Studies and Reports
Taxonomical Series 12 (1): 53-71, 2016

Notes on Oriental Panagaeini 2. *Craspedophorus saundersi* (Chaudoir, 1869), *C. sundaicus* (Oberthür, 1883), *C. mandarinellus* (Bates, 1892), and description of a new species (Coleoptera: Carabidae)

Martin HÄCKEL

Department of Game Management and Wildlife Biology, Faculty of Forestry and Wood Sciences, Czech University of Life Sciences, Kamýcká 1176, CZ-165 21 Prague 6, Czech Republic
e-mail: hackel@uvn.cz

Taxonomy, new species, new synonymy, Coleoptera, Carabidae, *Craspedophorus*, Oriental Region

Abstract. Types of *Craspedophorus saundersi* (Chaudoir, 1837) and *C. sundaicus* (Oberthür, 1883) are studied. A neotype for *C. mandarinellus* (Bates, 1892) is designated and *C. batesi* sp. nov. is described, *Craspedophorus ovatulus* Kirschenhofer, 2000 is synonymized with *C. sundaicus* (Oberthür, 1883). *Craspedophorus molossus* Kirschenhofer, 2000, *C. mandarinellus attapeuensis* Häckel et Kirschenhofer, 2014, *C. m. malayensis* Häckel et Kirschenhofer, 2014 and *C. louangnamthaensis* Kirschenhofer, 2011 are synonymized with *C. mandarinellus* (Bates, 1892). The *C. mandarinellus / saundersi* subgroup sensu Häckel et Kirschenhofer, 2014 of the *C. microspilotus* group is revised. *Craspedophorus saundersi* (Chaudoir, 1837) is transferred from the *C. microspilotus* group to the *C. basifasciatus* group, which is renamed to the newly defined and delimited *C. saundersi* group.

INTRODUCTION

The studies of Oriental species of *Craspedophorus* Hope, 1838, namely those of the smaller alate species, are repeated with descriptions of new species without examinations of all similar species. The reasons for such omissions were relative rarity or limited accessibility of species which are even today infrequently collected, and political divisions during the second half of the 20th century, which limited accessibility of types to authors from either side of the Iron Curtain. The pre-war descriptions of Andrewes (1919, 1930a, b, 1933) were thus followed by those of Louwerens (1953) and Jedlička (1966), both without the possibility of comparisons with some of the needed types. Kirschenhofer (2000, 2011) proceeded similarly, but in his papers laid a foundation for intrageneric framework by proposing species groups (e.g. *Craspedophorus microspilotus* group; Kirschenhofer (2000). Recent catalogues (Lorenz 2005) do not elaborate on supraspecific systematics or only marginally mention the genus *Craspedophorus* with its dominantly tropical species (Baehr 2003). Häckel & Farkač (2012) accepted the species groups proposed by Kirschenhofer or Sloane (for the Australian species). At that time they did not study types and therefore could not assign species to working groups based on morphological similarity and geographic distribution. The first attempt to divide all Oriental (and eastern Palearctic) species of *Craspedophorus* into groups (Häckel & Kirschenhofer 2014) also suffered from errors caused by inadequate knowledge of types. My subsequent study trip to MNHN and correspondence with BNMH, NMWC and a number of private collectors allowed me to start correcting mistakes made in the preceding work and to propose solutions based on the study of types. My first work aimed at problems

in the systematics of Kirschenhofer's *C. microspilotus* group, especially some insular species from the *C. cereus* subgroup sn. Häckel (Häckel 2015). The aim of the present work is to contribute to our knowledge of the dominantly continental species placed in the vaguely defined *C. saundersi / mandarinellus* subgroup (sensu Häckel & Kirschenhofer 2014). Kirschenhofer's *C. microspilotus* group sensu Häckel & Kirschenhofer, 2014 still contains a number of rather dissimilar species (subgroups) and appears to be too heterogeneous to be maintained in the future.

MATERIAL AND METHODS

Depositories:

BMNH The Natural History Museum, London, United Kingdom (B. Garner, M. Barclay);
MNHN Muséum national d'Histoire naturelle, Paris, France (T. Deuve);
NMPC National Museum, Praha, Czech Republic (J. Hájek);
NMWC Naturhistorisches Museum Wien (H. Schillhammer);
ZSMC Zoologische Staatsammlung München, Germany (M. Balke, M. Baehr);
cDW private collection of M. Häckel, Praha, Czech Republic;
cMH private collection of D. Wrase, Berlin, Germany;
cRS private collection of R. Sehnal, Unhošť, Czech Republic;
cSF private collection of S. Facchini, Piacenza, Italy.

SYSTEMATIC PART

Craspedophorus Hope, 1838

Type species: *Carabus reflexus* Fabricius, 1781 (nec 1801): 302 [= *Craspedophorus reflexus* (Fabricius, 1781)].
Eudema Laporte de Castelnau, 1840: 137; type species *Panagaeus regalis* Gory, 1833
Isotarsus LaFerté-Sénectere, 1851: 217; type species *Panagaeus regalis* Gory, 1833
Epicosmus Chaudoir, 1846: 512; type species *Panagaeus tomentosus* Vigors, 1825 [= *Craspedophorus angulatus* (Fabricius, 1781)]
Brachyonychus Chaudoir, 1878: 85; type species *Epicosmus sublaevis* Chaudoir, 1869
Acanthocosmus Jeannel, 1949: 855 (subgenus); type species *Eudema nigrita* Künckel d'Herculais, 1891
Brachycosmus Jeannel, 1949: 857 (subgenus); type species *Panagaeus festivus* Klug, 1833.

C. saundersi group nov.

Craspedophorus saundersi (Chaudoir, 1869)
(Figs. 1a-c)

Epicosmus saundersi Chaudoir 1869: 114 (type loc. "Camboje" [= Cambodia]). Chaudoir 1878: 125; Lesne 1904: 69 [uncertain data].
Craspedophorus saundersi Andrewes 1930: 47 [erroneous type locality]. Kirschenhofer 2000: 324; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014: 320 [erroneous type locality].

Type material. Holotype (♀): "Camb [handwritten, white label] // Mouhot [printed, white label] // "Ex Musæo / Chaudoir [printed in red, white label]" (Figs. 1a-c, MNHN).

Supplemental description. Body convex, elytra ovoid, humeri distinct, rounded. Length 11.75 mm, width 4.75 mm. Proportions: Pronotum 1.41x wider than long, 1.64x wider than head, elytra 1.25x wider than pronotum. Pronotum moderately transverse, subhexagonal, maximum width immediately behind midlength, front angles strongly rounded, weakly indicated, anterior margin somewhat shorter than base. Disc convex anteriorly, lateral rims not markedly bordered, anteriorly narrowing and depressed, posteriorly somewhat elevated. Surface irregularly coarsely punctured. Metepisterna rhombic, nearly as wide as long (Fig. 1c).

C. microspilotus group (Kirschenhofer, 2000)
C. cereus subgroup (Häckel, 2015)

Craspedophorus batesi sp. nov.
(Figs. 2, 3a, b)

Epicosmus mandarinellus Bates 1892: 300 (type loc. "Bombay" [= Mumbai, Maharahstra, India]). *Craspedophorus mandarinellus* Andrewes 1930: 135 [uncertain record]. Häckel et Farkač 2012: 77 (partim).

Type material. Holotype (♀): "Bombay [handwritten in black ink, white label] // Epicosmus / mandarinellus / Bates [handwritten in black ink, white label] // Ex-Musæo / H. W. Bates / 1892 [printed, white label]" (MNHN, Oberthür /Bates Collection, Figs. 2a-c, 3a). Paratype: 1 ♀: "S Asia Sri Lanka Central Pr. / District Kandy, Peradeniya /7°14'54.7"N 80°36'54"E 760 m / IV - 2015 lgt. FK + loc. collectors [printed in black]" (cMH, Figs. 2d-f, 3b).

Description. Length 11.8 mm, width 4.7 mm. Proportions: Pronotum 1.30x wider than long, 1.6x wider than head, elytra 1.41x wider than pronotum.

Coloration: head, pronotum and elytra black, glossy; mandibles, palps, antennae and legs black. each elytron with two yellowish-red maculae; humeral macula extending from lateral margin of interval 4 (in females) to elytral margin and even to epipleura, internal spot on interval 4 little reduced, two external macular spots distinctly longer; preapical macula round, extending from 4th to 8th intervals. Mandibles, palps, antennae and legs black. Terminal parts of antennae brownish. Sides of body glossy, covered by yellowish setae.

Pronotum somewhat wider than long, width to length ratio 1.30, maximum width behind midlength, narrowing from there obliquely toward rounded, indistinct front angles; lateral margins distinctly sinuate posteriorly, toward obtuse hind angles, which are sharp and bear a small tooth; base distinctly wider than anterior margin, lateral rim anteriorly reduced to indistinct line, posteriorly widening, in front of hind angles wide, excavated and elevated; base weakly convex medially, basal impressions wide and deep, groove-like, with punctures at bottom; sagittal line markedly impressed, extending from base to anterior margin, discal surface coarsely rugate, punctured.

Elytra convex, ovoid, weakly widening posteriorly, humeri wide, weakly oblique, basal rim incomplete, laterally gradually merging with margin; 7th interval carinate in front of apex; striae deeply impressed, coarsely and deeply punctured; intervals indistinctly punctured in rows; elytral margin distinctly tuberose, 8th and 9th intervals impressed in front of apex.

Underside covered by short setae, finely punctured medially, coarsely punctured near margins; metepisterna distinctly longer than wide, little wider anteriorly than posteriorly

(Figs. 2c, e), ventrites indistinctly crenulate anteriorly (Fig. 2f). Legs moderately covered by black setae.

*Another specimen (female, length 9.7 mm, width 3.8 mm. Proportions: Pronotum 1.4x wider than long, 1.6x wider than head, elytra 1.37x wider than pronotum) from Peradenyia, Sri Lanka, is shown in Figs. 2d-f, 3b. This specimen has identical colour and metepisterna, but is smaller and its ventrites are more distinctly crenulate. It is regarded here as a paratype of the new species.

Differential diagnosis. *C. batesi* sp. nov. resembles *C. freudeellus* Häckel et Kirschenhofer, 2014, in having similar elytral coloration with humeral macula extending from interval 4 (in females) to margin, with longer spots near margin, and preapical macula large and round, but differs from *C. freudeellus* by markedly larger body and pronotum with front angles less marked and more rounded. It also resembles *C. vietnamensis* Kirchenhofer, 2000, which can be distinguished by more reduced elytral coloration with humeral macula extending from interval 5 (in females) to margin and preapical macula which is more semilunar in females.

C. sundaicus subgroup nov.

(= *C. saundersi/ mandarinellus/ sundaicus* complex Häckel et Kirschenhofer, 2014)

Craspedophorus mandarinellus (Bates, 1892)

(Figs. 4, 6)

Epicosmus mandarinellus Bates, 1892: 299 (type loc. "Bhamò" [= northern Myanmar: s Kachin state]).
Craspedophorus mandarinellus Andrewes, 1921: 187; Xie et Yu, 1991: 170; Kirschenhofer, 2000: 324; Baehr, 2003: 447; Kirschenhofer, 2011: 40 [erroneous type locality], 47; Häckel et Farkač, 2012: 77 (partim); Häckel et Kirschenhofer, 2014: 309.
Craspedophorus freudei Jedlička 1966: 237 (partim). Häckel et Farkač, 2012: 77 (partim).
Craspedophorus mandarinellus attapeuensis Häckel et Kirschenhofer, 2014: 310 **syn. nov.**
Craspedophorus mandarinellus malayensis Häckel et Kirschenhofer, 2014: 311 **syn. nov.**
Craspedophorus saundersi Häckel et Kirschenhofer, 2014: 320 (partim).
Craspedophorus louangnamthaensis Kirschenhofer, 2011: 42; Häckel et Farkač, 2012: 77; Häckel et Kirschenhofer, 2014: 321 **syn. nov.**
Craspedophorus molossus Kirschenhofer, 2000: 340. Kirschenhofer, 2011: 48; Häckel et Farkač, 2012: 77; Häckel et Kirschenhofer, 2014: 315 **syn. nov.**

Type material. Neotype (♂) here designated: "N. Burma, Nam Tamai, 4,000 ft. 23.1.1931, F. Kingdon Ward. B. M. 1932- 196", (BMNH, Fig. 6a). Paralectotypes: 2 ♂♂: "Tenasserim, leg. Helfer / *Craspedophorus freudei* sp. nov. det. A. Jedlička / Paratype" (NMPC, Fig. 6b); 1 ♀: "British Bootang / Maria Basti / L. Durel", (MNHN, Oberthür / Bates Collection, Figs. 4a, b, 6c); 1 ♀ labelled: "SE Asia S-Laos Attapeu Pr. / Dong Amphan NBCA Nong Fa (crater lake) / 15°0,59'N 107°25,6'E / V-2010, lgt. S. Jákl", (cMH, HT of *C. mandarinellus attapeuensis* Häckel et Kirschenhofer, 2014, Fig. 6e); 1 ♀ labelled: "SE Asia S-Laos Attapeu Pr. / Annam Highlands. Bolavens Plateau / bridge 4 km E Tad Kamatok / 15°07, 8'N; 106°40,1'E, 260m, V-2010, lgt. J. Hájek", (NMPC, PT of *C. mandarinellus attapeuensis* Häckel et Kirschenhofer, 2014); 1 ♀ labelled: "SE As. W-Malay. N-Kelantan / Rd.: Kampong Raja-Gua Musang / 4°63'- 88'N, 101° 45-95 E 1500m / IV-2000 lgt. P. Čechovský", (cMH, HT of *C. mandarinellus malayensis* Häckel et Kirschenhofer, 2014, Fig. 6f); 1 ♀ labelled: "Malaysia W / Cameron Highlands, Ringlet env. / 27.3.-1.4.2000", (cSF, PT of *C. mandarinellus malayensis* Häckel et Kirschenhofer, 2014); 1 ♂: "N Laos 15 km NW Louang Namtha, N21°07.5'/E 101°21,0'; 750 ± 100 m" (cDW, HT of *C. louangnamthaensis* Kirschenhofer, 2011: 42).

Other material examined. 1 ♀: "China, Guangxi A.R., 7.-8.iv.2013 stream valley ca. 2 NE north gate of Shiwandashan Nat. Forest Park 21°55.1'N, 107°54.9'E, 280m", (cMH, Figs. 4c, d, 6d); 1 ♂: "N-Laos, 14.-16. May, Viang Chan pr. 1997, Vangviang, N from Vientiane", (cMH, Fig. 6h); 1 ♀: "SE Asia NE-Laos Hua Phan Pr. / Phu Pane Mt. 1200-1900 m / 20°12'N 103°59'E", (cMH, Fig. 6g); 1 ♀: "Thailand NE, Nan prov. - Ban Sawa, 1.-11.v. 2001, P. Viktora lgt." (cMH).

Craspedophorus sundaicus (Oberthür, 1883)

(Figs. 5, 7e-h)

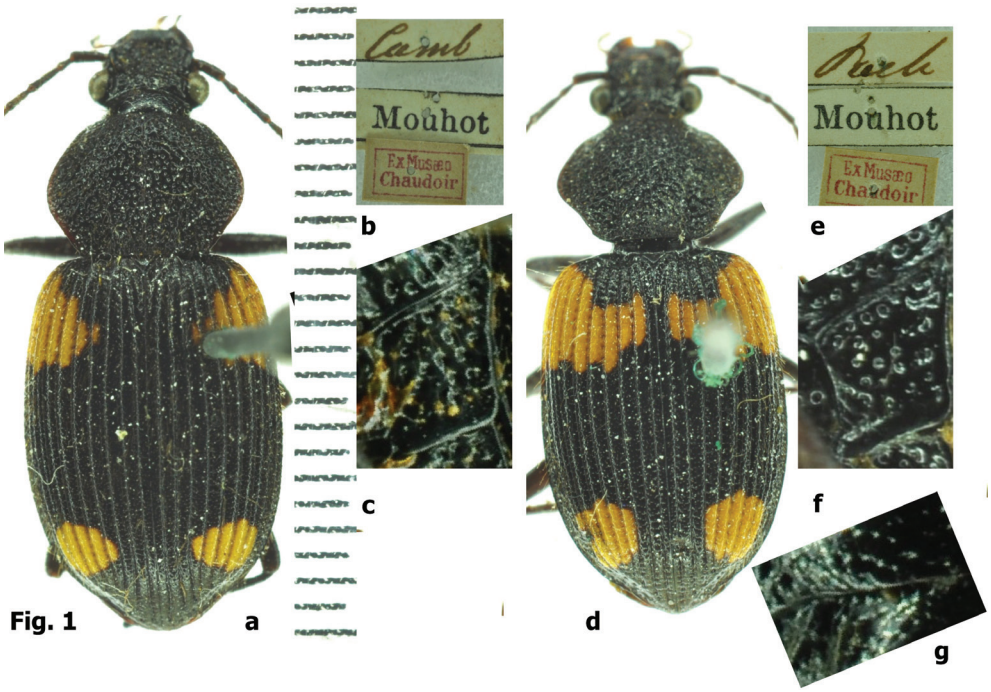
Eudema sundaicum Oberthür, 1883: 221 (type loc. "Serdang" [= Sumatera Utara Province, West Indonesia]).
Craspedophorus sundaicus Andrewes 1930: 136. Andrewes, 1933a: 348. Stork 1986: 13; Kirschenhofer, 2000: 324; Kirschenhofer, 2011: 47; Häckel et Farkač, 2012: 77; Häckel et Kirschenhofer, 2014: 322.
Craspedophorus ovatulus Kirschenhofer, 2000: 338. Kirschenhofer, 2011: 47, 53; Häckel et Farkač, 2012: 77; Häckel et Kirschenhofer, 2014: 315 **syn. nov.**

Type material. Lectotype (♀) labelled: "Dr. B. Hagen. / Tandjong Morawa / Serdang / (N. O. Sumatra). [printed, white label] // Eudema / sundaïcum [handwritten] / R. Oberthür, type [printed] / Notes Leyden Museum / Vol V. 1883 p. 221 [handwritten]", (MNHN, Oberthür / Bates Collection, Figs. 5a-d, 7g).

Other material examined. 1 ♂: "SE Asia E-Malaysia / SC-Sabah Nabawan Distr. / 7 km N Pensiangan 530m / III -2014 lgt. A. Klimenko // C. ovatulus mihi / compared with type" (cMH); 1 ♀: "SE Asia Malays. Borneo, Sabah: Banjar. Crocker mts., 800 m, 16 km SW Gunung Alab, V-96, lgt. Štrba & Hergovits", (cMH, Fig. 7fb); 1 ♂, 1 ♀: "SE Asia W-Indonesia, West Sumatra Is: Annai valley, Singgalang Mt. 400 m, IV-2006, lgt. S. Jakl", (cMH, Figs. 7e, fa); 1 ♂, 2 ♀: "SE Asia W-Indonesia, Sumatera Barat (W Sumatra), Bukit Gadang Hill 600 m, Vii-2009, lgt. loc. collectors" (cMH).

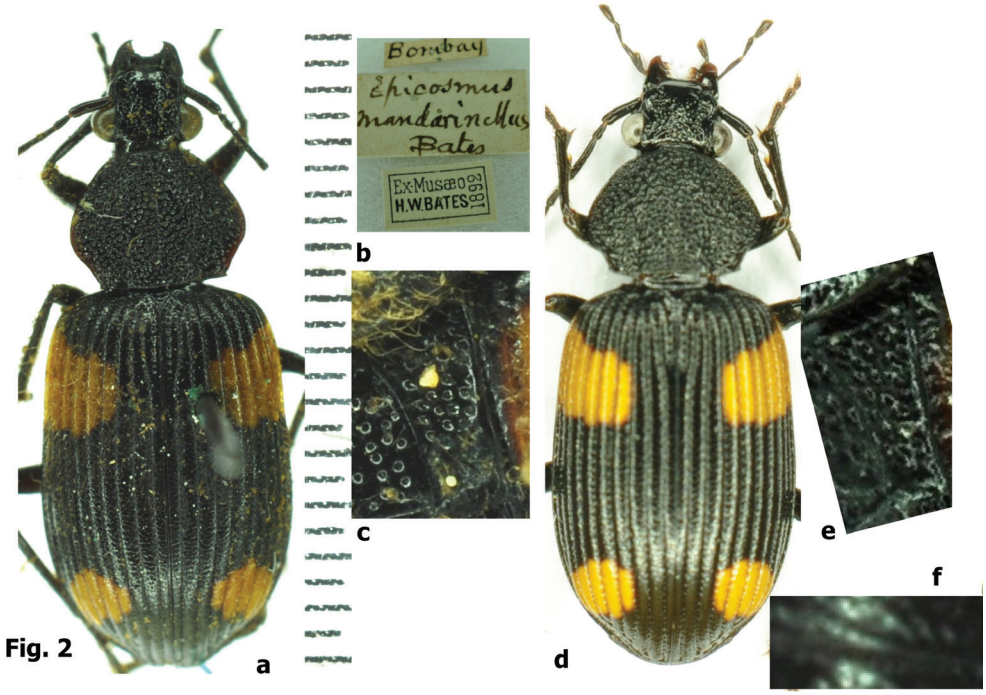
DISCUSSION

The description of *C. saundersi* (Chaudoir,1869) does not mention the shape of the metepisterna and crenulation of the anterior margins of the ventrites. Without comparison with the type the species is thus difficult to identify, as of the important characters the only one given is the size, shape and extent of the humeral macula. Description (in part see Chaudoir 1869: 114): "Length 12 mm. Very similar to *rufipalpis*, Laferté [= *C. geniculatus* (Wiedemann, 1823)]. Head... Pronotum almost equilateral [as in *C. geniculatus*], somewhat less elevated toward posterior angles, with more impressed sagittal line. Elytra of the same shape...; humeral macula more widening outside, reaching humerus on 8th interval where it is longer than on other intervals, spots on 6th and 7th intervals reduced and very short on two inner intervals; margins of macula not serrate; preapical macula does not differ from humeral macula too much, has two reduced spots on two inner intervals. Palps, distal parts of antennae and legs darkish (comes also from Mouhot's collections in Laos)" [translated from the French original]. The species is more detailed in the author's monograph (Chaudoir, 1879: 125). "Length 11.75 mm, width 4.75 mm. Head quite large... Pronotum wider than head by a half, wider than long, moderately transverse, not wider near base than in maximum width... Elytra about one millimetre wider than pronotum, create an ovoid moderately elongate... The anterior crenulation of ventrites is well marked. Black, weakly glossy; each elytron with two wide fasciae lemon yellow; humeral fascia extending from 5th stria to margin, consisting of four long macular spots, reaches 8th interval, three external spots elongate and reaching the humerus, and two small spots, very short, located on external



Figs. 1a-g; a. *C. saundersi* (Chaudoir, 1869), HT female, dorsal view, scale in 0.5 mm, b. label, c. left metepisternum, d. *C. basifasciatus* (Chaudoir, 1869), HT female, dorsal view, e. label, f. left metepisternum, g. ventrites, detail, ventral view

margins of intervals 4 and 5, first spot does not reach the middle of the interval; preapical fascia is ovoid a little elongate externally, consists of five spots extending from 3rd to 8th stria, internal spot is shorter than the others, fascial margins are weakly denticulate... The specimen I have is a female collected by Mouhot in Cambodia" [translated from French]. Metepisterna are again not described, but we learn that crenulation of ventrites is well developed. The photo of the type (Fig. 1a) also shows how carefully and meticulously the author described the characteristic shape of the humeral macula. We can thus with a high degree of certainty exclude the possibility of confusing the type with another specimen during e.g. moving of Chaudoir's material. In the same monograph the cited description is followed by one of another species (in part see Chaudoir 1879: 127, Fig. 1d): "*Epicosmus* [= *Craspedophorus*] *basifasciatus* Chaudoir. Length 11 mm, width 4.3 mm. Somewhat smaller than the preceding species, maybe because it is a male. It differs by pronotal base moderately narrowing toward hind angles. Humeral elytral fascia differs markedly; it reaches the 1st stria and its posterior margin is strongly denticulate... The same country and the same origin [as *C. saundersi*]." A remark follows (see Chaudoir 1879: 127): "If these two specimens belong to a single species, I recommend to name it after the entomologist [meaning Saunders] whose generosity brought much needed new information on the exploration of trans-Ganges India and the Sunda Islands" [translated from French]. Here Chaudoir closes the paragraph



Figs. 2a-f.; a. *C. batesi* sp. nov., HT female, dorsal view, b. label, c. left metepisternum, d. *C. batesi* sp. nov., PT female, Sri Lanka, dorsal view, . ventrites, detail, ventral view

dealing with the group of species characterized inter alia by "Mandible droite obtuse et arrondie, fendue à l'extrémité". From reading the two descriptions it is clear that Chaudoir considered the two species closely related or possibly representing opposite sexes of the same species, and placed them in a separate species group. However, an examination of the types reveals both of them to be females, that is two deep-bodied and broad species with rhomboid metepisterna and distinctly crenulate anterior margins of the ventrites (Figs. 1a, c, d, f, g). In the monograph Chaudoir stated that both species (*C. saundersi, C. basifasciatus*) came from Cambodia (1879: 125), whereas in the original descriptions he stated that they both were from Laos (Chaudoir, 1869: 114). Since both localities are in the former French Indochina and on route of Mouhot's journey, from the author's standpoint it was not too inaccurate. Today, however, it concerns two countries at different latitudes, and the erroneous information present in catalogues thus needs to be corrected. The type (and only known specimen) labelled in Chaudoir's collection *C. saundersi* is a female that bears the locality "Camb. Mouhot" (Fig. 1b); *C. basifasciatus* type is apart from printed "Mouhot" illegible, it could be a place anywhere in former Indochina (Fig. 1e). Since the only other specimen of this species that I have seen (a male in MNHN Oberthür / Bates Collection) is from the Fea expedition to Burma and is labelled "Tenasserim, Myanmar" (Bates 1892: 114), and another specimen in MNWC photographed by Kirschenhofer (Häckel & Kirschenhofer

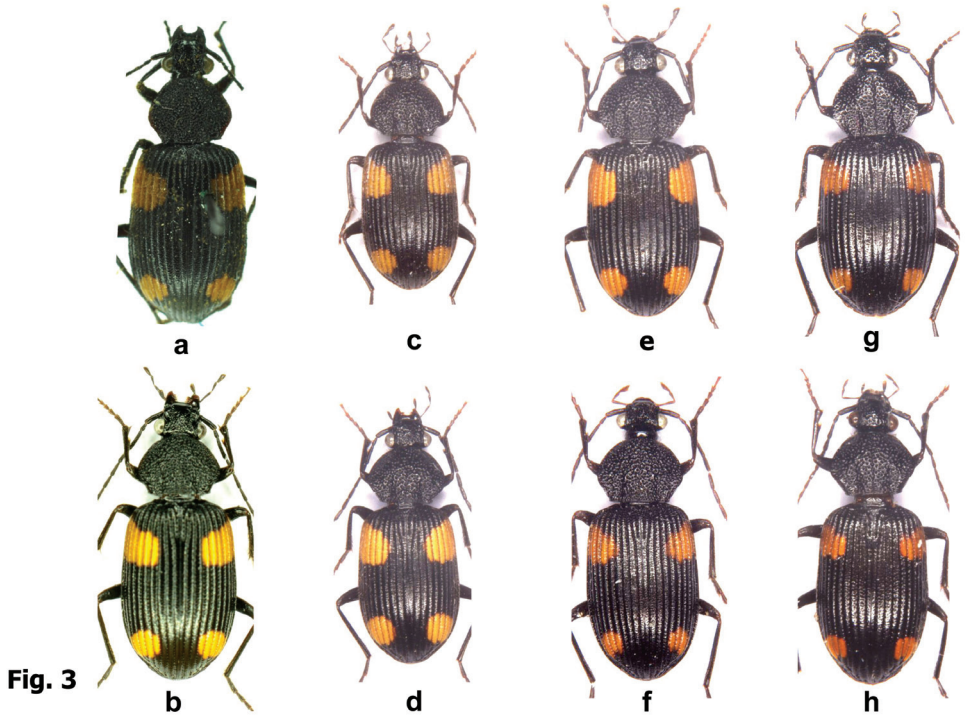
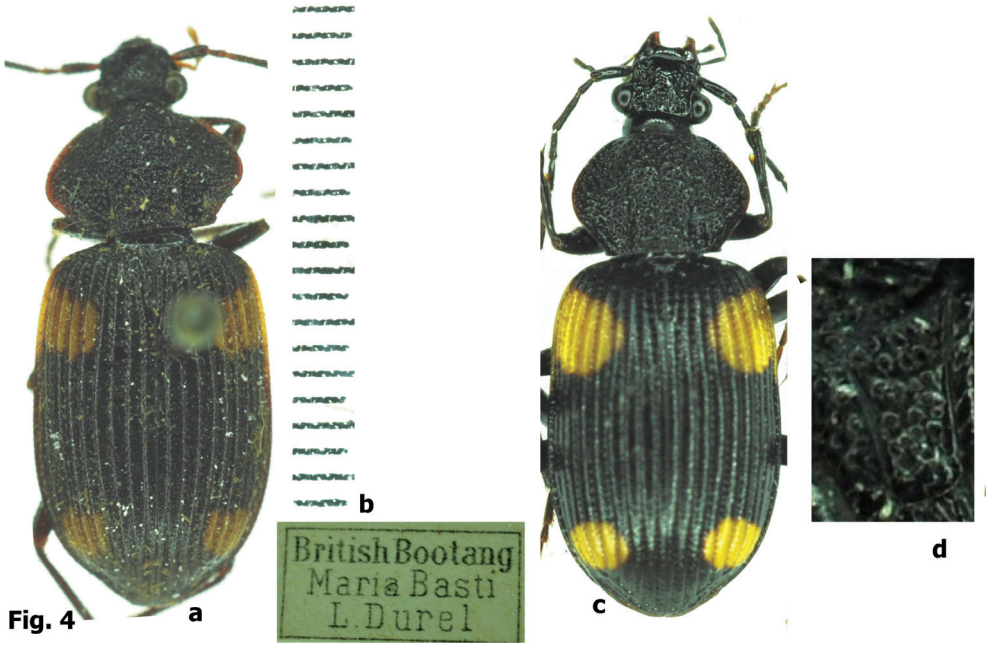


Fig. 3

Figs. 3a-h; *Craspedophorus microspilotus* group / *cereus* subgroup, a. *C. batesi* sp. nov., HT female, b. *C. batesi* sp. nov., PT female, Sri Lanka, c. *C. freudeellus* Häckel et Kirschenhofer, 2014, HT (male), d. *C. freudeellus* Häckel et Kirschenhofer, 2014, PT female, Laos, . *C. vietnamensis* Kirschenhofer, 2000, male, northern Vietnam, . *C. vietnamensis* Kirschenhofer, 2000, female, northern Vietnam, g. *C. mannae mannae* Andrewes, 1930, female, Mentawai Islands, h. *C. mannae mannae* Andrewes, 1930, female, Sumatra Island.

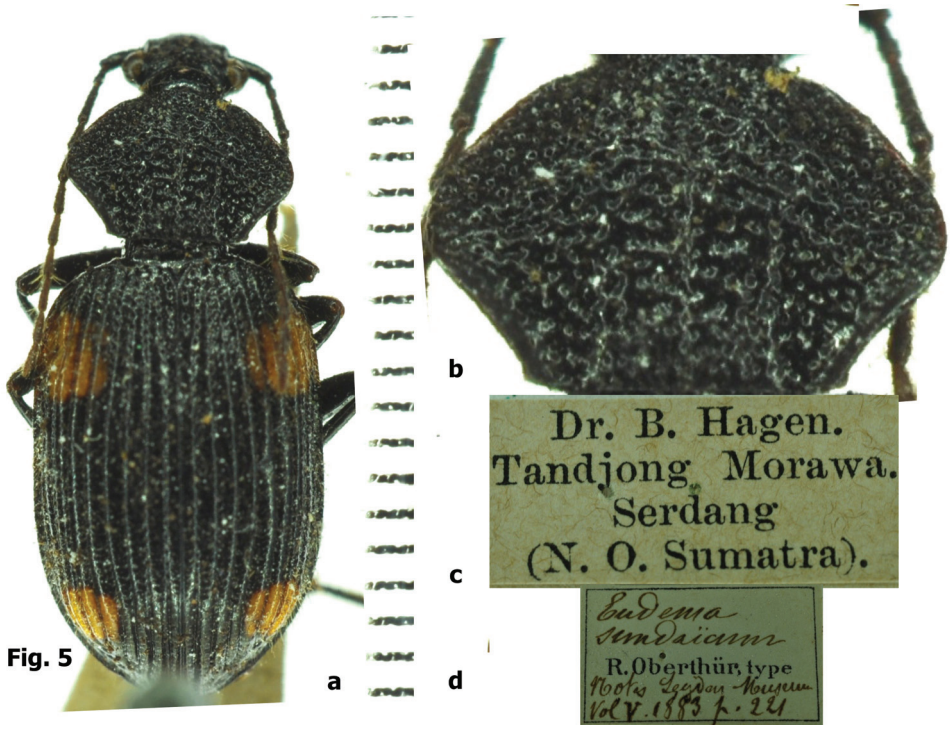
2014, plate 1, fig. 2) is from Laos, I do not accept Chaudoir's opinion that these two species are sympatric (Chaudoir 1879: 127). The only other literary record of *C. saundersi* is from the Pavie expedition (Lesne 1904: 69), where there are two localities, "Siam: Chantaboun and Battambang". The first place is in today's Thailand and the second is in Cambodia. Lesne's identification cannot be deemed reliable due to Andrewes' re-identification of another species originating from the same work (*C. lesnei* Andrewes, 1926: 253). Other Lesne's data are probably second-hand (very generalized), and so are all other literary data on *C. saundersi* (Andrewes 1930: 134, 136; Kirschenhofer 2000: 323, 324, 2011: 40, Häckel & Farkač 2012: 77, 78; Häckel & Kirschenhofer 2014: 287, 320). Reliable data are thus only Cambodia for *C. saundersi* and Laos and Myanmar for *C. basifasciatus*.

When Kirschenhofer (2000: 329) established the *C. microspilotus* group, he placed in it among other also a number of small, alate and mutually very similar species (the *mandarinellus / saundersi / sundaicus* complex sn. Häckel & Kirschenhofer 2014: 293, 310) with only two exceptions from Indochina (incl. Cambodia, Laos, Vietnam, Myanmar / Burma and Thailand) and the Sunda Islands. In the definition of the group he stated (2000: 329): "Metepisterna nearly quadrate, usually only slightly longer than wide. Ventrites either



Figs. 4a-d.; a. *C. mandarinellus* (Bates, 1892), paralectotype female, Bhutan, dorsal view, b. label, c. *C. mandarinellus* (Bates, 1892), female, Guangxi, dorsal view, d. metepisternum

not or only weakly crenulate..." [translated from German]. However, the key species of the group, *C. microspilotus* Andrewes, 1933, is characterized by Andrewes (1933: 2) differently, although seemingly similarly: "Metepisterna only slightly longer than wide, ventrites anteriorly not crenulate.." In this sense it would certainly be proper to place in the group also species such as *C. sundaicus* (Oberthür, 1883), *C. freudei* Jedlička, 1966 and also other less similar species, e.g. *C. philippinus* Jedlička, 1939. In the same work, Kirschenhofer also described and placed in the group four mutually similar species: *C. dembickyi* (Thailand), *C. molossus* (Nepal), *C. ovatulus* (Sabah, Borneo) and *C. pacholatkoi* (Thailand). In contrast, another species described in that work, a broad and convex *C. neglectus* from Thailand, was left out from the group, and in its description Kirschenhofer (2000: 351-352) stated: "Ventrites ...laterally indistinctly crenulate, metepisterna somewhat longer than wide, narrowing posteriorly". In reality, however, the shape of the metepisterna is the opposite of what Kirschenhofer says, in *C. neglectus* (and in all other species of the group) they are rather quadrate or rhomboid (Fig. 1c, f), whereas in all species of the *C. microspilotus* group sn. Kirschenhofer 2000 they are stretched out into a characteristic trapezoid shape somewhat wider anteriorly than posteriorly (Figs 2c, e, 4d). In the descriptions it is a matter of the author's perception to decide what is still quadrate and what already rectangular or trapezoid, and in defence of the author it has to be said that he based the definition of the *C. microspilotus* group on the shape of the body and of the pronotum rather than on the



Figs. 5a-d.; a. *C. sundaicus* (Oberthür, 1883), LT (male), dorsal view, scale in 0.5 mm, b. pronotum, c. upper label, d. lower label.

metasternum, in contrast to Chaudoir (1878: 85). At that time the more-or-less clear criterion for separating groups was crenulation of the anterior margins of the ventrites (crenulation pronounced - *C. basifasciatus* group vs. crenulation vague - *C. microspilotus* group sensu Häckel & Kirschenhofer 2014). Kirschenhofer (2011: 47) eventually included in the *C. microspilotus* group 10 more species in a manner refuting his own original definition. Häckel & Farkač (2012: 77) accepted Kirschenhofer's broader version of the group and included in it also *C. mannae* Andrewes, 1930b (Fig. 3g, h). Häckel & Kirschenhofer (2014: 293) tried to return the group to its original concept by excluding a number of species and dividing the remaining species into subgroups based mainly on the shape of the pronotum and of the elytral orange maculae. *C. begdugulensis* Kirschenhofer, 2011 (transferred to another genus!) and *C. soppongensis* Kirschenhofer, 2011 (transferred to another group) were excluded. Related to the broad and convex *C. basifasciatus* (Chaudoir, 1869) was apart from two new species also *C. neglectus* (Kirschenhofer, 2000) to form together with them the *C. basifasciatus* group that differs from the *C. microspilotus* group by having a short rhomboid metepisternum and more distinct crenulation of anterior margins of the ventrites. However, the authors did not see a number of types and relied on older data. They therefore retained *C. saundersi* (Chaudoir, 1869) in the *C. microspilotus* group only on the basis of a BMNH specimen photographed by Kirschenhofer (2011: 57, fig. 12)

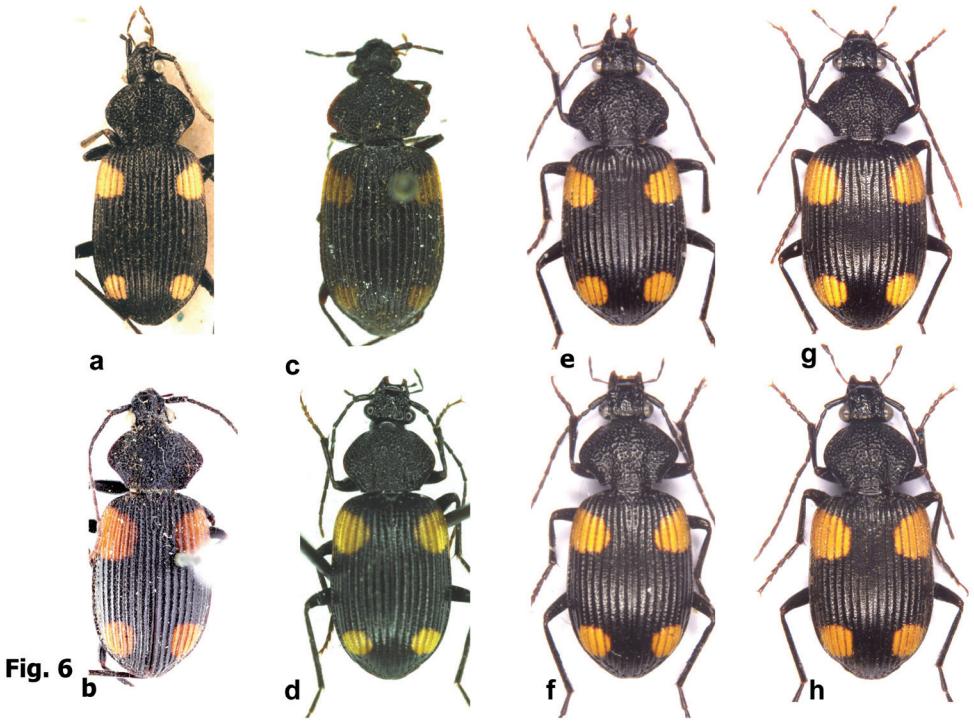
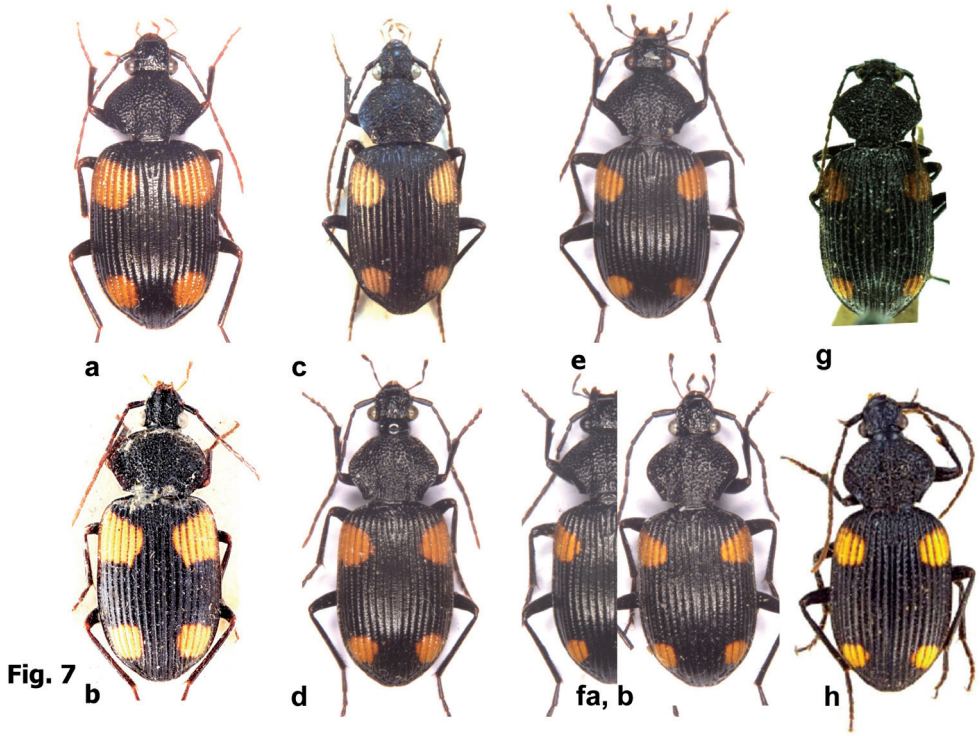


Fig. 6

Figs. 6a-h. *Craspedophorus microspilotus* group / *sundaicus* subgroup; b. *C. mandarinellus* (Bates, 1892), paralectotype female, Tenasserim (Myanmar), c. *C. mandarinellus* (Bates, 1892), paralectotype female, Bhutan, d. *C. mandarinellus* (Bates, 1892), female, Guangxi (southern China), e. *C. mandarinellus* (Bates, 1892), female, Laos (= HT of *C. mandarinellus attapeuensis* Häckel et Kirschenhofer, 2014), f. *C. mandarinellus* (Bates, 1892), female, Kelantan (West Malaysia) (= HT of *C. mandarinellus malayensis* Häckel et Kirschenhofer, 2014), g. *C. mandarinellus* (Bates, 1892), female, Laos (labelled "*C. saundersi*" in Häckel et Kirschenhofer, 2014, plate 2, fig. 23b), h. *C. mandarinellus* (Bates, 1892), male, Laos (labelled "*C. saundersi*" in Häckel et Kirschenhofer, 2014, plate 2, fig. 23a).

and on Kirschenhofer's (2011: 40) supplemental description. They also created a vaguely defined *C. mandarinellus / saundersi / sundaicus* complex. Only a subsequent study of the *C. saundersi* type, which is not at BMNH but in the Chaudoir's collection at MNHN, has shown that the BMNH specimen belongs to another species that differs in shape of the body and of the metepisternum, and in elytral maculation. Kirschenhofer did not photograph the metepisternum of the BMNH specimen, but the elongate shape of the body indicates that it belongs to the *C. microspilotus* group. Here it should be again emphasized that the type of *C. saundersi* (Chaudoir, 1869) is ovoid, convex and has a rhomboid metepisternum similar to the related *C. basifasciatus* (Chaudoir, 1869), which Chaudoir (1879: 127; Figs. 1d-g) placed in the same species group. Based on examination of the type, I therefore exclude *C. saundersi* from the *C. microspilotus* group, re-assign it to what has hitherto been called the *C. basifasciatus* group, and with due respect to Chaudoir's (1879: 127) remark cited above



Figs. 7a-h. *Craspedophorus microspilotus* group / *sundaicus* subgroup; a. *C. freudei* Jedlička, 1966, male, Thailand, b. *C. freudei* Jedlička, 1966, LT (female), c. *C. pacholatkoi* Kirschenhofer, 2000, HT (male), d. *C. dembickyi* Kirschenhofer, 2000, female Thailand, e. *C. sundaicus* (Oberthür, 1883), male, Sumatra (Indonesia), fa. *C. sundaicus* (Oberthür, 1883), female, Sumatra (Indonesia), fb. *C. sundaicus* (Oberthür, 1883), female, Sabah (East Malaysia, Borneo), g. *C. sundaicus* (Oberthür, 1883), LT (male), h. *C. sundaicus* (Oberthür, 1883), female, Sumatra (Indonesia) (labelled *C. ovatulus* in Kirschenhofer, 2011: 57, fig. 10).

change the name of the group to *C. saundersi*. The definition of the group remains the same as those given for the *C. basifasciatus* group sensu Häckel and Kirschenhofer (2014: 287) with the rhomboid shape of the metepisternum added, in contrast to the *C. microspilotus* group in which the metepisternum is always longer than wide (Figs. 1c, f, 2c, e, 4d). The crenulation of ventrites becomes largely meaningless, because recent studies show that in some species of the *C. microspilotus* group their anterior margins are markedly crenulate (*C. cereus* subgroup sensu Häckel 2015), whereas in others the crenulation is barely noticeable (hereby redefined *C. sundaicus* subgroup). In connection with the new data the synonymization of *C. louangnamthaensis* Kirschenhofer, 2011 with *C. saundersi* (Häckel & Kirschenhofer, 2014: 321) becomes invalid, the name will either have to be re-validated or synonymized with another species.

The exclusion of *C. saundersi* does not quite solve the taxonomic problem in the *C. microspilotus* group. In 1883 Oberthür based *Eudema* [= *Craspedophorus*] *sundaicum* on two specimens from eastern Sumatra and deposited the type at the Leyden Museum. The second

specimen (a male) is in the Oberthür / Bates Collection at MNHN and I had an opportunity to examine and photograph it (Figs. 5, 7g). It is one of the two west Sundean species that satisfy the criteria of Kirschenhofer's *C. microspilotus* group. The smaller of the two species, *C. mannae* Andrewes, 1930b, is very close to *C. cereus* (MacLeay, 1825), whose taxonomy was dealt with in the first part (Häckel 2015). The larger of the two species, *C. sundaicus* (Oberthür, 1883) has a different shape of the pronotum (markedly more transverse) and a less reduced elytral ornament. It is the longest known species of the populations with similar morphology that inhabit the Oriental Region from the Indian subcontinent to the Sunda Islands. As in the *C. cereus* subgroup, in which insular species (*C. mannae*, *C. cereus*) have their continental counterparts in *C. vietnamensis* Kirschenhofer, 2000, (Figs. 3e, f) and *C. freudeellus* Häckel et Kirschenhofer, 2014, (Figs. 3c, d), also in the *C. sundaicus* subgroup the insular species have also their continental counterparts of very similar appearance. The longest known continental counterpart of *C. sundaicus* is *C. mandarinellus* Bates, 1892. Bates (1892) based this small species on a specimen from Bhamo (a port on the Irrawaddy River in Kachin State, northern Myanmar), and apart from the shape of the pronotum described also the metepisternum (1892: 300): "metepisternum elongate and narrow, laterally coarsely punctured" [translated from Latin]. According to the hereby detailed criteria, this shape of the metepisternum places the species in the *C. microspilotus* group. The pronotum and elytra are described by Bates (1892: 299) as "Pronotum broadly rounded toward front angles (near neck), behind midlength also broadly rounded (hind angles rounded) but toward hind angles more narrowing, hind angles with a short dent, base near hind angles slightly slanted; dorsum moderately convex and sparsely coarsely punctured. Elytra almost parallel-sided, convex, deeply striate, intervals convex, densely punctured, semiglossy; orange maculae squared, with margins regular, not denticulate, humeral macula extending from 4th stria to margin (epipleuron included) externally elongate, 2nd extending from 4th to 8th stria. Length (male) 9 mm". The species was repeatedly cited, first without locality (Andrewes 1921: 187) and later with the locality North Kanara in southern India (Andrewes 1930: 135). The Kanara or Canara region, which is also known as Coastal Karnataka, comprises three coastal districts of Karnataka, namely Uttara Kannada, Udupi and Dakshina Kannada and Kasaragod of Kerala in southwestern India. Kanara forms the southern part of the Konkan coast. Another record is from Guangxi Province in southern China (Xie & Liu 1991: 171), which was included by Baehr in the Palaearctic Catalogue (2003: 447). Kirschenhofer (2011: 40) supplemented the description on the basis of a specimen that he photographed at BMNH and which he believed to come from vicinity of the type locality. Some inaccuracies in the description were corrected later by Häckel & Kirschenhofer, namely some morphometric measurements (pronotal transversity corrected from 1.37 by Kirschenhofer to 1.47 by Häckel & Kirschenhofer) and the incorrect type locality. "Kirschenhofer interpreted the type locality incorrectly, he indicated Mandaly [= Mandalay; is the second largest city and the last royal capital of Burma. Located 716 km (445 mi) north of Yangon on the east bank of the Irrawaddy River, the city is the capital of Mandalay Region]. In the Bates' original description, the holotype is labelled Bhamò (Bates 1892: 299). Bhamo (in Burmese also spelt Bamaw) is a city in Kachin State in the northernmost part of Myanmar, located 186 km south of the capital city of the state of Kachin, that is to say Myitkyina. It is also on the

Irrawaddy River. It lies about 300 km northwest from Mandalay, within 65 km of the border with Yunnan Province, China. It is distinctly closer to China than Kirschenhofer (2011: 40) mentioned. New record from Nam Tamai, which lies within 30 km of the Yunnan border, and another record from Guangxi Province, China, agree with Bates' data and indicate that Yunnan is also inhabited by this species" (Häckel & Kirschenhofer, 2014: 309). After the publication of the article the occurrence of the species in Yunnan was verified by Ross Sehnal (Liu Ku, Lushui County, Nujiang Lisuzuzizhizhou, Yunnan, my own data). The problem with Kirschenhofer's description and comparison with the type remained unresolved. Bates' type of *C. mandarinellus* (Bhamo) was not found in the Oberthür / Bates Collection or elsewhere at MNHN. Another specimen (paratype) from the same locality does not exist and cannot be expected to surface at BMNH, which has some duplicates (paratypes) from Bates' collections (Deuve pers comm., 2015). I therefore have to regard Bates' holotype as lost. The type was not seen by Kirschenhofer either (he visited MNHN in 2005), because the specimen cited by him as used for comparison (a male from Nam Tam, Kachin, Myanmar) came from the collection made by F. Kingdon Ward in 1932 (Fig. 6a). Nam Tam is also in Kachin state (Myanmar), but is over 400 km to the north from the type locality (Bhamo). In spite of the distance, however, I believe the specimen of Kisrchenhofer to be the best available candidate for neotype of *C. mandarinellus*. The habitus of the specimen corresponds precisely to Bates' description, was at BMNH so identified, and most likely served for comparison with specimens from the neighbouring Chinese provinces of Guangxi (Xie & Yu 1991, Baehr 2003, if comparison was at all attempted) and Yunnan (Häckel's data, comparison done). I therefore designate the BMNH specimen the neotype, and any future synonymization will be based on this act. The aedeagus of Kirschenhofer's specimen was photographed by him (Kirschenhofer 2011: 60, Fig. 36).

Another candidate for the lectotype series of *C. mandarinellus* is a female in the Oberthür / Bates Collection at MNHN labelled "Maria Basti, British Bootang" [today Samrang Bhutan Basti in southeastern Bhutan] (Figs. 4a, b, 6c). Other specimens of this species were identified by Häckel and Kirschenhofer (2014: 237) in the type series of *C. freudei* (Jedlička, 1966) at NMPC, where Jedlička's species is represented only by the holotype (female from Vientiane, Laos), whereas both paratypes (two females from Tenasserim, Myanmar, Fig. 6b) belong to *C. mandarinellus*. Comparison with them to be incorrectly identified as *C. saundersi* (Häckel et Kirschenhofer 2014: 321) "It seems to be a fairly common species with a large area of distribution (Laos, Thailand)", in reality they are *C. mandarinellus* (Bates, 1892) and all records published in that article as *C. saundersi* will thus have to be re-assigned to Bate's species. *C. louangnamthaensis* Kirschenhofer, 2011 therefore cannot be synonymized with *C. saundersi*, as has been done by Häckel and Kirschenhofer (2014: 321), but is another synonym of *C. mandarinellus* (Bates, 1892). Also the search for differences between populations of *C. mandarinellus*, an alate and widely distributed species (Bhutan to West Malaysia), which seemed to justify proposing subspecific taxa, has proven unsuccessful. I therefore hereby synonymize both southern subspecies (*C. m. attapeuensis* and *C. m. malayensis*) described by Häckel & Kirschenhofer (2014: 310, 311) with *C. mandarinellus* (Bates, 1892).

The type of *C. mandarinellus* (Bhamo) was not found at MNHN, and thus, only the

lectotype deposited at BMNH (Nam Tam) is available. Bates' syntype described and labeled as from "Bombay" was found in the Oberthür / Bates Collection at MNHN and photographed (Fig. 3a), but the problem is that this "syntype" cannot be designated as lectotype or considered a paralectotype of *C. mandarinellus* because it belongs to another species. Bates (1892: 300) himself admits this possibility by stating: "Another of the same species which I have examined from Bombay, is larger (12 mm) with the lateral margins of the thorax near the hind angles a little more raised and the posterior elytral spot beginning at the 3rd stria. In all other respects the two examples agree. The metasternal episterna are decidedly longer and proportionally narrower than in *E. mandarinus*. The ventral segments appear not to be crenate on their anterior margins." The described differences (metepisternum) and especially the photos (Figs. 2a-c, 3a) show it to belong to the same group (*C. microspilotus*), but the shape of the pronotum places it in a subgroup other than *C. mandarinellus*, the species must be assigned to the *C. cereus* subgroup sn. Häckel 2015. The new species is named after H. W. Bates to recognize his important contributions, and also because the holotype is part of his material. The description is presented in the systematic part of this paper. I suspect that Andrewes' record (1930: 135, Kerala, India) also more likely belongs to this new species rather than to *C. mandarinellus* as it is redefined here. A certain shortcoming of the description is the provisional assignment of the paratype - a specimen from Sri Lanka, which is smaller and has the ventrites distinctly crenulate (Figs. 2d-f, 3b). The paratype could belong to another species whose type I have not seen (*C. halyi* Andrewes, 1923: 230), especially if it has a similarly shaped metepisternum and comes also from Sri Lanka. Comparison of the two types should resolve this uncertainty.

The last type examined at MNHN is *C. sundaicus* (Oberthür, 1883), (Figs. 5, 7g). It is one of two type specimens (a male) labelled "type", which is hereby designated the lectotype. The length of the type given in the description is 9.5 mm (Oberthür 1883: 221), but from examination of the lectotype it is evident that the measurement was taken with the head and prothorax inclined down; if leveled, the length could exceed 10 mm (Fig. 5a). The species is relatively common in western and northern Sumatra; Andrewes' unlocalized record from Borneo (1933: 348) was copied by Stork (1986: 13), and other specimens (identified by Kirschenhofer) are known from Sabah (East Malaysia) in Borneo (Häckel & Kirschenhofer 2014: 322, Fig. 7fb). Kirschenhofer (2000: 338), without seeing the type of *C. sundaicus* in the Oberthür / Bates Collection at MNHN, described one 11 mm long male from Sarawak (East Malaysia) in Borneo as *C. ovatulus* sp. n. A mediocre quality black-and-white photo deposited at ZSMC (Kirschenhofer 2000: 332, fig. 2) shows the type of *C. ovatulus* to differ from the Sumatran male (Oberthür's type at MNHN) only by a slightly larger extent of humeral macula, which is as wide (reaches from the 5th interval to margin) but in Kirchenhofer's male is slightly longer and each spot covers a longer part of interval. The antero-posterior extent of the humeral macula is to some degree individually variable, and in genera such as *Craspedophorus* Hope, 1838 and *Dischissus* Bates, 1873 are also sexually dimorphic (Häckel & Kirschenhofer 2014: 299, Häckel 2015: 242). In the key, Kirschenhofer (2000: 345) distinguishes *C. ovatulus* from *C. sundaicus* by a depression at the elytral base and a greater ovalness of the elytra (present in *C. ovatulus*, absent in *C. sundaicus*). We used these features in a recently published key, which also mentions the size, transversity of the

pronotum and shape of the humeral macula (Häckel & Kirschenhofer 2014: 326), but all these differences can be found between sexes of *C. sundaicus* from western Sumatra (Figs. 7e, fa). Whereas in the paper containing the original description (Kirschenhofer 2000) the key differentiating between *C. sundaicus* and *C. ovatulus* includes all named characters, in the more recent work (Kirchenhofer 2011: 48) they are not mentioned and the key does not permit separation of the two species. At the end of the article, the author moreover introduces a new record of *C. ovatulus* from Sumatra (Aek Tarum, northern Sumatra, Kirschenhofer 2011: 53, here Fig. 7h). It is a female, as are also all my specimens from Sumatra identified by him as *C. sundaicus* (Fig. 7fa). I also have a female from Sabah in Borneo, identified by him as *C. sundaicus* (Häckel & Kirschenhofer 2014: 322, here Fig. 7fb) and a male from a nearby locality (Sabah, Borneo) identified as *C. ovatulus* and labeled "compared with type Kirschenhofer, 2014". The aedeagi of this male and those from western Sumatra are identical. I therefore regard "*C. ovatulus*" as large males of *C. sundaicus* inhabiting Sumatra as well as northern Borneo, and synonymize *C. ovatulus* Kirschenhofer, 2000 with *C. sundaicus* (Oberthür, 1883).

In the same paper, Kirschenhofer (2000: 340) described two larger, over 11 mm long females as *C. molossus* from "Nepal, Rapti Tal, Monahari Khola, 350 m...". They most likely are from the Manohari-Rapti River System area in southeastern Nepal, which brings moisture to the popular Chitwan National Park. It is the same ecosystem, only more westerly situated, as the locality of the paralectotype of *C. mandarinellus* deposited at MNHN, from Samrang Bhutan Basti in southeastern Bhutan (Figs. 4a-c, 6c). A poor-quality black-and-white photo of Kirchenhofer (2000: 333, fig. 5) shows this species to be indistinguishable from *C. mandarinellus* as defined here. Kirschenhofer considers this species very similar to *C. ovatulus*, from which it differs only in the extent of the humeral macula. All these data lead me to regard *C. molossus* Kirschenhofer, 2000 as a synonym of *C. mandarinellus* (Bates, 1892). It follows that species of this subgroup form very similar populations from Nepal to western Malaysia (Pahang) and in the Sunda Islands from Sumatra to northern Borneo. Morphologically, i.e. without DNA analyses, only two species can be reliably identified:

1) continental with the humeral macula reaching the 4th interval, corresponding to the type of *C. mandarinellus* (Bates, 1892); and

2) insular with the humeral macula reaching medial of the 5th interval, corresponding to the type of *C. sundaicus* (Oberthür, 1883).

An exception is northern Thailand, where the genus *Craspedophorus* is very diverse (hot spot) and forms somewhat different populations within this subgroup (*C. sundaicus*). Specimens from there were described a new species, whose validity is in my opinion doubtful, but they cannot be presently synonymized because of inadequate data. It concerns Kirschenhofer's species described in 2000 as *C. pacholatkoi* and *C. dembickyi*. The first of them, *C. pacholatkoi* Kirschenhofer, 2000 (Fig. 7c) from Soppong in Mae Hong Son Province, Thailand, resembles in the shape of the pronotum (more transverse) and of the body (flatter) Jedlička's *C. freudei* (see the next paragraph), in other characters (colour of the palps, shape and extent of the humeral macula, shape of the aedeagus) it does not differ from the continental populations of the group regarded here as *C. mandarinellus* (Bates, 1892). Similar but larger forms occur in Laos ("*C. saundersi*" Kirschenhofer 2011: 57, fig. 12)

and in Andaman Islands (*C. bretschneideri* Kirschenhofer, 2011: 41, 55, fig. 2). The other species collected in Thailand, *C. dembickyi* Kirschenhofer, 2000 (Mae Hong Son, Thailand), also resembles *C. mandarinellus* but is slightly larger, more convex and has less transverse pronotum (Fig. 7d). The relations of these taxa to *C. mandarinellus* need to be resolved by DNA analyses.

The last Indochina species that satisfies the definition of the *C. sundaicus* subgroup is one with reddish-yellow palps and very wide humeral maculae that medially reach the 3rd interval. The type is a 10.5 mm long female from Laos, described by Jedlička as *C. freudei* (1966: 237, Fig. 7b). At the time of the Cold War, Jedlička was unable to compare his type with others deposited in Great Britain or Paris, and as a consequence both his "syntypes" in the type series are females (Fig. 6b) from Tenasserim (southern Myanmar), which in reality belong to *C. mandarinellus* (Bates, 1892). Only after the fall of the Iron Curtain there emerged specimens from Thailand and Laos, including males that agree precisely with Jedlička's description (Fig. 7a). Jedlička did not regard the colour of the palps and the shape of the macula as important characters (Häckel et Kirschenhofer 2000: 301). From his description it is clear that he did not see the type of *C. mandarinellus* (with which he did not compare his type), and it is likely that he did not see Andrewes' type as well. It is the type obtained from Lesne's material collected during the Pavie expedition to French Indochina (Lesne 1904: 69). Some specimens from this material, identified as *C. saundersi*, were discussed above. Andrewes checked but did not comment the material except one 11 mm long specimen labelled "Battambang, Siam (today in Cambodia)", which Lesne identified as "*C. hilaris* (LaFerte)". Andrewes compared Lesne's specimen with Laferte's type labeled "India borealis" and deposited at MNHN (*C. hilaris*), and re-described the specimen as *C. lesnei* Andrewes 1926: 253; it is known only from the type, which agrees with Jedlička's type of *C. freudei* from nearby Laos. Both specimens have the shape of the body, pronotum and metepisternum placing them in the *C. microspilotus* group/respective the newly defined *C. sundaicus* subgroup. They are the only species in the group that have reddish-yellow palps and humeral macula reaching the 3rd interval. I have not seen Andrewes' type and in my opinion neither has Jedlička. In case of synonymization, *C. lesnei* has priority.

A list of studied species and species groups:
*denotes taxa of uncertain position or taxa whose types were not examined.

***C. saundersi* group**, new, redefined from the *basifasciatus* group of Häckel & Kirschenhofer (2014b: 286)

Characters. Body short and wide (length 10.5-12.0 mm, width 4-5.2 mm), pronotum mostly transverse (1.4-1.5), with weakly sinuate and elevated margins. Elytra strongly convex and ovoid; humeral macula wide, in most cases medially reaching 2nd interval, extending to humeral umbone or covering it, with anterior and posterior borders serrate. Metepisterna squared (rhomboid), approximately as long as wide. Ventrites commonly crenulate anteriorly.

C. saundersi (Chaudoir, 1869), as *Epicosmus*	Cambodia
C. basifasciatus (Chaudoir, 1869), as *Epicosmus*	Laos, Southern Myanmar

C. neglectus Kirschenhofer, 2000	Central Laos, western Thailand
C. khaoyai Häckel et Kirschenofer, 2014	Central Laos, south-central Thailand
C. yalaensis Kirschenhofer, 2010	Southern Thailand: Malay peninsula

***C. microspilotus* group** of Kirschenhofer (2000: 329), redefined by Häckel & Kirschenhofer (2014: 291)

Characters. Smaller, winged species (9.0-12.5 mm). Contours narrowly oval, head and pronotum black without lighter-coloured margins. Elytral maculae (especially humeral macula) evenly bordered, circular, semicircular, kidney-shaped or obliquely quadrate or denticulate. Pronotal disc gently convex, coarsely punctured and always rugose. elytra convex, deeply striate, toward apex usually narrowing and pointed. Metepisterna distinctly longer than wide, wider anteriorly than posteriorly (trapezoid).

***C. sundaicus* subgroup**, new, redefined from *mandarinellus* / *saundersi* / *sundaicus* complex of Häckel & Kirschenhofer (2014: 293, 310)

Characters. Pronotum more transverse (length to width ratio > 1.40), with anterior margin slightly narrower than base. Metepisterna wider, but distinctly longer than wide. Ventrites not crenulate anteriorly.

C. freudei Jedlička, 1966	Laos, Thailand
**C. lesnei* Andrewes, 1926	Cambodia
C. mandarinellus (Bates, 1892)	Bhutan, China: Guangxi, Yunnan; Laos, Myanmar, Nepal, Thailand, West Malaysia: Kelantan, Pahang
**C. dembickyi* Kirschenhofer, 2000	Northern Thailand
**C. pacholatkoi* Kirschenhofer, 2000	Northern Thailand
**C. cf. pacholatkoi* ("*saundersi*" Kirschenhofer, 2011)	Laos
**C. bretschneideri* Kirschenhofer, 2011	Andaman Islands (India)
C. sundaicus (Oberthür,1883)	Indonesia: Kalimantan, Sumatra Island; East Malaysia: Borneo I.: Sabah, Sarawak

***C. cereus* subgroup** (Häckel 2015, redefined from the *C. mannae* complex of Häckel & Kirschenhofer 2014b: 293)

Characters. Pronotum less transverse (length to width ratio ≤ 1.40), with anterior margin much narrower than base. Metepisterna narrower, much longer than wide. Ventrites commonly crenulate anteriorly.

C. batesi sp. nov.	Southern India, Sri Lanka
**C. halyi* Andrewes, 1923	Sri Lanka
C. cereus cereus (MacLeay, 1825)	Indonesia: Java, Krakatau Islands
C. cereus austronesiensis Häckel et Kirschenofer, 2014	Indonesia: Timor, Yamdena Islands
C. mannae mannae Andrewes, 1930b	Indonesia: Mentawai, Sumatra Islands
C. mannae sulawesiensis Häckel et Kirschenofer, 2014	Indonesia: Sulawesi Island
C. vietnamensis Kirschenhofer, 2000	Southern China: Guangdong; Vietnam
C. freudeellus Häckel et Kirschenofer, 2014	Laos, Vietnam

ACKNOWLEDGMENTS. I am grateful to all colleagues and friends who let me study material in their care: T. Deuve and A. Taghavian (Paris, France) without whose help I would be totally lost at MNHN; D. Mann and A. Spooner (Oxford, United KIngdom), M. Barclay and B. Garner (London, United Kingdom), H. Schilhammer (Wien, Austria) and E. Kirschenhofer (Perchtoldsorf, Austria) for loans of material and their trust; and D. Wrase (Berlin, Germany), S. Facchini (Piacenza, Italy), A. Anichtchenko (Daugavpils, Latvia) and my colleagues J. Bašta (Brno, Czech Republic), S. Březina, P. Bulirsch, J. Farkač and S. Jákl (Praha, Czech Republic), R. Kmeco (Litovel, Slovakia), R. Sehnal (Unhošť, Czech Republic) and M. Trýzna (Děčín, Czech Republic) for material and information. Special thanks go to J. Zídek (Praha, Czech Republic) for valuable advice, help with the language and a number of photos.

REFERENCES

Andrewes H. E. 1921: III. Notes on Synonymy and on some Types of Oriental Carabidae in various foreign collections. *Transactions of the Entomological Society of London* 1921: 145-195.

Andrewes H. E. 1926: Papers on Oriental Carabidae - XVI. *The Annals and Magazine of Natural History* 17 (98): 252-259.

Andrewes H. E. 1930a: *Catalogue of Indian Insects Part 18 - Carabidae*. Calcutta: Government of India, Central [publication branch 1930], 389 pp.

Andrewes H. E. 1930b. On some new species of Carabidae from Sumatra contained in the collection of the Leyden Museum. *Zoologische Mededelingen Uitgegeven door het Rijksmuseum van Natuurlijke History te Leiden* 13: 193-203.

Andrewes H. E. 1933: A catalogue of Carabidae of Sumatra. *Tijdschrift foor Entomologie* 76: 319-382.

Bates H. W. 1892: Viaggio di Leonardo Fea in Birmania e regioni vicine. XLIV. list of the Carabidae. *Annali del Museo Civico di Storia Naturale di Genova* 32: 267-428.

Chaudoir M. de 1869: Description des cicindelètes et Carabiques nouveaux (Suite). *Revue et Magasin de Zoologie Pure et Appliquée* 21(2. serie): 114-122.

Chaudoir M. de 1879: Essai monographie sur les Panagéides. *Annales de la Société Entomologique des Belgique* 21: 85-186 [part 1878, part. 1879].

Häckel M. 2015: Notes on Oriental Panagaeini. *Craspedophorus cereus* (MacLeay, 1825) and *Dischissus chaudoiri* Andrewes, 1919, and new status of *Craspedophorus austronesiensis* Häckel et Kirschenhofer, 2014 (Coleoptera: Carabidae). *Studies and Reports, Taxonomical Series* 11 (2): 237-245: 2015.

Häckel M. & Farkač J. 2012: A check-list of the subfamily Panagaeinae Hope, 1838 of the World (Coleoptera: Carabidae). *Studies and Reports, Taxonomical Series* 8 (1-2): 67-116.

Häckel M. & Kirschenhofer E. 2014: A contribution to the knowledge of the subfamily Panagaeinae Hope, 1838 from Asia. Part 2. East Palearctic and Oriental species of the genus *Craspedophorus* Hope, 1838, and the genus *Tinoderus* Chaudoir, 1879 (Coleoptera: Carabidae). *Studies and Reports, Taxonomical Series* 10 (2): 275-392.

Kirschenhofer E. 2000: Neue und wenig bekannte Panagaeini der östlichen Paläarktis sowie der Orientalis. (Coleoptera, Carabidae). *Entomofauna* 21 (29): 321-372.

Kirschenhofer E. 2011: Neue Arten der Gattungen *Craspedophorus* Hope, 1838, *Brachinus* Weber, 1801, *Trigonotoma* Dejean, 1828, faunistiche Meldungen der Gattung *Chlaenius* Bonelli, 1810 aus der Orientalis (Coleoptera, Carabidae). *Acta Coleopterologica* 27(1): 38-60.

Lesne P. 1904: Famille des Carabides. Pp 62-81. In: Pavie A. (ed.): *Mission Pavie Indo-Chine 1879-1895. Etudes Diverses. Tome III. Recherches sur l'Histoire Naturelle de l'Indo-Chine Orientale*. Paris: Ernest Leroux, 549 pp.

Lorenz W. 2005: *A systematic list of extant ground beetles of the World* (*Insecta, Coleoptera, Adephaga: Trachypachidae & Carabidae incl. Paussinae, Cicindelinae, Rhysodinae*). 2nd edition. Tutzing: published by the author, 530 pp.

Louwerens C. J. 1953: Carabidae (Col.) from the Sunda Islands. *Verhandlungen der naturforschenden Gesellschaft in Basel* 64: 303-327.

Oberthür R. 1883: Carabiques nouveaux récoltés a Serdang (Sumatra Oriental) par M. B. Hagen. *Notes from the Leyden Museum* 5: 215-224.

Stork N. E. 1986: An annotated checklist of the Carabidae (including Cicindelidae, Rhysodinae and Paussinae) recorded from Borneo. *Occasional Papers on Systematic Entomology* 2: 1-24.

Received: 21.9.2015
Accepted: 20.10.2015