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A NEW SUBSPECIES OF *CEROPLOPHANA MODIGLIANII* GESTRO (COLEOPTERA: SCARABAEIDAE, RUTELINAE) FROM MALAYSIA

by

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With one text-figure and one plate

In 1893, Gestro founded the genus *Ceroplophana*, only including the simultaneously described species *C. modiglianii* Gestro. He considered the genus — based on the only known specimen — closely related to *Peperonota* Westwood, *Didrepanephorus* Wood-Mason, and *Dicaulocephalus* Gestro. For rutelines, the males in these genera have strikingly developed secondary sexual characters. Gestro's species was the first representative from an insular locality of this South-East Asian group (Si Rambé, Batakland, North Sumatra; this locality is mentioned on the map in the report of the explorer who collected the material, Modigliani, 1891).

Recently I could study seven ♂ of *modiglianii* from West Malaysia. They show striking differences from Gestro's description. Gestro's type specimen could not be traced in the Museo Civico di Storia Naturale at Genova (E. Tortonese, in litt.). Fortunately, Dr. Erber provided me with six ♂ and the Berlin Museum with one ♂, all from North Sumatra and collected partly in the same area as Gestro's specimen. Consequently a direct comparison became possible.

The differences between the Sumatran and Malaysian specimens described and figured below appear to be constant. Both series include insects of varying size and correspondingly developed head armatures. The identical parameres and the general appearance suggest a close relationship, so only a subspecific rank seems justified for the West Malaysian form, which I name *Ceroplophana modiglianii* Gestro subsp. *malaysiana* (pl. 1).

Due to the indicated differences the original diagnosis of the genus has to be completed in several respects:

Gestro:	To be added:
Ante oculos utrinque denticulato = before the eyes on both sides with a denticle	or without denticle but slightly convex
Vertice lamina brevi, depressa, quadrangulari, apice submarginato = vertex with short, flat, quadrangular, apically slightly emarginated lamina	or without lamina, only with slight, more or less quadrangular elevation
Mandibulae extrorsum parum productae = mandibles somewhat bent outwardly	or not bent outwardly but slightly undulated
Prothorax nitidus = prothorax shining	or slightly mat

These additions do not influence the delimitation, as given by Ohaus (1934), of *Ceroplophana* from *Didrepanephorus*, *Peperonota*, *Parastasia* Westwood, and *Dicaulocephalus*. The genus (for a detailed description, see Ohaus, 1934) seems most closely related to *Dicaulocephalus*, which superficially might be considered a *Ceroplophana* without clypeal horn, but with strongly developed mandibles and eye canthi (fig. 1G).

CONTRASTING CHARACTERS OF TWO SUBSPECIES OF *CEROPLOPHANA MODIGLIANII*

<i>C. modiglianii modiglianii</i> Gestro (fig. 1A)	<i>C. modiglianii malaysiana</i> subsp. nov. (pl. 1 and fig. 1a)
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Mandibles (figs. 1B and b):

Frontolaterally extended into a tooth-like process, directed outward and slightly upward; in small specimens less developed, but well-defined.	Frontolateral apex slightly protruding, not tooth-like, not bent upward.
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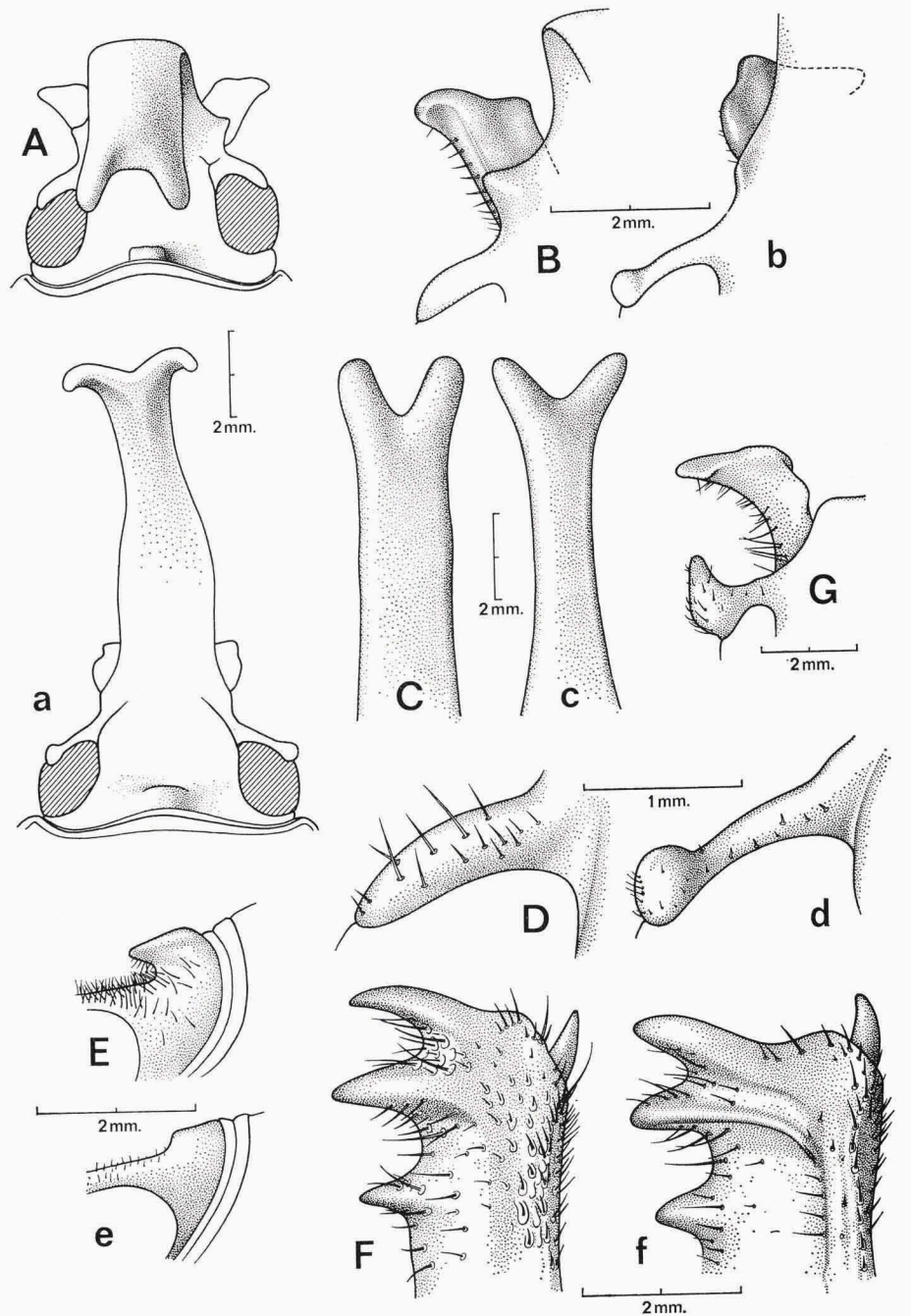


Fig. 1. Comparison of *C. modiglianii modiglianii* and *modiglianii malaysiana*. (Drawing H. Heijn). A, Head of *modiglianii*, a, id. of *malaysiana*; B, Left mandible and anteocular process of *modiglianii*, b, id. of *malaysiana*; C, Clypeal horn of *modiglianii*, c, id. of *malaysiana*; frontal aspect; D, Ocular canthus of *modiglianii*, d, id. of *malaysiana*; E, Frontovertex and lamella on vertex of *modiglianii*, e, id. of *malaysiana*; lateral aspect; F, Apex of left front tibia of *modiglianii*, f, id. of *malaysiana*; G, Left mandible and ocular canthus of *Dicaulocephalus fruhstorferi* Felsche (Mauson Mts, Vietnam).

Clypeal horn (figs. 1C and c):

Rather broad, more or less parallel-sided, tips slightly divergent. In small specimens only a quadrangular, erected lamina, slightly emarginated apically. Strongly curved backward in large specimens.

Slender, sides slightly convex at base, concave towards apex, tips well divergent, even in small specimens. Curved upward, more or less perpendicular on surface of head.

Anteocular process (figs. 1B en b):

Base of clypeal horn, in front of inner margin of eye, with an acute process, directed outward and, in some specimens, slightly forward; less developed in small specimens but still evident.

Only a weak, rounded protrusion, even in largest specimens.

Eye canthus (figs. 1D and d):

Anterior margin evenly rounded from base to apex; surface with long setae.

Apex globularly thickened, frontal margin more or less straight; surface with short setae.

Lamella of vertex (figs. 1A, a, E and e):

Apex free, extending more or less over the surface of frontovertex; anterior margin not or slightly emarginated. In small specimens apex less overhanging frontovertex.

Even in the largest specimens only a weak, more or less quadrangular elevation; no free apex at all.

Frontovertex (figs. 1E and e):

Between the eyes with dense, more or less erect setae; length of setae somewhat more than width of canthus at its base; in median part somewhat shorter.

Scanty setae, at most half of width of canthus; nearly absent from median part.

Front tibia (figs. 1F and f):

Median outer tooth with a rather broad and flat, hardly elevated dorsal ridge, extending till about half the width of tibia; surface with many setae, implanted in coarse punctures.

Median outer tooth with narrow ridge, well surpassing in height the general surface of tibia, extending far over half the width of tibia; setae less numerous, puncturation much finer.

Pronotal derm:

Shining.

Slightly mat.

Colour:

Legs uniformly brown-black.

Femora and tibiae with yellowish brown ground colour; dark brown are apex and inner margin of front tibiae, apex of femora and tarsi.

Pronotum yellowish brown, with two anterior black dots; discus with a somewhat wider black spot on both sides of median; the discal spots may be absent, or confluent with frontal ones, in one specimen forming a black area that leaves yellowish only sides of pronotum.

Unicolorous reddish chestnut-brown.

Elytra with sutural and apicolateral marmoration variably darkened and extended, from covering nearly complete elytron to nearly absent ¹).

Marmoration weakly contrasting with ground colour, present in all specimens and only slightly varying in extent.

Pygidium uniformly dark reddish brown.

Dark reddish brown with well-defined yellowish area before apex.

Underside uniformly dark reddish brown.

Dark reddish brown ground colour, but prosternum and patches on meso- and metasternum yellowish.

¹) This last specimen has light yellowish cream elytra (more brownish yellow in the others); this might be closer to the natural colour, the other ones being perhaps somewhat darkened after death, as often occurs in yellowish beetles.

Ohaus (1911) described *C. modiglianii* subsp. *borneensis* from North-West Borneo (Mt Penrissen; Gazetteer, 1968: Penerisan, 1°07'N 110°13'E). The differences from the Sumatran type-specimen, which Ohaus knew only from the original description, were stated to be found in the clypeal horn (Kopfschildlamelle) and in some colour characters. The study of the ♂ type-specimen revealed a clypeal horn and a colour pattern quite falling within the range of variation in *modiglianii* from Sumatra, though - perhaps by age - a shade darker. The apical emargination of the lamella on the vertex is more evident than in any of the Sumatran specimens I could study. This being the only clear difference I have my doubts about the validity of Ohaus's subspecies. At any rate, it is extremely close to the Sumatran form.

Material examined

C. modiglianii modiglianii Gestro. — N. Sumatra, Indonesia: 2 ♂, centr. Atjeh, 26.i.1974, leg. Diehl. 1 ♂, Brastagi, 18.viii.1972, 1300 m, Lichtfang, leg. Erber. 1 ♂, Brastagi, 23.i.1974, leg. Diehl. 1 ♂, Dolok Merangir (near Pematang-Siantar), iv.1976. 1 ♂, Tele, 4.vi.1973, 1400 m, leg. Diehl. 1 ♂, Dolok Merangir, xi.1962. All in coll. Kuijten, except the last specimen (in Museum Berlin).

C. modiglianii borneensis Ohaus. — Borneo, Indonesia: 1 ♂ 1 ♀, Penrissen, v.1899 (in Museum Berlin).

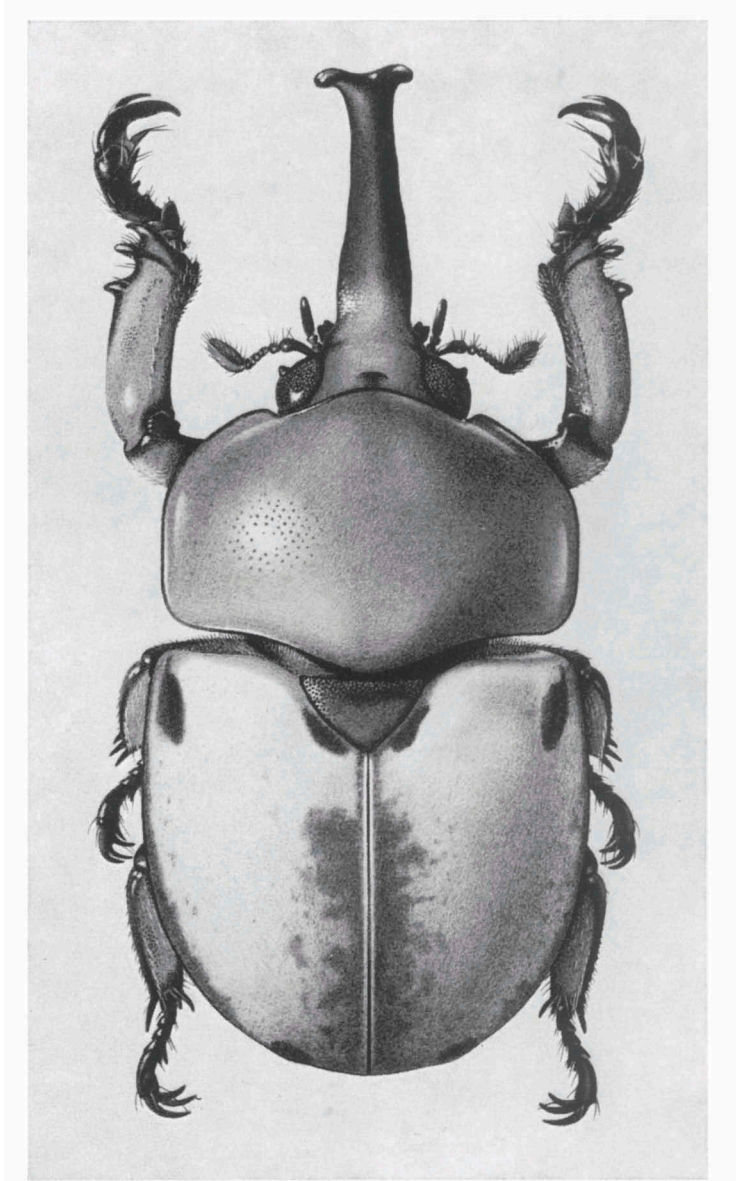
C. modiglianii malaysiana subsp. nov. — West Malaysia: 1 ♂, Holotype, "Cameron Highlands, W. Malaysia, 1200-1600 m, 1973". Deposited in coll. Rijksmuseum van Natuurlijke Historie, Leiden. Paratypes: 2 ♂, Malaysia, 22.i.1975 and iv.1976, Coll. Pfanner. 1 ♂, Malaysia. 1 ♂, Maxwell Hill nr Taiping, Malaysia, vii.1976. 2 ♂, Cameron Highlands, Malaysia, ii.1974, 1200 m. The last four specimens in coll. Kuijten.

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Holotype of *Ceroplophana modiglianii malaysiana* subsp. nov. Total length 30 mm.
(Drawing H. Heijn).