

Procrustomachia

Occasional Papers of the Uncensored Scientists Group

5, 6: 101-130

Milanówek

15 XII 2020

ISSN 2543-7747

Review of the [*Cyphogastra* DEYR.]-supergenus (Coleoptera: Buprestidae) IV. The *Gestroi*- and *Javanica*-circles

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Introduction

The present, fourth (see HOŁYŃSKI 2016, 2020a, b for the first three) part of the Review deals with two circles, including the most colourful members of *Cyphogastra* DEYR., one of the most representative genera of large Indo-Pacific jewel beetles. Despite – or even partly just because of (see introduction to pt. III for explanation) – their showy appearance and popularity among collectors (but – at least after mid-XX c. – not among taxonomists: the published literature on several species remains restricted to the original description...), the taxonomic status of, and relationships between, the representatives of the *Javanica*-circle are very difficult to disentangle due to insular distribution with apparent endemism of various – known often from very few or even single, inexact and/or irreliably labelled specimens – forms on small islands. The second, *Gestroi*-circle, was initially considered by me a subgroup of the former, but striking geographical disjunction casts some doubts so I tentatively decided to treat it separately. Containing only two well differentiated species it does not pose any serious taxonomic problems, the only questions to clarify are the external relationships of the circle, exact distribution of its two representatives, and their ranges of variability.

This paper, naturally, suffers from the same problems mentioned in the previous parts of the Review: high frequency of convergences, parallelisms, reversals (“underlying synapomorphies” – SÆTHER 1979), scarcity of accessible specimens, their inexact and/or unreliable labelling, as well as (in phylogenetic reconstruction) the effect of non-comprehensive (focused only on particular targeted circles) taxon- and character-sampling; thus some taxonomic (*e.g.* validity of species), biogeographic (details of distribution) or phylogenetic (*cf. e.g.* the remarks on the clade [T]) conclusions are not always firmly substantiated – but... one must cut one’s coat according to one’s cloth, and anyway “*it is better to say something without certainty, than not to say anything at all*” (FEYNMAN 1999).

Conventions

Like in my other publications (unless “corrected” by editors...), I follow the very useful conventions of applying (of course, except wordly citations, where the original form must be retained) SMALL CAPS to *all* [irrespective of context and full vs. abbreviated version: inconsistent use deprives the display of any sense!] personal FAMILY- (*not* given-) names, *italicizing* species- and genus-group names (as well as citations and words in languages different from that of the main text), and writing the suprageneric taxon-names in **Bold** [the latter is not a generally accepted custom, but is often important, as some of such names (*e.g.* of the subtribes **Buprestina LEACH**, **Melobasina BÍLY** or **Coraebina BED.**) are (or may easily become) “homonymous” (but valid!) with generic or subgeneric ones (*Buprestina OBB.*, *Melobasina KERR.*, *Coraebina KERR.*)]

Labels of type-specimens are quoted as exactly as possible, including *italics* and *handwriting* (both represented in my text by *italics*), CAPITAL LETTERS, SMALLCAPS, framing, colour of text and approximate colour of the label. Individual labels are quoted in quotation marks “”, a label glued on another label (frequent *e.g.* in KBIN) in $\left| \right|$, a label glued on another label on which still another has been glued in $\left| \left| \right| \right|$ (so, some may look like “*abc* $\left| \right|$ *def* $\left| \left| \right| \right|$ *ghi* $\left| \right|$ ”). Determination- and type-designation labels added by me are not cited: the former are white, in the form like “*Cyphogastra atroviridis* HOL., det. R. HOLYŃSKI” with year of determination written vertically on the left side; the latter red [for primary types], *e.g.* “*Cyphogastra plana* HOLYŃSKI, HOLOTYPE” or green [for paratypes], *e.g.* “*Cyphogastra jadwiszczaki* HOLYŃSKI, PARATYPE”.

New species will be described in detail, descriptions of others restricted to the characters potentially helpful in identification.

Except in citations and synonymies, quoted as in the respective original publications, I apply the term “*morpha*” [“*m.*”] for discrete variants (where intermediates are absent or very rare) and “*forma*” [“*f.*”] for sections of continuous spectrum; „variety” – “*varietas*” [“*v.*” or “*var.*”] is used as a neutral word of no specific connotation].

Length of body measured from anterior margins of eyes to elytral apices; length of elytra from anterior margin of scutellum; width of pronotum where it is the widest, width of elytra just behind subhumeral protuberances; with of head with eyes, in dorsal aspect; width of vertex between internal margins of eyes.

As usual, my phylogenetic reconstruction has been performed with MICSEQ – see HOLYŃSKI (2001) for the general outline of the algorithm with presentation and justification of basic assumptions, and HOLYŃSKI (2016) for the present state of its development and discussion of some aspects of the procedure.

Explanation of terms (used generally in my publications, but not necessarily all of them in any particular paper)

Epistomal ridge: Arcuate or biarcuate keel running from one anterolateral angle of epistome to another behind its emarginated anterior margin at the supraepistomal border

Supraepistomal carina: transverse ridge above the frontoepistomal border

Frontal depression: median concavity of front, widest at epistome and tapering to or beyond the level of upper margins of eyes

Anterior cavity of front: deeper anterior part of frontal depression, more or less distinctly separated from the rest by oblique elevations

Collar: apical, constricted part of pronotum before truncation

Truncation: obliquely convergent part of pronotal sides between anterolateral angles and collar

Anterolateral angle of pronotum: angular bend between subparallel basal and abruptly oblique apical portion of sides

Anterior foveae of pronotum: anterolateral and anteromedian

Anterolateral fovea of pronotum: small, often indistinct fovea near apical angle

Anteromedian fovea of pronotum: small, often indistinct fovea placed midlaterally at apical margin

Lateral margin of pronotum: between base and anterolateral angle (exclusive of truncation)

Fossae: laterobasal depressions of pronotum

Median depression of pronotum: regular, rather deep concavity along midline

Midlateral elevations of pronotum: longitudinal elevations on disk to both sides of median depression

Prehumeral relief: elevated fragment of pronotal surface at basal angles, surrounded anteromedially by fossae

Subhumeral protrusion/denticle: moderately salient/prominently angularly protruding epipleural margin at humeri

Caudate elytra: of concave lateroapical margins and dorsal profile

Abdominal plaque: elevated surface of 1. sternite, posteriorly delimited by more or less vertical step separating it from the rest of abdominal surface

Femoral brushes: long and dense, [semi]erect pubescence on caudal surface of meso- and metafemora

Midlateral: lying at *ca.* mid-distance between median line and side margins

Subrhomboidal: quadrangular with two neighbour angles right or almost so and one of the opposite strongly obtuse

Rhomboidally triangular: quadrangular with one angle right or almost so, the opposite strongly obtuse, and the remaining two acute

Morpha: discrete morphological infrasubspecific variant

Forma: a section of continuous spectrum of infrasubspecific variability

Variety (*varietas*): a neutral (without more exact connotation) term for infrasubspecific variant

Phenun (pu): unit of the “cost of transformation” between character states, *i.e.* of phenetic distance between analysed taxa: **1 pu** = distance between two neighbour traits in the transformation chain if the weight has been settled as 1

Support quotient [SQ= x/y (in phenuns)]: rough estimator of “robustness” of particular pairing, where **x** is the “corrected distance” (at the relevant stage of analysis, *i.e.* when the pairing is being performed) between the paired taxa, and **y** – the shortest distance between any of them and any other remaining “in game”.

Abbreviations:

L	=	length
W	=	width
BW	=	basal width
AW	=	apical width
H	=	width of head with eyes
V	=	width of vertex between eyes
ø	=	sex unknown
<i>m.</i>	=	<i>morpha</i> (see above)
<i>f.</i>	=	<i>forma</i> (see above)
<i>v. or var.</i>	=	<i>varietas</i> (see above)
BP***	=	(<i>e.g.</i> BPfnt): specimen-identifying signature
≈	=	approximately equal
[⊙],[⊙]	=	round type-label with coloured frame in BMNH
[]	=	in square brackets data not specified on labels

Collection acronyms:

BMNH	=	Natural History Museum, London, ENGLAND
BPBM	=	Bernice P. Bishop Museum, Honolulu, USA
EONMP	=	Entomologické Oddelení Národního Musea, Praha, CZECHIA
KBIN	=	Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels, BELGIUM
MCGD	=	Museo Civico di Storia Naturale „Giacomo Doria”, Genova, ITALY
MNHN	=	Muséum National d’Histoire Naturelle, Paris, FRANCE
NNHM	=	Nationaal Natuurhistorisch Museum, Leiden, HOLLAND
RBH	=	Roman B. HOLYŃSKI, Milanówek, POLAND
TT	=	Takeshi TERABAYASHI, Shiotsu, JAPAN

Systematic review

BUPRESTIDAE LEACH
BUPRESTINAE LEACH
BUPRESTINI LEACH
CHRYSOCHROINA CAST.
***Cyphogastra* DEYR.**

***Cyphogastra* DEYR. s. str.**

Cyphogastra DEYROLLE 1864: 36-37

[type-species: *Buprestis foveicollis* BOISDUVAL 1835]

Abbreviated key to the identification of circles of the sg. *Cyphogastra* DEYR. s.str.

- 1(12) No dfp sulci on apical half of elytra; or, if one (perisutural) is present, then elytral disk (at least suturobasal part) black but ventral side and epipleura metallic, and/or fossae irregular with dfp bottoms entirely reduced or almost so
- 2(11) Fossae irregular, with bottom spaces not or but indistinctly dfp, or – if extensively dfp – extreme tips of elytra blackish
- 3(10) Anteromedian angle of laterobasal relief definitely obtuse or totally obliterated, or irregular and indefinite; pronotal fossae irregular or c-shaped, with at most very small dfp areas; or, if extensively dfp and/or anteromedian angle of relief right, then

anterior foveae well developed and at least one of them obliquely elongated, joining fossa or but narrowly separated from it. If body black then either tarsi yellow, or pronotal sides convergent, anterolateral angles not protruding, or elytra finely sculptured, or fossae and ventral side purplish

- 4 (9) Fossae deep but irregular, not extending to anterior foveae; bottom spaces at most indistinctly dfp; or – if dfp spaces more extensive – then elytral margins brightly cupreous apically, and/or anterior pronotal foveolae indistinct, and/or tarsi yellow. Elytra either multicolorous, or differing in colour from pronotum, or but slightly (if at all) caudate, metallic (green, bronzed or cupreous) with bluish suture and/or black extreme tips; if dorsal side uniformly black and tarsi yellow then lateral dfp areas on abdomen longitudinally divided into marginal and midlateral stripes
- 5 (8) Elytra markedly caudate, usually with more or less distinctly polychrome
- 6 (7) Elytra green to cupreous, apical third or broad contrasting lateroapical patch entirely blackish **Gestroi-circle**
- 5 (6) Elytra with (often polychrome) lateral or (rarely) lateroapical patch (if indistinct then dorsal side black); or almost entirely bluish-, greenish- or bronzed-purplish with only paler cupreous suture and green-and-black tips, purplish; or uniformly blackish-blue **Javanica-circle**
- 8 (5) Elytra not or but slightly caudate, concolorous or with diffuse reddish lateroapical patch *Tuberculata-*, *Satrapa-*, *Collarti-* circles [see **pt. III**]
- 9 (4) Fossae shallow, poorly defined, not dfp; or – if deep, irregular, with bottom areas partly dfp – then anterior foveolae well developed and elytra definitely caudate, unicolorous (except bluish-black extreme tips), concolorous with pronotum; if dorsal side black then tarsi dark or abdominal sides entirely broadly dfp
..... *Tinianica-*, *Uxorismae-*, *Bruyni-*, *Armata-*, *Flavimana-* circles [see **pt. II**]
- 10 (3) Fossae extensively dfp on bottoms, either right-angled (in form of upturned L-square) bent, not extending to anterior foveolae, leaving anteromedian angles of laterobasal reliefs approximately right; or very large, ovate, with laterobasal reliefs reduced to triangular widening of lateral ridge. Anterior foveae lacking or inconspicuous, not joined to fossae, or body [bluish-]black, tarsi dark, pronotum parallelsided with prominent anterolateral angles, and elytra coarsely punctured
..... *Punctatissima-*, *Lansbergei-*, *Mniszechi-*, *Albertisi-*, *Caudata-* circles
- 11 (2) Fossae broadly right-angled (upturned L-shaped), extensively dfp, and anterior foveolae also well developed. Elytral apices cupreous or – rarely – concolorous (not tipped black) **Gloriosa-circle**
- 12 (1) Apical half of elytra with longitudinal dfp depressions; if only perisutural is developed than pronotal fossae in form of upturned L-square or very large, occupying $\frac{2}{3}$ or more of the lateral third of pronotum, with bottoms extensively dfp; if elytral disk black then ventral side and epipleura also black
..... *Modesta-*, *Kampeni-*, *Canaliculata-*, *Ventricosa-*, *Venerea-*, *Pistor-* circles

Gestroi-circle

Remarks: This is a small group apparently closely related to *Javanica*-circle, differing from it in relatively narrow body, strongly developed pronotal collar, coarse elytral puncturation, and especially in black apical part of [at least sides of] elytra; their separateness is additionally supported by widely disjunct geographical distributions: both species of the *Gestroi*-circle inhabit SE-New Guinea.

Key to the identification of species of the *Gestroi*-circle

- 1 (2) Elytra multicolourous: golden- to bluish-green basal part gradually transgressing through cupreous and purplish to dark bluish-violaceous apical third *C. (s.str.) haidanae* THY.
- 2 (1) Elytra golden-cupreous with rather sharply delimited violaceous-black lateroapical streak *C. (s.str.) gestroi* THS.



Map 1

Geographical distribution of the *Gestroi*-circle

● – *C. gestroi* KERR.; ● – *C. haidanae* THY.

[here and on other maps]:

simple markings – exact localities; white border – general area (exact locality unknown);
black border – probably erroneous data

***Cyphogastra (s.str.) haidanae* THY.**

Cyphogastra haidanae THÉRY 1923: 238-239

Material examined:

Holotype: “[Haidana, Collingwood Bay, Brit. New Guinea, April 1907, (A. S. Meek).]” “*Haidana, Thery, Type*”[sic!][recto] “*Cyphogastra Raymondi Thery, Type unique*”[verso] “MUSÉUM PARIS, 1935, Coll. A. THÉRY” [♀ (MNHN)]

Additional material: 4 ♀

Characters [Fig. 1 (HT), 2 (usual colouration)]: Females [13] 28×8.5 – 32.5×10 mm. Head and pronotum dark bluish-green to purplish-violaceous; elytral colouration transgressing from golden or green basal 1/3-1/2 through cupreous-red and purplish to violaceous-black apical fourth; sternum, abdomen and legs (including tarsi) black with more or less appreciable purplish hue; antennae piceous-brown. Dorsal side glabrous, ventral (except dfp areas) almost so. Pronotal sides subparallel, usually shallowly sinuate; anterolateral angles somewhat swollen but not protruding, truncation deeply subangularly emarginate, forming laterally prominent but dorsally not marked collar; fossae deep, c-

shaped, not or indistinctly punctured (no trace of dfp areas), joined by narrow groove to anterolateral truncation; anteromedian fovea small but usually rather deep, anterolateral practically absent; laterobasal relief elongately subquadrangular; disk almost imperceptibly sparsely punctulate, punctures on sides somewhat coarser but also rather sparse. Scutellum narrowly trapezoidal, medially depressed, smooth. Elytra markedly caudate; no or but inconspicuous subhumeral protrusion; puncturation mostly irregular, very coarse on basal fourth, gradually diminishing to become very fine at apex. Proepisterna shallowly and sparsely punctured, not dfp; prosternal process narrowly, deeply sulcate along midline, sulcus finely punctured, with short erect pubescence; lateral rims broad, almost impunctate; abdominal plaque moderately prominent, finely and sparsely punctulate; abdomen otherwise sparsely, rather finely punctured; midlateral dfp stripes inconspicuous; apex of anal sternite narrowly rounded [♀].

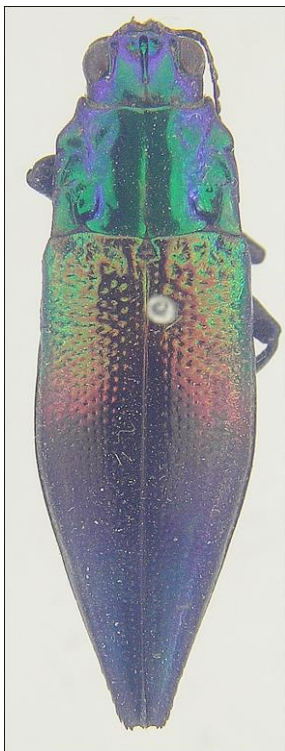


Fig. 1

Cyphogastra haidanae THY.
HT ♀ [MNHN], PNG: Haidana



Fig. 2

Cyphogastra haidanae THY.
♀ [BPBM], PNG: Morobe Pr.: Waria Vy.



Fig. 3

Cyphogastra gestroi KERR.
♀ [BPBM], PNG: Milne B. Pr.

Geographical distribution [Map 1]: Apparently vicariant to *C. gestroi* KERR., replacing it on the northeastern lowlands of New Guinean SE peninsula (the only Haidana I have been able to find on maps is an island on the southern coast, ca. 15 km. E of Pt. Moresby, but the holotype label expressly refers to a locality at the Colingwood Bay).

Remarks: Despite striking differences in colouration, other morphological particularities (esp. deeply angularly emarginated anterolateral truncations of pronotum) as well as geographical vicariance make it evident that *C. haidanae* THY. is the “sister species” of *C. gestroi* KERR. *C. raymondi* THY., mentioned by THÉRY on *verso* of the determination label, was probably the first intended name, changed before the actual description and never published as such.

***Cyphogastra (s.str.) gestroi* KERR.**

Cyphogastra gestroi KERREMANS 1896: 354-355
=*Cyphogastra magdalenae* THÉRY 1923: 239-240

Material examined:

Holotype [of *C. gestroi* KERR.]: “N.GUINEA S.E., Paumomu riv., LORIA, IX-XII 92” “*Gestroi Kerr., Type*” [KERREMANS’ label] “**Typus**” “*Gestroi Kerrem.*” “**HOLOTYPUS, Cyphogastra gestroi Kerremans, 1896**” “Museo Civico di Genova” [♀ (MCGD)]

Holotype [of *C. magdalenae* THY.]: “OWGARRA, B.N.GUINEA, A.S.Meek” “*C. magdalenae Thery, Type unique*” “**MUSEUM PARIS, 1935, Coll. A. THÉRY**” [♀ (MNHN)]

Additional material: 5 ♀, 2 ♂

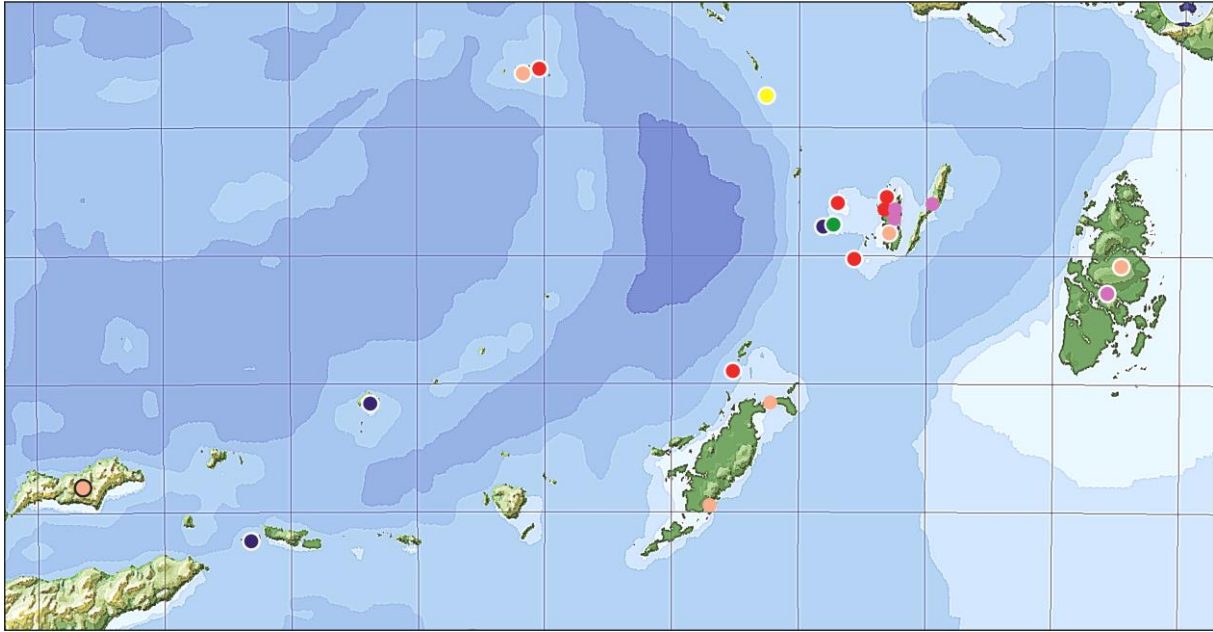
Characters [Fig. 3]: Females [4] 28.5×9 – 37×12. Head and pronotum dark purplish; elytra golden-green to cupreous with well delimited, broad blackish-violaceous lateroapical streak touching suture only along apical ¹/₇ but on sides extending to midlength; ventral side bluish- or purplish-black (sternum sometimes more definitely purplish); antennae and tarsi black. Pubescence of median sulcus of prosternal process short, semierect; body otherwise, except dfp areas, practically glabrous. Pronotal sides subparallel; anterolateral angles not protruding; truncations deeply subangularly emarginated; fossae deep but narrow, roughly c-shaped, non-dfp; laterobasal reliefs narrowly tetragonal; anteromedian foveae deep, anterolateral not discernible; discal punctulation fine and very sparse, denser in median sulcus. Elytra markedly caudate; no subhumeral protrusions; sculpture coarse anteriorly, gradually transgressing to fine at apices. Proepisterna uneven, sparsely shallowly punctured, with but few small dfp spots; puncturation of sulcus of prosternal process moderately coarse and dense; irregular spaces of proepisterna, sides of sternum and abdomen dfp, midlateral stripes well developed; abdominal plaque moderately high, finely and sparsely punctulate; apex of anal sternite of female narrowly rounded; male unknown to me.

Geographical distribution [Map 1]: Seems to be restricted to highlands (southern slopes of the Owen Stanley Range) of the southeastern peninsula of New Guinea; the mouth of Paumomu [=Angabunga] Riv. lies ca. 115 km. NW of Port Moresby at 8°40’S-146°30’E; I have been unsuccessful in attempts to locate Owgarras, but according to van MASTRIGT (>1998) it is a locality somewhere “*North of the head of Aroa River*” [source of Aroa Riv.: 8°38’S-147°11’E, ca. 4000 m. a.s.l., ca. 95 km. N Pt. Moresby]. The label “German New Guinea” on a specimen in MNHN refers probably to its southeasternmost extremes near Garaina or uppermost Lakekamu Valley.

Remarks: Very distinctive, unmistakable species. *C. magdalenae* THY. is a synonym of *C. gestroi* KERR., not – as mistakenly listed in BELLAMY’S (2008) Catalogue – of *C. haidanae* THY.

Javanica-circle

Remarks: A speciose group of mostly large colourful beetles, characterized by the combination of straightly or somewhat sinuately subparallelsided pronotum, deep c-shaped pronotal fossae without dfp, definitely caudate elytra without subhumeral protrusions, with cupreous (sometimes green or blue and inconspicuous, rarely lacking) lateral elytral patch and black apices, &c.. Like in the case of the *Satrapa-circle* [see **pt. III** (HOŁYŃSKI 2020)] insular distribution and typically very limited number of known specimens make the taxonomic ranks and validity of diagnostic characters often questionable. Representatives of the circle inhabit islands of Lesser Sundas and southern Moluccas.



Map 2

Geographical distribution of the *Javanica*-group

- – *C. cribrata* DEYR.; ● – *C. angulicollis* DEYR.; ● – *C. javanica* SND.; ● – *C. calepyga* (THS.)
- – *C. strandi* OBB.; ● – *C. staudingeri* KERR.

[see also [Map 1](#)]

Key to the identification of species of the *Javanica*-circle

- 1 (2) Elytral disk green, concolorous with pronotum, suture bluish-black *C. (s.str.) cribrata* DEYR.
- 2 (1) If disk of elytra green then pronotum contrastingly blackish
- 3(16) Pronotal colouration distinctly metallic
- 4 (5) Pronotum bronzed, elytral suture contrastingly purplish-cupreous *C. (s.str.) angulicollis* DEYR.
- 5 (4) Pronotum cupreous, green, purplish or bluish; elytral suture bluish-black or concolorous with disk
- 6 (7) Pronotum bright cupreous or green; abdomen with distinct dfp pattern *C. (s.str.) javanica* SND.
- 7 (6) Pronotum not cupreous, if green then abdomen with no trace of dfp
- 8(13) Pronotum dark green or blue
- 9(10) Abdomen without dfp areas *C. (s.str.) calepyga* (THS.)
- 10 (9) Lateral margins and midlateral stripes on abdomen dfp
- 11(12) Antennae and tarsi black *C. (s.str.) strandi* OBB.
- 12(11) Antennal joints 3.-11. yellow; tarsomeres 1.-4. yellow with black apical parts *C. (s.str.) staudingeri* KERR.
- 13 (8) Pronotum purplish-black
- 14(15) Tarsi black *C. (s.str.) rothschildi* KERR.
- 15(14) Tarsi yellow *C. (s.str.) wetteriana* THY.
- 16 (3) Pronotum piceous black
- 17(18) Tarsi yellow. Abdominal sides almost entirely dfp. *C. (s.str.) rollei* THY.
- 18(17) Tarsi dark. Abdomen only on narrow lateral margins and midlateral stripe dfp
- 19(22) Basal part of epipleura bright cupreous to purplish

- 20(21) Basal part of fossae broad, extensively dfp. Scutellum distinctly longer than wide, sides but slightly divergent *C. (s.str.) romanensis* THY.
 21(20) Basal, obliquely longitudinal part of pronotal fossae narrow, not or but indistinctly dfp. Scutellum *ca.* as wide as long, sides strongly divergent backwards
 *C. (s.str.) semipurpurea* (C.G.)
 22(19) Basal part of epipleura at most faintly, inconspicuously greenish
 23(26) Ventral side dull greenish-bronzed
 24(25) Elytra with perisutural dfp sulci *C. (s.str.) plana* sp.n.
 25(24) Elytra without dfp sulci *C. (s.str.) transmarina* sp.n.
 26(23) Ventral side dull purplish *C. (s.str.) lateralis* KERR.



Fig. 4

Cyphogastra cribrata DEYR.
♂ HT [MNHN], Matabilia

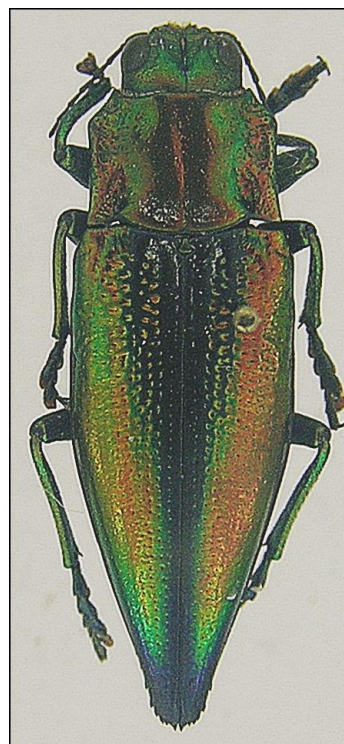


Fig. 5

Cyphogastra cribrata DEYR.
‘*C. tevorensis* OBB.’ ♂ [BPj-o], Tevor I.



Fig. 6

C. angulicollis DEYR.
♀ [BPjud], Tanimbar Is.

***Cyphogastra (s.str.) cribrata* DEYR.**

Cyphogastra cribrata DEYROLLE 1864: 45
 =*Cyphogastra tevorensis* OBENBERGER 1922: 66

Material examined:

Holotype [of *C. cribrata* DEYR.]: „Matabilla” „*Cribrata* H. Deyr” „*Type*” „TYPE” [♂ (MNHN)]

Holotype [of *C. tevorensis* OBB.]: „Tevor-Ins.” „TYPUS” „*Cyphogastra tevorensis m. Type*, Det D^f Obenberger” „Mus. Nat. Pragae, Inv. 20 011” [♀ (EONMP)]

Additional material: 1 ♂

Characters [Fig. 4, 5]: Males [2] 21×6.5 – 25×8; female [1] 26×8.5 mm. Dorsally green, sutural (somewhat widened in scutellar region) vitta bluish-black, indefinite patch at middle of elytral sides golden to cupreous; ventral side [golden-]green. Pubescence in median sulcus on prosternal process and metasternum rather long, erect; on dfp areas very short and dense, recumbent; otherwise body glabrous. Pronotal sides somewhat sinuately parallel; fossae deep c-shaped; puncturation of disk rather fine and sparse, that of sides coarse and

dense. Elytra conspicuously caudate; no subhumeral protrusions; puncturation coarse, somewhat finer towards apices. Proepisterna, sides of sternum and (narrowly) of abdomen, and midlateral abdominal stripe dfp; abdominal plaque low, towards apex elongately punctured (sometimes punctures confluent into longitudinal rugae); otherwise abdomen rather coarsely punctured; apex of male anal sternite broadly, rather shallowly, arcuately or subangularly emarginated.

Geographical distribution [Map 2]: S-Moluccas: Tevor (=Tioor) I., ca. midway between Ceram and Kei, ca. 4°45'S-131°45'E; I have not been able to locate Matabilia.

Remarks: Rather small size, blackish elytral suture and coarse puncturation makes the species distinctive within the *Javanica*-circle. Neither the original description of *C. tevorensis* OBB., nor my specimen from Tevor I., provides any character to differentiate it from the description and holotype of *C. cribrata* DEYR.

***Cyphogastra (s.str.) angulicollis* DEYR.**

Cyphogastra angulicollis DEYROLLE 1864: 39

Cyphogastra Riedelii KIRSCH 1885: 113

Material examined:

?**Syntype** [of *C. riedeli* KIRSCH]: “Timorlaut, 7841” “*Cyphogastra Riedeli* Kirsch, Origin” “MUSÉUM PARIS, 1935, Coll. A. THÉRY” [♀ (MNHN)]

Additional material: 7 ♂, 19 ♀, 5 ♂

Characters [Fig. 6]: Males [7] 19.5×6 – 33.5×10.5; females [20] 23×7 – 36×11 mm. Head and pronotum bronzed; elytra also bronzed with or without (sometimes strong) brassy-green lustre, almost linearly narrow sutural margin contrastingly bright purplish-cupreous, turning outwards just before apices to separate black extreme tips from disk; ventral side bronzed or dull green; tarsi greenish-black. Dfp areas on ventral side covered with very dense, short, recumbent white pubescence and rufous pulverulence; pilosity in sulcus of prosternal process sparse, rather long, erect; body otherwise practically glabrous. Pronotum sinuately subparallelsided; anterolateral angles distinctly protruding; fossae deep, c-shaped, no trace of dfp; anterior foveolae poorly developed or not individualized at all; midlateral elevations finely and rather sparsely, median sulcus somewhat denser, pronotal sides (including fossae and anterolateral areas) coarsely and densely punctured. Elytra strongly caudate; no subhumeral protrusion; puncturation moderately coarse just behind base, becoming very fine on posterior ⁴/₅. Proepisterna uniformly dfp; sulcus of prosternal process coarsely and densely irregularly punctured in female, much finer in male; abdominal plaque rather low, both lower and upper angle of its posterior slope meets (as seen from side) 1. and 2. sternite at definitely obtuse angles; entire sides of sternum and abdomen broadly dfp, on anal segment confluent (♂) or almost so (♀) with very wide and well marked midlateral stripes; apex of anal sternite broadly but rather shallowly arcuately emarginated in male, minutely almost imperceptibly so in female.

Geographical distribution [Map 2]: Apparently endemic to Tanimbar Is.: records from Banda (DEYROLLE 1864) and Aru (KIRSCH 1885), as well as labels “Flores”, Wetar”, “Ceram” or “Buru” are apparently erroneous or based on artificial introductions, as is probably also “Key Is.”: Kei Is. are frequently mistaken with Tanimbar: in various museum collections I have seen labels like “Key Is.: Maroe” [Maroe is an islet in Tanimbar Archipelago] or even “Tanimbar, Kay Is.”!

Remarks: Warm-bronzed colouration makes *C. angulicollis* DEYR. unmistakable within the *Javanica*-circle.

***Cyphogastra (s.str.) javanica* SND.**

Cyphogastra javanica SAUNDERS 1871: 17

=*ventricosa* (CASTELNAU & GORY) 1835: 20-21 (*Chrysodema*)

=*splendens* WATERHOUSE 1884: 215

=*prasinicollis* OBENBERGER 1922: 65

=*ab. Embrikiella* OBENBERGER 1936: 108-109 [issp.]

=*ab. Embrik-Strandina* OBENBERGER 1936: 109 [issp.]

Material examined:

Holotype [of *C. splendens* WATH.]: “Type”[⊖] “Maroe, 83.33” “*Cyphogastra splendens* (*Type*)
Waterh.” [♂ (BMNH)]

Additional material: 333 ♂, 156 ♀, 9 ♂

Characters [Fig. 7]: Males [333] 20×6 – 31.5×10.5; females [156] 25.5×8 – 40×13.5 mm. Head and pronotum cupreous, golden or (*f. prasinicollis* OBB.) green; elongately triangular diskal area on elytra separated by narrow oblique green and then cupreous vittae from black lateroapical streak; ventral side blackish-violaceous to bright purplish (*f. typ.*), cupreous (*f. embrikiella* OBB.) or green (*f. embrikstrandina* OBB.); antennae and tarsi dark. Dfp areas densely recumbently pubescent and covered with rusty pulverulence, body otherwise practically glabrous. Pronotum subparallelsided; anterolateral angles usually distinctly protruding; fossae deep, c-shaped, not dfp; anteromedian foveola poorly developed, anterolateral absent; disk very finely and sparsely, median sulcus denser, marginal carinae slightly coarser but also sparsely punctured. Elytra strongly caudate; no subhumeral protrusion; puncturation rather coarse only on basal fourth, otherwise remarkably fine. Proepisterna entirely dfp; puncturation of sulcus of prosternal process rather fine and sparse in female, coarser and denser in male; abdominal plaque moderately elevated, its posterior slope near-vertical or even slightly “overhanging”; sides of abdomen in female entirely dfp, in male rather narrow marginal dfp stripe widely separated from midlateral; apex of anal sternite in male arcuately or subtriangularly emarginated between pair of rounded lobes, in female rounded with or without small incision at middle.

Geographical distribution [Map 2]: Probably endemic to Key Is. and northernmost islet of Tanimbar Archipelago (Maru and Molu Is.) where, perhaps (D. FRANK – pers. inf.) a distinctive (“pronotum and scutellum ... dimly coppery as by *C. angulicollis* ..., apex of penis is straight in lateral view and not turned up as by *C. javanica*”) local variety (subspecies? separate species?) occurs; labels like Banda Is., Amboyne, Halmahera, New Guinea, Timor, Java, let alone India, New Pomerania, Solomon Is. or Amazon Valley are almost or quite certainly based on mistakes or artificial introductions.

Remarks: One of the most colourful, truly unmistakable representative of the genus. My collection contains a specimen [Fig. 7] which I initially determined as *C. calepyga* (THS.) but bright green ventral colouration and – especially – extensively dfp abdomen disprove that idea. Much brighter colouration with extensive, partly golden-cupreous lateral patch of elytra seem to exclude also *C. strandi* OBB. (although, unfortunately, I have now no male of the latter to compare), so as the only conceivable identifications remain apparently an extreme colour variety of *C. javanica* SND. (*f. embrikstrandina* OBB.?), perhaps a local race (subspecies) or even (like *C. strandi* OBB. on Taam I. and *C. staudingeri* KERR. on Dammar Is.) allospecies of the [*javanica*] superspecies: the specimen has been collected, according to apparently original label, on “TNB Kay Is.”, explained on additional label as “Kai Is., Tanimbar” – Kei and Tanimbar archipelagoes are frequently confused, so I initially supposed labelling error, but (I am thankful to David FRANK for having reminded me!) there exists an islet named Kei Tanimbar at the southwesternmost end of the Kei group.

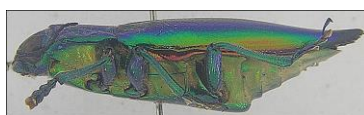
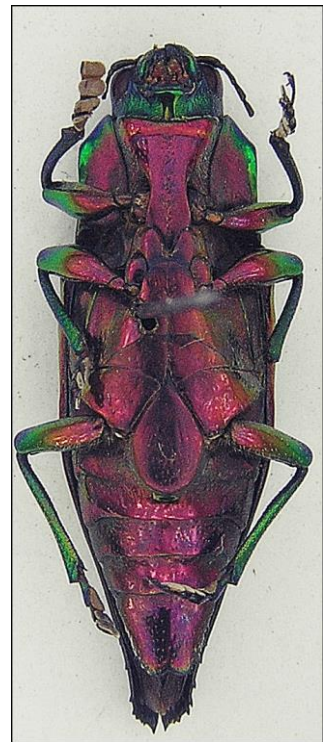
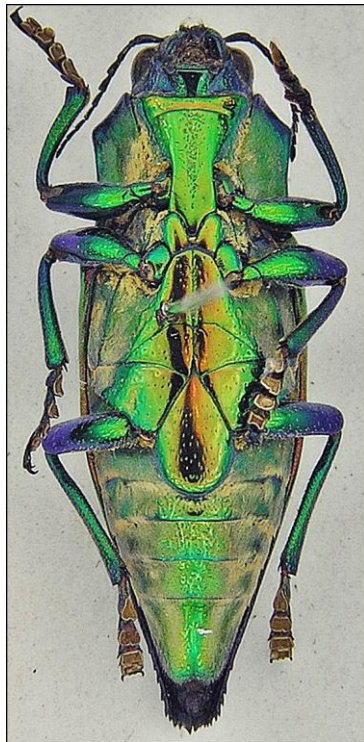
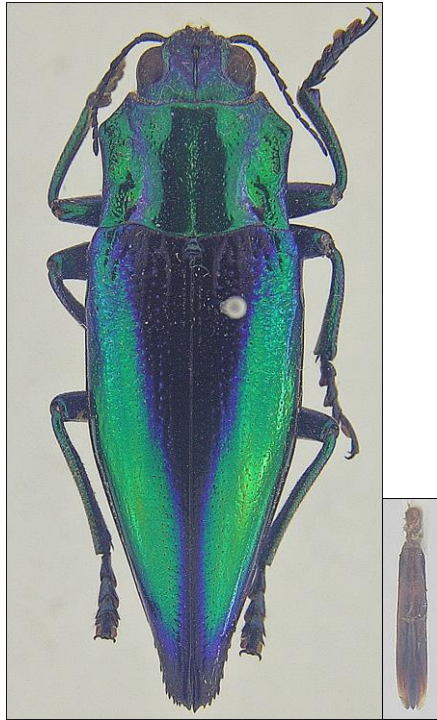
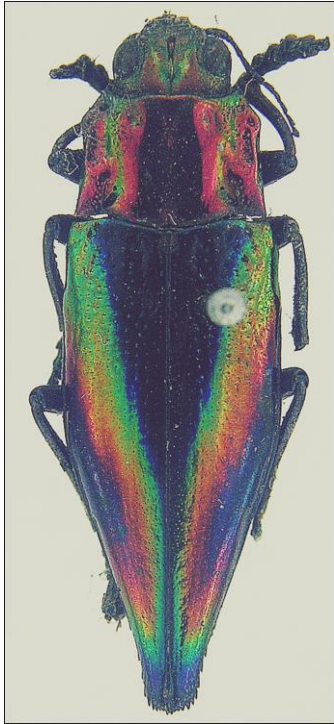


Fig. 7
Cyphogastra javanica SND.
 ♂ [BPdu], "Halmahera"

Fig. 8
Cyphogastra ?javanica SND.
 ♂ [BPjuc], ?Tanimbar Is.

Fig. 9
Cyphogastra calepyga (THS.)
 ♂ [BPeft], Aru Is.

Cyphogastra (s.str.) calepyga (THS.)
Chrysodema calepyga THOMSON 1857: 430-431

Material examined:

“Cotype”: “Cotype”[⊖] “Cotype”, “Isole Key, 1873, O. Beccari” “Ex Musæo JAMES THOMSON” “*Cyphogastra calepyga* Thoms.” “ex Coll. A.Théry, B.M.1935-316” [1 ♂ (MNHN)]

Additional material: 74 ♂, 63 ♀, 22 ♂

Characters [Fig. 9]: Males [74] 23.5×7 – 32×10, females [63] 27×8.5 – 39×13.5 mm. Head and pronotum dark blue or green, elytral disk bluish-black, lateral patch from almost indiscernible dark blue to moderately conspicuous (but not contrasting) green, rarely with traces of cupreous shine; ventral side bright cupreous to almost purplish with anterolateral margins of proepisterna rather broadly concolorous with dorsal side of prothorax; tarsi bluish-black. Body (both dorsal and ventral side) practically glabrous, no dfp pattern. Pronotal sides subparallel, often shallowly sinuate; anterolateral angles well accentuated but at most slightly protruding; fossae deep, narrow, irregularly upturned J-shaped, joined to anterolateral margin (truncation) by more or less deep sulciform depression (extended anterolateral fovea); anteromedian foveola variously developed; punctulation of pronotal disk fine and very sparse (somewhat denser in median sulcus), lateral parts rather coarsely but also not very densely punctured. Elytra strongly caudate; no distinct subhumeral protrusions; puncturation moderately coarse at base, very fine and sparse otherwise. Proepisterna and sides of sternum partly dfp (but even there pubescence indistinct), abdomen without dfp pattern; abdominal plaque moderately elevated; abdominal punctulation relatively fine and sparse; anal sternite of male rather shallowly arcuately emarginate in ♂, narrowly subtruncated in ♀.

Geographical distribution [Map 2]: Key and Aru Is. – “Borneo”, “Halmahera” “Kaioa”, “New Guinea”, “New Caledonia” labels are certainly erroneous or referring to artificially introduced beetles. More abundant, exactly labelled material is needed to clarify whether it is really sympatric with *C. javanica* SND. on Kei Is. or some geographic separation is maintained.

Remarks: Somewhat intermediate between *C. javanica* SND. and *C. strandi* OBB., differing from the former in much less conspicuous, practically unicolorous (without any black and with at most traces of cupreous) lateral elytral patch, from the latter in cupreous ventral side, and from both in entirely non-dfp abdomen and contrastingly coloured anterolateral margins of proepisterna. The “cotype” is evidently only a specimen compared to syntype[-s], not part of type-series: *C. calepyga* (THS.) had been described from “Ile Arou”, 16 years before the specimen was collected!

Cyphogastra (s.str.) strandi OBB.
Cyphogastra Strandii OBENBERGER 1922: 66

Material examined:

Holotype: „Tam-Ins.” „TYPUS” [red label] „*Cyphogastra strandi* m. Type, Det D^e Obenberger” „Mus. Nat. Pragae, Inv. 20 012” [♂ (EONMP)]

“Type”: “Typus” “455” “Koll. Dr. A. Frh. v. Hoschek, Tami Ins.” „*Strandi* m. Type, Det. Obenberger” “*suturalis* var., Théry det.” [1 ♀ (KBIN)]

Additional material: 1 ♂, 10 ♀

Characters [Fig. 10]: Males [2] 27×9; females [11] 26.5×9 – 33.5×11 mm. Bluish-black dorsally (pronotum usually with some greenish hue, similar greenish lustre often appears towards posterolateral margins of elytra), ventrally dull green with some purplish or cupreous reflexions, antennae and tarsi brownish-black. Dfp areas on ventral side covered

with very dense, short, recumbent white pubescence and rufous pulverulence; body otherwise practically glabrous. Pronotum sinuately subparallelsided; anterolateral angles slightly protruding; fossae deep, upturned J-shaped, prolonged to truncation as longitudinal depression, no trace of dfp; anterior foveolae broad but shallow, poorly individualized; midlateral elevations rather finely and sparsely, median sulcus somewhat denser, pronotal sides (including fossae and anterolateral areas) more coarsely and densely punctured. Elytra strongly caudate; no subhumeral protrusion; puncturation moderately coarse just behind base, fine on posterior ⁴/₅. Proepisterna coarsely but not very densely punctured, at most partly dfp; puncturation of sulcus of prosternal process rather coarse but relatively sparse; abdominal plaque well developed, right-angled in profile, its posterior slope vertical; sides of sternum almost entirely broadly dfp, on abdomen both marginal and midlateral dfp stripes well marked.

Geographical distribution [Map 2]: Apparently endemic to Kei Is., or more probably even to the western “sub-archipelago” Tayandu: indeed, all more specifically labelled specimens seen by me originated from Taam I., the small islet at the southwesternmost end of the latter!

Remarks: Dark tarsi and antennae, as well as somewhat more strongly caudate elytra, distinguish *C. strandi* OBB. from otherwise deceptively similar *C. staudingeri* KERR., whereas almost unpatterned blackish-blue dorsal and green ventral side with extensively dfp abdomen make it unmistakable among the remaining members of the *Javanica*-circle. The “Typus” in KBIN does evidently not belong to the type-series: the species has been described from “Ein ♂ in meiner Sammlung”.



Fig. 10
Cyphogastra strandi OBB.
♀ [BPcjt], Kei Is.: Taam I.



Fig. 11
Cyphogastra staudingeri KERR.
♂ [BPefp], Dammar Is.

***Cyphogastra (s.str.) staudingeri* KERR.**

Cyphogastra Staudingeri KERREMANS 1900: 65-66

=*Cyphogastra abdominalis* WATERHOUSE 1892: 412 [nec WATERHOUSE 1885: 381-382]

=*Cyphogastra waterhousei* THÉRY 1926: 72

Material examined:

?**Holotype** [of *C. abdominalis* WATH.]: “Type” ♂ “Damma I., 92.20”, “*Cyphogastra abdominalis* (Type) Waterh.” [ø (BMNH)]

Syntype [of *C. staudingeri* KERR.]: “Syntype” ♂ “Dammer, Stauding.”, “*Staudingeri* Kerr. Type” “Kerremans 1903-59” [2 ø (BMNH)]

Additional material: 13 ♂, 7 ♀, 13 ø

Characters [Fig. 11]: Males [13] 24×8 – 31.5×10.5; females [7] 30×10 – 37×12.5 mm. Head and pronotum blackish-green to blackish-blue, elytra bluish-black, sternum somewhat brighter green, abdomen entirely or at least predominantly cupreous; antennae (except two basal joints) and (at least partly) tarsomeres 1.-4. yellow. Dfp areas on ventral side covered with recumbent white pubescence and ochraceous pulverulence; pilosity in sulcus of prosternal process short and sparse, erect; body otherwise practically glabrous. Pronotum sinuately subparallelsided; anterolateral angles at most slightly protruding; fossae deep, irregular, no trace of dfp; anterior foveolae poorly developed or not individualized at all; midlateral elevations not very finely and rather sparsely, pronotal sides (including fossae and anterolateral areas) coarsely and densely punctured. Elytra moderately caudate; no subhumeral protrusion; puncturation coarse behind base, becoming gradually finer towards apices. Proepisterna uniformly dfp; sulcus of prosternal process rather coarsely and densely irregularly punctured; abdominal plaque rather low, upper angle of its posterior slope (as seen from side) almost totally rounded off; sides of sternum broadly dfp, on abdomen marginal and midlateral stripes separated by narrow glabrous, coarser punctured zone; apex of anal sternite subangulately emarginated in male.

Geographical distribution [Map 2]: Apparently inhabits Dammar (specimens from Leti I. – if not misidentified *C. rollei* THY. – might have been introduced) a male (in MNHN) labelled as from Taam I. and determined by me – probably because of “*tarsi in small parts yellow*” – as *C. staudingeri* KERR., was probably an aberrant specimen of *C. strandi* OBB.

Remarks: Closely related to, and in dorsal view practically indistinguishable from, *C. strandi* OBB., differs – besides yellow antennae and tarsi – in dfp proepisterna and cupreous colouration of abdomen.

***Cyphogastra (s.str.) rothschildi* KERR.**

Cyphogastra Rothschildi KERREMANS 1911: 295

Material examined:

Additional material: 4 ♂, 5 ♀

Characters [Fig. 12]: Males [4] 21×6.5 – 26×8.5, females [5] 26×8.5 – 32.5×10.5 mm. Head and pronotum very dark blackish-purple; elytra green with usually bluish-black perisutural interstria and more or less extensive (sometimes leaving only narrow sutural stripe) blurred cupreous patch narrowly separated with green from blackish extreme apex; ventral side cupreous-green to purplish-cupreous; antennae piceous-brown, tarsi dark green. Body practically glabrous except for ventral dfp areas. Pronotum subparallelsided; anterolateral angles not protruding; fossae deep, irregular, non-dfp; anterior foveolae practically absent; disk finely but not very sparsely punctulate, punctures on sides (including fossae) coarse and dense. Elytra caudate; no subhumeral protrusion; puncturation coarse at base, otherwise moderately fine and rather dense. Proepisterna extensively dfp, remaining

areas impunctate; sulcus of prosternal process irregularly punctured; abdominal plaque rather low, broadly rounded in profile; sides of abdomen narrowly dfp, midlateral stripes wide and well marked; apex of anal sternite arcuately emarginated in male, narrowly rounded in female.

Geographical distribution [Map 3]: Endemic to Wetar I.

Remarks: Similar to *C. semipurpurea* C.G. (especially to *f. chevrolati* DEYR. without dfp sulci on elytra) which differs at glance in piceous black pronotum and elytral disk. For the differences from apparently sympatric *C. wetteriana* THY. see **Remarks** under the latter.

***Cyphogastra (s.str.) wetteriana* THY.**

Cyphogastra semipurpurea subsp. *wetteriana* THÉRY 1935: 249

Material examined:

Holotype: “Wetter, Schädler” “*Cyphogastra semipurpurea* ssp. *wetteriana* Thery TYPE” “♂” [♀ (NNHM)]

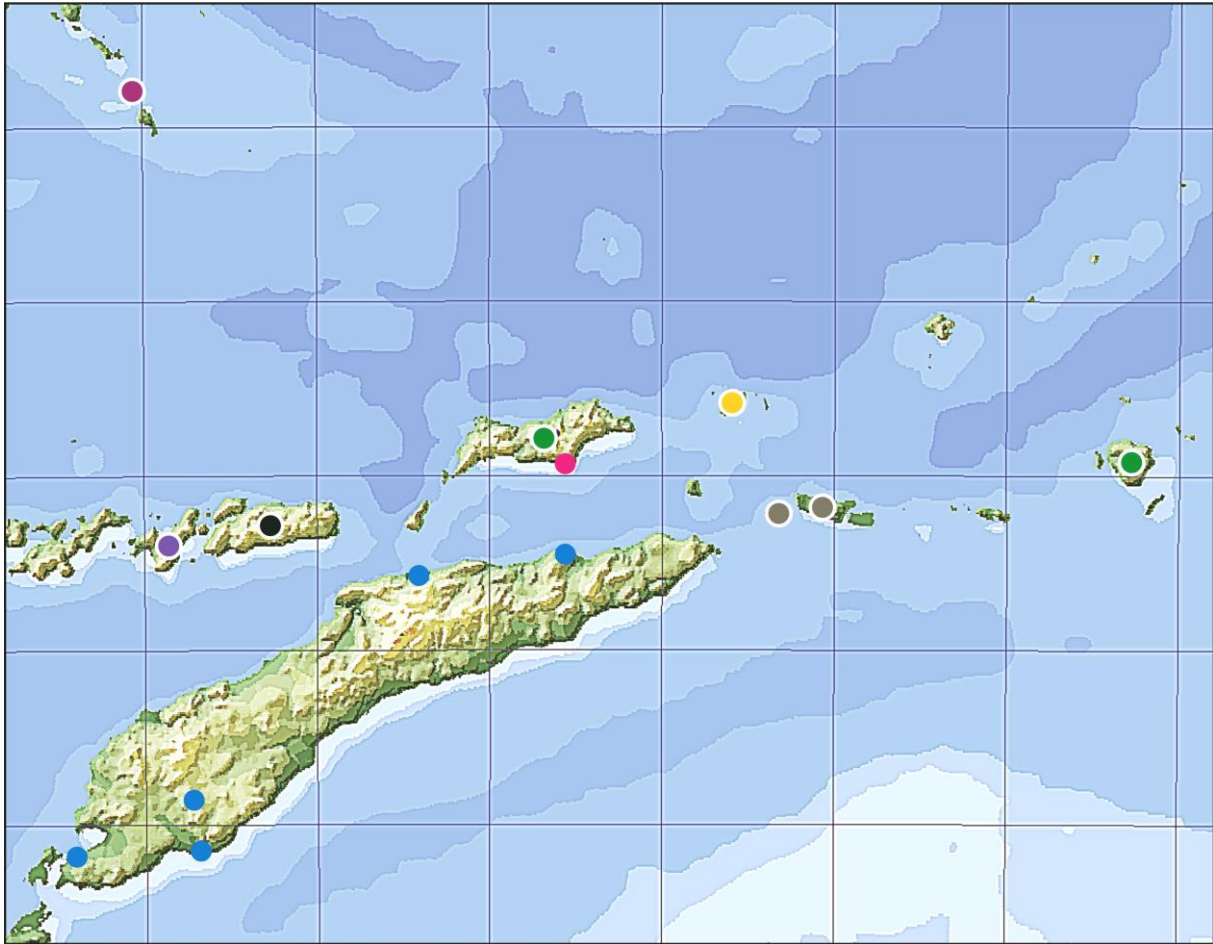
Paratypes: “Wetter, Schädler” “*Cyphogastra semipurpurea* ssp. *wetteriana* Thery TYPE” [1 ♀ (NNHM)]; “Wetter, Schädler” “*Cyphogastra semipurpurea* ssp. *wetteriana* Thery TYPE” “♀” [1 ♀ (NNHM)]; “Coll.I.R.Sc.N.B., Iles de la Sonde, [Wetter, Schädler], [wetteriana Thery] **PARATYPE**”, cf. *Zool. Med.* 1935, 18: 249, [Paratype]” [1 ♀ (KBIN)]; “Wetter, Schädler” “*wetteriana* Thery **PARATYPE**” “**MUSÉUM PARIS’ 1935’ Coll. A. THÉRY**” [1 ♀ (MNHN)]; “Wetter, Schädler” “*wetteriana* Thery **PARATYPE**” “**PARATYPE**” “*Cyphogastra wetteriana* Thery, paratype, A. Descarpentries det.” [1 ♀ (MNHN)]

Additional material: 1 ♂, 2 ♀

Characters [Fig. 13]: Male [1] 26.5×8.5, females [8] 27.5×9 – 32×11 mm. Head and pronotum purplish-black, elytral disk green, lateroapical patch from bright cupreous-red anteromedially, more or less clearly transgressing into blackish-violaceous posterolaterally; ventral side dull blackish-green; tarsi yellow, only apical part of claw joint black. Body, except for ventral dfp areas and semierect pilosity in sulcus of prosternal process, practically glabrous. Pronotal sides very slightly convergent, shallowly sinuate; anterolateral angles well accentuated but at most inconspicuously protruding; fossae deep, narrow, irregularly upturned J-shaped, joined to anterolateral margin (truncation) by broad and shallow sulciform depression (extended anterolateral fovea); anteromedian foveola variously developed; punctulation of pronotal disk moderately fine and sparse (somewhat denser in median sulcus), on sides much coarser and denser. Elytra strongly caudate; no distinct subhumeral protrusions; puncturation rather coarse at very base, very fine and sparse otherwise. Proepisterna, sides of sternum, rather narrow irregular marginal stripe and midlateral vitta of abdomen dfp, otherwise abdominal puncturation rather coarse but sparse; abdominal plaque moderately elevated, broadly rounded in profile; anal sternite regularly rounded in ♀.

Geographical distribution [Map 3]: Seems to be endemic to Wetar I.: occurrence on the remote Babar I. (a specimen in the collection of T. TERABAYASHI) needs confirmation.

Remarks: Similar to *C. rothschildi* KERR., which differs in blackish-green tarsi, more anterior position of elytral patch separated by green from black tips, at least partly blackish sutural interstria; more or less extensively cupreous or purplish ventral side (at least abdomen), &c. The occurrence of two similar and closely related species on rather small island – like that of *C. javanica* SND., *C. calepyga* (THS.) and *C. strandi* OBB. on Key Is. – is seems to be a result of double invasion rather than speciation on Wetar; from the evolutionary perspective it would be highly interesting if their distribution is truly sympatric or some geographical separation – e.g. western vs. eastern part of the island or highland (*C. rothschildi* KERR.) vs. maritime lowland (*C. wetteriana* THY., as suggested by yellow tarsi) areas – is involved, but to clarify this question more abundant, exactly labelled material is needed



Map 3

Geographical distribution of the *Semipurpurea*-group

- – *C. rothschildi* KERR.; ● – *C. wetteriana* THY.; ● – *C. rollei* THY.; ● – *C. romanensis* THY.; ● – *C. semipurpurea* (C.G.)
 ● – *C. plana* sp.n.; ● – *C. transmarina* sp.n.; ● – *C. lateralis* KERR.
 [see also Map 1]

***Cyphogastra* (s.str.) *rollei* THY.**

Cyphogastra Rollei THÉRY 1908: 80-81

Material examined:

?**Syntype:** “Ins. Moa” “Cotype” ♂ “Type” “*Cyphogastra Rollei* Théry, Type, Théry det. “ex Coll. A. Théry, B.M. 1923-364” [♀ (BMNH)]

Additional material: 8 ♂, 11 ♀

Characters [Fig. 14]: Males [8] 24×7.5 – 31×10, females [11] 28×9 – 32×11 mm. Dorsally black with polychrome (golden or cupreous bordered with green) lateroapical patch (starting as very narrow marginal stripe at humeri, widening from before metacoxae to 3. sternite – there occupying all lateral half of elytron – and reaching almost to apex; extreme tips of elytra black); ventral side dull green; dfp areas covered with dense, relatively long, whitish pubescence and ochraceous pulverulence; sulcus of prosternal process sparsely, semierectly pilose; body otherwise glabrous. Pronotum subparallelsided; anterolateral angles prominent, usually distinctly protruding; fossae deep, not dfp; anteromedian foveola poorly developed, anterolateral absent; punctures on midlateral elevations moderately fine, sparse, in median sulcus denser, on sides not much coarser. Elytra strongly caudate; no subhumeral protrusion; puncturation rather coarse anteriorly, otherwise remarkably fine. Proepisterna,

sides of meso-, metasternum, and abdomen almost entirely dfp (marginal and midlateral stripes not or but indistinctly separated); puncturation of sulcus of prosternal process coarse and dense; abdominal plaque moderately elevated, its posterior slope near-vertical; apex of anal sternite broadly but often very shallowly arcuately emarginated in male, rounded or narrowly subtruncated in female.

Geographical distribution [Map 3]: Known from Moa and Leti Is. (Leti microarchipelago just off ENE tip of Timor)

Remarks: Looks intermediate between the *javanica*- (lack of elytral dfp, extensive lateroapical elytral patches, yellow tarsi) and *semipurpurea*- (black pronotum and elytral disk) subgroups of the *Javanica*-circle.

***Cyphogastra (s.str.) romanensis* THY.**

Cyphogastra semipurpurea var. *romanensis* THÉRY 1926: 69

Material examined:

Holotype: “Asia Arch., ~~Key-Is.~~, 1903, H. Kühn, Roma” “Type” “*V. romanensis* Thery, TYPE”
“MUSÉUM PARIS, 1935, Coll. A THÉRY” [♀ (MNHN)]

Additional material: 3 ♂, 1 ♀

Characters [Fig. 15]: Males [3] 24×8 – 24.5×8, females [2] 28×9 – 36×12.5 mm. Body black except for cupreous-red (bordered green) lateral patch, tips of elytra rather extensively black; dfp areas not contrasting, dull bronzed to plumbeous-green, covered with rather dense, short, whitish pubescence and ochraceous pulverulence; pilosity in median of prosternal process sparse and inconspicuous; body otherwise glabrous. Pronotum strongly transverse, anterolateral angles protruding; collar poorly defined. Puncturation moderately coarse and relatively sparse at middle of disk, very coarse and dense (irregularly confluent) on sides. Laterobasal fossae very irregular, dfp space on bottom almost entirely divided into two by broad, oblique, coarsely punctured extension of anteromedian angle of prehumeral relief; anterior part (between prehumeral relief and anterolateral angles) bordered laterally with prominent, rather sharp ridge; anteromedian fovea poorly developed, anterolateral not at all. Scutellum trapezoidal, longer than wide, broadly sulcate along midline, impunctate. Elytra definitely caudate, with barely noticeable subhumeral protrusion; puncturation irregular, very coarse on basal fourth, fine and sparse on apical half; surface, especially in apical half, rather mat. Proepisterna dfp with some irregular smooth reliefs; prosternal process deeply sulcate and coarsely, densely punctured along midline, very sparsely and less coarsely so on lateral rims; metasternum with fine furrow along midline, disk finely and sparsely punctured, sides almost entirely dfp. Abdominal plaque moderately elevated, sparsely and rather finely punctulate, angle between ventral line and apical slope roundedly obliterated; abdomen with rather narrow but continuous midlateral and marginal dfp bands connected on 2. – 4. sternites by transverse dfp “rungs”, otherwise rather coarsely and densely punctured; apex of anal sternite narrowly, not deeply (at slightly obtuse angle) incised.

Geographical distribution [map 3]: Roma I. (E of Wetar).

Remarks: *C. romanensis* THY. is a member of the *C. [semipurpurea C.G.]* superspecies, in body proportions resembling *C. rollei* THY. rather than slenderer *C. semipurpurea C.G.* and *C. lateralis* KERR., being somewhat intermediate between them in the extent of abdominal dfp which occupies almost all surface (except moderately broad median line and rather small and sometimes inconspicuous rounded “mirrors” on sides) in the former and being definitely less extensive (only rather narrow – in *C. lateralis* KERR. often hardly

appreciable – longitudinal midlateral and marginal stripes) in the latter two; dfp bottoms of pronotal fossae are better developed than in *C. rollei* THY. (where they are practically absent) but much less so than in *C. lateralis* KERR.; elytral puncturation is as fine as in *C. rollei* THY. (definitely coarser in *C. semipurpurea* C.G. and *C. lateralis* KERR.), but more accentuated microsculpture makes the surface rather mat; colouration seems almost as variable as in *C. semipurpurea* C.G., with elytral patch intermediate between that characteristic of *C. rollei* THY. (very large and bright) and *C. lateralis* KERR. (almost absent), and black ventral side clearly differing from purplish-cupreous in the latter.

Cyphogastra (s.str.) semipurpurea (C.G.)

Chrysodema semi-purpurea CASTELNAU & GORY 1835: 19
= *Chrysodema timoriensis* CASTELNAU & GORY 1835: 22-23
= *Cyphogastra Chevrolatii* DEYROLLE 1864: 39-40

Material examined:

?**Holotype:** „Timor, Chevrolat” “Collection Chevrolat” “*Gasteropta semipurpurea*, Type, Lap. Acr. Sf. 163 p., Farinosa f. S. Ent. 219-16, C=t 1, 21, p.1, 38, Ins. Timor” [“Type” added by KERREMANS] “*semipurpurea* Cast. et Gory Type” [KERREMANS’ label] “Kerremans 1903-59” [ø (BMNH)]

Additional material: 20 ♂, 35 ♀, 5 ø

Characters [Fig. 16]: Males [20] 19.5×6.5 – 26.5×9; females [34] 21.5×7 – 34×11.5 mm. Body dorsally black, with polychrome (cupreous-red bordered green, rarely almost entirely green) lateral streak and bluish-black extreme apices; ventral side dull blackish-green with or without some cupreous or purplish reflexions; antennae and tarsi brownish-black. Body – except for dfp areas and sulcus of prosternal process – practically glabrous. Pronotum subparallelsided; anterolateral angles well marked but at most slightly protruding; collar not or poorly marked; fossae deep, c-shaped, each with two (smaller at base, larger at middle of lateral pronotal margin) more or less extensively dfp spots; anterior foveolae not or very poorly individualized; midlateral elevations rather coarsely and not too sparsely, sides still somewhat coarser punctured; anteromedian angle of laterobasal reliefs obsolete, not clearly demarcated from somewhat depressed, coarsely punctured oblique elevation separating dfp foveolae. Elytra markedly caudate; no subhumeral protrusion; puncturation coarse on basal fourth, becoming gradually finer (but everywhere relatively coarse) backwards; apical half usually with (less frequently – *f. chevrolatii* DEYR. – without) more or less conspicuous, contrastingly cupreous, perisutural dfp sulcus. Proepisterna extensively, sometimes almost entirely dfp; abdominal plaque moderately elevated, both “upper” and “lower” (re-entrant) angle of its posterior slope rounded in profile; perimarginal dfp band of abdomen narrow, broadly separated from rather well developed midlateral stripes by glabrous, coarsely punctured band; apex of anal sternite shallowly emarginated in male, rounded or subtruncated in female.

Geographical distribution [Map 3]: Apparently endemic to Timor: a specimen allegedly from “Kai Is.” in the collection of T. TERABAYASHI has been almost certainly mislabelled.

Remarks: The combination of black pronotum and elytral disk with bright and large polychrome lateral patch, bright cupreous basal part of epipleura, distinct but not extensive dfp areas in pronotal fossae, well developed but broadly separated marginal and midlateral abdominal pdf stripes, relatively coarse elytral puncturation, and usually very conspicuous elytral dfp sulci distinguishes *C. semipurpurea* (C.G.) from any other species of the *Javanica*-circle.

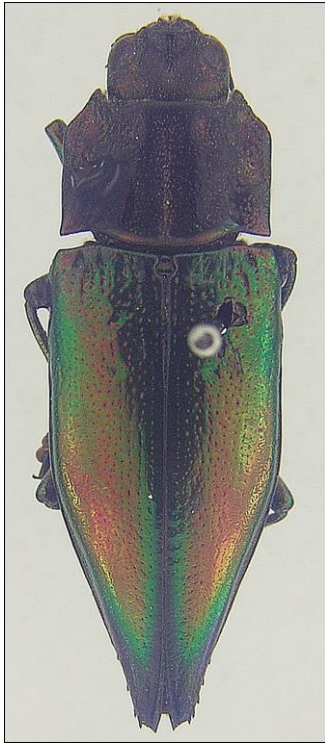


Fig. 12
Cyphogastra rothschildi KERR.
♀ [MNHN], Wetar I.

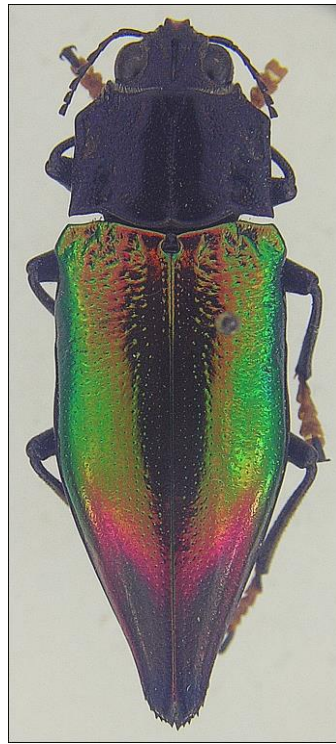


Fig. 13
Cyphogastra wetteriana THY.
♀ PT [MNHN], Wetar I.



Fig. 14
Cyphogastra rollei THY.
♀ [BPjue], Moa I.



Fig. 15
Cyphogastra romanensis THY.
♀ HT [MNHN], Roma I.



Fig. 16
Cyphogastra semipurpurea (C.G.)
♀ [MNHN], Timor I.



Fig. 17
Cyphogastra plana HOL.
♀ HT [BPlup], Pantar I.

Cyphogastra (s.str.) plana sp.n.

Material examined:

Holotype: “Pantar Ins., Nederl. Ind” [♀ (RBH: BPlup)]

Additional material: None

Holotype [Fig. 17]: Female 35×11 mm. Dorsal side black with green to cupreous dfp depressions and small, poorly delimited but distinct green lateral stripe on elytra; ventral side dull greenish-bronzed. Except for ventral dfp areas and rather densely semirecumbently pubescent sulcus of prosternal process, body virtually glabrous.

Epistome deeply arcuately emarginate, with conspicuous epistomal ridge parallel to anterior margin; deep and broad, transverse, rather finely and densely punctured groove extends between this ridge and prominent (transverse on sides, protruding deeply downwards at middle) supraepistomal carina. Front very much wider than long, sides slightly divergent; frontal depression deep, rather narrowly paraboloidal, reaching distinctly behind upper margins of eyes, coarsely irregularly sculptured; anterior cavity rather inconspicuous; lateral ridges irregular, broadly rounded off, coarsely but sparsely punctured; perioocular sulci very deep, dfp; V:H≈0.55.

Pronotum transverse (BW:AW:L≈1.5:1.4:1), sides sinuately subparallel to not protruding anterolateral angles; no distinct collar; base at sides shallowly angularly sinuate, prescutellar lobe broadly truncated; anterior margin shallowly sinuate on both sides of somewhat sinuately truncated median lobe. Median depression moderately deep, stria at its bottom totally obliterated; fossae deep, dfp, axe-shaped; anteromedian foveola small but distinct, dfp; anterolateral not individualized. Disk not very finely but rather sparsely punctulate, punctures on prehumeral relief and anterolateral areas much coarser. Scutellum convex, somewhat transversely roundedly trapezoidal, distinctly sparsely punctulate.

Elytra 2.25× longer than wide. Sides obliquely truncated at humeri, slightly convex just behind truncation, subparallel to midlength, and sinuately convergent to markedly caudate apices; lateroapical margin with few (5–6) sharp denticles. Puncturation at base very coarse and irregular, becoming progressively finer (but everywhere distinct) backwards; on apical half distinct perisutural dfp sulcus.

Proepisternal dfp subdivided by smooth longitudinal band into two – perimarginal and median – stripes; also lateral slopes of prosternal process dfp; sulcus finely punctulate and densely semirecumbently pubescent; sternum medially grooved; median parts of metasternum finely and very sparsely punctulate; sides of meso- and metasternum almost entirely dfp. Abdominal plaque rather low, sparsely covered with not very fine, markedly elongate punctures; outline of apical slope in lateral aspect flatly S-shaped; perimarginal dfp on abdomen very narrow, widely separated from well developed midlateral dfp stripes; apex of anal sternite regularly rounded.

Geographical distribution [Map 3]: Known only from the holotype, collected on Pantar Island in the main chain of Lesser Sundas (between Lombok and Alor). Like *C. romanensis* THY. seems to be rather recent invader from Timor.

Remarks: Differs from *C. semipurpurea* (C.G.) and *C. romanensis* THY. in practically concolorous basal part of epipleura, and from all other representatives of the *Javanica*-circle in elytral dfp sulci. Apparently closely related to *C. transmarina sp.n.*, in which, however, pronotal fossae are only partly dfp and connected by sulciform depression to truncation, scutellum longer than wide and deeply sulcate, elytra without dfp sulci, sides of abdomen almost entirely dfp, &c.

Cyphogastra (s.str.) transmarina sp.n.

Material examined:

Holotype: "Tomia Is., Indonesia, Mar 2001" [♀ (TT)]

Additional material: none

Holotype: Female 30.5×10 mm. Body above black with brassy-green pronotal dfp and somewhat darker, dull green, not contrasting elytral lateroposterior patch, extending as rather broad (1-1.5 mm.) stripe almost to humerus (anterior half of epipleura, as well as bottoms of periocular sulci, of same colour); ventral side, femora and tibiae dark bluish-green with golden-cupreous (on metasternum) to bronzed (prosternum and abdomen) dfp; antennae and tarsi piceous. Dfp areas covered with dense, recumbent pale pubescence and ochraceous pulverulence; body otherwise glabrous.

Epistome arcuately emarginate, epistomal ridge inconspicuous; supraepistomal carina irregular, transverse depression below it moderately deep and very coarsely punctured. Front much wider than long, sides slightly divergent; frontal depression deep, parabolic, reaching distinctly behind upper margins of eyes; lateral ridges hardly distinguishable, periocular sulci deep, median groove sharply defined; front sparsely and rather finely punctured in upper and lateral part but very densely so in anterior cavity. 1. antennal joint club-shaped, robust, *ca.* 3× longer than thick; 2. definitely wider than long, *ca.* 6× times shorter and much thinner than 1.; 3. flattened, elongately triangular, slightly shorter than but distally almost as thick as 1.; 4. as long as but much wider than 3., twice longer than wide; 5.–9. progressively shorter and narrower (10. and 11. missing).

Pronotum strongly transverse, sides straight, almost inappreciably divergent; slightly acute basal angles pointing somewhat sideways, anterolateral marked but not conspicuously protruding; truncation distinctly concave; collar poorly defined; base angularly bisinuate, broadly arcuate prescutellar lobe moderately prominent; anterior margin deeply sinuate on both sides of broadly truncated median lobe. Median depression moderately deep, not distinctly striated at bottom; laterobasal fossae irregular, c-shaped, only in anterolateral part distinctly dfp; narrow, irregularly dfp sulcus extending from it to anterolateral ("truncation") pronotal margin represents anterolateral fovea; anteromedian small but distinct, dfp at bottom; anterior part (between prominent rectangular prehumeral relief and anterolateral angles) bordered laterally with prominent, rather sharp ridge, leaving elongately triangular, anteriorly rather wide, almost smooth lateral rim. Puncturation of disk rather coarse and sparse at middle (somewhat denser along midline of median depression), much coarser and denser on sides. Scutellum trapezoidal, longer than wide, deeply sulcate along midline, impunctate.

Elytra with no appreciable subhumeral protrusion, sides perceptibly divergent on basal half, then sinuately convergent to definitely caudate apices; lateroapical margin with 8–9 sharp prominent denticles. Intercostal foveae at very base distinct, otherwise no trace of costae; elytral puncturation irregular, very coarse on basal fourth, fine and sparse on apical half; scutellar stria deep, continuous, distinctly though not coarsely punctured, extending to basal fourth; surface in apical half definitely mat, somewhat less so towards base.

Proepisterna posteromedially dfp, in anterolateral part smooth with rather large dfp foveae; median sulcus of prosternal process broad but rather shallow, rather indefinite, coarsely and densely punctured; lateral rims almost impunctate; metasternum deeply sulcate along midline, disk finely and very sparsely punctured, sides almost entirely dfp. Abdominal plaque finely and sparsely punctulate, prominent, rather high (*ca.* two thirds of length of 2. sternite), in profile slightly concave, rectangular apical angle rather narrowly rounded; sides of abdomen almost entirely dfp (lateral dfp bands separated from midlateral by only very

narrow, irregular smooth stripe), rather coarsely but sparsely punctured along midline; apex of anal sternite rounded without distinct incision.

Geographical distribution [Map 3]: Tomia Island (SE of Celebes: 5°43'-5°46'S; 123°53'-124°00'E)

Remarks: The closest relative of this species is apparently *C. romanensis* THY., differing in colouration (elytral spots partly cupreous, basal half of epipleural margin purplish, ventral side black), pronotal sides (rather convergent but with protruding anterolateral angles), much less distinctly sulcate metasternum, large “mirrors” on sides of sternites, and some minor details. In extent of abdominal dfp *C. transmarina* sp.n. resembles *C. rollei* THY. which, however, is much more shining, different in colouration, has elytral puncturation finer and arranged in almost regular rows, &c.

***Cyphogastra* (s.str.) *lateralis* KERR.**

Cyphogastra lateralis KERREMANS 1898: 116

Material examined:

Holotype: “Type” “Ombai, Meyer D.” “*lateralis* Kerr. Type” “*Chevrolati* H.Deyr.” “Kerremans 1903-59” [♂ (BMNH)]

Additional material: 6 ♂, 6 ♀, 1 ♂



Fig. 18

Cyphogastra lateralis KERR.

♂ [BPjuj], Alor I.

Characters: Males [6] 25×8 – 29×9.5; females [6] 26.5×8.5-31.5×10 mm. Body above black with cupreous-red pronotal dfp and dull green, not contrasting elytral lateroposterior patch; sternum and abdomen purplish-cupreous; antennae and tarsi piceous. Dfp areas covered with dense, recumbent pale pubescence and ochraceous pulverulence; body otherwise glabrous. Pronotum [sinuately-]subparallelsided; anterolateral angles prominent but usually not protruding; fossae deep, irregularly axe-shaped, dfp; anteromedian foveola poorly

developed, anterolateral absent; punctures on midlateral elevations moderately fine, sparse, on sides coarser. Elytra moderately caudate; no subhumeral protrusion; punctuation coarse anteriorly, becoming gradually somewhat finer backwards and sideways. Proepisterna sparsely, very broadly but shallowly punctured; sulcus of prosternal process wide and densely irregularly punctured in male, narrow and rather sparsely punctulated in female, pubescence short, indistinct, semierect; dfp on sternum and abdomen strongly reduced, sometimes virtually absent; abdominal plaque moderately elevated, its posterior slope near-vertical, posterior angle rounded in profile; apex of anal sternite broadly but often very shallowly emarginated in male, rounded in female.

Geographical distribution [Map 3]: Endemic to Alor I. (“*Is. Key*” on the label of one my specimens is almost certainly erroneous)

Remarks: Elongated, dorsally black body makes *C. lateralis* KERR. similar to *C. farinosa* (F.), but lateral patch on elytra, lack of elytral dfp sulci, purplish ventral side, &c., suggests rather its belonging the *Javanica*-circle. [KERREMANS (1898) described it as a separate species, but in the Monograph (KERREMANS 1910) considered it as but a synonym of *C. chevrolati* DEYR., the view effectively followed also by BELLAMY (2008), who listed both among synonyms of *C. semipurpurea* (C.G.); red pronotal fossae, different ventral colouration, faint or absent elytral patch, consistently no trace of elytral dfp sulci, together with allopatric distribution proves that original KERREMANS’ (1898) opinion was correct.

Phylogenetical reconstruction

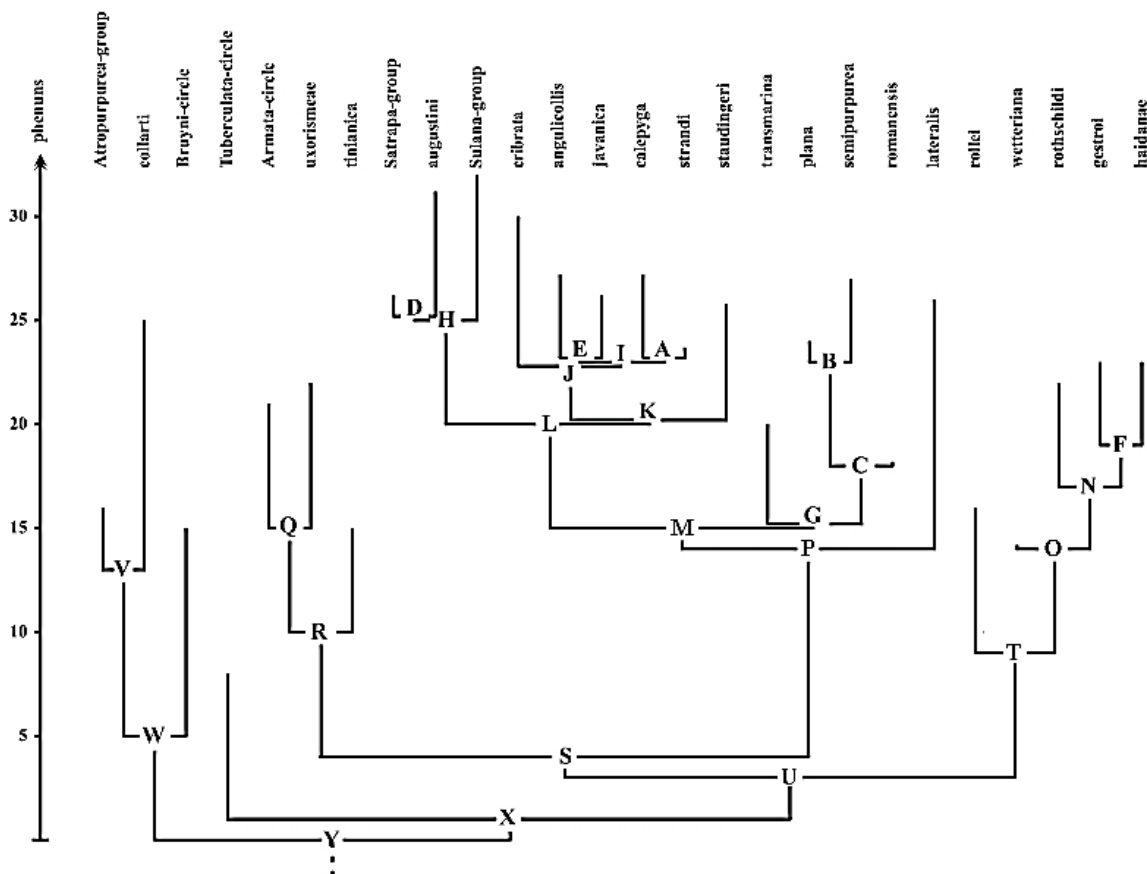


Fig. 19

Phylogenetical relations between and within the analysed circles

Like in other parts of the Review, all terminal “in-group” taxa – representatives of the targeted (*Gestroi*- and *Javanica*-) circles – have been included, as well as reconstructed ancestors of the circles convincingly resolved in previous parts [in cases of doubts as to the monophyly of a circle its “suspicious” part (here only *C. augustini* THY. vs. the rest of the *Satrapa*-circle) have been treated separately]. To “root” the tree, a “complex” of *Metataenia* (*Chalcomroczkowskia*) *ocellata* (L.S.) and *Iridotaenia* (*Iridomroczkowskia*) *koyoi* HOL. was included in the reconstruction as “fixed” distant, and the reconstructed ([2P]: Review pt. II, node [P]) ancestor of *sg. Guamia* THY. as (also “fixed”) proximal out-groups – their *a priori* constrained position makes it superfluous to show them in the cladogram.

The reconstruction of the ancestor [Y] of in-group shows it as moderately elongated beetle of uncertain (uniformly black or green) body colouration, subparallelsided pronotum without distinct anterior foveolae, well marked but not protruding anterolateral angles, c-shaped non-dfp fossae, rather coarsely punctured slightly caudate elytra with at most slightly indicated subhumeral protrusion and no dfp markings, prominent abdominal plaque, entirely dfp proepisterna and distinct but not confluent perimarginal and midlateral dfp stripes of anal sternite; it seems to have lived somewhere in SW-New Guinea. The first to split off from the “bulk” was, according to the reconstruction, the ancestor of the clade [W]: green above, with prominent anteromedian foveola joined to broad fossa of straight inner margin; its descendant on northwestern N.Guinea was the ancestor of the *Bruyni*-circle (distinctly convergent pronotal sides with barely marked anterolateral angles, strongly caudate elytra with conspicuous dfp depressions around humeri, only partly dfp proepisterna and barely indicated perimarginal abdominal dfp stripe), whereas the populations remaining on SW developed into the ancestor [V] of the *Collarti*-circle (broad body, blackish perisutural elytral interstria, black pronotum, cupreous sternum, pronotal fossae extensively dfp and contrastingly coloured), further evolved in New Guinea into the *atropurpurea*-group (blackish dorsally, rather finely sculptured), but spreading also to the West as far as Timor, where it became widely different (very broad polychrome lateral streak, anteromedian foveola inconspicuous, anterolateral deep, inner margin of fossa incised, elytra not caudate with no trace of subhumeral protrusion) *C. collarti* DESC.

The basal branching of the remaining in-group taxa have not been reliably resolved: the differences between four consecutive nodes ([Y]→[X]→[U]→[S]) amount only to one or two phenons, so the respective support quotients (SQ=16/17, 16/17 and 14/15) are also doubtfully informative. As it is, the “sister” of [W] has been resolved as [X] (probably differing from [Y] by coarser elytral sculpture), which in turn split into far eastern (SE-New Guinea, Louisiades, N.Hebrides) *Tuberculata*-circle (concolorous elytral tips, pronotum with prominent anterolateral foveolae, outwards protruding anterolateral angles and deeply furrowed fossae, and but moderately caudate elytra) and probably western New Guinean [U] whose evolutionary novelty were yellow tarsi. The next two pairings – ([P] [R]) [T] – are likely just the erroneous effect of the above-mentioned “near-polytomy”: more probably the true evolutionary sequence was ([T] [P]) [R]; however, as the present fragmentary analysis (like those in other parts) are only preliminary, aiming at no more than demarcation (and clarification of internal structure) of well supported groups (circles), the relationships among which will be finally analysed only at the end of the Review, it seems preferable to tentatively accept the pattern as resolved herein.

So, according to the present cladogram, the pair of descendants of [U] is [T] and [S], the latter giving rise to [R] (dorsally bronzed, with concolorous elytral tips and discernible subhumeral protrusion) and [P] elytra with distinctly coloured lateral streak and blackish

perisutural interstria, dark tarsi, distinct anteromedian pronotal foveola and small dfp spots on bottoms of fossae). Further evolution of [R] has led on the one hand to *C. tinianica* KUR. (anterolateral pronotal angles markedly protruding outwards, fossae partly dfp, prominent subhumeral protrusion of elytra), and on the other to [Q] (pronotal sides markedly convergent, fossae deeply furrowed, elytral sculpture fine), the ancestor of *C. uxorismeae* HOL. (dorsal side bright green, ventral bright cupreous, distinct anteromedian foveola, non-dfp proepisterna and abdomen) and *Armata*-circle (dark tarsi, barely indicated anterolateral pronotal angles, broad indefinite non-dfp fossae, low abdominal plaque).

All the hitherto analysed bifurcations seemed to occur somewhere on New Guinea; now the “sister” of [R] – [P] – apparently invaded Malay Archipelago where, having acquired polychrome lateral streak and bluish-black perisutural interstria on elytra, dark tarsi, distinct anteromedian pronotal foveola and partly dfp fossae, it evolved into, on the one hand, highly distinctive (elongated body, purplish ventral side and bottoms of extensively dfp axe-shaped foveae, only moderately caudate and coarsely sculptured elytra, low abdominal plaque, inconspicuous perimarginal dfp stripes on abdomen) *C. lateralis* KERR. on Alor and, on the other, itself poorly differentiated (entirely dfp proepisterna) but prolific forefather of notably differentiated progeny ([M] probably on southernmost Moluccas or easternmost Lesser Sundas (Kei Is.?). [M] dispersed westwards as far as central Lesser Sundas to become there, without discernible morphological change, [G], whereas eastern populations evolved into [L] (blue elytral disk, anteromedian pronotal foveola indistinct, lateral fossae without any dfp, very fine elytral sculpture), the paraphyletic ancestor of the central Moluccan *Satrapa*-circle ([H]: concoloured perisutural interstria of moderately caudate elytra) and southern *javanica*-group ([K]: no apparent morphological changes). The former split into *sulana*-group (elytra unicoloured, anterolateral pronotal angles projecting outwards, fossae axe-shaped, perimarginal dfp stripe on abdomen inconspicuous) and (without detectable morphological differences) [D], further evolving into *C. augustini* THY. (with partly dfp pronotal fossae, strongly caudate and coarsely punctured elytra) and dorsally black ancestor of the *satrapa*-group.

[K], after having spread westwards to Dammar Is. to evolve there into *C. staudingeri* KERR. (unicoloured elytra, yellow tarsi, low abdominal plaque, sides of abdomen almost entirely dfp), underwent minor (distinct anteromedian foveola, partly dfp proepisterna) transformation into [J], practically immediate (the sequence of splits – without detectable morphological change – leading to [I] and then to [E] and [A], suggested only by the conventions of MICSEQ algorithm) ancestor of five species: *C. cribrata* DEYR. (dorsally green, moderately caudate and coarsely sculptured elytra, barely marked abdominal plaque) on Tevor I.; bronzed (with bright cupreous perisutural interstria) *C. angulicollis* DEYR. on Tanimbar Is.; splendidly colourful *C. javanica* SND. with contrastingly cupreous pronotum and purplish ventral side on Kei Is.; less conspicuously polychrome, also ventrally purplish-cupreous *C. calepyga* (THS.) with entirely glabrous (without any dfp areas) abdomen probably also on Kei Is.; and almost unicoloured (superficially similar to *C. staudingeri* KERR. but with dark tarsi and non-dfp proepisterna) *C. strandi* OBB. on Taam I.!

The offshoot of [G] (indistinguishable from their last common ancestor [M] “sister” of [L]), dispersed to remote Tukangbesi archipelago off southeasternmost Celebes) as *C. transmarina* sp.n. (green sternum, prominent anterolateral pronotal foveola, contrastingly coloured fossae, strikingly extensive abdominal pdf areas), while the remaining populations evolved (axe-shaped pronotal fossa, low abdominal plaque), probably on Timor, into [C], apparently identical to *C. romanensis* THY. The Timorese population of [C] = *C. romanensis*

THY. developed extensively dfp fossae, partly dfp proepisterna, and poorly marked but distinct dfp sulci on apical parts of elytra to become [B], the ancestor of still Timor inhabitant *C. semipurpurea* (*C.G.*) (with contrastingly polychrome lateral elytral streaks, concolorous bottoms of fossae, and reduced perimarginal dfp stripes on abdomen), and on Pantar I. *C. plana* *sp.n.* differing by cupreous-golden ventral side.

Meanwhile [T] (conspicuous polychrome lateroapical streak, low abdominal plaque) tentatively (see above!) accepted here as one of the separate near-basal branches although in fact more likely a “sister” of [P], evolved (bluish-black perisutural interstria, green ventral side, prominent anterolateral foveola and protruding anterolateral angles of pronotum, almost entirely dfp sides of abdomen) into *C. rollei* *THY.* on Moa I., and [O] (green elytral disk, purplish pronotum, black ventral side, distinct anteromedian foveola); [O] invaded Wetar as seemingly unchanged *C. wetteriana* *THY.* while the remaining population evolved (dark tarsi, partly dfp proepisterna) into [N], to invade on the one hand Wetar again, this time as *C. rothschildi* *KERR.* (laterally rather than lateroapically positioned elytral streak, ventral side purplish), and on the other New Guinea to become (prominent anterolateral foveola) [F], the ancestor of the *Gestroi*-circle, and speciate into northern *C. haidanae* *THY.* (contrastingly coloured apical part of elytra, pronotum concolorous with elytral disk, non-dfp proepisterna) and southern *C. gestroi* *KERR.* (elytral disk cupreous, ventral side purplish, coarse elytral sculpture).

Admittedly, the reconstructed internal structure of the clade [T] does not look more convincing than its external affinities, and further, more comprehensive analyses will almost certainly result in radical modifications... On the other hand, the apparent pentatomy at [J], however unusual, is likely to correctly or almost correctly reflect the true evolutionary history of the *javanica*-group.

Acknowledgements

Besides my standing deep gratitude to all those who at any occasion helped me on any way, my special sincere thanks are due to my Czech Colleague, David FRANK, for fruitful discussion, informations on Molu I. specimens of the *javanica*-group, reminding me on the existence of the Tanimbar Kei I., &c.

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Appendix

Character definitions

Upper line – codes of traits [“character-states”]; [***bold italics***] – terminals of a transformation chain

Lower line – weights (costs of transformation) [$0 \leftrightarrow 1 \leftrightarrow 2 = 1$: additively equidistant (distance between 0 and 1 the same (=1) as between 1 to 2, that between 0 and 2 = 1+1 = 2); (***abc***)=1: equidistant [distance $a \leftrightarrow b = b \leftrightarrow c = c \leftrightarrow a = 1$]; $a \leftrightarrow (x/y) = 2$: alternatively equidistant [$a \leftrightarrow x = a \leftrightarrow y = 2$; $x \leftrightarrow y = (x \leftrightarrow a) + (a \leftrightarrow y) = 2 + 2 = 4$]

Proportions

1. Body proportions (L:W): [***0***] <3.0; [***1***] ≈3.0-3.2; [***2***] >3.2
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$

Colour

2. Elytra (disk): [a] blue; [g] green; [b] bronzed; [c] cupreous; [n] black
 $a \leftrightarrow g \leftrightarrow b \leftrightarrow c = 1$; $a \leftrightarrow n \leftrightarrow c = 1$
3. Elytra (lateral streak): [***0***] none; [***1***] distinct; [***2***] very broad, contrastingly polychrome
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
4. Elytra (lateral streak): [***0***] none; [***1***] midlateral; [***2***] lateroapical; [***3***] apical
 $0 \leftrightarrow 1 = 1$; $1 \leftrightarrow 2 \leftrightarrow 3 = 2$
5. Elytral sutural interstria: [***0***] concolorous; [***1***] bluish-black; [***2***] contrasting otherwise
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
6. Elytral extreme tips: [***0***] bluish-black; [***1***] concolorous; [***2***] cupreous-red
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
7. Pronotum: [e] concolorous; [g] contrasting green; [c] contrasting cupreous; [p] contrasting purplish; [b] contrasting black
 $(g/c/p/b) \leftrightarrow e = 1$; $g \leftrightarrow c \leftrightarrow p \leftrightarrow b = 1$
8. Sternum: [e] concolorous with pronotum; [g] green; [c] cupreous; [p] purplish; [b] black
 $(g/c/p/b) \leftrightarrow e = 1$; $g \leftrightarrow c \leftrightarrow p \leftrightarrow b = 1$
9. Tarsi: [***0***] dark; [***1***] yellow
 $0 \leftrightarrow 1 = 2$

Pronotum

10. Side margins: [***0***] subparallel; [***1***] distinctly convergent
 $0 \leftrightarrow 1 = 2$
11. Anteromedian foveola: [***0***] none or inappreciable; [***1***] distinct; [***2***] prominent, joining fossae
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
12. Anterolateral foveola: [***0***] none or inappreciable; [***1***] distinct; [***2***] prominent, joining fossae
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
13. Anterolateral angles: [***0***] barely marked; [***1***] well developed; [***2***] projecting outwards
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
14. Lateral fossae: [***n***] broad, indefinite, non-dfp; [f] deep furrow; [c] c-shaped; [a] axe-shaped; [s] broad, inner margin straight; [i] broad, inner margin incised
 $n \leftrightarrow f \leftrightarrow c \leftrightarrow a = 2$; $s \leftrightarrow i = 1$; $a \leftrightarrow (s/i) = 2$
15. Lateral fossae: [***0***] not dfp; [***1***] slightly dfp; [***2***] extensively dfp
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
16. Lateral fossae: [***0***] concolorous [***1***] contrastingly coloured
 $0 \leftrightarrow 1 = 1$

Elytra

17. Subhumeral protrusion: [***0***] none; [***1***] discernible; [***2***] prominent
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
18. Apical half: [***0***] not caudate; [***1***] moderately caudate; [***2***] strongly caudate
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$
19. Sculpture: [***0***] very fine; [***1***] moderate; [***2***] relatively coarse
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
20. Dfp humeral depressions: [***0***] none; [***1***] prominent
 $0 \leftrightarrow 1 = 2$
21. Dfp sulci: [***0***] none; [***1***] discernible; [***2***] prominent
 $0 \leftrightarrow 1 \leftrightarrow 2 = 2$

Ventral side

22. Proepisterna: [***0***] entirely dfp; [***1***] partly dfp; [***2***] entirely lustrous & relieved
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
23. Abdominal plaque: [***0***] none; [***1***] low, posterior angle roundedly obtuse; [***2***] prominent, posterior angle right or acute
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$
24. Midlateral dfp stripes on abdomen: [***0***] none/inconspicuous; [***1***] distinct at least on anal sternite (often confluent with lateral)
 $0 \leftrightarrow 1 = 2$
25. Lateral dfp depressions on abdomen: [***0***] none or inconspicuous; [***1***] extensive; [***2***] almost entire sides
 $0 \leftrightarrow 1 \leftrightarrow 2 = 1$

Character matrix

red italics – apomorphies; pink – uncertain apomorphies;
 last two columns: distance from immediate ancestor [S/Q]

		1		2	
		12345	67890	12345	67890
		11212	21122	11122	12212
				1	

1.	CHALCOMROCZKOWSKIA	1g000	0ee11	000s2	00010 22001
2.	IRIDOMROCZKOWSKIA	1n000	1ee01	020f2	10000 20012
3.	GUAMIA [2P]	1c200	0ee11	001c0	00100 02010
4.	C. tinianica	1b000	1ee10	002c1	02210 01211= 5
5.	C. uxorismeeae	1g000	0ec11	101f0	01200 02200= 9
6.	Bruyni-circle [3K]	1g000	0ee01	210s1	01221 01210=10
7.	Armata-circle [2G]	1b000	1ee01	000n0	01200 01111= 6
8.	Tuberculata-circle [3M]	1n000	1ee00	022f0	00110 00211= 7
9.	Satrapa-group [3I]	1n110	0ee00	001c0	00100 00211= 1
10.	C. augustini	1g110	0ee00	001c1	00220 00211= 6
11.	Sulana-group [3B]	1n000	0ee00	002a0	00100 00212= 7
12.	C. haidanae	1g230	0eb00	121c0	00210 02111= 4
13.	C. gestroi	1c220	0pe00	121c0	00220 01111= 4
14.	C. cribrata	1g111	0ee00	101c0	00120 01011= 7
15.	C. angulicollis	1b212	0ee00	001c0	00200 00211= 4
16.	C. javanica	1a211	0cp00	002c0	00200 00211= 3
17.	C. calepyga	1a111	0ep00	101c0	00200 01200= 4
18.	C. strandi	1a111	0ee00	101c0	00200 02211= 1
19.	C. staudingeri	1a011	0ee10	001c0	00200 00112= 6
20.	C. rothschildi	1g211	0pp00	101c0	00210 01111= 5
21.	C. wetteriana	1g220	0pb10	101c0	00210 00111= 0
22.	C. rollei	1n220	0eg11	022c0	00210 00112= 7
23.	C. romanensis	1n111	0ee00	101a1	00210 00111= 0
24.	C. semipurpurea	1n211	0ee00	001a2	00210 11110= 4
25.	C. plana	1n111	0ec00	101a2	00210 11111= 1
26.	C. transmarina	1n111	0eg00	121c1	10210 00212= 5
27.	C. lateralis	2n111	0ep00	101a2	10120 01110=12
28.	Atropurpurea-group [3E]	0n001	0bc00	201s2	11110 00211= 3
29.	C. collarti	0g211	0bc00	021i2	10020 00211=12
A		1a111	0ee00	101c0	00200 01211= 0 [8/ 8]
B		1n111	0ee00	101a2	00210 11111= 5 [5/ 6]
C		1n111	0ee00	101a1	00210 00111= 3 [6/ 8]
D		1g110	0ee00	001c0	00100 00211= 0 [6/ 8]
E		1a211	0ee00	001c0	00200 00211= 0 [8/ 8]
F		1g220	0pb00	121c0	00210 01111= 2 [8/ 9]
G		1n111	0ee00	101c1	00210 00211= 0 [8/ 9]
H		1n110	0ee00	001c0	00100 00211= 4 [8/ 9]
I		1a111	0ee00	101c0	00200 01211= 0 [8/ 8]
J		1a111	0ee00	101c0	00200 01211= 2 [8/ 9]
K		1a111	0ee00	001c0	00200 00211= 0 [8/ 8]
L		1a111	0ee00	001c0	00200 00211= 5 [8/ 8]
M		1n111	0ee00	101c1	00210 00211= 1 [8/ 9]
N		1g220	0pb00	101c0	00210 01111= 3 [9/ 9]
O		1g220	0pb10	101c0	00210 00111= 5 [7/15]
P		1n111	0ee00	101c1	00210 01211=10 [12/14]
Q		1b000	1ee11	001f0	01200 01211= 5 [13/14]
R		1b000	1ee10	001c0	01210 01211= 6 [14/14]
S		1n000	0ee10	001c0	00210 01211= 1 [14/15]
T		1n220	0ee10	001c0	00210 00111= 6 [16/16]
U		1n000	0ee10	001c0	00210 00211= 2 [16/17]
V		0g001	0bc00	201s2	11120 00211= 8 [13/15]
W		1g000	0ee00	201s1	01120 00211= 4 [15/19]
X		1n000	0ee00	001c0	00220 00211= 1 [16/17]
Y		1n000	0ee00	001c0	00210 00211
		g			112
Z		1n000	0ee01	001c0	00110 00011
		g	1		1 2
AA		1n000	0ee01	000s2	00000 20011
		g	1	f	1 2
				c	