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Taxonomical notes on Oriental Panagaeini with destription of two new species (Coleoptera: Carabidae: Panagaeini)

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Abstract. Two new species belonging to the tribe Panagaeini (Coleoptera, Carabidae) are described. Namely *Adischissus samarensis* sp. nov. from Samar Island, Philippines and *Microcosmodes tamilicus* sp. nov. from Tamil Nadu, India. The newly described species are compared with related known taxa and their position in the species groups is discussed. Some taxonomical notes on the *Craspedophorus microspilotus* group of species sensu Kirschenhofer 2000 and Fedorenko 2016 are added. *C. freudei* Jedlička, 1966, *C. denbickyi*, *C. molossus*, *C. maculatus*, *C. pacholatkoi* (all four taxa described by Kirschenhofer 2000 and *C. bretschneideri* Kirschnhofer, 2011) are synonymised with *C. geniculatus* (Wiedemann, 1825). *C. kiwlomensis* Häckel et Kirschenhofer, 2014 is synonymised with *C. chiangdaoensis* Häckel et Kirschenhofer, 2014. Other taxa previously and erroneously synonymised with different species are synonymised with *C. geniculatus* including *Craspedophorus louangnamthaensis* Kirschenhofer, 2011, *C. mandarinellus attapeuensis* and *C. mandarinellus malayensis* (both Häckel et Kirschenhofer, 2014), and *C. batesi* Häckel, 2016 is synonymised with *C. mandarinellus* (Bates, 1892). *C. punensis* Häckel et Kirschenhofer, 2014 is revalidated as a species. *C. kathmanduensis* Kirschenhofer, 2004, *C. gracilipes* (Bates, 1892), provisionally *C. obesus* Louwerens, 1953 and *C. halyi* Andrewesa, 1923 are included in the *C. microspilotus* group sensu Fedorenko 2016. *C. maharahstraensis* Kirschenhofer, 2011 is excluded from the *C. microspilotus* group.

INTRODUCTION

In his latest two revisions of the Oriental Panagaeini, Fedorenko established a new genus (*Adischissus* Fedorenko, 2015) and made a number of taxonomic changes in the paleotropical genera *Dischissus* Bates, 1873, *Microcosmodes* Strand, 1936 and *Craspedophorus* Hope, 1838 (Fedorenko 2015). The work substantially corrects the previous revision by Häckel and Kirschenhofer (2014a, b). However, Fedorenko‘s work is mainly focused on the study of material from Cambodia, Vietnam and Laos. A number of questions regarding finds outside the said area of the Orient thus remain unsolved. During the time since his work from 2014, the author had the opportunity to study a large amount of related material from a number of world museums and private collections. Although it is still true that “the taxa of this subfamily and their bionomy remain inadequately known” (Häckel and Kirschenhofer 2014b) the author believes that further corrections can be made in the taxonomy of oriental Panagaeini, especially some synonymizations in the *Craspedophorus microspilotus* group of species.

MATERIAL AND METHODS

The classification of the group is based primarily on external structural details of the adult. Aedeagi were photographed in the position preserved in Canadian Balsam and glued on a card (in the glued position, lateral view). The habitus of specimens was photographed by a Canon digital camera E 3000 with a Canon macro photo lens MP-E 65mm (stacking the pictures was accomplished using Helicon Focus 7 software).

The acronyms used for the entomological collections where the examined material is deposited are as follows:

BMNH The Natural History Museum, London, United Kingdom (M. Barclay);
MNHN Muséum national d'Histoire naturelle, Paris, France (Th. Deuve);
NME Naturkunde Museum Erfurt, Germany (M. Hartmann);
NMP National Museum Prague, Czech Republic (L. Sekerka);
NMWC Naturhistorisches Museum Wien, Austria (H. Schilhammer);
ZSM Zoologische Staatssamlung München, Germany (M. Balke);
cDW Collection of David Wrase, Berlin, Germany (deposited in Naturkunde Museum Stuttgart);
cMH Private Collection of Martin Häckel, Praha, Czech Republic (will be deposited in NMP);
cRK Private Collection of Rudolf Kmeco, Litovel, Czech Republic (will be deposited in NMP).

Other abbreviations:

AR = antennal ratio (antennomere length A1/A3 : A2/A3 : A4/A3)
BL = body length
EL = elytral length
EW = elytral width
HL = head length
HW = head width
PL = pronotal length
PW = pronotal width

SYSTEMATICS

Genus *Adischissus* Fedorenko, 2015

Characters. Small species within the tribe Panagaeini (6.7-9.5 mm), pubescent, macropterous. Coloration black, except lateral margins of pronotum lighter rust yellow, with two large maculae on each elytron (all species known so far) and femora or entire legs reddish-yellow. Back shiny, microsculpture distinct on labrum and elytra, absent on head and pronotum, ventral side with metepisterna elongate (trapezoidal), movable ventral sterna with dense series of coarse pits along bases (see also Fedorenko 2015, p. 273). Species of the genus *Adischissus* differ from the closely related genus (or subgenus - see comments) *Microcosmodes* Strand, 1936 in the length of the antennae (especially the 1st antennomere)

and the legs. In *Adischissus*, the legs and antennae are longer in proportion to body length, antennomere 1 (scape) three to four times longer than eye lobe and slightly longer than antennomere 3.

Adischissus samarensis sp. nov.
(Figs. 1a, b)

Type locality. "Samar Island, Philippines".

Type material. Holotype (♀): "se Asia, e-Philippines, Eastern Visayas Region, northern Samar Is. Lope de Vega, VIII - 2005, lgt. loc. collector" (Figs. 1a, b, cMH).

Description of holotype. BL 6.7 mm, EW 2.8 mm. Proportions. Head and pronotum (PW/PL 1.51 PW/HW 1.70), elytra (EW/PW 1.22, EL/EW 1.39).

Coloration. Body black, pronotum with lateral margins light yellow, each elytron with two yellow maculae, humeral macula semilunar, extending from interval V to IX, broadly covering outer intervals, lateral margin black, apical macula ovate, covering intervals V-VIII, lateral margin black. Palpi and antennae ferruginous, antennomeres 1-3 darkened with yellowish terminal margin, femora darkened, genua, tibiae and tarsi ferruginous.

Head broad, short (length-to-width ratio 0.62), densely punctate, clypeus smooth and glabrous, neck glabrous medially, slightly wrinkled laterally. Antennae long, extending beyond elytral midlength; scape slightly longer than antennomere 3 (AR = 1.11:0.5:0.38) and three times than eye tubercle. Labrum with apical margin almost truncate with median setae shorter and inserted near midline, lateral setae longer. Terminal palpomeres pubescent and securiform (in females) maxilla palps with outer angle acute and inner angle very obtuse, labial palps with apex less oblique and outer (terminal) angle more rounded than angle in maxillary palpomere. Penultimate labial palpomere nearly cylindrical with two setae inserted near inner margin.

Pronotum semilunar, short and transverse, 1.51 times wider than long, convex on disc, coarsely and irregularly pitted over entire surface, without distinct microscuplpture, its maximum width beyond midlength, anterior margin rounded, becoming lateral margin with anterior angles indistinct, lateral margins narrowing posteriorly and slightly sinuated before basal angles which are rectangular, lateral rims flattened, tapering anteriorly and absent near anterior margin, median longitudinal line fine, indistinct posteriorly.

Elytra short (EL/EW 1.39), suboval, widening slightly behind the middle, humeri weakly distinct, rounded, subapical sinuation very weak (in female), scutellar striae moderately long, ending to 1/5 of elytral length. Striae deep, coarsely and regularly pitted, intervals convex, each with two rows of finer pits, microsculpture weakly distinct, isodiametric, interval three without distinct setigerous punctures. Lateral margin posteriorly broadly flattened with a series of coarse pits

Ventral side black, smooth, glabrous, ventrites with dense row of large punctures along bases, ventrite VII with two setigerous pores on each side subapically.

Metepisterna posteriorly elongated, trapezoidal (macropterous species).

Legs long and slender, brown-red, with darkened femora, tarsi pale brown, tarsomere

4 bilobed, with lobes subequal in protarsus, the outer lobe being somewhat shorter in mesotarsus and clearly shorter and narrower than the inner lobe in metatarsus.

Aedeagus: male unknown.

Differential diagnosis. *A. samarensis* sp. nov. differs from similar species mainly in body proportions, colouration of the elytra and legs. Details are provided by the following key to the species of the Indo-Australian genus *Adischissus* Fedorenko, 2015:

1. Species with shorter body, EL/EW ratio less than 1. 5. Femora darkened in two thirds, genua, tibiae and tarsi ferrugineous or brown-pitch (Philippines) .....*A. samarensis* sp. nov.
- species with longer body, EL/EW ratio more than 1.5. Legs ferrugineous, if tibiae or tarsi darkened, femora allways ferrugineous (Oriental and Australian region: Nepal to Queensland)other described *Adischissus* species

Etymology. Named for the Philippine island where it comes from.

Comments. The taxon described above may have already been mentioned by Fedorenko (2015: 275): "a female *Adischissus* specimen from the Philippines, matches well both the original description, the additional characters cited by Darlington [1961], and, surprisingly, shows all the characteristic features of *Adischissus*...." He considers it *Microcosmodes quadrimaculatus* (Csiki, 1907) and provisionally states that this species is a member of *Adischissus*, not *Microcosmodes.* We commented on the author's note in our later article (Häckel et Sciaky 2019: 251), where we stated that Csiki's taxon clearly belongs to the genus *Microcosmodes* (see below) and the quoted notes of Darlington (1962: 496) most likely refer to another species of the genus *Adischissus*, which lives in New Guinea and also in Queensland (Darlington 1962: 496) and which was probably later described as *Adischissus* (*notulatus) queenslandicus* (Häckel et Kirschenhofer, 2014).

Genus *Microcosmodes* Strand, 1936

Characters. Similar to *Adischissus* Fedorenko 2015 (see previous page), but differs from it in having shorter legs and antennae (usually extending beyond the pronotal base by about 3 and 1⁄2 segments) with a peduncle as long as or slightly longer than the tuber of the eye and slightly shorter than antennomere 3. Another difference is in the shape of the pronotal posterior angles. While in most species of *Microcosomodes* the angle is obtuse and projects laterally just before the pronotal base as a sharp projection preceded by a distinct small tooth, in the genus *Adischissus* the pronotal basal angle becomes rectangular due to the sinus of the lateral margin of the pronotum, neither the tooth nor the lateral process being distinct (Figs. 3-5).

Microcosmodes tamilicus sp. nov.

(Figs. 3a, b, 4)

Type locality. "Vilupparam, Tamil Nadu, India"

Type material. Holotype (♂): "India, Tamil Nadu, D: Vilupparam, Aurovile Discipline vill. X-XII. 2020, loc. collector, 12°0.7'N 79°48'E (Fig. 3, NME). Paratypes: 1 ♂, 1 ♀ same data as HT (NME, NMP).

Description of holotype. BL 8.6 mm, EW 3.5 mm. Proportions. Head and pronotum (PW/PL 1.48, PW/HW 1.74), elytra (EW/PW 1.14, EL/EW 1.55).

Colouration. Body black, dorsum covered with long pale setae, pronotum faintly lightened yellow on lateral margins, each elytron with two yellow maculae, humeral macula large, extending from interval II to elytral margin, slightly longer on outer than inner intervals, apical macula subquadrate, covering intervals III-VIII and outer part of interval II, lateral margin black; palpi, antennae and legs ferruginous or brown.

Head broad, short (length to width 0.66), coarsely pitted in frons and vertex, clypeus and neck glabrous. Eyes large and protruding, genae indistinct. Frontal grooves shallow, running parallel back from clypeus to occiput, slightly converging anteriorly into an arch, neck moderately narrowed, margin uneven and slightly convex anteriorly. Clypeus convex, frontoclypeal suture distinctly concave. Labrum subsinuate, multisetose. Mandibles almost straight along outer edges. Terminal labial palpomere and last two maxillary palpomeres pubescent; terminal labial and maxillary palpomeres slightly dilated (less in females). Antennae moderately long, reaching beyond pronotal base by about 3-4 segments, scape a little shorter than antennomere 3 (AR = 0.83:0.43:0.67) weakly longer than eye tubercle.

Pronotum wide, short and transverse (1.48 times wider than long), convex on disc, over the entire surface grossly and irregularly pitted, without any distinct microsculpure, with maximum width just behind the midlength, front edge slightly arched forward, front corners distinct but strongly rounded, lateral margins arcuate, converging directly to base and forming a small tooth just before sharply projecting posterior angles, median longitudinal line fine, indistinct at base.

Elytra subparallel, moderately long (EL/EW 1.55), widening indistinctly behind the middle, humeri rounded, subapical sinuation weak, scutellar striae moderately long, ending at 1/4 of elytral length. Striae deep, coarsely and regularly pitted, intervals convex each with two rows of finer pits, microsculpture weakly distinct, isodiametric, interval three without distinct setigerous puncture. Lateral margin widely flattened posteriorly with a row of coarse pits (Figs. 3a, 4).

Ventral side black, smooth, glabrous, ventrites with a dense row of large punctures along bases, ventrite VII with two setigerous pores on each side subapically. Metepisterna prolonged posteriorly, trapezoidal (macrpterous species).

Legs long and slender, brownish red, tarsomere 4 not bilobed, without any cleft.

Aedeagus: photographed in Canadian balsam (Fig. 3b). Median lobe of aedeagus (Figs 5, 8) with apical lamella short, wide, and truncate in ventral view.

Differential diagnosis. The new species is very similar to *Microcosmodes elegans* (Dejean, 1831) from northern India, Nepal and Pakistan. *M. tamilicu*s differs from it in body size (7.4-8.6 mm of BL in the new species in contrast to 9.5-10.6 mm of BL in *M. elegans*) and in the elytral coloration. The yellow elytral spots are more extensive in *M. tamilicus* (in each of the three specimens examined) than in *M. elegans* represented by more than 40 specimens examined from different localities. Humeral maculae, in both species tapering towards the midline from its outer wide basis (covering anterior part of the lateral margin from humeri to first 1/3 of elytral length) are distinctly more reduced in *M. elegans*, in this species humeral

macula reaching interval IV and with a small projection of interval III at most, thus taking on a semicircular shape. In contrast, the humeral maculae in *M. tamilicus* form a broad band reaching medial intervals, much wider on interval II, which is always black in *M. elegans*. Also, in the new species, the apical macula extends into interval II and significantly covers interval III, in *M. elegans* the macula is narrower, reaching a maximum in interval IV and slightly touching interval III (Figs. 1, 2).

Etymology. Named for the Indian State of Tamil Nadu where it comes from.

Comments. Both newly described species belong to the complex of genera within the tribe Panagaeini with shorter ligula, with paraglossae surpassing glossa and with a broad and shortened mental tooth (Chaudoir 1879: 85, Basilewsky 1953: 164). As far as Oriental species are concerned, the above characteristic applies to the genera *Dischissus* Bates, 1873, *Adischissus* Fedorenko, 2015, *Microcosmodes* Strand, 1936 and *Craspedophorus* Hope, 1838. Although Fedorenko singled out some species from the genus *Dischissus* (he left it as monotypic) and created a new genus (*Adischissus*) for smaller Oriental species, he notes in his commentary (2015: 276): "The shape of tarsomere 4 is not a good character to separate genus-group taxa in the Panagaeini, so *Adischissus* gen.n. might be a subgenus of *Microcosmodes* rather than a separate genus; moreover, the differences between the two are hardly stronger than those between the Asian species of *Microcosmodes*, which are quite diverse in body proportions, in the A1L/OL ratio, and in AR." In addition main character historically used to separate *Microcosmodes* from *Craspedophorus* is the shape of protarsomere 1-4 (especially the fourth one) which are slightly to indistinctly dilated in the male. Fedorenko adds (2015: 278): "However, this character varies from species to species, as do some other characters, including the shape of the terminal maxillary and labial palpomeres, the antennal ratio, and AL1/OL. The tarsi are slightly yet clearly dilated in males of *M. laticornis* and *M. pallipes* sp. nov., but hardly, if at all, dilated in two other Oriental species. The fourth tarsomere also varies in shape from barely emarginate on all legs in *M. flavopilosus* to conspicuously bilobed in fore legs in *M. pallipes*." If we also take into account the fact that the same author separated from the genus *Dischissus*, in addition to the type species (and the group of species transferred to the genus *Adischissus*), also all other former "*Dischissus*" species and included them in the genus *Carspedophorus* (in the *C. microspilotus* species group / subgroup *C. sapaensis*) it is clear (according to Fedorenko) that the shape of the protarsomere cannot be given weight as a generic character, but it remains significant for the species level. Such taxonomic changes, valid only for Oriental species and leaving related species from other areas in a provisional taxonomic position, cannot be a permanent solution and this does not correspond to the author's own conclusions. E.g. *Craspedophorus angularis* Schaum, 1863 and four other Afrotropical species previously assigned to *Dischissus* (Häckel et Farkač 2012, Häckel et Kirschenhofer 2014a) were provisionally reassigned to *Adischissus* (Fedorenko 2015: 275) because they well meet the author's criteria for this genus. They are now reassigned to *Craspedophorus* by Anichtchenko (Carabidae of the world database) without any comments and with a generic status which remains unclear. Similarly, the "genus" *Microcosmodes*, which mainly

includes Afrotropical species, differs from the African species of the genus *Craspedophorus* in nothing other than the shape of the protarsomere. Similarly, we can look at the differences between African species belonging to different "genera" such as *Epigraphus* Chaudoir, 1869, *Paregraphus* Basilewsky, 1967 and *Craspedophorus*. In all these species we also find a shorter ligula, longer paraglossae and a wide mental tooth. According to the same view, other characters (e.g. the shape of the protarsomere) are only species-specific and do not justify keeping the mentioned species in different genera. At the current stage of knowledge, it will be easiest to reduce all the mentioned genera to subgenera in the single genus *Craspedophorus*. In this work, which so far deals only with two Oriental species, the taxa are maintained in the genera already established. These next sentences are speculative; better to say something like „future studies of the Afrotropical genera of these panagaeines including DNA analysis, will elucidate their true position." ,

NOTES ON ORIENTAL SPECIES OF PANAGAEINI

Species of the *Craspedophorus microspilotus* group sn. Kirschenhofer (2000: 329), *microspilotus* subgroup sn. Fedorenko (2016).

This group of species was established by Kirschenhofer (2000: 329) for 12 species, six of them described as new, later it was enlarged by the same author with a few newly described species. The group thus became more heterogeneous and more difficult to define, and other authors proposed a provisional redefinition of the group (Häckel and Kirschenhofer, 2014b: 291). The last and most significant taxonomic intervention was made by Fedorenko (2016), who, among other things, assigned other species to the group (also from a different genus *Dischissus*) and created two subgroups based on different shapes of protarsomere IV. In his *microspilotus* subgroup (species with protarsomere IV slightly emarginate, not bilobed), he kept some taxa as valid and synonymized a number of others with them. A number of Fedorenko's synonymizations for species in this group came about simply by looking at small photographs of some of the type specimens in another article. The absence of type specimens did not allow the author to assess discrete microscopic characters, which otherwise form the basis of his solid taxonomic work (Fedorenko 2016: 2). Nevertheless, one can agree with a number of the author's conclusions and, based on his division, further synonymizations can be made in this subgroup.

Attached is a brief characteristic of the subgroup (for detail see Fedorenko 2016: 30): usually macropterous, smaller Panagaeini (9.0-12.5 mm) with body black, except for pale quadrimaculate elytral pattern. Labrum, clypeus, mandibles, and usually also neck smooth and glossy because of the microsculpture lacking or being very superficial. Head narrow, labrum conspicuously emarginate with medial setae inserted close to apical margin. Penultimate labial palpomere subcylindrical with 2-3 setae inserted at inner margin, both maxillaries and labials with apical palpomere almost triangular, subterminal and terminal maxillary palpomeres pubescent. Pronotum usually semilunar-shaped with anterior angles indistinct or absent, hind angles with a slightly extended tooth (similarly as in *Microcosmodes* but always remaining black, without any yellow margin), lateral margin

rounded and generally bisetose on each side. Metepisterna mostly clearly longer than wide (macropterous species). Movable abdominal sterna each with a row of coarse and close punctures along bases. Elytra usually subconvex, with deeply incised, punctate striae and with two discal setigerous pores in middle two thirds of interval 3, indistinct serial setae in intervals V and VII.

Craspedophorus geniculatus (Wiedemann, 1823)

(Figs. 6-11)

Wiedemann, 1823: 56 (*Panagaeus*; type loc.: "Bengal"); Schaum 1853: 28; Chaudoir, 1861: 351 (*Epicosmus*), 1878: 112; Andrewes, 1921: 187 (*Craspedophorus*), 1930: 135; Kirschenhofer 2000: 323; Häckel et Farkač 2012: 78; Häckel et Kirschenhofer 2014b: 301.
Isotarsus rufipalpis Laferté-Sénectere, 1851: 221; Andrewes 1924: 588, 1930: 135; Kirschenhofer 2000: 323; Häckel et Farkač 2012: 77, 79; Häckel et Kischenhofer: 301.
Epicosmus hilaris Chaudoir 1878: 112 (non Laferté!); Csiki 1929: 357.
Craspedophorus freudei Jedlička, 1966: 237 (type loc.: "Laos Umg. Vientiane"); Kirschenhofer 2000: 324, 331, 2011: 47; Häckel et Farkač 2012: 78; Häckel et Kirschenhofer 2014b: 300, **syn. nov.**
C. dembickyi Kirschenhofer, 2000: 343 (type loc.: "NW Thailand, Mae Hong Son"), 2011: 47; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 298, **syn. nov.**
C. maculatus Kirschenhofer, 2000: 340 (type loc.: "NW Thailand, Mae Hong Son, Ban Huai Po"), 2011: 47; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 307, **syn. nov.**
C. molossus Kirschenhofer, 2000: 340 (type loc.: "Nepal Rapti Tal, Monahari Khola"), 2004: 268, 2011: 47; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 314 [syn. erroneously by Häckel 2016: 56 with *C. mandarinellus* (Bates, 1892)], **syn. nov.**
C. pacholatkoi Kirschenhofer, 2000: 342 (type loc.: "NW Thailand, Soppong Pai"), 2011: 47; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 316, **syn. nov.**
C. bretschneideri Kirschenhofer, 2011: 42 (typ. loc.: "Andaman Is., Saddle Peak"); Häckel et Farkač 2012: 78; Häckel et Kirschenhofer 2014b: 295, **syn. nov.**
C. louangnamthaensis Kirschenhofer, 2011: 42 (typ. loc.: "N Laos 15 km NW Louang Namtha"); Häckel et Farkač 2012: 78 [syn. erroneously by Häckel et Kirschenhofer 2014b: 300 with *C. saundersii* (Chaudoir, 1869)], **syn. nov.**
Craspedophorus saundersii Häckel et Kirschenhofer 2014b: 320 (non Chaudoir!); Häckel 2016: 56.
C. mandarinellus mandarinellus Häckel et Kirschenhofer 2014b: 309 (non Bates!); Häckel 2016: 56.
C. mandarinellus attapeuensis Häckel et Kirschenhofer 2014b: 300; [syn. erroneously with *C. mandarinellus* (Bates, 1892) by Häckel 2016: 56], **syn. nov.**
C. mandarinellus malayensis Häckel et Kirschenhofer 2014b: 300; [syn. erroneously wth *C. mandarinellus* (Bates, 1892) by Häckel 2016: 56], **syn. nov.**
*(see below) *C. lesnei* Andrewes, 1926: 253; *C. hilaris* Lesne 1904: 69 (non Laferté!).

Distribution area: Bhutan, China (Guangxi, Guizhou, Yunnan), India (Andaman Isl., Assam, Mizoram, West Bengal), Laos, Myanmar, Nepal, Thailand, probably Cambodia.

Comments. This taxon was reevaluated by Andrewes (1921: 187). Type material has not been found in either the BMNH or in the MNHN. During last ten years the author has seen more than hundred specimens collected in different countries of a large geographical areal in the Oriental region, perfectly matching Andrewes' (1921: 170) rather detailed description. The well marked macropterous condition of this flying species is in complete agreement with the relatively large size of the area it inhabits. A lot of taxa established by different authors (including that of the author) also correspond perfectly to Andrewes's description, and they do not differ from each other at all or differ only by small differences in colouration (Figs.

6-11). Although it was not possible to compare them to Wiedemann's type of *C. geniculatus*, comparison of the type material shows that they are all conspecific. I cannot rule out that Wiedemann's type redescribed by Andrewes will not be completely identical with all these specimens, even so the author chose to use Andrewes' name for the species and rely on his description. Consequently all conspecific taxa are synonymized with this name as junior synonyms. There is no need to establish a neotype.

*Also *C. lesnei* Andrewes, 1926 referered originally as *C. hilaris* by Lesne (1904: 69) from "Siam, Battambang" (now in Cambodia, near the border of Thailand) does not differ from *C. geniculatus* in any way except for the larger extent of the humeral macula, similarly as in some specimens from Thailand and Laos (Fig. 11) including Jedlička's holotype of *C. freudei* (see figs. 21a and 21b in Häckel et Kirschenhofer 2014b). I have not seen Andrewes' type specimen, however according to the author's description the type appears to be another specimen of *C. geniculatus*.

***Craspedophorus sundaicus* (Oberthür, 1883)**
(Fig. 14)

Oberthür, 1883: 221 (*Eudema*; type loc.: "Serdang"); Andrewes 1930: 136 (*Craspedophorus*), 1933: 348; Stork 1986: 13; Kirschenhofer 2000: 324; 2011: 47; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 322.
Craspedophorus ovatulus Kirschenhofer, 2000: 338 (type loc. "Borneo, Sarawak, Belega Airport"), 2011: 47, 53; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 322 [synonymised by Häckel 2016: 57].

Distribution area: Indonesia (Sumatra, Kalimantan), East Malaysia (Borneo: Sabah, Sarawak)

Comments. Bates' lectotype of this taxon deposited in MNHN was studied and photographed by the author (Häckel 2015: 57, 58). The species is distinguished from the very similar *C. geniculatus* by a different body shape, which is clear to the eye when comparing large series and which is the same in all specimens observed in different areas of the extensive insular range. Specimens of *C. sundaicus* are generally more elongated, less convex, with the pronotum less transverse, also palps, antennae and legs are always all black without a tendency to lighten to rust.

***Craspedophorus mandarinellus* (Bates, 1892)**

Bates, 1892: 299 (*Epicosmus*; type loc.: "Bhamo, Burma"); Andrewes 1921: 187 (*Craspedophorus*), 1930: 135; Baehr 2003: 447; Xie et Yu 1991: 170; Kirschenhofer 2000: 324; Kirschenhofer 2011b: 40, 47; Häckel et Farkač 2012: 77; Fedorenko 2016: 30.
Craspehophorus vietnamensis Kirschenhofer, 2000: 339 (type loc.: "Sapa, N-Vietnam"); Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 323; Häckel 2015: 244 [syn. by Fedorenko 2016: 30].
Craspehophorus freudeellus Häckel et Kirschenhofer 2014b: 299 (type loc.: "S-Vietnam Nam Cat Tien Nat. Park")" Häckel 2015: 244 [syn. by Fedorenko 2016: 30].
Craspehophorus batesi Häckel, 2016: 55 (type loc.: "Bombay") [syn. erroneously by Fedorenko (2016: 31) with *C. cereus* (MacLeay, 1825)], **syn. nov.**

Distribution area: China (Guangdong, Guangxi), India (Maharahstra,), Laos, Myanmar, Sri Lanka, Vietnam.

Comments. This taxon was erroneously referred by two authors (Häckel et Kirschenhofer 2014b, Häckel, 2015) until Fedorenko (2016: 30) published data of Bates' type deposited in the Natural History Museum Giacomo Doria in Genoa, Italy. In the same article, Fedorenko made another synonymization for this taxon, now the author is adding another one. *C. batesi* Häckel, 2016 is the species morphologically closest and, in my opinion now, conspecific with *C. mandarinellus* Bates, 1892 (not with *C. cereus* sn. Fedorenko 2016: 31), although both types (HT + PT) of *C. batesi* are somewhat larger specimens than Bates' holotype of *C. mandarinellus*, which is close in body proportions and has a similarly transverse pronotum. The aedeagus of *C. batesi* is also without differences compared with the types *C. vietnamensis* and *C. freudeellus*, both of which are synonymized with *C. mandarinellus* by Fedorenko. There are the same differences between the two species (*mandarinellus* vs *cereus*) that were mentioned in similar cases of *austronesiensis* vs *cereus* (see below). It is also worth noting the fact that even in the MNHN, the specimen from which the type of *C. batesi* was created determined by Bates himself as *C. mandarinellus* (Häckel 2016: 59, fig. 2b). According to comparative studies, the taxon *C. mandarinellus* appears to be a continental Oriental species, macropterous, which is replaced by the sister taxon *C. austronesiensis* Häckel et Kirschenhofer 2014 in the Sunda Islands, Moluccas and the Philippines. It is not yet possible to assess the differences between the continental (*mandarinellus)* and island (*austronesiensis*) populations, so they remainvalid species, but some further synonymization will probably be necessary in the future.

Craspedophorus austronesiensis (Häckel et Kirschenhofer, 2014) stat. nov.

Häckel et Kirschenhofer: 2014b: 293 (type loc. "s Indonesia, w Timor Is.: 50 km s of Kupang: Buraen");
C. mannae mannae Häckel et Kirschenhofer 2014b: 323 (non Andrewes!); Häckel 2015: 244.
C. cereus austronesiensis Häckel 2015: 244 (non MacLeay!).
C. mannae sulawesiensis Häckel et Kirschenhofer 2014b: 313; Häckel 2015: 244.
C. sulawesiensis Häckel et Kirschenhofer 2014b [n. stat. Fedorenko 2016: 31], **syn. nov.**

Distribution area: Brunei, Malaysia (Borneo: Sabah, Sarawak), Indonesia (Kalimantan, Lesser Sunda Isl., Mentawai Isl., Moluccas, Sumatra, Sulawesi), Philippines.

Comments. The species was based on a series of specimens from the Lesser Sunda Islands (Timor) and Moluccas (Yamdena, Tanimbar Isl.) in Indonesia. After comparison with other island populations from Sumatra, Celebes and the Mentawai Islands, all of these were later declared conspecific (Häckel 2015: 238). However, the proposed taxonomic concept turned out to be problematic. In an earlier monograph, the populations from the western part of the island area were mistakenly referred to as the subspecies *C. mannae* Andrewes, 1930 (Häckel and Kirschenhofer 2014b: 323), because the authors relied only on the description of the species and had not seen Andrewes' type specimen. Fedorenko (2016: 31) after examining Andrewes' taxon (paratype of *C. mannae* deposited in the Leiden Museum,

Netherlands) reassessed the status of the taxa in question and stated that, in the opinion of the author, this species does not belong to the *C. microspilotus* group at all, because in the pronotum of the examined paratype the lateral margins are distinctly reflexed unlike in the other species in the group. Häckel (2015: 238) attempted to solve the problem with this erroneously referred species of western island populations (*C. m. mannae* sn. Häckel et Kirschenhofer 2014b) by assigning it to *C. cereus* (MacLeay, 1825). This proposed solution turned out to be a faulty speculation, the shortcomings of which were pointed out by again Fedorenko (2016: 31). These are certainly two different species (macropterous) with large areas of distribution. One species (with a less transverse pronotum) is very similar in size and elytral coloration to continental populations of *C. mandarinellus.* The second taxon differs from the previous one in the mentioned characters (larger body, a more transverse pronotum, different elytral coloration) and is conspecific with *C. cereus* (see below). It also differs very significantly from the previous one. In addition, examination of other specimens from the Philippines confirmed that in some places both species live together (see above). According to measurements, the smaller Philippine species is always distinguishable from *C. cereus*, on the other hand, its proportions do not allow it to be reliably distinguished from more eastern populations of *C. austronesisensis* and western populations of the same species (erroneously referred to as *C.* "*mannae mannae*" sensu Häckel et Kirschenhofer 2014). The taxon *C.* "*mannae*" *sulawesiensis* (Kirschenhofer et Häckel 2014b: 313) is also very close to the Philippine populations of the mentioned species, especially in the shape of pronotum, body dimensions and elytral coloration. According to measurements, the taxon *sulawesiensis* as well as the previously named and erroneously reported taxa "*mannae*" belong to the single species *C. austronesiensis*. As noted before, it is not yet possible to evaluate the differences between continental (*mandarinellus*) and island (*austronesiensis*) populations, therefore they remain valid species, but further synonymization may occur in the future.

***Craspedophorus cereus* (MacLeay, 1825)**

(Figs. 12a -12g)

MacLeay, 1825: 12 (*Panagaeus*; type loc.: "Java"); Andrewes, 1919: 135 (*Craspedophorus*), 1930: 134; Kirschenhofer 2000: 323; Häckel et Farkač 2012: 80; Häckel, 2015: 238, 2016: 70; Fedorenko 2016: 30.

Craspedophorus philippinus Jedlička, 1939: 1 (type loc: "Philippinen: Luzon"), 1965: 4; Louwerens 1953: 313; Habu 1978: 71; Kasahara 1985: 154; Xiet et Yu 1991: 168; Baehr 2003: 447; Kirschenhofer 2000: 338, 2011: 47; Häckel & Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 317 [syn. proposed by Fedorenko 2016: 31], **syn. nov.**

Craspedophorus formosanus Jedlička, 1939 (type loc: "(Formosa [= Taiwan])"): 2, 65: 5; Louwerens 1953: 313; Habu 1978: 71; Kasahara 1985: 154; Xiet et Yu 1991: 169; Baehr 2003: 446; Kirschenhofer 2000: 330, 2011: 47; Häckel & Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 298 [syn. proposed by Fedorenko 2016: 31], **syn. nov.**

Craspedophorus chinensis Jedlička, 1965: 5 (type loc: "Prov. Fukien, China"); Xiet et Yu 1991: 169; Kirschenhofer 2000: 331, 2011: 47; Baehr 2003: 446; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 297 [syn. by Fedorenko 2016: 31].

Craspedophorus saddlepeakensis Kirschenhofer, 2011: 45 (type loc: "Andaman Is.") [syn. by Fedorenko 2016: 31].

Craspedophorus laosensis Kirschenhofer, 2012: 231 (type loc: "Laos, Luangphabang prov. Mt. Phou Phakhao, Namtag vill."); Häckel et Farkač 2012: 78; 2013: 250; Häckel et Kirschenhofer 2014b: 305 [syn. by Fedorenko 2016: 31].

Craspedophorus buruensis Häckel et Kirschenhofer, 2014b: 295 (type loc: "Indonesia, Buru Isl.") [syn. by Fedorenko 2016: 31].

Craspedophorus maculatus Häckel et Kirschenhofer 2014b: 307 (non Kirschenhofer 2000).

Distribution area: China (Fujian), India (Andaman Isl., Mizoram), Indonesia (Buru Isl.), Laos, Myanmar, Philippines, Taiwan, Thailand, Vietnam.

Comments. The species was redefined and differentiated from *Craspedophorus chaudoiri* (Andrewes, 1919) reassigned by Fedorenko (2016: 31) from the genus *Dischissus* Bates, 1873 to the genus *Craspedophorus* (*C. microspilotus* group / *C. sapaensis* subgroup sensu Fedorenko 2016). In the same work the author made a number of synonymizations, some followed by question marks. After examining all the available types of Jedlička and Kirschenhofer, the author can confirm some of the synonymizations proposed by Fedorenko including the taxonomy of the Philippine populations of the species, the variability of which was mentioned by Habu (1978: 71). Jedlička's holotype of *C. philippinus* (1939: 1) also belongs to the larger of the two similar but different Philippine species (see above), which is conspecific with *C. cereus*. After examining the holotype (in NMP), Fedorenko's suggested synonymization is confirmed. However, there are strong reservations about the synonymization of two other taxa to the species of *C. cereus*, namely *C. punensis* (Häckel et Kirschenhofer 2014b) see below), and *C. batesi* Häckel, 2016 (see above), and the synonymization of *C. laosensis* (Kirschenhofer, 2012 and *C. maculatus* sensu Häckel a Kirschenhofer 2014b (non Kirschenhofer, 2000). The authorhas not seen any type of *C. saddlepeakensis* Kirschenhofer, 2011 and therefore leave its synonymization without comment. Regarding the population from which Kirschenhofer's type *C. laosensis* (2012: 231) comes, and the single specimen from Thailand labeled and photographed by both authors as "*C. maculatus*" (sensu Häckel and Kirschehofer 2014b: 384: fig. 28), synonymization with *C. cereus* is, at the limit of acceptability for both taxa. However, specimens of *C. laosensis* can only be larger specimens of *C. cereus* (besides the type, two other specimens were examined), and the specimen incorrectly determined and photographed as *C. maculatus* (see above) does not deviate from the usual proportions for *C. cereus*, differing only in elytral coloration within the species.

Craspedophorus punensis (Häckel et Kirschenhofer 2014b: 318) bona species
(Fig. 13)

Häckel et Kirschenhofer 2014b: 293 (type loc. "w India, Maharashtra: Pune env.").
Craspedophorus cereus syn. by Fedorenko 2016: 31.

Distribution area. India (Maharahstra).

Comments. The author's objections to Fedorenko's synonymization of the taxon *C. punensis* bona species with *C. cereus* do not lie only in morphological arguments, i.e. that the male (PT) *C. punensis* photographed here (Fig. 13) is overall less convex than the comparable male *C. cereus* from eastern India (Mizoram, Fig. 12a), its elytra are more transverse, its body is also less convex, and its elytral intervals are significantly flatter. The elytral coloration in *C. punensis* is also unique, especially the extent of the humeral maculae. The humeral maculae in males of all populations throughout the known range of *C. cereus* (from northeastern India to the far east of the Moluccas in Indonesia) extend furthest to interval V

(rarely a tiny dot on interval IV), whereas in both known males of *C. punensis* its humeral macula reaches interval IV fully, i.e. approximately to the same extent as on interval VI (in *C. cereus* females the humeral maculae are wider, usually reaching interval IV and rarely extending into interval III, see Fig. 12d and also see Habu 1978: 73, fig. 19). This feature is also met by the second male (HT) of *C. punensis*, in which the humeral spot also extends further into interval III. In addition, the humeral macula in *C. punensis* is more circular, its edges are not serrated as in *C. cereus*. It? is not only about the described morphological and color differences, it? is also about the distribution area of *C. punensis* (so far known only from a small area in the state of Maharahstra), which is far from the places where the nearest known collected specimens, today synonymous with *C. cereus*, were found. It is the set of these characteristics that confirms that the taxon *C. punensis* is a valid species and represents a unique endemic faunal element of the Western Ghats.

***Craspedophorus hilaris* (Laferté-Sénectere, 1853)**
(Fig. 19)

La Ferté-Sénectere: 47 (*Isotarsus*; type loc. "India bor.").
Epicosmus hilaris Chaudoir 1861: 345.
Andrewes 1924b: 588 (*Craspedophorus*); 1930: 135; Kirschenhofer 2000: 323; Häckel et Farkač 2012: 77; Häckel et Kirschenhofer 2014b: 303; Manthen et Edge 2018: 206.
Craspedophorus hilaris Kirschenhofer (non Laferté!) 2011: 47.

Distribution area. India (Maharahstra).

Comments. In the commentary, the relationship of the species *C. hilaris*, which is understood in this way today, to Laferté's original taxa *Isotarsus hilaris* / *rufipalpis* (LaFerté-Sénectere 1851: 221), for which the author clearly marked the country of origin as "*India borealis*." Chaudoir (1878: 112) synonymized the taxon with *C. geniculatus* (Wiedemann, 1825 see above) and did not take into account the difference between the two Laferté forms, whether it was the size given by the author of the description, *hilaris* (12 mm) vs *rufipalpis* (10 mm), or by differences in the coloration of the elytra or adnexa. Andrewes (1924: 588) drew attention to the very probable species diversity of Chaudoir's type series and again separated the two taxa, leaving the taxon *C. hilaris* as the larger Laferté form. He declared Laferté's smaller form (*rufipalpis*) to be probably conspecific with *C. geniculatus*. It can be agreed that the form *rufipalpis* corresponds to Wiedemann's description (1823: 56) and later Andrewes' redescription (1921: 187) very well (size, notched palps and tarsi). Both areas of origin (northern India + northern Bengal) are also close (it is possible that Chaudoir used the synonymization of both taxa in his diverse series of just a few conspecific specimens with *C. geniculatus*).
Even in Chaudoir's work (1878: 111), the origin of the species "Northern India" is repeated in the description. Also interesting is the fact that about a similar specimen from Cambodia, which another author mistakenly classified much later as *Epicosmus hilaris*, he states about this species that it is known from (only) the vicinity of Bombay (today's state of Maharashtra) and refers in his report to the reference "Fontanier in MNHN" (Lesne 1904:

69). Andrewes later separated Lesne's taxon from *C. hilaris* (from southwestern India, now Maharahstra) and chose a new name for the species, knowing that Lesne's taxon also more closely corresponds to the current concept of *C. geniculatus* (see above). On the other hand, Andrewes (1924: 588) states that he compared his lectotype (*C. hilaris*) with Laferté's type of the larger form, but does not comment on the origin of the specimen. The taxon *C. hilaris* thus remains confirmed only for specimens from the territory of Maharahstra. The authorhas seen only two specimens in museums matching Andrewes' concept of the species *C. hilaris* (MNHN) and both were marked «Bombay» or "Pune env." (=Maharahstra), no specimen from the northern part of India has ever been reported. It can be concluded that *C. hilaris* sn. Andrewes (1924: 588, Fig. 19) is a South Indian species and the question of the relationship to the locality in the first descriptions should not be further addressed.

***Craspedophorus gracilipes* (Bates, 1892)**
(Fig. 16)

Bates, 1892: 302 (*Epicosmus*; type loc. "Bhamò" [=Myanmar: s Kachin state]).
Craspedophorus gracilipes Andrewes 1930: 135; Saha et Biswas 1985: 123; Kirschenhofer 2000: 323; Häckel et Farkač 2012: 78. Häckel et Kirschenhofer: 2014b: 302.

Distribution area. China (Yunnan), India (Arunachal Pradesh, Assam), Myanmar, Nepal

Comments. The author studied and photographed the Bates' lectotype of this taxon deposited in the MNHN only after the publication of the monographh (Häckel et Kirschenhofer 2014b). It is quite clear from the results that this species also meets the criteria that place it in the *C. microspilotus* group / *microspilotus* subgroup sn. Fedorenko 2016: 30.

***C. chiangdaoensis* Häckel et Kirschenhofer, 2014**
(Fig. 15)

Häckel et Kirschenhofer, 2014b: 296 (type loc. "n Thailand, Chiang Mai Prov., Chiang Dao, Ban San Pakia")
C. kiwlomensis Häckel et Kirschenhofer, 2014b: 304 (type loc. "Thailand, Mae Hong Son Prov., Kiwlom-pass near Soppong"), **syn. nov.**

Distribution area. Thailand.

Comments. Both taxa *C. chiangdaoensis* and *C. kiwlomensis* are each based on one female described by the same authors in the same work. Within the group, both types belong to less macropterous (with somewhat shorter metepisterna) but flying species, which can be easily distinguished from the other sympatric species of the *C. micospilotus* group by the shape of the pronotum and more convex elytra. However, their mutual distinguishableness? is very problematic and both were collected in northwestern Thailand in neighboring provinces.

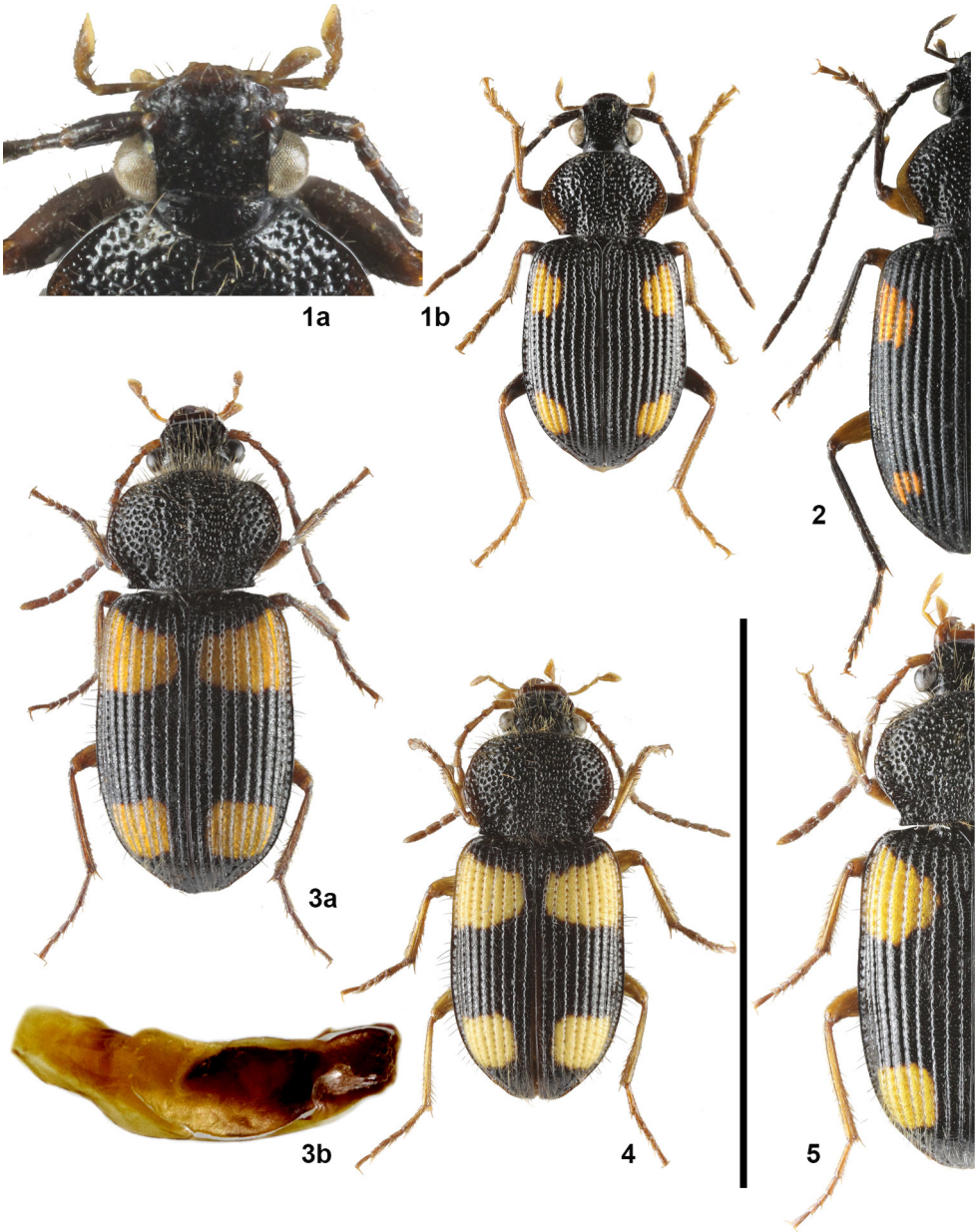

Plate I. Newly described species (scale bar 10 mm), Figs 1–5: 1- *Adischissus samarensis* sp. nov., HT: a) detail of mouth frontal view, b) habitus of imago, dorsal view; 2- *Adischissus pantarensis* (Häckel et Kirschenhofer, 2014), habitus of imago (left part) dorsal view; 3- *Microcosmodes tamilicus* sp. nov., HT: a) habitus of imago, dorsal view, b) edeagus (preserved in Canadian Balsam and glued on a card); 4- *Microcosmodes tamilicus* sp. nov, PT (female), habitus of imago, dorsal view; 5- *Microcosmodes elegans* (Dejean, 1831), habitus of imago (left part), dorsal view.

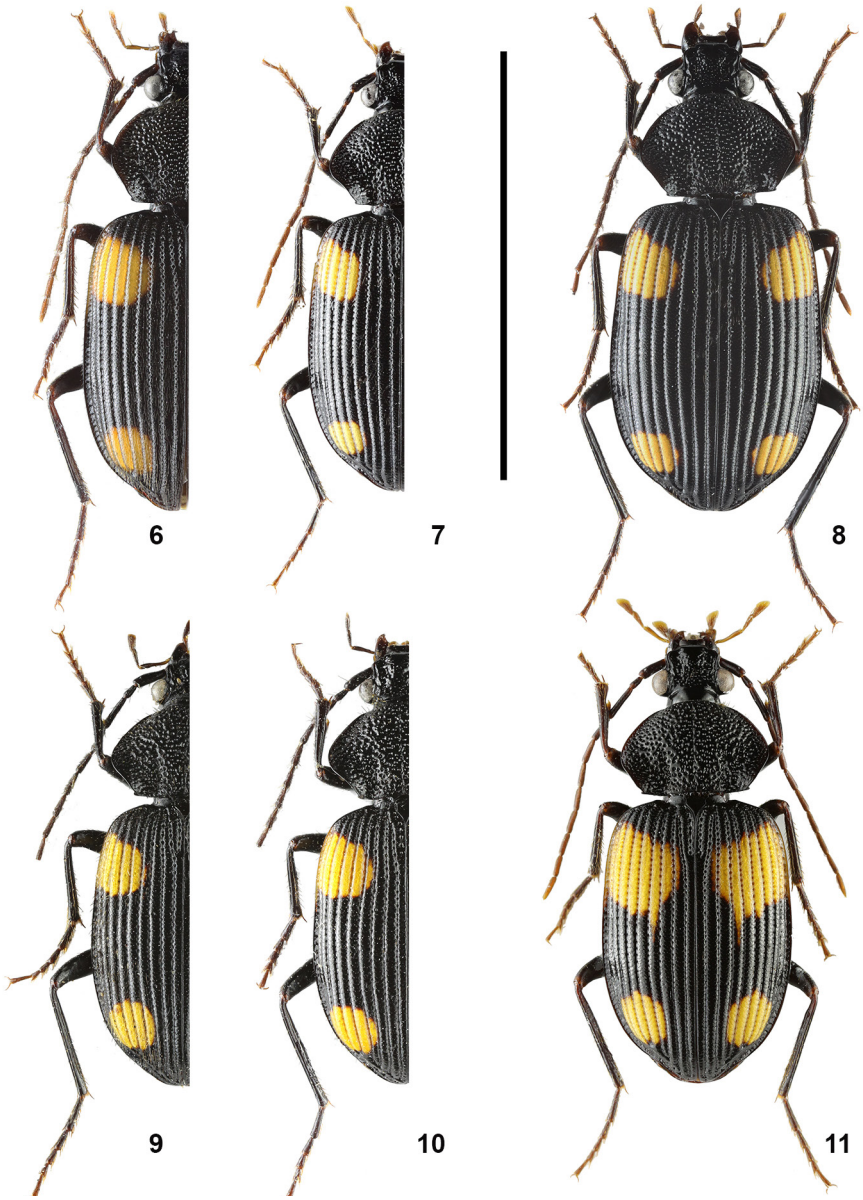

Plate II. *Craspedophorus geniculatus* (Wiedemann, 1823) (scale bar 10 mm), Figs 6–11: 6- Male from Chitwan National Park, Nepal (compared with HT of *C. molossus* Kirschenhofer, 2000 deposited in ZSM), habitus, dorsal view, left part; 7- Male from eastern India (Mizoram), habitus, dorsal view, left part; 8- Male from Shan State (Myanmar) habitus, dorsal view; 9- Female from Laos (HT of *C. mandarinellus attapeuensis* Häckel et Kirschenhofer 2014), habitus, dorsal view, left part; 10- Female from Kelantan, Malaysia (HT of *C.* mandarinellus malayensis Häckel et Kirschenhofer 2014), habitus, dorsal view, left part; 11- Female from Luang-Prabang Province, Laos (compared with HT of *C. freudei* Jedlička, 1966 deposited in NMP), habitus, dorsal view.

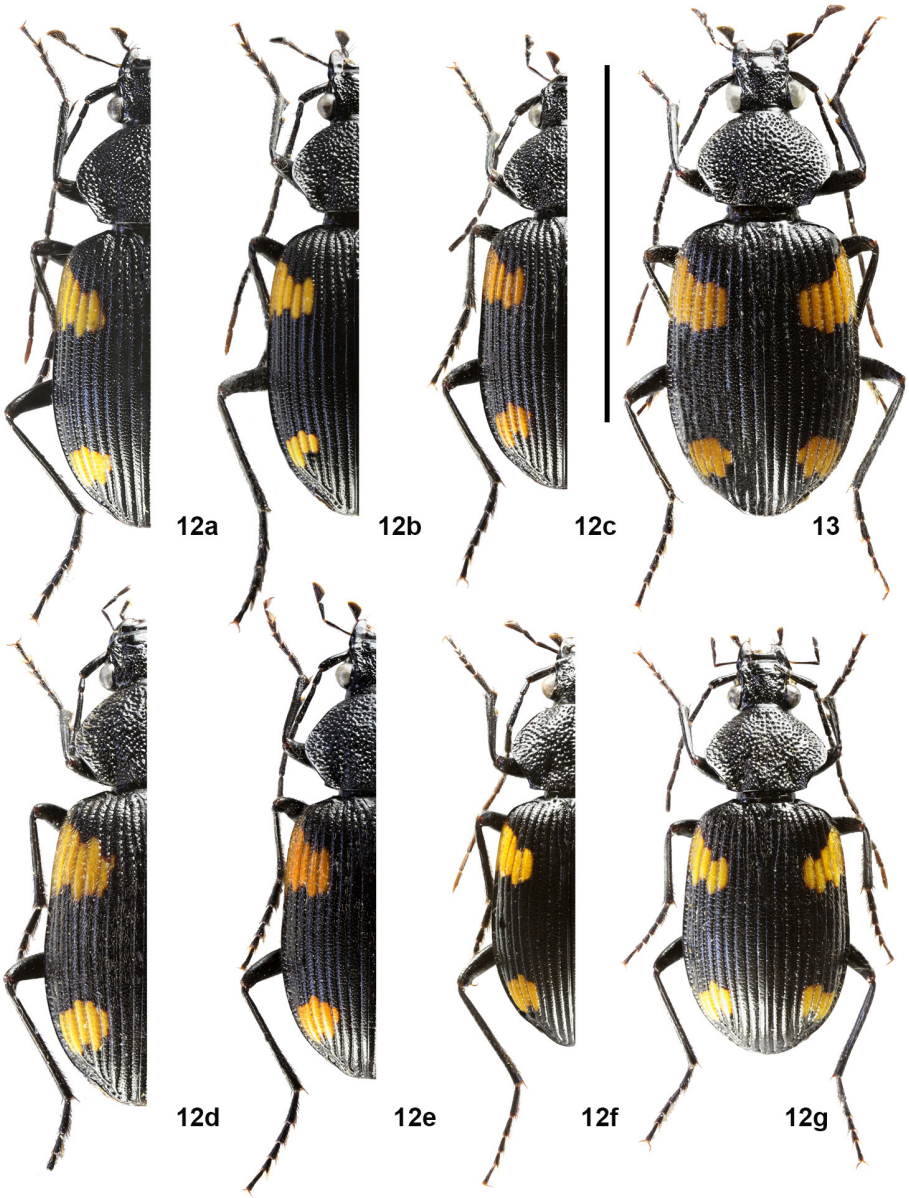

Plate III. *Craspedophorus cereus* (MacLeay, 1825) (scale bar 10 mm), Figs 12a–g, Fig. 13: a- male from eastern India (Mizoram), habitus, dorsal view, left part; b- male from Myanmar, habitus, dorsal view, left part; c- male from Vietnam (compraed with HT of *C. chinensis* **J**edlička, 1965 deposited in NMP), habitus, dorsal view, left part; d- female from Laos (compared with HT of *C. laosensis* Kirschenhofer 2014), habitus, dorsal view, left part; e- male from Taiwan (compared with HT of *C. formosanus* Jedlička, 1939 deposed in NMP), habitus, dorsal view, left part; f- male from North Luzon Province, Philippines (compared with HT of *C. phillipinus* Jedlička, 1939 deposed in NMP), habitus, dorsal view; g- male from Buru Islands, Indonesia (HT of *C. buruensis* Häckel et Kirschenhofer, 2014), habitus, dorsal view, left part; 13- *C. punensis* Häckel et Kirschenhofer, 2014, PT (male from Pune env., Maharahstra, India), habitus, dorsal view.

Plate IV. Other species of the *Craspedophorus microspilotus* group / *microspilotus* subgroup sensu Fedorenko 2016 (scale bar 10 mm), Figs 14–19: 14- *C. sundaicus* (Oberthür, 1883), female from Sumatra Island, Indonesia (compared with Bates' lectotype deposed in MNHN), habitus, dorsal view; 15- *C. chiangdaoensis* (Häckel et Kirschenhofer, 2014), HT (compared with HT of *C. kiwlomensis* Häckel et Kirshenhofer, 2014), habitus, dorsal view; 16- *C. gracilipes* (Bates, 1892), female from Chitwan Nat.Park, Nepal (compared with Bates' lectotype deposed in MNHN), habitus, dorsal view; 17- *C. microspilotus* Andrewes, 1924, female from Sri Lanka, habitus, dorsal view; 18- *C. kathmanduensis* Kirschenhofer, 2004, female from Chitwan Nat.Park, Nepal (compared with HT deposited in cDW), habitus, dorsal view; 19. *C. hilaris* (LaFerté-Sénectere, 1851), female from Maharahstra, India (compared with Bates' cotype deposed in MNHN), habitus, dorsal view.

C. microspilotus Andrewes, 1924
(Fig. 17)

Andrewes 1924a: 131 (type loc. "Ceylon"), 1930: 136, 1933: 1; Kirschenhofer 2000: 324, 330; Kirschenhofer 2011: 47; Häckel et Farkač 2012: 77. Häckel et Kirschenhofer, 2014b: 314.

Distribution area. Sri Lanka.

Comments. The female of the species from Ceylon (Sri Lanka) photographed here (Fig. 17) was determined by Kirschenhofer after comparison with the type deposited in the BMNH. At the same time, the species was established by him as the type species of the entire newly created group (Kirschenhofer 2000: 330).

C. kathmanduensis Kirschenhofer, 2004
(Fig. 18)

Kirschenhofer 2004: 267 (type loc. "Nepal, Umgeb. Kathmandu, Gokarna Ban"). Kirschenhofer 2011: 47; Häckel et Farkač 2012: 77. Häckel et Kirschenhofer, 2014b: 291.

Distribution area. Nepal.

Comments. The taxon was originally described without inclusion in a species groups, but in the key provided by the author it is included among species of the *C. microspilotus* group for differentiation (Kirschenhofer 2004: 268). In another work, the authors left it alone (Häckel et Kirschenhofer 2014b: 291). In this paper it is confirmed that it is a taxon that meets the criteria for inclusion in the *C. microcpilotus* group, as it is the species morphologically closest to the typical species of the group (*C. microspilotus* Andrewes, 1924).

Craspedophorus halyi Andrewes, 1923

Andrewes 1923: 233 (type loc. "Ceylon, Niroddumunai"); Kirschenhofer 2000: 323; Häckel et Farkač 2012: 78. Häckel et Kirschenhofer: 2014b: 302.

Distribution area. Sri Lanka.

Comments. According to the description, the species can be classified in the group *C. microspilotus* sensu Fedorenko 2016, but the type has not been seen (and cannot confirm the inclusion). According to Andrewes it is deposited in the BMNH and the paratype in the Museum in Colombo (today Sri Lanka National Museum). For confirmation, it will be necessary to compare the type species with the type of *C. lankaensis* Häckel et Kirschenhofer, 2014b.

Craspedophorus obesus Louwerens, 1953

Louwerens, 1953: 313 (type loc. "Soë" [=Indonesia: East Nusa Tenggara: Timor Barat]). Kirschenhofer 2000: 324; Häckel et Farkač 2012: 78.

Distribution area. Indonesia (Lesser Sunda Isl., Timor).

Comments. According to the description, the species can be classified in the group *C. microspilotus* (sensu Fedorenko 2016) but the author has not seen the type and therefore cannot confirm the inclusion. For confirmation, it will be necessary to compare the type species with the type of *C. buruensis* Häckel et Kirschenhofer, 2014b. According the author Louwerens, the type is deposited in Leiden (today Naturalis Biodiversity Center), Netherlands.

Species excluded from the *C. microspilotus* group:

C. maharashtraensis Kirschenhofer, 2011

Kirschenhofer 2011: 43 (type loc. "India- Maharashtra state. Western Ghats Mts., Panchgani Wai env."). Häckel et Farkač 2012: 77. Häckel et Kirschenhofer, 2014b: 308.

Distribution area. India (Maharashtra).

Comments. The author has not examined the type recently and therefore cannot confirm its inclusion in the new concept of *C. microspilotus* sn. Fedorenko 2016. Although the author of the description himself classifies it in the *C. microspilotus* group (Kirschenhofer 2011: 47), a number of characters directly in the description exclude the species from the group, especially the shape of the metepisterna ("transverse, slightly oblique, wider than long, barely narrowed towards the back" see in Kirschenhofer: 2011: 43) which indicates a brachypterous species. Even the shape of the body and pronotum are not similar to other species of the group. Until the type has been examined, it proposed to remove this species from the group and leave its group placement as uncertain ("incertae sedis") until the type is reexamined. According to the author, the type is deposed in cRK.

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