed by birds, as is evidenced by its elytral remains scattered on the ground. It is obvious that the convergence of buprestids found in the Cameron Highlands of the Malay Peninsula should be a kind of mimicry but the author has long been unable to elucidate why this group of beetles which has no poisonous character against birds, should have converged to a state of having such an attractive colour pattern.

It was the lecture given by Dr. VANE-WRIGHT of the British Museum (Natural History) at the XVI International Congress of Entomology held in Kyoto in 1980 that threw a new light on this perplexing subject. He told of the existence of "numerical mimicry" which was at that time a new term for us. According to him, this is a kind of modelless mimicry, and in a small area, insects could possibly make the damage minimum by converging their form and colour pattern to a state uniformly attractive to birds. Having too many attractive objects in sight, birds may be bewildered in selecting their foods, and may end in catching none or only a very few of them,

All the members of this remarkably converged group of buprestid beetles in the Cameron Highlands of the Pahang Province of the Central Malay Peninsula are the dwellers of the crown of trees in tropical forests, resting on leaves with brilliant metallic coloured body under the tropical sun beam. Besides, they are rather abundant in their habitat. For this reason, the author considers them to be a typical example of numeri-

cal mimicry.

Circulation and phases in mimicry—Now the author is going to deal with the circulation and phases appearently recognized in mimicry, especially in numerical mimicry.

It should be considered that the mimicry is, once established, constant and unchangeable. It fluctuates as seen in other natural phenomena, and seems to repeat the changes rhythmically. The rhythm of changes in mimicry may be divided into the following five phases.

1) Converging phase: All the species of the group converge to one pattern in the colour, markings and form of body. The group usually expands by addition of new members.

2) Equilibrating phase: All the species of the group have converged to one pattern, and the expansion of the group stops. The number of individuals becomes rather uniform for each species. This is the most prosperous phase in mimicry.

3) Inequable phase: The number of individuals gradually becomes ununiform according to species; it decreases to an extreme in some species, while it greatly increases for a few species of the group.

4) Homogenized phase: A few species of the group, sometimes a single species, increase their number, while the other species become rarer and finally extinct. As the result, only one or two species survive after increasing its individual number. As the original effect of mimicry still remains, another new mimetic group may be formed, based upon the surviving members.

5) Final phase: The groups which did not develop new mimetic groups become extinct through the extermination of surviving members.

As stated above, the change of phases from the first to the fourth may be regarded as an endless circular rotation. This phenomenon is remarkable in the modelless numerical mimicry in the tropics. In the usual mimicry, either poisonous model or one of the other poisonous species subsequently developed always remains, and the group repeats endless regeneration without reaching the final phase. The phases are not so apparent in usual mimicry with model as in numerical mimicry. If a certain usual mimetic group reaches the final phase, it is due to the decline of vitality and adaptability of the poisonous model species.

History of the converging group—Now the author will attempt to reconstruct the process of formation of this converging group in the Malay Peninsula. In the first place, the present distribution and construction of each component genus or species-group will be elucidated.

Philoceteanus malayicus and *P. laticollis*, both described in the present paper as the members of this mimetic group, belong to the *buphthalmus*-group of the genus *Philicteanus* H. DEYROLLE. This species-group also contains *P. buphthalmus* THOMSON 1878 (♀=*maitlandi* LANSBERG, 1883), known from Nias Island, and *P. capitatus* KERREMANS, 1893 (? ♀=*subcupreus* KERREMANS, 1896), known from Borneo. It forms a remarkable group distributed in Sundaland and is regarded as an evolved one, differing

from the continental *rubroaureus*-group in the larger body and well developed male mouth parts. Among the known species of the *buphthalmus*-group, peripherical *buphthalmus*, which is endemic to Nias Island, seems to be the most primitive, because of its non-prominent shoulders and most slender body. At present, no species is known from Java and Celebes and the genus may not occur there.

Callopistus H. DEYROLLE, 1864, is a monobasic genus erected for *castelnaudii* H. DEYROLLE, 1864, from Malacca collected by M. WALLACE, and has been known from the Malay Peninsula, Borneo, Sumatra and Java. Other than *castelnaudii*, the genus includes *C. carteri* KERREMANS, 1908, described from Celebes. Though *triangularis* KERREMANS, 1908, *moultoni*, KERREMANS, 1910, and *pupuriceps* THÉRY, 1922, were described from Borneo as the members of this genus, it is difficult, to regard them as the congeners of *castelnaudii*, because their original descriptions do not give any diagnostic charcters discriminating them from such confused genus as *Descarpentriesia*. Of the two species doubtlessly included in this genus, *carteri* has a more slender body with hardly prominent humeri as compared with *castelnaudii*, and may be more primitive than the latter.

Micropistus THÉRY, 1922, has been regarded as a monotypic genus based upon *Philocteanus igneiceps* E. SAUNDERS, 1872, described from Burma and Laos and distributed in the central and eastern parts of the Indochinese Peninsula. Besides the second species described in the preceding chapter, another new species was recently obtained in North Thailand and is described in the following lines under the name *M. toyamai*. Though intermediate between Indochinese *igneiceps* and Malayan *dilatatus*, it is somewhat closer to the former than to the latter. Of the three species, *dilatatus* may be the most advanced and *igneiceps* may be the most primitive. There are other groups in which continental species are more primitive than those occuring in Sundaland, e.g., *Philocteanus* and the *sumptuosa*-group of *Iridotaenia*. It is not easy to determine if the buprestids of these groups originated in the continent and rapidly became differentiated in Sundaland, or arose in Sundaland and dispersed into the continent. So far as the present mimetic group is concerned, the author is inclined to consider that the group arose in the Himalayan or East Tibetan Districts and dispersed towards Sundaland. In the course of this dispersal, the species distributed at the front became more specialized along the Indian Ocean towards Sundaland and rather primitive forms remained in the eastern parts of the Indochinese Peninsula.

Though the new genus *Descarpentriesia* is monotypic and so far known only from the Malay Peninsula, it can be expected from Borneo and Sumatra. From the structure of antennae, the genus is included in the usual buprestid groups with serrate segments from the fourth, not in the groups with serrate antennal segments from the third. Thus, it is nothing but a specialized form of the genus *Chrysochroa*.

Chrysochroa purpureiventris H. DEYROLLE, known from such a vast area as Assam, the Indochinese Peninsula, Malaya, Borneo, Sumatra and Java, constitutes a remarkably isolated group in the heterogeneous genus *Chrysochroa* SOLIER. The only species closely related to this species is *C. holstii* WATERHOUSE, 1890, which is endemic to the

Bonin Islands of Japan. Examples of *C. purpureiventris* from Assam and Java are rather small and have more slender body with hardly prominent shoulders and more strongly tinged with orange or red than those from the Cameron Highlands. Those from Borneo and Sumatra are rather large and more greenish than those from Java and are situated between Javanese and Malayan ones. Examples from the Cameron Highlands have very strong greehish tinge and prominent shoulders and converge to other species of the mimetic group endemic to this region. As pointed out in the description, examples of the same species from Gopen at the opposite side of the same mountain range, have normally coloured body with golden orange or reddish golden upper surface, as in those from Assam and Java. This fact may indicate that this mimetic convergence is limited in a small area of the Cameron Highlands in the Central Malay Peninsula.

The *sumptuosa*-group of the genus *Iridotaenia* H. DEYROLLE, includes *I. sumptuosa* (CASTELNAU et GORY, 1835) (Malaya, Sumatra, Borneo), *blanchardi* (GORY, 1840) (S. India, Ceylon), *igniceps* E. SAUNDERS, 1866 (Indochina, Thailand), *superba* THÉRY, 1908 (Indochina), *delia* THOMSON, 1897 (Andamans), *niasica* KERREMANS, 1908 (Nias), *riedeli* LANSBERG, 1880 (Timor, Timorlaut), *vicina* THÉRY, 1908 (Amboina), *aurolimbata* H. DEYROLLE, 1864 (Batjan) and *hainanensis* m. (Hainan). All of these ten species are characterized by a large and robust body and usually by prominent shoulders. Of these ten, *sumptuosa* of Sundaland has the body with most prominent shoulders. The ventsal cupreous colour is the strongest in *sumptuosa*, followed by *igniceps*, *superba* and *hainanensis*. Such peripheral species from the Indo-Malayan Archipelago and India as *delia* (Andamans), *blanchardi* (S. India, Ceylon), *niasica* (Nias), *riedeli* (Timor, etc.), *vicina* (Amboina) and *aurolimbata* (Batjan) become paler and, finally, entirely greenish or bluish. This fact seems to indicate that the original colour pattern of the ventral surface is uniformly green in the species of this group, and that the cupreous tinge becomes stronger and stronger towards the centre of Sundaland. The expanse of shoulders is the largest in the species occuring in Sundaland proper and becomes rather triangular in *sumptuosa*. However, it becomes weaker in those that occur in the areas distant from the proper part of Sundaland. In *riedeli*, the body form is normal as in the usual buprestids, and the shoulders are not prominent. As the species from Hainan has not been properly described, it will be named in the next chapter together with *Micropistus toyamai*.

Finally, the genus *Chrysodema* CASTELNAU et GORY, 1835, is a large group containing more than 80 species, and its range covers a vast area in the Oriental tropics, from Inidia to Japan, Micronesia, the Solomons, Australia through Indochina, Malaya, Indonesia, the Philippines and New Guinea. To classify these species into phylogenetic groups is so difficult that Malayan *igai* cannot be placed in its proper position at the present moment.

From the accounts given above, it can be noticed that the most primitive species in each genus or species-group, e. g., *Philocteanus buphthalmus* from Nias, *Callopistus cateri* from Celebes and *Chrysochroa purpureiventris* from Java, has certain characters in common: smaller and more slender body without prominent humeri and reddish

golden coloured body above than those from the main part of Sundaland. On the other hand, specimens from Assam cannot be distinguish from those of Java. From these facts, it is inferred that, in the preceding geological age, perhaps in the Würm Glacial Age, a small ancestral species each of the genera *Philocteanus*, *Callopistus* and *Chrysochroa*, which had slender reddish golden body without prominent humeri and less cupreous ventral surface, spread over the vast area of main Sundaland. Together with the ancestral form of *Iridotaenia sumptuosa*, they may have formed a distinct mimetic group there. On the other hand, as a population of *Chrysochroa purpureiventris*, taxonomically impossible to be separated from the Javanese one, is found in Assam, Indochina and even in the northern part of the Malay Peninsula, it may be considered that the Malay Peninsula had once been occupied by this ancient mimetic group. *Chrysochroa purpureiventris* and *Iridotaenia sumptuosa* in Borneo and Sumatra are as large as those from the Malay Peninsula, but have the body slightly tinged with orange and with less prominent shoulders. From this fact and the fact that the same species from the Cameron Highlands and Gopen belong to different types, the numerical mimicry of the eight buprestid beetles found in the Cameron Highlands seems to be limited in a small area in the central Malay Peninsula.

Based upon the facts stated above, it is concluded that this remakable converged mimetic group of buprestid beetles was established later than the formation of Java in the Postglacial Age and even within the recent ten thousand years after the separation of Borneo, Sumatra and the Malay Peninsula. We should pay deep attention to the possibility that the formation of some mimicry may have been accomplished within an unexpectedly short period.

Of the genera and species-group belonging to this converging mimetic group, the only group expanded out from Sundaland is the genus *Callopistus*. From this fact, it is easily surmised that in the ancient mimetic group occupying Sundaland, the main species must have been the ancestral form of *Callopistus* resembling *carteri* of Celebes. After the formation of Celebes, Nias, and finally Java, the species most prosperous in Sundaland may have been the ancestral form of *Iridotaenia sumptuosa*. Supported by the introduction of *sumptuosa*, this mimetic group may have gained the charcter of prominent shoulders. Finally in the Postglacial Age after division of Sundaland into Borneo, Sumatra and Malaya, influenced by *Descarpentriesia resplendens* endemic to the Central Malay Peninsula and such invador from the north as *Micropistus dilatatus*, the mimetic group having reddish golden upper surface of body may have gradually been replaced by brilliant golden green species in the limited small area of the Cameron Highlands. This change is presumed to have occured in the recent ten thousand years or within much shorter time. As *Callopistus castelnaudii* and *Chrysochroa purpureiventris* are predominant and as the other six species, especially *Descarpentriesia resplendens* and *Chrysodema igai* which are almost in the first step to extinction, are rather rare, this mimetic group can be regarded as being in the third stage, the inequable phase of mimetic circulation. This group will soon enter into the fourth stage, homogenized phase, represented only by the two species, *castelnaudii* and *purpureiventris*.

The discussion given above can be summerized as follows: 1) The remarkable convergent group found in the Malayan buprestid beetles represents a kind of mimicry; 2) it belongs to the numerical mimicry; 3) there are circulations in mimicry, especially in numerical mimicry; 4) in the course of this circulation, five phases may be recognized; 5) the convergent group under consideration is in the third inequable phase of the circulation: 6) this convergence is limited in a small area of the Central Malay Peninsula; and 7) the establishment of the mimicry seem to have been accomplished within a short geological time, and this convergent group may have been formed in a period less than ten thousand years after the last glacial age of the Pleistocene.

Additional Descriptions of Two New Species from Thailand and Hainan

Micropistus toyamai sp. nov.

(Fig. 9)

Female—Closely stands by *M. igneiceps* (E. SAUNDERS, 1972), known from the Indochinese Peninsula including Thailand, Laos, Cambodia and Vietnam, but differs from it in the following points: 1) Body more robust, about 3 times as long as wide, while in *igneiceps*, it is about 3.1 times as long as wide; 2) pronotum wider, about 1.8 times as wide as long (about 1.6 times as wide as long in *igneiceps*), and more strongly attenuate in front, with the sides somewhat angulate at the middle, and with the punctuation finer though denser; 3) elytra shorter and more robust, about 2.1 times as long as wide and about 4.5 times as long as pronotum, while in *igneiceps*, it is about 2.3 times as long as wide and about 4.1 times as long as pronotum; 4) sides of elytra more strongly sinuate just behind humeri, which are more strongly prominent than in *igneiceps*, and more strongly attenuate posteriorly; 5) body above entirely golden-green, without marginal golden red; 6) elytral costae stronger, with interstices not striate, while in *igneiceps*, they are finer with interstices weakly bistriate; 7) first ventral segment of abdomen more strongly convex, swollen and risen anteriorly between posterior coxae; 8) punctures on ventral segment of abdomen finer, smaller and weaker.

Length: 29.2 mm; width: 10.0 mm.

Male: Unknown.

Holotype: ♀, Chaing-Dao, N. Thailand, 10. vii. 1980, K. SUGINO lgt.

Distr.: N. Thailand.

The unique type of this interesting species was offered for this study through the courtesy of Mr. Masao TÔYAMA.

Iridotaenia hainanensis sp. nov.

(Fig. 10)

Female—Closely similar to *I. igniceps* E. SAUNDERS, 1866, and *I. superba* THÉRY, 1908, both known from the Indochinese Peninsula, but differs from them in the following points: 1) Body more robust, broader and brighter with brilliant golden tinge;

2) antennae as in *igniceps*, slenderer than in *superba*, with the third segment slender and about 1.5 times as long as the second; 3) pronotum broader, widest at the posterior fourth and about 1.55 times as wide as long, while in *igniceps* and *superba*, it is about 1.46 and 1.48 times as wide as long respectively and widest at the base; 4) sides of pronotum swollen, irregularly sinuate, and slightly constricted just behind the anterior angles, while they are almost straight and oblique in *igniceps* and *superba*; 5) punctures of pronotum stronger, coarse, irregular, though the punctuation is finer and sparser in the middle; 6) prosternal process a little more strongly constricted by anterior coxal cavities than in the other two species, with the apex more broadly truncate.

Length: 35.2–37.5 mm; width: 11.8–12.5 mm.

Male: Unknown.

Holotype and a paratype: 2 ♀♀, Hainan I., 1943–'45, K. IWATA lgt.

Distr.: China (Hainan).

All the specimens including the types used in the present study are preserved in the National Science Museum (Natural History), Tokyo.

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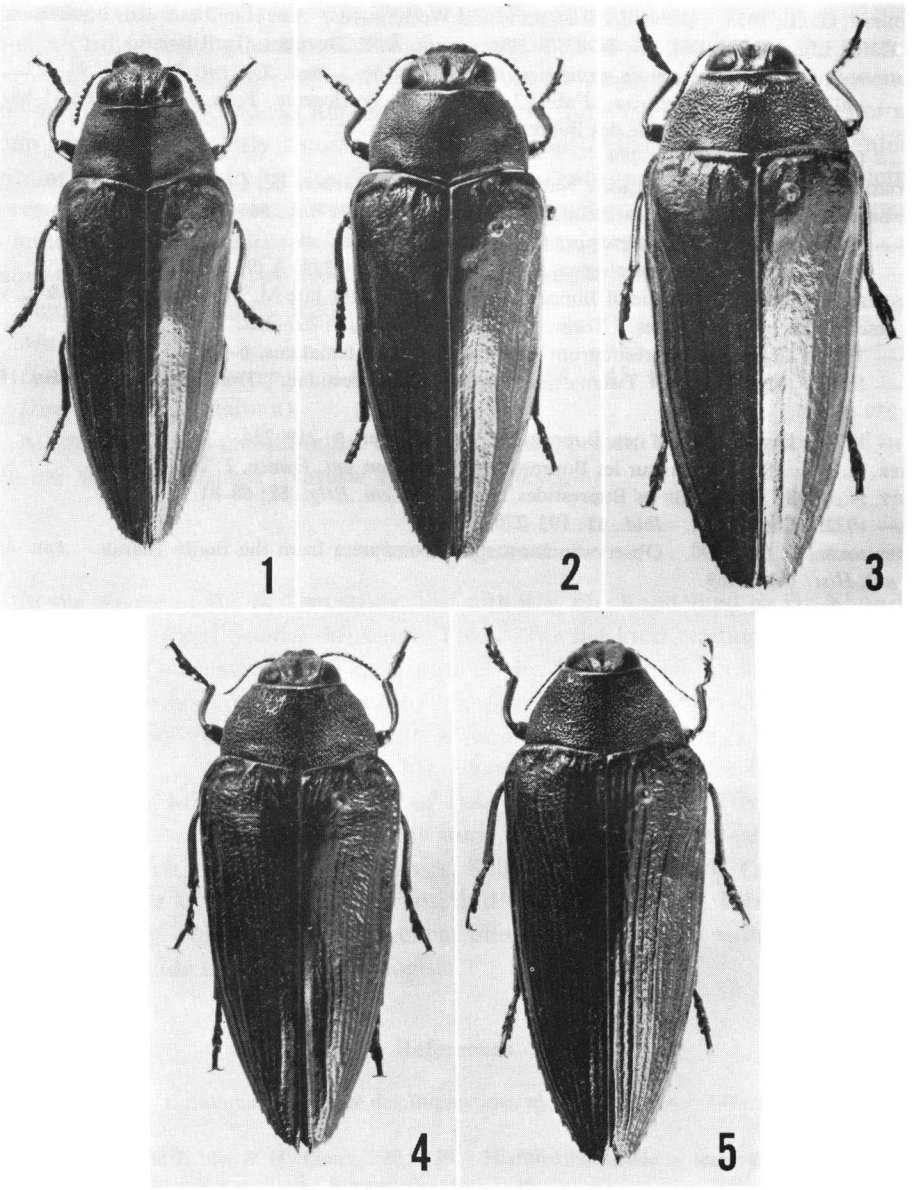
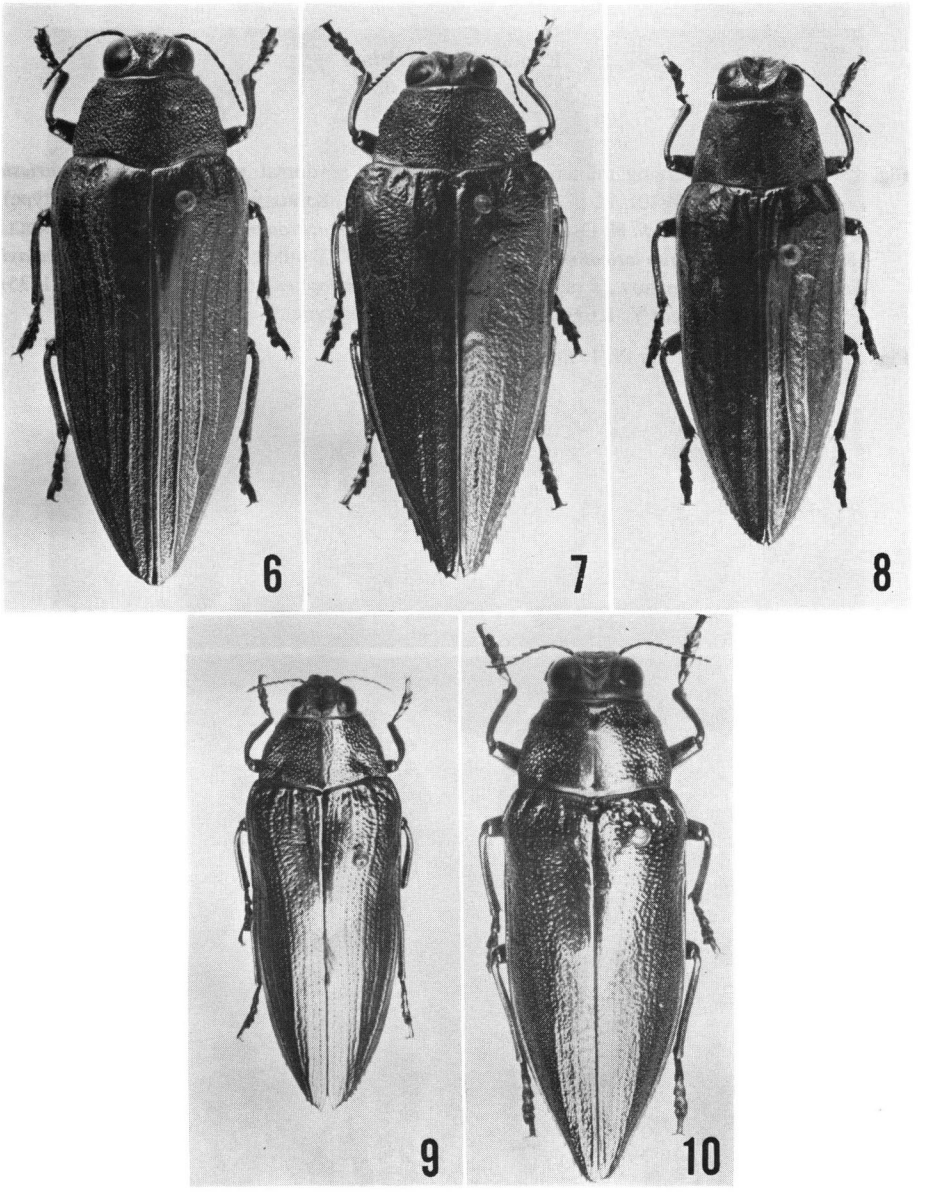


Figs. 1–5. —— 1. *Philocteanus malayicus* Y. KUROSAWA, sp. nov., ♀ (allotype). —— 2. *Philocteanus laticollis* Y. KUROSAWA, sp. nov., ♀ (allotype). —— 3. *Callopistus castelnaudii* H. DEYROLLE, 1864, ♀. —— 4. *Micropistus dilatatus* Y. KUROSAWA, sp. nov., ♀ (holotype). —— 5. *Descarpentriesia* (gen. nov.) *resplendens* (GORY, 1840), ♀.



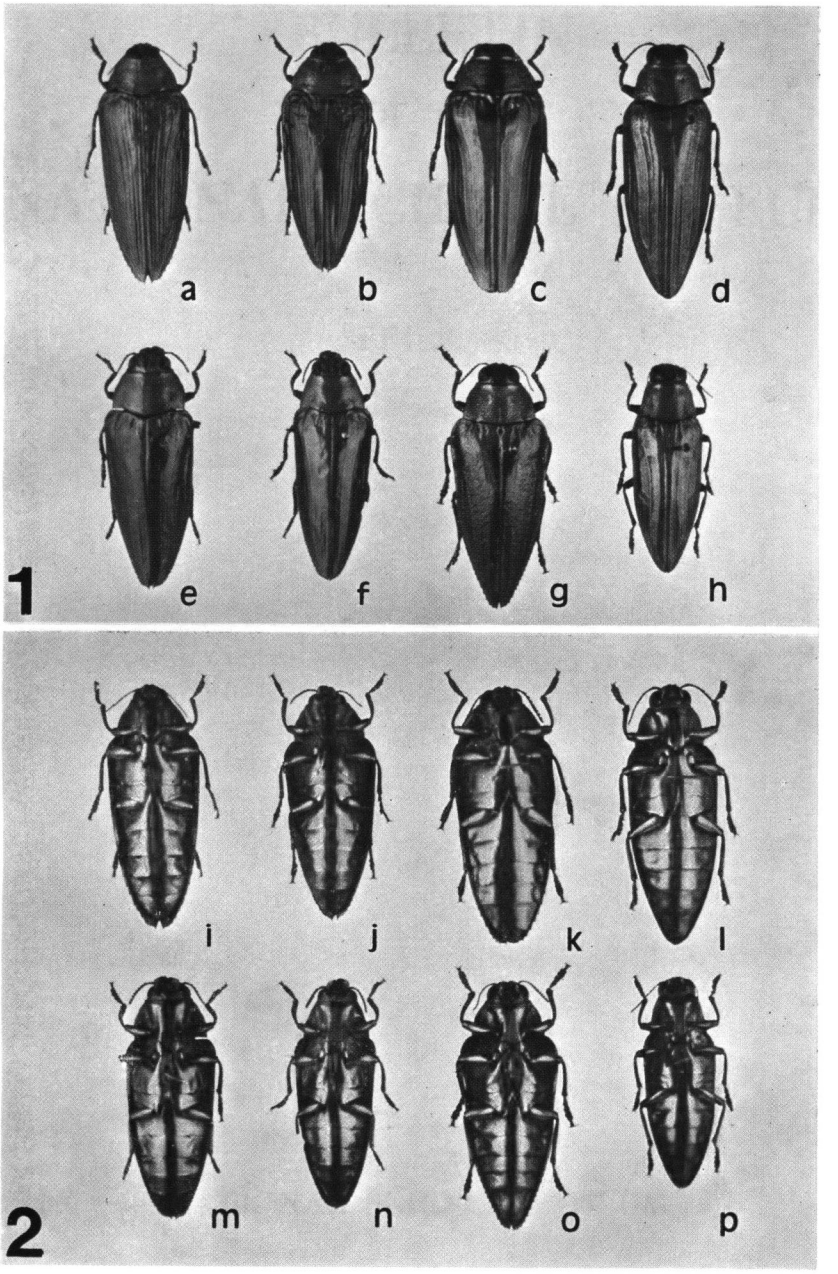
Figs. 6–10. —— 6. *Chrysochroa purpureiventris* H. DEYROLLE, 1864, ♀. —— 7. *Iridotaenia sumptuosa* (CASTELNAU et GORY, 1835), ♀. —— 8. *Chrysodema igai* Y. KUROSAWA, sp. nov., ♀ (holotype). —— 9. *Micropistus toyamai* Y. KUROSAWA, sp. nov., ♀ (holotype). —— 10. *Iridotaenia hainanensis* Y. KUROSAWA, sp. nov., ♀ (holotype).

Explanation of Plate

Plate 1

Fig. 1. Malayan converging mimetic buprestid beetles, in dorsal view. a, *Descarpentriesia resplendens* (GORY, 1840), ♀; b, *Micropistus dilatatus* Y. KUROSAWA, sp. nov., ♀ (holotype); c, *Callopistus castelnaudii* H. DEYROLLE, 1864, ♀; d, *Chrysochroa purpureiventris* H. DEYROLLE 1864, ♀; e, *Philocteanus laticollis* Y. KUROSAWA, sp. nov., ♀ (allotype); f, *Philocteanus malayicus* Y. KUROSAWA, sp. nov., ♀ (allotype); g, *Iridotaenia sumptuosa* (CASTELNAU et GORY, 1835), ♀; h, *Chrysodema igai* Y. KUROSAWA, sp. nov., ♀ (holotype).

Fig. 2. Ventral view of the Pl. 1, Fig. 1.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