

CONTENTS

ZOOGEOGRAPHICAL FRAMEWORK	12
TAXONOMIC TREATMENT	14
PHYLOGENETIC RECONSTRUCTIONS	19
CONVENTIONS OF PRESENTATION	23
TERMINOLOGY AND ABBREVIATIONS	25
SYSTEMATIC REVIEW	30
<i>Chrysochroina</i> LAC.	30
<i>Philocteanus</i> DEYR.	39
(<i>Pseudocallopistus</i> OBB.)	43
(<i>Micropistus</i> THY.)	44
(<i>Philocteanus</i> DEYR. s. str.)	46
(<i>Szentendreya</i> HOL.)	47
(<i>Cyalithus</i> THS.)	48
(<i>Chrysopistus</i> THY.)	49
(<i>Epidelus</i> DEYR.)	50
(<i>Asemochrysus</i> DEYR.)	51
<i>Steraspis</i> DEJ.	52
(<i>Pygichaeta</i> OBB.)	55
(<i>Steraspis</i> DEJ. s. str.)	56
(<i>Chrysaspis</i> SND.)	57
(<i>Semenoviella</i> OBB.)	58
<i>Asamia</i> THY.	59
(<i>Asamia</i> THY. s. str.)	60
(<i>Marysienna</i> s.g.n.)	60
<i>Chrysochroa</i> DEJ.	61
(<i>Demochroa</i> WH.)	66
<i>Lacordairei</i> -circle	69
<i>Chrysochroa (Demochroa) detanii</i> (KUR.)	69
<i>Chrysochroa (Demochroa) kiyoshii</i> (ENDO)	70
<i>Chrysochroa (Demochroa) lacordairei</i> THS.	71
(<i>Catoxantha</i> SOL.)	72
<i>Opulenta</i> -circle	75
<i>Chrysochroa (Catoxantha) eburnea</i> (Js.)	75
<i>Chrysochroa (Catoxantha) opulenta</i> (GY.)	76
<i>Chrysochroa (Catoxantha) opulenta</i> (GY.) s.str.	77
<i>Chrysochroa (Catoxantha) opulenta bonvouloiri</i> (DEYR.)	78
<i>Chrysochroa (Catoxantha) opulenta ohmomoi</i> n.n.	79
<i>Chrysochroa (Catoxantha) opulenta chunrami</i> (KUR.)	79
<i>Chrysochroa (Catoxantha) opulenta pierrei</i> (DESC.)	80
<i>Chrysochroa (Catoxantha) purpurea</i> WH.	80
(<i>Pyroxantha</i> s.g.n.)	81
<i>Cuprascens</i> -circle	83
<i>Chrysochroa (Pyroxantha) cuprascens</i> WATH.	83
<i>Blairi</i> -circle	85
<i>Chrysochroa (Pyroxantha) blairi</i> LD.	85
(<i>Demoxantha</i> s.g.n.)	86
<i>Gratiosa</i> -circle	87
<i>Chrysochroa (Demoxantha) gratiosa</i> (DEYR.)	87
<i>Chrysochroa (Demoxantha) gratiosa indica</i> (Cs.)	88
<i>Chrysochroa (Demoxantha) gratiosa</i> (DEYR.) s.str.	89
<i>Chrysochroa (Demoxantha) gratiosa curticollis</i> (THY.)	90
(<i>Pyranthe</i> GISTL)	90
<i>Vittata</i> -circle	94
<i>Chrysochroa (Pyranthe) vittata</i> (F.)	94
<i>Ocellata</i> -circle	96
<i>Chrysochroa (Pyranthe) ocellata</i> (F.)	96
<i>Chrysochroa (Pyranthe) fulgens</i> (DEG.)	97
<i>Chrysochroa (Pyranthe) fulgens</i> (DEG.) s.str.	98

<i>Chrysochroa (Pyranthe) fulgens ephippigera</i> WH.	98
<i>Chrysochroa (Pyranthe) fulgens toulgoeti</i> DESC.	99
<i>Chrysochroa (Pyranthe) pseudoludekingi</i> LD.	100
<i>Chrysochroa (Pyranthe) similis</i> SND.	101
<i>Chrysochroa (Pyranthe) akiyamai</i> LD.	102
<i>Chrysochroa (Pyranthe) annamensis</i> BRG.	103
<i>Chrysochroa (Pyranthe) simillima</i> JD.	104
<i>Chrysochroa (Pyranthe) ludekingi</i> S.-V.	106
(<i>Xanthodema</i> s.g. n.)	106
<i>Castelnaudi-circle</i>	108
<i>Chrysochroa (Xanthodema) sarasinorum</i> FLACH	108
<i>Chrysochroa (Xanthodema) coelicolor</i> OBB.	109
<i>Chrysochroa (Xanthodema) coelicolor remota</i> ssp.n.	110
<i>Chrysochroa (Xanthodema) coelicolor</i> OBB. s.str.	111
<i>Chrysochroa (Xanthodema) castelnaudi</i> DEYR.	112
(<i>Chroodema</i> s.g. n.)	113
<i>Corbetti-circle</i>	114
<i>Chrysochroa (Chroodema) corbetti</i> KERR.	114
(<i>Agelia</i> C.G.)	115
<i>Pectinicornis-circle</i>	117
<i>Chrysochroa (Agelia) fasciata</i> GY.	117
<i>Chrysochroa (Agelia) pectinicornis</i> C.G.	118
<i>Chrysochroa (Agelia) chalybaea</i> (WDM.)	120
<i>Chrysochroa (Agelia) burmensis</i> (GSM.)	121
<i>Chrysochroa (Agelia) theryi</i> (HOSCH.)	122
<i>Chrysochroa (Agelia) limbata</i> (WDM.)	123
(<i>Afrelia</i> s.g. n.)	124
<i>Peteli-circle</i>	126
<i>Chrysochroa (Afrelia) lordi</i> (WK.)	126
<i>Chrysochroa (Afrelia) peteli</i> GY.	127
(<i>Chrysoxantha</i> s.g. n.)	129
<i>Buqueti-circle</i>	131
<i>Chrysochroa (Chrysoxantha) mirabilis</i> THS.	131
<i>Chrysochroa (Chrysoxantha) buqueti</i> (GY.)	132
<i>Chrysochroa (Chrysoxantha) rugicollis</i> SND.	134
<i>Chrysochroa (Chrysoxantha) rugicollis fruhstorferi</i> WATH.	135
<i>Chrysochroa (Chrysoxantha) rugicollis</i> SND. s.str.	136
(<i>Megaloxantha</i> KERR.)	137
<i>Bicolor-circle</i>	143
<i>Chrysochroa (Megaloxantha) bicolor</i> (F.)	143
<i>Chrysochroa (Megaloxantha) bicolor arcuatifasciata</i> (KUR.)	145
<i>Chrysochroa (Megaloxantha) bicolor palawanica</i> (KUR.)	146
<i>Chrysochroa (Megaloxantha) bicolor matsudai</i> (ENDO)	147
<i>Chrysochroa (Megaloxantha) bicolor sakaii</i> (KUR.)	148
<i>Chrysochroa (Megaloxantha) bicolor nigricornis</i> (DEYR.)	148
<i>Chrysochroa (Megaloxantha) bicolor</i> (F.) s.str.	149
<i>Chrysochroa (Megaloxantha) bicolor ohtanii</i> (KUR.)	149
<i>Chrysochroa (Megaloxantha) bicolor brunnea</i> (SND.)	150
<i>Chrysochroa (Megaloxantha) bicolor hainana</i> (KUR.)	151
<i>Chrysochroa (Megaloxantha) bicolor luodiana</i> (Y.X.)	151
<i>Chrysochroa (Megaloxantha) bicolor gigantea</i> (SCHALL.)	152
<i>Chrysochroa (Megaloxantha) bicolor aenigmatica</i> n.n.	153
<i>Chrysochroa (Megaloxantha) mouhoti</i> (SND.)	154
<i>Chrysochroa (Megaloxantha) netscheri</i> (LSB.)	155
<i>Hemixantha-circle</i>	156
<i>Chrysochroa (Megaloxantha) concolor</i> (KUR.)	156
<i>Chrysochroa (Megaloxantha) concolor kumikoae</i> (ENDO)	157
<i>Chrysochroa (Megaloxantha) concolor</i> (KUR.) s.str.	157
<i>Chrysochroa (Megaloxantha) daleni</i> (HOEV.)	158
<i>Chrysochroa (Megaloxantha) daleni yurikoaе</i> (ENDO)	160

<i>Chrysochroa (Megaloxantha) daleni</i> (HOEV.) s.str.	160
<i>Chrysochroa (Megaloxantha) daleni jansoni</i> (THY.)	162
<i>Chrysochroa (Megaloxantha) daleni kyokoae</i> (ENDO)	162
<i>Chrysochroa (Megaloxantha) descarpentriesi</i> (KUR.)	163
<i>Chrysochroa (Megaloxantha) descarpentriesi asahinai</i> (KUR.)	164
<i>Chrysochroa (Megaloxantha) descarpentriesi tamanoae</i> (ENDO)	165
<i>Chrysochroa (Megaloxantha) descarpentriesi</i> (KUR.) s.str.	165
<i>Chrysochroa (Megaloxantha) izyckii</i> n.n.	166
<i>Chrysochroa (Megaloxantha) hemixantha</i> (S.-V.)	167
<i>Chrysochroa (Megaloxantha) purpurascens</i> (RITS.)	168
<i>Chrysochroa (Megaloxantha) purpurascens peninsulae</i> (KUR.)	169
<i>Chrysochroa (Megaloxantha) purpurascens ryoii</i> (ENDO)	170
<i>Chrysochroa (Megaloxantha) purpurascens</i> (RITS.) s.str.	170
(C h r o o x a n t h a s g. n.)	171
<i>Mniszechi</i>-circle	176
<i>Chrysochroa (Chrooxantha) flavolimbata</i> n.n.	176
<i>Chrysochroa (Chrooxantha) klapaleki</i> OBB.	177
<i>Chrysochroa (Chrooxantha) viridisplendens</i> THY.	178
<i>Chrysochroa (Chrooxantha) mniszechi</i> DEYR.	180
<i>Chrysochroa (Chrooxantha) miribella</i> OBB.	182
<i>Edwardsi</i>-circle	183
<i>Chrysochroa (Chrooxantha) dayak</i> n.n.	183
<i>Chrysochroa (Chrooxantha) saundersi</i> SND.	185
<i>Chrysochroa (Chrooxantha) saundersi maruyamai</i> AK.	186
<i>Chrysochroa (Chrooxantha) saundersi</i> SND. s.str.	187
<i>Chrysochroa (Chrooxantha) saundersi rondoni</i> (DESC.)	188
<i>Chrysochroa (Chrooxantha) saundersi tonkinensis</i> (DESC.)	189
<i>Chrysochroa (Chrooxantha) saundersi deyrollei</i> SND.	189
<i>Chrysochroa (Chrooxantha) edwardsi</i> HOPE	190
<i>Chrysochroa (Chrooxantha) perroteti</i> GY.	192
<i>Chrysochroa (Chrooxantha) rogeri</i> DUP.	193
<i>Chrysochroa (Chrooxantha) caroli</i> PERR.	195
(C h r y s o c h r o a D E J. s. str.)	196
<i>Fulminans</i>-circle	204
<i>Chrysochroa (s.str.) fulminans</i> (F.)	204
<i>Chrysochroa (s.str.) fulminans bimanensis</i> LSB.	207
<i>Chrysochroa (s.str.) fulminans florensis</i> KERR.	208
<i>Chrysochroa (s.str.) fulminans cyanonigra</i> LSB.	209
<i>Chrysochroa (s.str.) fulminans aurora</i> HELL.	210
<i>Chrysochroa (s.str.) fulminans chrysuroides</i> DEYR.	210
<i>Chrysochroa (s.str.) fulminans nylanderi</i> ssp.n.	211
<i>Chrysochroa (s.str.) fulminans kaupi</i> DEYR.	212
<i>Chrysochroa (s.str.) fulminans variabilis</i> DEYR.	213
<i>Chrysochroa (s.str.) fulminans funebris</i> THY.	213
<i>Chrysochroa (s.str.) fulminans nishiyamai</i> KUR.	214
<i>Chrysochroa (s.str.) fulminans vethiana</i> OBB.	215
<i>Chrysochroa (s.str.) fulminans nagaii</i> KUR.	215
<i>Chrysochroa (s.str.) fulminans baliana</i> OBB.	216
<i>Chrysochroa (s.str.) fulminans</i> (F.) s.str.	217
<i>Chrysochroa (s.str.) fulminans krausei</i> DESC.	218
<i>Chrysochroa (s.str.) fulminans chrysura</i> GY.	218
<i>Chrysochroa (s.str.) fulminans agusanensis</i> KUR.	219
<i>Chrysochroa (s.str.) fulminans praelonga</i> WH.	220
<i>Chrysochroa (s.str.) fulminans babuyanensis</i> KUR.	221
<i>Chrysochroa (s.str.) semperi</i> SND.	221
<i>Ignita</i>-circle	223
<i>Chrysochroa (s.str.) rajah</i> GY.	223
<i>Chrysochroa (s.str.) rajah</i> GY. s.str.	225
<i>Chrysochroa (s.str.) rajah assamensis</i> G.-M.	225
<i>Chrysochroa (s.str.) rajah thailandica</i> KUR.	226

<i>Chrysochroa</i> (s.str.) <i>rajah unnoi</i> KUR.	227
<i>Chrysochroa</i> (s.str.) <i>parryi</i> SND.	227
<i>Chrysochroa</i> (s.str.) <i>aurotibialis</i> DEYR.	228
<i>Chrysochroa</i> (s.str.) <i>aurotibialis vethi</i> RITS.	230
<i>Chrysochroa</i> (s.str.) <i>aurotibialis</i> DEYR. s.str.	230
<i>Chrysochroa</i> (s.str.) <i>andamanensis</i> SND.	231
<i>Chrysochroa</i> (s.str.) <i>ignita</i> (L.)	232
<i>Chrysochroa</i> (s.str.) <i>wallacei</i> DEYR.	233
<i>Chrysochroa</i> (s.str.) <i>waterstradti</i> THY.	235
<i>Chrysochroa</i> (s.str.) <i>bloetei</i> THY.	236
<i>Chrysochroa</i> (s.str.) <i>weyersi</i> DEYR.	237
<i>Chrysochroa</i> (s.str.) <i>fallaciosa</i> THY.	238
Unidentata-circle	239
<i>Chrysochroa</i> (s.str.) <i>browni</i> SND.	239
<i>Chrysochroa</i> (s.str.) <i>purpureiventris</i> DEYR.	241
<i>Chrysochroa</i> (s.str.) <i>purpureiventris ichikoae</i> OHM.	242
<i>Chrysochroa</i> (s.str.) <i>purpureipennis diversa</i> ssp.n.	242
<i>Chrysochroa</i> (s.str.) <i>purpureipennis conjungens</i> ssp.n.	243
<i>Chrysochroa</i> (s.str.) <i>purpureipennis</i> DEYR. s.str.	244
<i>Chrysochroa</i> (s.str.) <i>purpureipennis marinae</i> LD.	244
<i>Chrysochroa</i> (s.str.) <i>landeri</i> sp.n.	245
<i>Chrysochroa</i> (s.str.) <i>unidentata</i> (F.)	248
<i>Chrysochroa</i> (s.str.) <i>intermedia</i> LD.	250
<i>Chrysochroa</i> (s.str.) <i>holsti</i> WATH.	251
Ixora-circle	252
<i>Chrysochroa</i> (s.str.) <i>fulgidissima</i> (SCHH.)	252
<i>Chrysochroa</i> (s.str.) <i>fulgidissima alternans</i> WATH.	254
<i>Chrysochroa</i> (s.str.) <i>fulgidissima adachii</i> A.O.	254
<i>Chrysochroa</i> (s.str.) <i>fulgidissima</i> (SCHH.) s.str.	255
<i>Chrysochroa</i> (s.str.) <i>baudoni</i> (DESC.)	255
<i>Chrysochroa</i> (s.str.) <i>jasienskii</i> sp.n.	257
<i>Chrysochroa</i> (s.str.) <i>ixora</i> Gy.	259
<i>Afrochroa</i> HOŁ.	260
[<i>Pseudotaenia</i> KERR.J.	261
<i>Paracupta</i> DEYR.	262
(<i>Paracupta</i> DEYR. s.str.)	264
(<i>Gibbicupta</i> sg.n.)	265
(<i>Callistroma</i> FRM.)	266
<i>Bojasinskia</i> g.n.	266
<i>Scaptelytra</i> KERR.	268
(<i>Leptomroczkowskia</i> HOŁ.)	270
(<i>Platymroczkowskia</i> HOŁ.)	271
(<i>Scaptelytra</i> KERR. s.str.)	272
<i>Periorisma</i> DEYR.	272
<i>Metataenia</i> THY.	274
(<i>Enigma</i> sg.n.)	280
(<i>Marginicupta</i> sg.n.)	280
(<i>Paramroczkowskia</i> HOŁ.)	281
(<i>Mroczkowskia</i> HOŁ.)	282
(<i>Chalcoplia</i> THS.)	283
(<i>Parachrysodema</i> THY.)	284
(<i>Chalcophorotaenia</i> OBB.)	285
(<i>Chalcomroczkowskia</i> HOŁ.)	286
(<i>Cyphogastrella</i> THY.)	287
(<i>Caledoenia</i> sg.n.)	288
(<i>Papuodema</i> OBB.)	289
(<i>Metataenia</i> THY. s.str.)	290
(<i>Metamroczkowskia</i> HOŁ.)	291
<i>Cyphogastra</i> DEYR.	292
(<i>Pleiona</i> DEYR.)	294

<i>(Guamia THY.)</i>	296
<i>(Cyphogastra DEYR. s. str.)</i>	297
<i>Holynskius ÖZD.</i>	298
<i>Iridotaenia DEYR.</i>	299
<i>(Iridotaenia DEYR. s. str.)</i>	301
<i>(Euiridotaenia HOŁ.)</i>	302
<i>(Sainvalia HOŁ.)</i>	303
<i>(Tridomroczkowskia HOŁ.)</i>	304
<i>(Afritaenia HOŁ.)</i>	306
<i>Parataenia THY.</i>	306
<i>[Evides DEJ.]</i>	308
<i>[(Evidea sg. n.)]</i>	309
<i>[(Evides DEJ. s. str.)]</i>	310
CONCLUSIONS	311
THE OBJECT	311
THE PREMISES	312
"Operational definition" of species	312
Circles	313
Synthetic classification	313
Indo-Pacific Region	314
THE METHODS	314
Genitalic characters as a component of SMRS	315
MICSEQ	316
THE RESULTS	318
Taxonomy	318
Zoogeography	320
Phylogeny	321
Evolution	324
NEEDS AND PERSPECTIVES	328
ACKNOWLEDGEMENTS	331
LITERATURE	332
APPENDIX	346
Abbreviations of taxon-names	346
Data for phylogenetic reconstructions	351

***Chrysochroa (Chrysoxantha) rugicollis* SND.**

Chrysochroa rugicollis SAUNDERS 1867a: 300

Characters:

Pubescence rufous: long, erect on front; recumbent on sides of ventral surface, very dense and erect on median part of metasternum and especially ("brushes") on prosternal process and underside of femora.

Frontal depression moderately deep, distinctly furrowed along midline. Coarse punctures of front confluent into irregular wrinkles.

Prescutellar lobe of pronotum broadly triangular with usually somewhat rounded prescutellar angle; laterobasal lobes poorly marked, their basal angles usually, anterior always rounded; sides of pronotum before lobes shallowly emarginate. Laterodiscal depressions shallow, indistinct. Puncturation of sides extremely coarse and dense, irregularly confluent; on disk sparser and somewhat finer. Median line undifferentiated or with but traces of impunctate stripe. Lateral carina (except at very base) marked as flat, irregular, not always distinct smooth streak.

Elytra slightly widened to midlength, roundedly narrowed to apices. Punctuation fine and very dense, slightly coarser and sparser towards base. Sutural denticle short but well developed.

Proepisterna very coarsely, prosternal process usually somewhat finer, deeply, confluent punctured; metasternum of female and median (with smooth stripes along midline) and apical parts of sternites with coarse but sparse puncturation; metasternum of male and laterobasal depressions on each abdominal segment dfp.

Geographical distribution (map 48):

C. rugicollis SND. is widely distributed from Yunnan to Cochinchina and Peninsular Siam.

Remarks:

In contrast to *C. mirabilis* Ths. and *C. buqueti* (Gy.) this species shows high variability, especially in colouration; however, no geographical pattern is appreciable over almost all area of its distribution, the only exception being the northeasternmost corner where a distinctive (in itself almost invariable) form occurs. A small (3 ex.) series from Chiang Mai (N-Siam) shows some characters (green median stripe of pronotum, bluish rather than violaceous metallic parts of elytra, dull purplish sternum, blackish abdomen, and – especially – prominent lateroapical denticle of elytra) which might be interpreted as result of hybridization with *C. buqueti* (Gy.), but great distance from nearest unquestionable occurrence of the latter [cf., however, BAUDON's (1966) remarks quoted under *C. buqueti* (Gy.) above] make this interpretation improbable, the more so that simple individual variability cannot be ruled out (even sharp lateroapical denticles of elytra do sometimes – though rarely – appear in typical *C. rugicollis* SND.).

Key to the identification of subspecies of *C. (C.) rugicollis* SND.

- 1 (2) Head and pronotum dull purplish-violaceous; abdomen and metallic parts of elytra blue with but slight violaceous shine *C. (C.) r. fruhstorferi* WATH.
- 2 (1) Head and pronotum bright cupreous-red; abdomen and metallic parts of elytra bluish-violaceous *C. (C.) rugicollis* SND. s.str.

***Chrysochroa (Chrysoxantha) rugicollis fruhstorferi* WATH.**

Chrysochroa Fruhstorferi WATERHOUSE 1904: 266

Material examined:

Syntypes: “Type” “China 1903-120” “Tonkin, Than-Moi, June-Juli, H. Fruhstorfer” “*Chrysochroa Fruhstorferi* (Type) Waterh” [1 ♂ (BMNH)]; “Tonkin, Than Moi, Juni-Juli, H.Fruhstorfer” “Coll.I.R.Sc.N.B., Tonkin, ex coll. Le Moult” “Le Moult vend., Wath. det., *Chrysochroa Fruhstorfi* [*sic!* – RBH] Wath.” “PARATYPES” “of Ann.Mag.Nat.Hist. 1904, 14,82:266” “Paratype” [1 ♀(KBIN)]; “Tonkin, Than Moi, Juni-Juli, H.Fruhstorfer” “Coll.I.R.Sc.N.B., Tonkin, ex coll. Le Moult” “Le Moult vend., Wath. det., *Chrysochroa Fruhstorfi* [*sic!* – RBH] Wath.” “Paratype” [4 ♂(KBIN)]; “Tonkin, Than Moi, Juni-Juli, H.Fruhstorfer” “Coll.I.R.Sc.N.B., Tonkin, ex coll. Le Moult” “Le Moult vend., Wath. det., *Chrysochroa Fruhstorferi* Wath.” “Paratype” [1 ♂, 1 ♀(KBIN)]; “Tonkin, Than Moi, Juni-Juli, H.Fruhstorfer” “Coll.I.R.Sc.N.B., Tonkin” “Le Moult vend., Wath.det., *Chrysochroa Fruhstorferi* Wath.” “Paratype” [1 ♂(KBIN)]

Additional material: 27 ♂, 17 ♀, 23 ♂

Characters: Males [2] $35.5 \times 12 - 43 \times 14.5$, females [5] $40.5 \times 13.5 - 50 \times 17.5$ mm. Head and pronotum dark purplish-violaceous; elytral apices (to posterior $\frac{2}{5}$), median patch (placed between basal fourth and midlength and reaching interspace between 1. and 2. costae), and margins (extending to or beyond 5. costa before median patch, but restricted to marginal costa behind it) blackish-blue; posterior angles of basal ivory band prolonged into linearly narrow strip separating anterior $\frac{2}{3}$ of median patch from dark elytral margin; hind angles of postmedian ivory band also acute-angled but broader and shorter; sternum dull purplish, abdomen and legs dark blue. F:V≈1.3, V:H≈0.27 (male). Vertex densely punctured. Elytral costae weakly developed, on basal fourth practically imperceptible, but 4. not appreciably weaker than others. Lateroapical denticle totally obliterated. Anal plate distinctly though shallowly sulcate along midline, rather narrowly but deeply emarginated at apex.

Geographical distribution (map 48):

This race is known only from northeasternmost Vietnam (Tonkin: Thanh Moi); labels “Annam Laos”, “Annam” and “Cochinchina” do not seem reliable, and “Darjeeling” is evidently erroneous.

Remarks:

Somewhat enigmatic form. WATERHOUSE (1904) described it as a separate species, because “*in addition to the difference in colour it is distinguished by being less elongate, and the thorax shorter and broader*”; later authors found these additional characters not reliable and considered *C. fruhstorferi* WATH. a colour variety of *C. rugicollis* SND. However, apparently restricted peripheral (Thanh Moi lies close to Vietnamese-Chinese border, as the species’ northeasternmost known locality) distribution of this form suggested that it might be rather a subspecies, and this suggestion seems supported by remarkably uniform (as contrasted to bewildering variability of red-pronotal forms) elytral pattern. Moreover, purplish-violaceous colouration of head and pronotum seems correlated with some other chromatic (bluish – not distinctly violaceous – elytra and abdomen, linear yellow strip separating anterior $\frac{2}{3}$ of dark median patch from also dark elytral margin) and structural (somewhat wider and more densely punctured vertex, completely obliterated lateroapical denticle of elytra, trisinuate triangular apical emargination of anal sternite, narrower and deeper incision and more conspicuous median sulcus of anal plate) features rarely or never occurring in combination with red pronotum. Unfortunately most of these characters came to my attention too late to have been checked in the visited museums, and my collection on which the final description has been based contains only a single male, but even the available morphological and distributional data make the subspecific status most probable.

Geographical distribution (maps 36-39):

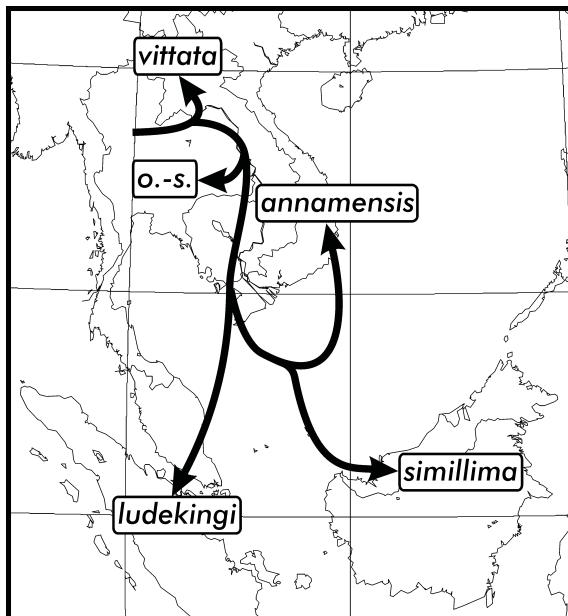
Species of this subgenus are distributed in South-East Asia from India, through Indochinese (incl. Malay) Peninsula, Andamanes, Sumatra and Borneo, to Celebes.

Evolutionary history:

On the 1. cladogram *Pyranthe Gistl* appears as the sister-group of *Chrysoxantha* sg.n. what, however, does not seem “intuitively” acceptable and is apparently an artifact induced by the latter subgenus having been represented in the analysis by an arbitrarily selected species [*C. buqueti* (Gy.)] instead of reconstructed ancestor. Indeed, cladograms 2 and 3, already with “proto-*Chrysoxantha*”, show it almost twice as distant (30 phenuns) from *Pyranthe Gistl* as *Xanthodema* sg.n. (17), and this relation seems the best supported.

The “basalmost” branch of *Pyranthe Gistl* – *C. vittata* (F) – occurs in Indochina; as *Xanthodema* sg.n. shows the basal disjunction to the both sides of that area (*C. sarasinorum* Fl. in Ceylon and S-India, *C. [castelnaudi]*-superspecies in Sundaland), and the next-closest relative (*Chroodema* sg.n.) occupies its northern borderlands, it seems justified to assume that “proto-*Pyranthe*” probably inhabited the Indochinese Peninsula (map 34). The reconstruction shows it (1:X) as a relatively small, dorsally bright-green beetle with contrastingly cupreous front and laterobasal patches of pronotum, unicolorously cupreous ventral side, rather indistinct metallic pattern but conspicuous transverse ivory band on elytra, dense but rather short (somewhat longer in males) ventral pubescence, well developed femoral brushes, rather wide (V:H≈0.3–0.4) vertex, small pronotum with prominent laterobasal lobes but poorly marked “collar”, no discal depressions, undifferentiated median line, elytra widest at midlength, sides shallowly sinuate in basal half, apex bidenticulate, no subhumeral or epipleural angularities, distinct but not very prominent costae without intercostae, fine irregular punctulation distinctly sparser and finer on periscutellar area, densely punctured convex prosternal process anteriorly delimited with deep transverse groove, no prometasternal ledge, rather compact antennae with 3. joint longer than 4., markedly bent mesotibiae, 1. metatarsomere much longer than 2, female anal sternite apically incised, and nearly straight (in lateral aspect) cylindrical aedeagus.

Basal split seems to have occurred between north-eastern and southwestern populations. In the former, pronotal pattern became less distinct, cupreous-red vittae appeared on elytra simultaneously with disappearance of yellow band, ventral pubescence became longer, elytra basally parallel-sided, costae prominent throughout, mesotibiae straight – the result is known as *C. vittata* (F). On the Southwest changes were less pronounced – ventral pubescence became inconspicuous, vertex still broader (V:H>0.4), pronotum distinctly



Map 34. Distributional history of *Chrysocroa vittata* (F) and *C. [simillima]*-superspecies;
O.-s. – *[ocellata]*- and *[similis]*-superspecies

Sg. *Chrysoxantha* sg.n.

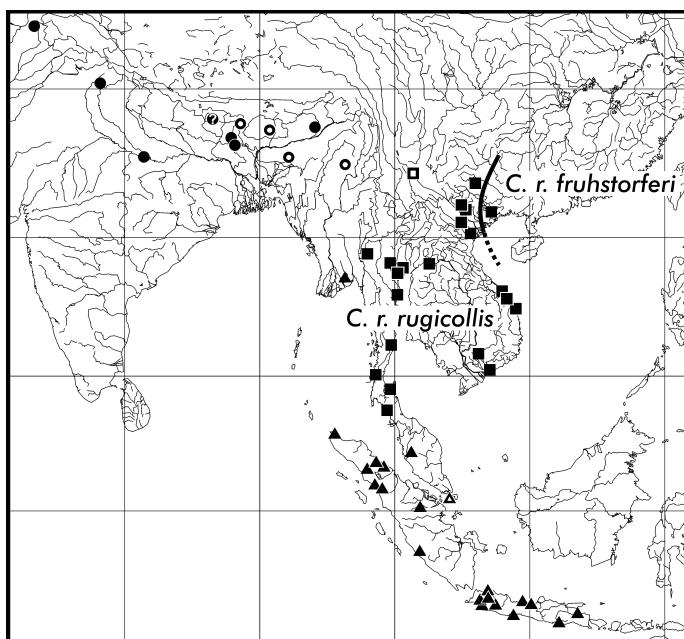
Type-species: *Buprestis buqueti* GORY 1833

General characteristics:

Very distinctive, small (single circle with three species) group of multicolorous beetles. System of elytral (violaceous-blue with typically two – basal and postmedian – broad ivory bands interconnected along suture) and ventral (carmin-red sternum sharply contrasting with violaceous-blue abdomen) colouration is unique within the **Chrysochroina** CAST.; frontal depression and pronotal sides usually bright red, rarely green, median portion of pronotum dark blue or sometimes green, or concolorous with lateral parts. Laterobasal lobes of pronotum inconspicuous, pronotal sides before them strongly convergent along straight or but inconspicuously sinuate lines. Elytra very slightly widened to midlength, then roundedly tapering to apices; lateral margin smooth; costae (without intercostae) slightly elevated. Metacoxae slightly expanded mediad, only ca. 1½× longer at proximal end than at metepisternal suture. Apex of anal sternite in male broadly arcuately emarginated with more or less distinct triangular “deepening” at middle; anal plate elongately trapezoidal, apex shallowly emarginated. 2. antennal joint globular, 3. subequal in length to 4.

Geographical distribution (map 48):

Distribution-area of this subgenus includes subhimalayan countries, Indochinese and Malay Peninsulae, Sumatra and Java.



Map 48. Geographical distribution of the subgenus *Chrysoxantha* Hol.

● – *Chrysochroa mirabilis* Ths.; ■ – *C. rugicollis* SND.; ▲ – *C. buqueti* (Gy.)

Tab. 4



27.



28.



29.



30.



31.



32.



33.



34.

27. *Chrysochroa (Demoxantha) gratiosa indica* (Cs.) – ♀ [RBH: BPibq], INDIA: Darjeeling
28. *Chrysochroa (Demoxantha) gratiosa* (DEYR.) s.str. – ♀ [RBH: BPihc], MALAYA: PERAK: Kwala Kangsar
29. *Chrysochroa (Demoxantha) gratiosa curticollis* (Thy.) – ♀ [RBH: BPibh], SUMATRA
30. *Chrysochroa (Pyranthe) vittata* (F.) – ♀ [RBH: BPiig], CHINA: Hankou
31. *Chrysochroa (Pyranthe) ocellata* (F.) – ♂ [RBH: BPhrm], INDIA
32. *Chrysochroa (Pyranthe) fulgens ephippigera* Wh. – ♂ [UN], SIAM: LAMPHUN
33. *Chrysochroa (Pyranthe) fulgens toulgoeti* DESC. – ♂ [RBH: BPcig], MALAYA: CAMERON Hl
34. *Chrysochroa (Pyranthe) pseudoludekingi* Ld. – ♂ [RBH: BPicp], MALAYA

division of *Chrysochroa* DeJ. s.l. altogether – the predictive power of the resulting classifications would (in both cases) be obviously rather negligible... Similar relations are well known to occur not infrequently already at the species-level, also – if my interpretation of the available data is correct – in *Chrysochroa* DeJ.: *C. semperi* SND. has apparently evolved “from within” *C. fulminans* (F.), *C. eburnea* (Js.) cladistically belongs to *C. opulenta* (Gr.), but their inclusion (as subspecies? varieties?) into the respective “mother-species” would be an evidently wrong solution.

Indo-Pacific Region

“As a biogeographic feature Wallace’s Line is only of modest significance to plants and insects. ... In these groups, the really profound separation is of Australian elements from those of New Guinea and Malesia”.

J.A. KEAST

Although the term has been consistently used by me since several years (e.g. HOLYŃSKI 1994c, 1999, 2000a), its definition and justification has been published only recently (HOLYŃSKI 2001e). This concept differs principally from that of the traditional Oriental Region in its south-eastern border, running through Torres Strait, Coral Sea and western Pacific rather than along the WALLACE’S, WEBER’S or LYDEKKER’S Line; in other words, New Guinea and Oceania **do** belong to Indo-Pacific but **do not** make a part of Oriental. As can be seen from the maps the distribution of the Chrysochroina CAST. supports the warranty of such distinction, conforming to the pattern predicted for the Indo-Pacific: of its 58 subgenera (with several hundred species) occurring from Africa to Marquesas only *Chalcophorotaenia* OBB. (**map 103**) with some 15 species and monotypic *Leptomroczkowskia* Hol. (**map 90**) and *Platymroczkowskia* Hol. (**map 91**) – none of them extending beyond Torres Strait – inhabit Australia (besides, two or three recent invaders reached northernmost Queensland and Arnhemland), whereas New Guinea is dominated by large, speciose genera like *Paracupta* DEYR. (**map 82**), *Metataenia* THY. (**map 94**), *Cyphogastra* DEYR. (**map 110**), or *Iridotaenia* DEYR. (**map 116**) widely distributed to the Southeast, Northwest or both but – except *Metataenia* (*Chalcophorotaenia* OBB.) – not (or at most marginally) to the South. On the other hand, the northwestern part of the Indo-Pacific Region coincides with the “classic” Orientalis, and the Chrysochroina CAST. (**map 1**) might serve as a handbookish illustration of the traditionally accepted borderline separating it from Palaearctis: limits of its distribution almost exactly follow the Desert of Thar, Himalayas and Yang-tse-kiang Valley.

THE METHODS

“A methodology that generally avoids all ad hoc hypotheses may be most parsimonious, but certainly will have to be regarded as senseless”.

G. BECHLY

The most important methodical innovation introduced in my recent papers is certainly the procedure (MICSEQ) of phylogenetic reconstructions, but at least one other particularity of my approach to taxonomic/phylogenetic work seems to deserve mention here as differing from currently most popular practice.