

# MROCKOWSKIELLA GEN. NOV. AND REVISION OF THE GENUS DECOPHTHALMUS CHEVROLAT, 1878 (COLEOPTERA: CURCULIONIDAE: BRACHYDERINAE: DERMATODINI)

JAROSŁAW KANIA

Zoological Institute, University of Wrocław, Sienkiewicza 21, 50-335 Wrocław, Poland

**Abstract.** — *Mrockowskiella* gen. nov. is proposed, with the type species *Rhinosomphus albolineatus* Hustache, 1919. The genus *Decophthalmus* Chevrolat, 1878 is monotypic. *D. venustus* (Faust, 1886) [= *Epilaris venusta* Faust, 1886] and *D. venustulus* Hustache, 1939 [= *D. venustus* Hustache, 1931, nec Faust] are new synonyms of *D. albiventris* Chevrolat, 1878. Lectotypes are designated for *Epilaris venusta* Faust and *D. venustus* Hustache.



**Key words.** — Coleoptera, Curculionidae, Brachyderinae, Afrotropical Region, taxonomy, synonyms, *Mrockowskiella* gen. nov., *Decophthalmus*.

## INTRODUCTION

In my revision of the genus *Rhinosomphus* Fairmaire, 1896 (Kania 1995) I erected the genus *Burakowskiella* to accommodate most Afrotropical species. *Rhinosomphus albolineatus* Hustache, 1919, which differs in many characters from the members of *Burakowskiella*, was transferred to the genus *Decophthalmus* Chevrolat, 1878. After examining materials of *Decophthalmus* I came to a conclusion that *D. albolineatus* occupied an isolated position in the tribe Dermatodini. It is characteristic in having a mixture of characters of the E African *Burakowskiella* and W African *Decophthalmus*, at the same time being distinct in the structure of rostrum and head and in scale-covered body. For this reason I propose a new genus *Mrockowskiella* for *D. albolineatus* (Hust.).

The genus *Decophthalmus* was erected by Chevrolat (1878) on *D. albiventris*. In 1886 Faust described *E. venusta* in the genus *Epilaris* Pascoe, 1882, and a few years later he transferred the species to the genus *Decophthalmus* (Faust 1894). Hustache (1931), studying Faust's collection, described *Decophthalmus venustus* based on specimens different from the type series of *E. venusta*, influenced by the name on the label and probably not knowing Faust's paper of 1894. The authors of „Coleopterorum Catalogus“ (Emden and Emden 1939) gave a new name *D. venustulus* to *D. venustus* sensu Hustache. After examining the types of the species described in the genus *Decophthalmus* and of *E. venusta*, I think that *Decophthalmus* is a monotypic genus, its only species *D. albiventris* Chevrolat being very much variable individually.

The studied material came from the following collections and institutions (curator names given in parentheses):

- JK – coll. J. Kania, Wrocław, Poland;
- MiZPAN – Muzeum i Instytut Polskiej Akademii Nauk, Warsaw, Poland (S. A. Ślipiński, D. Iwan);
- MRAC – Muséum Royal d'Afrique Centrale, Tervuren, Belgium (H. M. André);
- SMTD – Staatliches Museum für Tierkunde, Dresden, Germany (R. Krause);
- NRS – Naturhistoriska Riksmuseet, Stockholm, Sweden (P. Lindskog);
- MNHP – Muséum National d'Histoire Naturelle, Paris, France (H. Perrin).

## TAXONOMY

*Mrockowskiella* gen. nov.  
(Figs 2–4, 8, 10, 11, 23, 24)

**Type species.** *Rhinosomphus albolineatus* Hustache, 1919. Gender: feminine.

**Etymology.** Named in honour of Professor Maciej Mrockowski, an outstanding entomologist, on his 70th birthday.

**Diagnosis.** The new genus is the most similar to *Decophthalmus* and *Burakowskiella*. The three genera share among others the eyes protruding strongly outside the head outline (Figs 15, 16, cf. also Kania 1995: Figs 22, 23, 85) and strongly raised and compact scales on head and pronotum, where they form characteristic folds (Fig. 1, Kania 1995: Figs 22, 85). Besides, the new genus shares with *Decophthalmus* a fringe of scales at the base of ely-



Figure 1. *Decophthalmus albiventris*, female

tra (absent in *Burakowskiella*), almost equal width of the upper and underside of rostrum (in *Burakowskiella* the upperside much narrower than the underside), structure of lateral costae on rostrum – they are distinctly raised and tubercle-like thickened at base, and the upper side of rostrum between them is clearly concave, the bottom of the concavity (Figs 15, 16) (in *Burakowskiella* lateral costae variously shifted towards the rostrum long axis, its upperside not concave – a character well visible only after the scales have been removed) and foveolate elytral rows (in *Burakowskiella* only punctate). The new genus shares with *Burakowskiella* rostrum constricted at half length (in *Decophthalmus* parallel-sided). On pronotum in *Mroczkowskiella* there is a distinct white median groove covered with short scales (in *Decophthalmus* no such

groove under the scales), scutellum present (in *Decophthalmus* reduced), a characteristic sclerite in the internal sac of the aedeagus (Figs 2, 3, 10; cf. also Kania 1995). Such a structure of sclerites of internal sac of the aedeagus is also characteristic of some other members of the tribe *Dermatodini*, distributed also in the Orient, e.g., *Antinia eupleura* Pascoe, 1871 (Kania and Dąbrowska 1995: Figs 9, 10). Moreover, adherent scales on elytra, like in members of the genera *Ochtharthrum* Faust, 1890, *Antinia* Pascoe, 1871 and *Burakowskiella*, etc. (cf. Kania 1994, 1995, Kania and Dąbrowska 1995), adhere to the elytra with almost entire surface and overlap tile-like (adherent scales on elytra in *Decophthalmus* are arranged differently – see description of *D. albiventris*). Distinctive characters of *Mroczkowskiella* are: vestigial median furrow on frons, delicately marked as a result of reduction of scales in that place, absence of median costa on rostrum (only transverse groove separating rostrum from head is divided in middle by a delicate low costa), less protruding eyes, and absence of strongly erect scales and setae on the upperside of body (Kania 1995: Figs 83, 84) (in *Decophthalmus* on the upperside of body strongly erect broad scales as in Figs 26–30, in *Burakowskiella* long setae (Kania 1995: Figs 21, 36, 51, 76, 77).

**Description.** Body length 10.1–14.9 mm, width 4.6–6.0 mm.

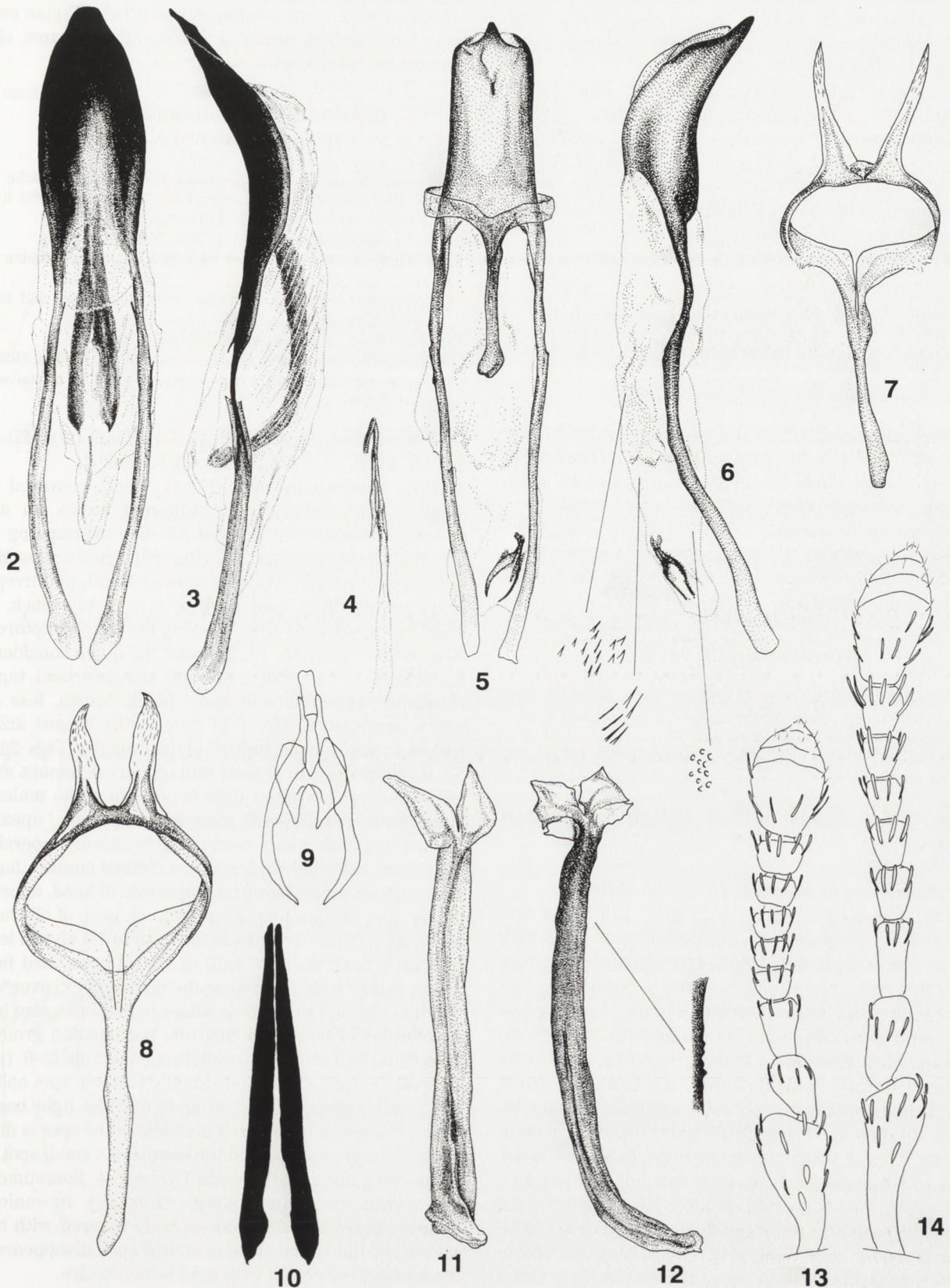
Body black, elongate, somewhat ovate (Kania 1995: Figs 85, 86). Elytra covered with adherent, tile-like overlapping scales and slightly erect scales, the latter 2.0–3.5 × longer than the adherent scales (Kania 1995: Figs 83, 84). On head, rostrum and pronotal disc erect scales strongly compact, of varied length, giving an impression of adherent scales (Figs 23, 24). Beige and creamy scales on elytra form a striped pattern, odd intervals lighter.

Head strongly constricted behind eyes, separated from rostrum by a deep transverse furrow slightly divergent anteriorly. Eyes strongly protruding outside from head outline, somewhat unevenly convex. Frons trough-like concave. Median furrow on frons vestigial, its presence marked mainly by a lack of scales (under scales in the region of median furrow a pair of equally delicately marked lateral furrows, completely masked by scales). Rostrum in male 1.21 ×, in female 1.20 × as wide as long, a widest at base, to half length somewhat narrowed, then parallel-sided, on the upperside concave. Median costa of rostrum reduced (see diagnose of the genus), lateral costae distinct, tubercle-like widened at the base of rostrum. Antennae long (Kania 1995; Fig. 88).

Pronotum slightly wider than long, almost cylindrical with two pairs of median and paramedian folds. Median groove shallow and wide on its whole length, paramedian groove narrower, indistinct on anterior half, lateral groove vestigial (Kania 1995: Figs 85, 86).

Scutellum oval.

Elytra long, slightly rounded, almost parallel-sided. Humeri distinct, rounded. Intervals convex, especially the odd ones. Rows foveolate with fine punctures separated by



Figures 2–14. 2–4, 8, 10, 11. *Mroczkowskiella albotineata*; 5–7, 9, 12–14. *Decophtalmus albiventris*. 2, 3, 5, 6. Aedeagus: (2, 5) ventral; (3, 6) lateral. 4, 9, 10. Sclerite in internal sac of aedeagus. 7, 8. Tegmen. 11, 12. Spiculum gastrale. 13, 14. Antenna: (13) male; (14) female.

1.7–2.5 puncture length. Base of elytra with a fringe of long and wide scales leaning anteriorly (Kania 1995: Fig. 85).

Wings functional.

Legs long, corbels enclosed, tarsi rather long (Kania 1995: Figs 91, 92), claws connate, of equal length.

Abdominal sternites in female as in Kania 1995: Fig. 90, in male the last visible abdominal sternite longitudinally concave.

Male genitalia as in Figs 2–4, 10, for female see Kania 1995: Figs 87, 89.

Sexual dimorphism poorly marked, male slightly smaller.

***Mroczkowskiella albolineata*** (Hustache) comb. nov.

*Rhinosophus albolineatus* Hustache, 1919: 63; Emden and Emden 1939: 229.

*Decophthalmus albolineatus*: Kania 1995: 554.

**Remarks.** Redescription of the species, based on female, was presented in my earlier paper (Kania 1995). The male is somewhat smaller (body length 10.1 mm, width 4.6 mm). Body shape and scale cover are similar in both sexes.

**Distribution.** Tanzania

**Material examined.** Tanzania: Tanga, Afrique orientale All<sup>de</sup>, Févière, *Rhinosophus albolineatus* Hust., coll. Hustache (1 male, MNHP).

***Decophthalmus*** Chevrolat

*Decophthalmus* Chevrolat, 1878: LXV; Faust 1894: 360, 1895: 316; Hustache 1917: 196, 1924: 40; Emden 1936: 216, 1944: 536; Emden and Emden 1939: 223; Kania 1995: 542.

*Epilaris*: Faust 1886: 342, 1894: 360 (nec Pascoe, 1882); Emden and Emden 1939: 223.

Type species: *Decophthalmus albiventris* Chevrolat (by monotypy).

**Diagnosis.** See diagnosis of *Mroczkowskiella* above.

**Description.** Body length 10.3–14.2 mm, width 4.1–5.6 mm.

Body black, elongate oval (Fig. 1), thickly covered with adherent and erect scales. Head separated from rostrum by a transverse groove. Eyes strongly protruding, on stalks. Frons with a distinct median furrow. Rostrum flattened on the upperside, roughly parallel-sided, with median and lateral costae, and a transverse costa at the level between base of antennae and apex of rostrum. Antennal scrobe strongly widened posteriad, invisible in dorsal view (Figs 15, 16). Antennae short, especially in male. Pronotum almost as long as wide, constricted just behind anterior margin, with a shallow median groove and deeper paramedian grooves; lateral grooves absent. Median folds wide and flat. Elytra nearly parallel-sided, weakly convex, with distinct humeri. Elytral base with a thick fringe of strongly erect scales. Elytral intervals (11) convex, 1, 3 and 5 much higher than the remaining ones (Fig. 1). Elytral rows narrow, delicately foveolate, each puncture provided with a wide scale. Scutellum absent. Wings functional. Legs long,

fore tibiae with a spine on apex and a tuft of setae on the inner side, corbels enclosed. Tarsi rather narrow, claws connate, of equal length.

***Decophthalmus albiventris*** Chevrolat  
(Figs 1, 5–7, 9, 12–22, 25–31)

*Decophthalmus albiventris* Chevrolat, 1878: LXVI; Hustache 1917: 196, 1931: 75; Emden and Emden 1939: 223; Richard 1983: 6.

*Decophthalmus albirostris* [sic!] Chevrolat, 1878: 128.

*Epilaris venusta* Faust, 1886: 341, 1894: 360, **syn. nov.**

*Decophthalmus venustus*: Faust 1894: 360; Emden and Emden 1939: 223.

*Decophthalmus venustus* Hustache, 1931: 75; Emden and Emden 1939: 223, **syn. nov.**

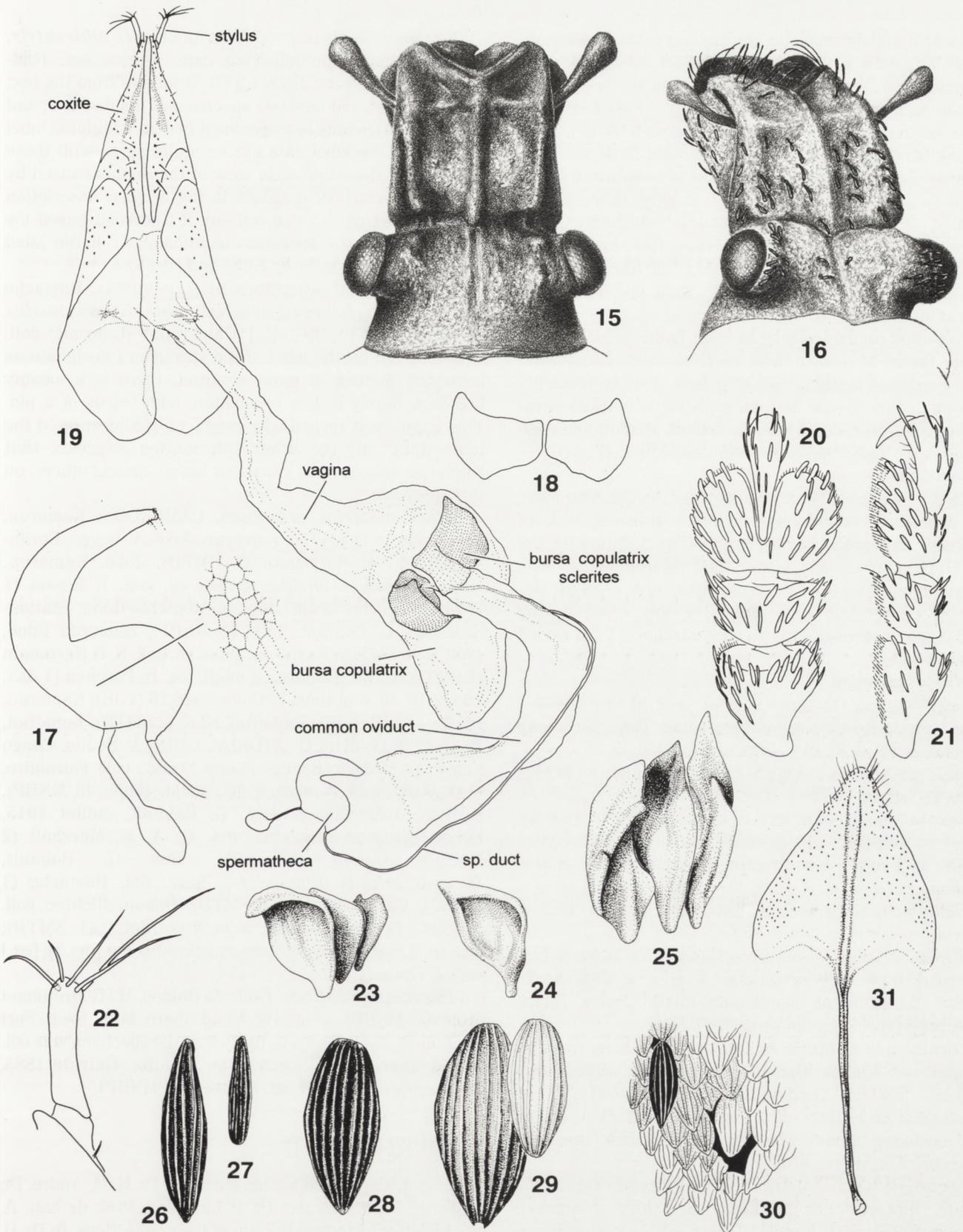
*Decophthalmus venustus* [sensu?]: Emden 1936: 216.

*Decophthalmus venustulus* Hustache: Emden and Emden, 1939: 223 (replacement name for *Decophthalmus venustus* Hustache, nec Faust, 1886).

**Description.** Body length 10.3–10.8 mm (m), 12.1–14.2 mm (f), width 4.1–4.6 mm (m), 4.9–5.6 mm (f).

Body elongatedly oval (Fig. 1), thickly covered with adherent and erect scales. Adherent scales on elytra strongly elongate and tapered, tile-like overlapping (Fig. 30). Pronotum, head and rostrum with erect scales of two kinds: one strongly raised, of uneven length and irregular shape, white, light- and dark brown, rarely black, they form a compact layer thus masking the body sculpture to a large extent (Figs 15, 16, 25); and the other considerably larger erect scales, oval or strongly elongate, bent, tapered or slightly emarginate at apex, black, brown, less often white, arranged singly or in groups, the largest and the widest in the second half of elytral length (Figs 26–29). Scales on underside of body and on part of femora adherent, white or less often light brown (in some males), of pearl sheen, roughly oval, sometimes tapered at apex, tile-like overlapping or only contacting. Scales on upperside of body form, especially in females, a distinct contrasting pattern. Lighter scales cover the upperside of head, upperside of rostrum, median folds on pronotum, base of elytra over intervals 1–3, interval 1 from the base to 1/4 elytral length, interval 8 from humeral calli to elytral apex, and form a white, rather wide band near the elytral apex, over whole width of elytra. Dark brown scales (sometimes also black) cover sides of head and rostrum, paramedian groove on pronotum and sides of pronotum, intervals 2–6 (partly interval 7), and form an individually variable spot on intervals 1–6 between the elytral apex and the light band; in more contrastingly coloured individuals the spot is divided in two: a larger spot behind the band and a small spot close to the very apex on intervals 1–3 or 1–4. Sometimes the colouration less contrasting, especially in males, in extreme cases the upperside of body covered with brown scales, the light band close to elytral apex disappears, and the underside covered with light brown scales.

Head strongly constricted behind eyes, separated from rostrum by a transverse groove (Fig. 16); the groove wide (only visible when scales removed, as in Fig. 15), deepest



Figures 15–31. 15–22, 25–31. *Decophthalmus albiventris*; 23, 24. *Mrockowskiella albolineata*. 15, 16. Head, female: (15) top view with scales removed; (16) oblique lateral view, scales covered. 17–19, 22, 31. Female reproductive system: (17) spermatheca; (18) sclerite in bursa copulatrix; (19) general structure diagrammatic; (22) stylus; (31) sternite VIII. 20, 21. Fore tarsus, male. 23–27. Scales on pronotum. 28–30. Scales on elytra: (28, 29) at half length; (30) at base.

on sides, in middle separated by median costa of rostrum. Frons flat, with a shallow but distinct median furrow extending from median costa of rostrum to the base of eyes. Eyes strongly protruding, on stalks (Figs 1, 15, 16). Male rostrum 0.97–1.18 ×, female rostrum 1.13–1.17 × as long as its width at base, on the upperside flattened, with a distinct median costa (high, narrow, of even width on its entire length), lateral costae (strongly tubercle-like widened at base of rostrum) and a transverse costa between rostral apex and antennal base. Rostrum widened towards apex in both sexes or slightly narrowed in some females. Antennae short, especially their club-like scape thick (Figs 13, 14).

Pronotum roughly as long as wide, in male 0.84–1.07, in female 0.88–1.11 wider than long, strongly constricted behind anterior margin, widest at base, with a delicately marked median groove and more distinctly marked paramedian grooves. Lateral grooves absent. Median fold wide and not very high. Pronotum bisinuate at base (Fig. 1).

Scutellum absent.

Elytra straight, almost parallel-sided, longer than wide, with distinct, rounded humeri, in males widest at the level of humeri, in females at half length (Fig. 1). Intervals 1, 3 and 5 distinctly convex, higher than the remaining ones. Rows narrow, foveolate. Punctures oval, fine, each provided with a large and wide scale (Fig. 30), separated by 1.5–2.0 puncture length. Elytra with a fringe of long, raised scales at base.

Wings functional.

Legs long, on the inner side of apex of fore tibiae a spine surrounded by a tuft of light setae. Tarsi fairly long and narrow (Figs 20, 21), claws of equal length.

Male genitalia as in Figs 5–7, 9, 12, in female as in Figs 17–19, 22, 31.

Sexual dimorphism distinct, males much smaller, widest at humeral calli (females roughly at half elytral length), as a rule less contrastingly coloured, with shorter antennae.

**Distribution.** Cameroon, Equatorial Guinea, Gabon, Nigeria.

**Types.** Type [?] of *Decophthalmus albiventris* Chevrolat, male (see remarks): “N. Gen. V. Calabar, D. Murray” [black ink on blue, handwritten]; “Typus” [black print, red]; [specimen not dissected]; NRS.

Lectotype of *Epilaris venusta* Faust, female (present designation): “Gabon, Baden” [black ink on white, handwritten]; “*Epilaris venusta* Faust” [as above]; “Type” [black print on red]; “Coll. J. Faust, Ankauf 1900” [black print on blue]; “Staatl. Museum für Tierkunde Dresden” [black print on white]; SMTD.

Lectotype of *Decophthalmus venustus* Hustache, female (present designation), (see also remarks): “Kamerun, Lolodorf, Kraatz” [black ink on white, handwritten]; “*Decophthalmus venustus* Fst” [as above]; “Fst vid” [as above]; “Staatl. Museum für Tierkunde Dresden” [black print on white]; SMTD.

**Remarks.** In his original description of *D. albiventris*, Chevrolat listed the following data: “Africa occ. (Old-Calabar)” (Chevrolat 1878: LXVI). It follows from the text that Chevrolat had only one specimen at his disposal, and in his collection only one specimen had an additional label „type“, and the label data did not quite agree with those given in the description. In view of the doubts caused by the inconsistency of the data in the original description and the label data, I can not say if Chevrolat based his description on the specimen mentioned, or if the label „type“ was added later by collection curators.

In his original description of *D. venustus*, Hustache (1931) gave the following data: *Decophthalmus venustus* n. sp. (Faust in litt). [...] Cameroon, (Conradt, coll. Kraatz)”, but on the label of the specimen I designate as lectotype, instead of name Conradt, there is a locality Lolodorf, barely legibly handwritten, with traces of a pin. This might be a reason why Hustache misinterpreted the label data. All the other information suggests that Hustache described *D. venustus* based, among others, on this specimen.

**Other material examined.** CAMEROON: Kamerun, Joko, 1926 16 (1 SMTD); Kamerun, Joko, A. Heyne, Berlin-W, coll. K. F. Hartmann (1 SMTD); Joko, Kamerun, *Decophthalmus venustus* Faust, ex. coll. F. Kessel (1 MiZPAN); Afriq. Occid. Johann-Albrechts-Höhe, Station-Kamerun, L. Conradt, 1896 (1 MNHP); Kamerun Edea, 1909 15 (5 SMTD); Kamerun, Dibonga, coll. K. F. Hartmann (1 SMTD, 1 JK); Kamerun, Longji, leg. H. Paschen (1 JK); Longji 10. 10. Süd Kam, L. Colin, 1926 16 (1 JK); Kamerun, 12. 94 – 1. 95 (1 JK); Kamerun, 8240 (2 SMTD); Kamerun, Rohle [?], (1 JK). EQUATORIAL GUINEA: Bénito, Congo Franç. (2 MNHP); Bénito, Congo Franç., coll. Fairmaire, *Decophthalmus venustus*, det. K. M. Heller (3 MNHP). GABON: Libreville et env., G. Babault, Juillet 1915, *Decophthalmus venustus*, det. G. A. K. Marshall (2 MNHP); Gabon, Libreville, Don G. Babault, *Decophthalmus albiventris* Chev., det. Hustache (1 MRAC); Gabon, Kirsch (1 SMTD); Gabon, Richter, coll. J. Faust, *Decophthalmus venustus* (det?) (1 SMTD); Gabon, Kraatz, *Decophthalmus venustus* Fst [det. ?], [ex.] coll. J. Faust (1 JK).

**Uncertain localities.** Golfe de Guinee, M MT Bretonnet 1928 (1 MNHP) – in SW Chad there is a town Fort Bretonnet, but it seems unlikely that the specimen was collected there. Congo Riv. San Benito, Guiral, 1885, *Decophthalmus albiventris* [det ?] (1 MNHP).

## ACKNOWLEDGMENTS

I am grateful to collection curators: Dr. H. M. André, Dr. D. Iwan, Dr. R. Krause, Dr. P. Lindskog, Prof. dr hab. A. Ślipiński for giving me the run of their collections, to Dr. H. Perrin for providing me with working facilities and for the nice atmosphere during my stay in Paris, to Prof. dr hab. L. Borowiec (Zoological Institute, Wrocław University) for

finding and borrowing *D. albiventris* from Chevrolat's collection in Stockholm, and to Dr. B. M. Pokryszko (Museum of Natural History, Wrocław University) for the English translation.

## REFERENCES

- Chevrolat A. 1878. [*Decophtalmus* (gen. nov.) *albirostris* [sic!]]. Bulletin des Séances de la Société Entomologique de France, 8: LXV–LXVI.
- Emden F. [I.] van 1936. Die Anordnung der Brachyderinae-Gattungen im Coleopterorum Catalogus. Stettiner Entomologische Zeitung, 97: 66–99, 211–239.
- Emden F. I. van 1944. A key to the genera of Brachyderinae of the world. Annals and Magazine of Natural History, (Ser. 11) 11: 503–532, 559–586.
- Emden M. van, Emden F. [I.] van 1939. Curculionidae: Brachyderinae III. In: W. Junk, S. Schenkling Coleopterorum Catalogus, 164: 197–327.
- Faust J. 1886. Neue exotische Rüsselkäfer. Deutsche Entomologische Zeitschrift, (2) 30: 337–372.
- Faust J. 1890. Neue Rüsselkäfer aller Länder. Entomologische Zeitung herausgegeben von dem entomologischen Vereine zu Stettin, 51: 165–195.
- Faust J. 1894. Notizen über Rüsselkäfer. Entomologische Zeitung herausgegeben von dem entomologischen Vereine zu Stettin, 55: 358–361.
- Faust J. 1895. Curculioniden aus der Aethiopischen Region. Entomologische Zeitung herausgegeben von dem entomologischen Vereine zu Stettin, 56: 303–329.
- Hustache A. 1917. Synopsis du Genre *Stigmatrachelus* Schoenh. et autres genres du meme groupe (Col. Curculionidae). Annales de la Société Entomologique de France, 86: 193–266.
- Hustache A. 1919. Curculionidae nouveaux de l'Afrique Tropicale. Annales de la Société linnéenne de Lyon, 66: 45–67.
- Hustache A. 1924. Synopsis des Curculionides de la faune malgache. Bulletin de l'Académie malgache. (N. S.), 7: [1–3]–582.
- Hustache A. 1931. Curculionides nouveaux de l'Afrique Équatoriale (1<sup>e</sup> partie.). Sborník entomologického oddělení Národního Musea v Praze, 9: 11–83.
- Kania J. 1994. Revision of the weevil genus *Ochtharthrum* Faust, 1890 (Coleoptera: Curculionidae: Brachyderinae). Genus, 5(4): 269–295.
- Kania J. 1995. *Burakowskiella* gen. nov., with notes on related genera (Coleoptera: Curculionidae: Brachyderinae). Genus, 6(3–4): 541–574.
- Kania J. and Dąbrowska A. 1995. Revision of the genus *Antinia* Pascoe, 1871 (Coleoptera: Curculionidae: Brachyderinae). Genus, 6(3–4): 493–518.
- Pascoe F. P. 1871. Contribution towards a knowledge of the Curculionidae. The Journal of the Linnean Society. London, (Zoology), 11: 154–218, 4 pls.
- Richard R. 1983. Insectes, Coléoptères, Curculionidae, Stigmatrachelini. Faune de Madagascar 62, Orstom, CNRS, Paris, 1983, 194 pp.

Received: February 17, 1997  
Accepted: April 18, 1997

Corresponding Editor: D. Iwan  
Issue Editor: D. Iwan