

# REVISION OF THE TRIGONOPOID PLATYNOTINA (COLEOPTERA: TENEBRIONIDAE: PLATYNOTINI) FROM SOUTH AFRICA. PART V. GENERA *CRYPTICANUS* FAIRMAIRE, 1897 AND *ATROCRYPTICANUS* GEN. NOV.

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**Abstract.**— The genus *Crypticanus* Fairmaire, 1897 (type species: *Crypticanus cuneatus* Fairmaire, 1897) of the trigonopoid Platynotina is re-interpreted, revised and illustrated. Ten new species are described: *C. aequus*, *C. aeternus*, *C. bremeri*, *C. brzeskii*, *C. dentatus*, *C. iubatus*, *C. lacrimosus*, *C. robustus*, *C. simplex*, *C. supervacaneus*. The following synonym is proposed: *Crypticanus amaroides* (Fähræus, 1870) (= *Melanopterus dilatipes* Koch, 1956). Lectotypes and paralectotypes are designated for: *Melanopterus marginicollis* Mulsant et Rey, 1854; *Melanopterus amaroides* Fähræus, 1870; *Melanopterus edwardsi* Mulsant et Rey, 1854. Keys for species determination are provided. *Atrocrypticanus fraternus* gen. and sp. nov. of the trigonopoid Platynotina is described and illustrated.



**Key words.**— Coleoptera, Tenebrionidae, Platynotini, *Crypticanus*, *Atrocrypticanus*, new genus, new species, taxonomic revision, South Africa.

## INTRODUCTION

The monotypic genus *Crypticanus* was erected in 1897 by Fairmaire for his *C. cuneatus*. In 1956 Koch concluded that *C. cuneatus* Fairmaire, 1897 was a junior synonym of *Melanopterus edwardsi* Mulsant et Rey, 1854. Koch's 1956 interpretation assumes an existence of the still monotypic genus *Crypticanus*, closely related to the speciose *Melanopterus* Mulsant et Rey, and the genus *Atrocates* established by himself.

My interpretation of the genera *Melanopterus* and *Atrocates* was presented in the papers of 1997 and 1998. One of consequences of changes proposed in these two papers is a new interpretation of the genus *Crypticanus*. At present it includes, besides *C. edwardsi*, species previously placed in the genus *Melanopterus* – *marginicollis*, *amicus*, *trivialis*, *amaroides*, *dilatipes* and *incisus*, as well as newly described *robustus*, *brzeskii*, *aeternus*, *lacrimosus*, *bremeri*, *supervacaneus*, *aequus*, *dentatus*, *iubatus*, *simplex*.

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## METHODS AND ABBREVIATIONS

Means and ratios are based on all specimens listed under "Material examined" (8 males and 8 females when specimens were numerous; measurements of genitalia – 1 or 2 specimens). Measurements were taken as follows: width of lateral pronotal border – in the middle of lateral pronotal margin; length of lacinia – from suture of apical and basal parts to apex; length of body – from anterior margin of labrum to elytral apex; width of body – maximum elytral width.

The following abbreviations have been used in the descriptions:

- pl/pb – pronotal length/breadth ratio;
- el/eb – elytral length/breadth ratio;
- el/pl – length ratio elytra/pronotum;
- eb/pb – breadth ratio elytra/pronotum;
- lbp – length of basal part of aedeagal tegmen;
- lap – length of apical part of aedeagal tegmen;
- ll – length of lacinia;
- tl – total length of lacinia;
- c1/c2/c3/c4/c4-c3 – length ratios coxites1/coxites2/coxites3/coxites4/coxites4-coxites3;
- bc1/lc1 – coxites1 breadth/length ratio;
- lp/lc1 – length ratio paraproct/coxites1;
- dod – length of long (inner) spur of hind tibia;
- dok – length of short (outer) spur of hind tibia;
- dtk – length of posterior margin of hind tibia;
- pkp – width of anterior margin of elytra measured from humeral angle to scutellum;
- st – width of scutellum.

## SYSTEMATICS

In 1956 Koch established and described the genus *Atrocates*. It differs from its closest relative – *Melanopterus* Mulsant et Rey – mainly in the structure of mentum (mid part narrowed in *Atrocates*, wide in *Melanopterus*). Koch retained the earlier interpretation of the monotypic genus *Crypticanus* Fairmaire, distinguished based on general habitus (similar to the genus *Crypticus*) and tibial spur structure (elongate). The above-mentioned genera are similar in their pronotum structure (similar border and shape), elytra (anterior margin poorly convex, never bordered), punctuation of dorsal body side (very delicate, most often invisible) and the general structure of male legs.

According to my analyses the ancestral condition is a mentum with well visible lateral wings, and the mid part slightly narrowed anteriorly. Such a mentum is found in members of the genera *Atrocates*, *Bantodemus* Koch (with pillow-like convex mid part), a group of genera with well developed median keel – *Eviropodus* Koch, *Lawrenceus*

Iwan, *Platycharlesus* Iwan, *Warchalowskiellus* Iwan and *Schelodontes* Koch, as well as *Trigonopus* Mulsant et Rey (with very strongly exposed lateral wings, located at the same level as mid part), and also genera of the Madagascan group melanocratoid Platynotina, which are closely related to the trigonopoid Platynotina. Further modifications of this structure consist in widening of its mid part; the process was repeated independently several times in the phylogeny of trigonopoid Platynotina. I can not exclude a transformation consisting in a further narrowing of the mid part (probably in *Trigonopus*). However, in my opinion there was only a single case of elongation of the mid part of mentum with a simultaneous widening and bending of the sides which have formed a gutter – such a condition should be regarded as a derived character which clearly characterizes *Crypticanus*. The process was gradual and for this reason an intermediate state of this character can be distinguished which occurs in species of the genus *Melanopterus* (the genus, contrary to *Crypticanus* has very well convex anterior margin of elytra, with a visible border, and an area of coarse punctures along lateral margins of pronotum), and in the genus *Atrocrypticanus* gen. nov. The latter genus has, like *Atrocates* and *Crypticanus*, a wide lateral border of pronotum (wider than antennal segment 3), whose shape at posterior angles places *Atrocrypticanus* close to *Atrocates* and distinguishes it from *Crypticanus*.

According to the structure of the anterior margin of elytra, trigonopoid Platynotina can be divided in 2 groups. One has a well developed, sharp upper edge reaching humeral angles, the other (including genera *Atrocates*, *Crypticanus*, *Atrocrypticanus*, *Melanopterus*, *Amblychirus* Koch, *Bantodemus*, *Selinopodus* Koch and *Trigonopus*) has no such edge. At present it is difficult to interpret (polarize) these characters – such a development of the upper edge of the anterior margin of elytra is present also in 2 genera of melanocratoid Platynotina (*Styphacus* Fairmaire, *Sebastianus* Iwan). In the second group of genera the anterior margin of elytra gently descends to the lower edge or becomes convex – most often it forms an arc located in the mid part (the process is often correlated with the presence of doubly sinuate pronotal base). The convexity of the anterior part of elytra forms a rounded or keel-like edge (additionally with a border present in the genus *Melanopterus* or some members of *Bantodemus*), the edge however never reaches humeral angles.

The length of tibial spurs in members of *Crypticanus* is much variable. In order to compare this character within the genus I have used two ratios (measurements refer to male hind tibia): dtk/dod – width of posterior margin of tibia/length of longer spur, dod/dok – length of longer spur/length of shorter spur. The values were: dtk/dod = 1.3–3.1, dod/dok = 1.1–2.0 (*C. edwardsi*: dtk/dod = 1.5–1.6, dod/dok = 1.7–1.8). It follows from the data that the spur length in *C. edwardsi* fits within the range of spur length of other members of *Crypticanus*. The fairly wide variation of the obtained values has two reasons: variable thickness of hind tibia (when tibia is thin, the spur is only apparently long) and shortening of spurs as a result of their wear with

individual's age. In my opinion the character is of no special value when analyzing inter-generic relationships within trigonopoid Platynotina.

*Crypticanus* Fairmaire, 1897 sensu novo

*Crypticanus* Fairmaire, 1897: 119. – Gebien 1910: 271; 1938: 291; Koch 1956: 90. Type species, by monotypy: *Crypticanus cuneatus* Fairmaire, 1897.

**Diagnosis.** Like *Atrocrypticanus*, *Amblychirus* and *Melanopterus*, it has wide mid part of mentum (median keel not reaching its anterior margin).

*Crypticanus* resembles *Atrocates* and *Atrocrypticanus* in the structure of anterior margin of elytra (rounded, gently truncate, without strong convexity) and body surface puncturation (upperside practically impunctate), and in wide male fore tarsi; it differs from them in a spade-like elongate anterior part of mentum, border of posterior angles and shape of pronotal base (almost straight in *Crypticanus*, doubly sinuately emarginate in *Atrocates* and *Atrocrypticanus*).

**Description.** Medium-sized and small beetles. Body dark brown to black. Upperside mat or slightly shiny, with a greasy sheen; puncturation delicate, often invisible, elytra at apex densely and distinctly punctate. Underside distinctly shiny, puncturation well visible, moderately dense, punctures medium-sized, sometimes large. Body oval, moderately convex, elytra slightly tucked in posteriorly (small part of interval IX visible from underside); elytra widest at base, narrowing posteriorly, and also trapezoidal pronotum make their general appearance resemble members of *Crypticus* and *Amara*. Head widest anterior to eyes, genal angle wider than eye. Mid part of mentum wide and elongated, with a spade-like concavity; median keel not reaching anterior margin; lateral wings very narrow, barely visible. Eyes narrowed laterally, between gena and tempus 1–4 facets visible. Antenna like in *Trigonopus*. Fronto-clypeal suture poorly marked, practically invisible. Pronotum margins slightly rounded, narrowed anteriorly, most often subparallel for 1/3 length from base (sometimes pronotum trapezoidal, widest at base); base narrowly bordered, straight, sometimes posterior angles produced posteriorly and then base slightly arcuately bent. Lateral border of pronotum fairly wide, often wider than antennal segment 3, at base considerably wider; at posterior angles inner edge of border forms a right angle (between side and base); border of anterior margin well visible. Upper edge of anterior margin of elytra poorly convex, rounded; lower edge strongly and sharply convex, passing into a well developed humeral angle. Elytral intervals most often poorly or moderately convex; punctures in striae small, sometimes disappearing; then striae of sulcate type. Elytral epipleura smooth, at humeral angle slightly bent; upper edge in apical part well visible, epipleura strongly convex, but located dorsally. Last abdominal ventrite bordered. Male fore tarsus widened, mid and hind tarsi narrow (except *C. edwardsi*, in which mid tarsus is also widened); bare, shiny gutters on underside of tarsi: fore tarsus – absent, mid tarsus – 1–4, hind tarsus – 1–3; in females all tarsi narrow, with bare shiny gutters on

underside of all segments. Male fore tibia simple or with sharp, strongly protruding denticles on inner margin. Tibiae in both sexes on underside covered with thorns. Inner margin of male fore femur with a row of setae, mid and hind femur with dense or sparse but always distinct hairs on whole inner surface (except *edwardsi* and *incisus*). General structure of aedeagus, and of female genitalia as in the remaining trigonopoid Platynotina.

**Remarks.** The structure of male fore and mid tibiae and of pronotum make it possible to divide species of the genus *Crypticanus* in two groups. One is characterized by the following characters: on inner margin of male fore tibia 1 or 2 denticles (exception *C. amicus*); male mid tibia straight with an apical denticle on inner side; pronotum sides slightly rounded or subparallel at base, along lateral border on its whole length a longitudinal gutter. The group includes: *aequus*, *aeternus*, *amicus*, *bremeri*, *brzeskii*, *dentatus*, *lacrimosus*, *marginicollis*, *robustus* and *supervacaneus*. The other group comprises: *amaroides*, *edwardsi*, *incisus*, *iubatus*, *simplex* and *trivialis*. In these species the male fore tibia is devoid of denticles, the inner margin of male mid tibia is S-like bent, and the shape of pronotum is trapezoidal, while the gutter along the lateral border is absent or disappears in anterior part of pronotum.

Most characters that make it possible to identify species (used in the key and diagnoses) are associated with the structure of male legs which precludes exact determination of females. In such cases the following characters should be taken into account (see species descriptions): structure of mentum, shape of pronotum and lateral border, convexity of intervals and concavity of striae, shape of prosternal process, structure of hind tibiae (convexity of outer margin, shape of spurs).

**Distribution.** South Africa (southern part of Cape Province).

#### KEY FOR SPECIES DETERMINATION

1. Male fore tibia simple or with a blunt denticle on inner side (Figs 16–17, 71–72)..... **2**
- . Male fore tibia with 1 or 2 sharp denticles on inner side ... **8**
2. Prosternal process flat or truncate at apex; elytral intervals moderately or poorly convex; male mid tibia without denticle or with a subapical denticle ..... **3**
- . Prosternal process saddle-like; elytral intervals strongly convex; male mid tibia with an apical denticle on inner side ..... **amicus**
3. Elytral intervals moderately convex, striae well visible; male mid tarsus narrow (Figs 44–45); inner side of male hind femur flat (Fig. 94) ..... **4**
- . Elytral intervals practically flat, striae poorly visible; male mid tarsus widened (Figs 58–59); inner side of male hind femur with a sharp denticle (Fig. 53)..... **edwardsi**
4. Inner margin of male mid tibia S-like bent (Figs 19–20) ..... **5**
- . Inner margin of male mid tibia straight (Figs 120–121) ..... **simplex**

5. Inner side of male fore tibia simple (Figs 16–17, 130–131)..... **6**  
 – Inner side of male fore tibia with a blunt tubercle (Figs 71–72, 85–86)..... **7**
6. Inner margin of male fore tibia with a narrow gutter (Fig. 131); inner margin of male mid tibia weakly S-like bent before apex (Figs 132–133) ..... **trivialis**  
 – Inner margin of male fore tibia with a wide gutter (Fig. 16); inner margin of male mid tibia strongly S-like bent before apex (Figs 19–20)..... **amaroides**
7. Prosternal process produced towards mesosternum; male fore tibia as in figs 71–72, mid tibia moderately widened (Figs 73–74); all male femora bare on inner side (at anterior margin there may be a row of very sparse hairs)..... **incisus**  
 – Prosternal process obliquely truncate downwards; male fore tibia as in figs 93–94, mid tibia strongly widened (Figs 87–88); all male femora densely hairy on inner side (Figs 90–92) ..... **iubatus**
8. Inner side of male fore tibia with 1 denticle ..... **9**  
 – Inner side of male fore tibia with 2 denticles ..... **13**
9. Prosternal process completely bordered; outer side of male mid tibia with an impression (Fig. 5) ..... **10**  
 – Prosternal process with border interrupted at apex; outer side of male mid tibia flat (evenly convex) (Fig. 13) ..... **11**
10. Elytral intervals flat, striae shallow; prosternal process truncate; male fore tibia as in figs 3–4; hind tibia thickened ..... **aequus**  
 – Elytral intervals strongly convex, striae deep; prosternal process saddle-like; male fore tibia as in figs 123–124; hind tibia moderately thick ..... **supervacaneus**
11. Prosternal process flat ..... **12**  
 – Prosternal process saddle-like ..... **dentatus**
12. Pronotum as in figs 7–8; denticle on inner side of male fore tibia sharp, long (Figs 10–11) ..... **aeternus**  
 – Pronotum as in fig. 77; denticle on inner margin of male fore tibia rectangular and short (Figs 82–83) .. **lacrimosus**
13. Inner side of male mid tibia flat ..... **14**  
 – Inner side of male mid tibia with an impression ..... **bremeri**
14. Elytral intervals moderately convex, striae relatively deep (Fig. 97)..... **15**  
 – Elytral intervals practically flat (especially on disc), striae shallow (Fig. 36)..... **brzeskii**
15. Male mid and hind tibiae moderately widened (Figs 103–105); outer side of hind tibia rounded or slightly flattened ..... **marginicollis**  
 – Male mid and hind tibiae strongly widened (Figs 114–115); outer side of hind tibia with a longitudinal gutter..... **robustus**

*Crypticanus aequus* sp. nov.  
 (Figs 1–6)

**Name derivation.** Latin adjective, *aequus*: even, flat.

**Terra typica.** “Caffrariae” [South Africa, Cape Province].

**Diagnosis.** *C. aequus*, with *bremeri* and *supervacaneus*, forms a group characterized by a specific structure of the male mid tibia (a deep concavity on dorsal side, resulting in an inward bent of the tibia). The structure of the male fore tibia, provided with 1 denticle, places the species close to *supervacaneus*, and distinguishes it from *bremeri* (2 denticles).

*C. aequus* differs from the above mentioned species in the structure of prosternal process (bent downwards) and in flat intervals and very shallow striae.

**Description.** Body length 13.5 mm, pl/pb = 0.67, el/eb = 1.24, el/pl = 1.88, eb/pb = 1.01 (elytra slightly wider than pronotum). Head and elytral intervals sparsely and delicately punctate, pronotum practically smooth. Underside of body slightly shiny, abdominal ventrites with shallow wrinkles at posterior margin, last two ventrites delicately but distinctly punctate; prosternum and episternum practically smooth. Eyes narrowed laterally, between gena and tempus 3 facets visible. Length of antennal segment 3 ca. 2.0, length of segment 2. Anterior angles of pronotum rounded, not produced anteriorly; posterior angles obtuse, widely rounded; lateral border of the same width as antennal segment 3; along border a fairly deep gutter running along whole length of lateral margin. Pronotum sides very clearly rounded, widest at 1/2 length from base (Fig. 1). Pronotal base slightly narrower than base of elytra. Scutellum of medium width, pkp/st ratio ca. 2.6. Elytral intervals not convex, flat; striae very shallow, disappearing on disc (single punctures and streaks visible) (Fig. 2). Prosternal process very strongly bent downwards, with a well developed border. Male legs: ratio of segments 1:2 of hind tarsi ca. 1.7; inner side of fore tibia with a sharp, strongly protruding single denticle (Figs 3–4); mid tibia with a row of setae and a well visible apical denticle on inner side, on outer side a fairly deep, double concavity which makes tibia bent inwards (Figs 5–6); outer margin of hind tibia somewhat rounded, slightly flattened, with a row of dense setae inside, dtk/dod ratio ca. 2.1, dod/dok ratio ca. 2.1. Aedeagus: lap/lbp/l1 = 1.0/2.5/0.7.

**Types.** Holotype: male (MNHN): “Caffraria, Muséum Paris, coll. De Marseul 1890”.

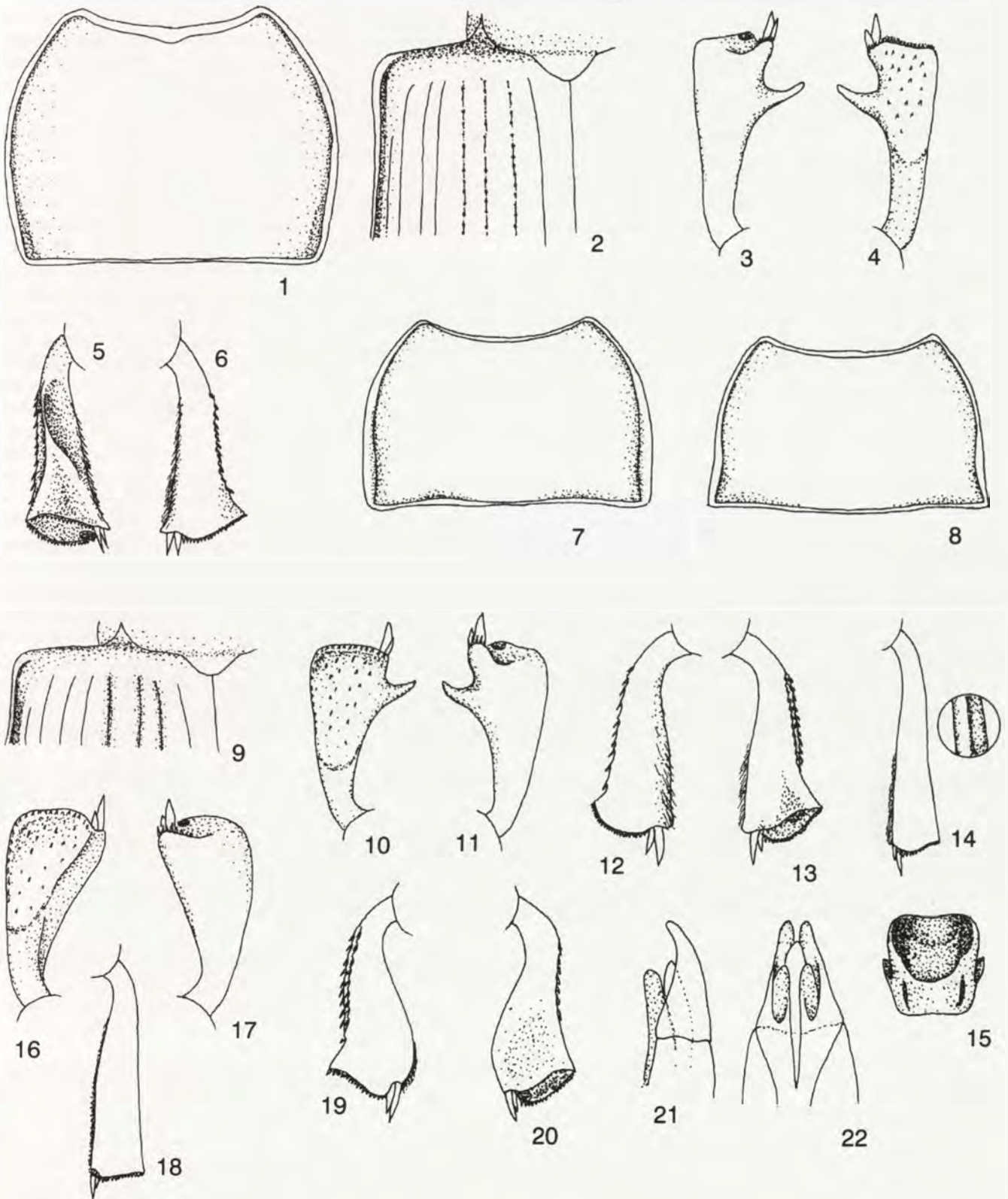
*Crypticanus aeternus* sp. nov.  
 (Figs 7–15, 138)

**Name derivation.** Latin adjective, *aeternus*: eternal, immortal.

**Locus typicus.** De Hoop Nature Reserve (South Africa, Cape Province).

**Diagnosis.** The presence of 1 sharp denticle on the inner side of male fore tibia places *aeternus* close to *dentatus*, *supervacaneus*, *aequus* and *lacrimosus*.

In its pronotal shape (trapezoidal, widest at base) and prosternal process (flat), *C. aeternus* resembles *lacrimosus*; the two species differ in the width of lateral border of pronotum (narrower than antennal segment 3 in *aeternus*, wider in *lacrimosus*), and also in details of structure of the male fore and mid tibiae (cf. Figs 10–11 and 82–83, 12–13 and 85–86).



Figures 1-22. *Crypticanus* spp. 1-6. *C. aequus*. 7-15. *C. aeternus*. 16-22. *C. amaroides*: (1, 7-8) pronotum; (2, 9) anterior part of elytron; (3, 11, 17) dorsal and (4, 10, 16) ventral view of male fore tibia; (5, 13, 20) dorsal and (6, 12, 19) ventral view of male mid tibia; (14, 18) male hind tibia (14, inset - outer margin); (21) lateral and (22) ventral view of apical part of aedeagus; (15) mentum.

**Description.** Body length 13.0–13.5 mm, pl/pb = 0.58–0.62, el/eb = 1.21–1.28, el/pl = 2.14–2.31, eb/pb = 1.03–1.12 (elytra much wider than pronotum). Head very sparsely and delicately punctate, punctures practically invisible; pronotum and intervals smooth. Underside of body shiny, puncturation of abdominal ventrites distinct, at margins numerous longitudinal, delicate wrinkles, last two ventrites very delicately punctate; prosternum sides and episternum smooth, sometimes slightly wrinkled, prosternal process delicately punctate. Head somewhat widened anterior to eyes; eyes laterally narrowed, between gena and tempus 1–2 facets visible. Mentum as in fig. 15. Antennal segment 3 ca. 2.1 × longer than segment 2. Pronotum widest at base; sides in male slightly rounded, for 1/3–1/2 length from base subparallel (Fig. 7); in females pronotum widest at base, clearly trapezoidal (Fig. 8); anterior angles rounded, not produced anteriorly; posterior angles widely rounded; lateral border 0.71 × as wide as antennal segment 3; along whole lateral border a relatively shallow and narrow gutter. Pronotal base as wide as base of elytra. Scutellum of medium width, pkp/st ratio ca. 2.6–2.8. Elytral intervals moderately convex; striae fairly deep, punctures invisible (Fig. 9). Prosternal process strongly widened towards apex, flat, protruding towards mesosternum, a delicate border visible. Male legs: ratio of tarsal segments 1:2 ca. 2.4–2.5; on inner side of fore tibia a sharp, strongly protruding denticle (Figs 10–11); inner side of mid tibia with a row of setae and a well developed apical denticle (Figs 12–13); outer margin of hind tibia with a longitudinal concavity (Fig. 14), dtk/dod ratio ca. 1.7–1.8, a dod/dok ratio ca. 1.5–1.6. Aedeagus: lap/lbp/ll = 1.0/2.6/0.5; female genitalia: lp/lc1 = 3.8, bc1/lc1 = 2.7, c1/c2/c3/c4/c4-c3 = 1.0/1.5/1.8/2.0/0.2.

**Types.** Holotype: (male), MZLU: "RSA: Cape Prov. De Hoop Nature Reserve 0–200m 34°27'S 20°25'E 10–13.X.1994. loc.12, leg. R. Danielsson". Paratypes: RSA: Cape Prov. De Hoop Nature Reserve 0–200m 34°27'S 20°25'E 10–13.X.1994. loc.12, leg. R. Danielsson, (MZLU) 1 f; S Afr., Cape Prov. 7 miles SW Bredasdorp, 30. XII. 50, no 99; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck, (JFC) 4 f; Bredasdorp, SAM-Col-AO, (SAM), 2 f.

**Distribution.** South Africa (Cape Province: Bredasdorp) (Fig. 138).

*Crypticanus amaroides* (Fähræus, 1870) comb. nov.  
(Figs 16–22, 138)

*Melanopterus amaroides* Fähræus, 1870: 287. – Gebien 1910: 272; 1938: 292; Koch 1956: 89.

*Melanopterus dilatipes* Koch, 1956: 451 syn. nov.

**Terra typica.** "Caffraria" [South Africa, Cape Province].

**Diagnosis.** See diagnosis of *trivialis*.

**Description.** Body length 10.0–12.5 mm, pl/pb = 0.60–0.70, el/eb = 1.18–1.28, el/pl = 1.75–2.15, eb/pb = 1.01–1.12. Head, intervals and pronotum at lateral border delicately but clearly punctate, pronotal disc smooth. Underside of body shiny, puncturation of abdominal ventrites dense, at margins longitudinal wrinkles, last two ventrites very delicately punctate; on prosternum delicate wrinkles, episternum

smooth. Head widest anterior to eyes; eyes narrowed laterally, between gena and tempus 2–3 facets visible. Antennal segment 3 ca. 1.9 × longer than segment 2. Pronotum trapezoidal, widest at base; pronotal sides slightly convergent anteriorly; anterior angles slightly rounded, not produced anteriorly; posterior angles widely rounded; lateral border fairly narrow, ca. 0.65–0.71 × width of antennal segment 3; along border a very narrow gutter, distinctly widened anterior to posterior angles. Pronotal base of the same width as base of elytra. Scutellum of medium width, pkp/st ratio ca. 2.4–3.0. Elytral intervals flat; striae narrow but very clear and regular, punctures small, very well developed. Prosternal process flat, slightly widened towards apex, border disappearing at apex. Male legs: length ratio of tarsal segments 1:2 in hind tarsus ca. 2.5–3.0; inner side of fore tibia with a wide longitudinal ridge (Figs 16–17); inner margin of mid tibia strongly S-like bent, with a longitudinal group of dense, adherent hairs at apex (Figs 19–20); outer margin of hind tibia slightly convex, with a row of short hairs on inside; dtk/dod ratio ca. 1.7–1.9, dod/dok ratio ca. 1.5–1.7. Aedeagus (Figs 21–22): lap/lbp/ll = 1.0/2.3/0.6; female genitalia: lp/lc1 = 4.4, bc1/lc1 = 3.0, c1/c2/c3/c4/c4-c3 = 1.0/1.5/1.9/2.3/0.2.

**Types.** *Melanopterus amaroides* Fähræus, 1870. Lectotype (male), ZMS: "Melanopterus amaroides Fahs.; Typus; J. Wahlb.; Caffraria; Naturhistoriska Riksmuseet Stockholm, Loan no 1241/95". Paralectotype: *Melanopterus amaroides* Fahs.; J. Wahlb.; Caffraria; Naturhistoriska Riksmuseet Stockholm, Loan no 1242/95, (ZMS) 1 f. Present designation.

*Melanopterus dilatipes* Koch, 1956. Holotype (male), TM: "Resolution, Albany Distr., VI. 1928, A. Walton; dilatipes C. Koch; Holotype No: 3797, *Melanopterus dilatipes* Koch".

**Material examined.** Caffrerie; Museum Paris, Coll. De Marseul 1890, (MNHN) 1 m; Septembre; Museum Paris, Province Du Cap, East London, R. Ellenberger 1915, (MNHN) 1 m; Algoa bay, Dr. Brauns, (NHMB) 1 m, 1 f; S. A. Cape Colony; marginatus; Sam-Col-AO 11788, (SAM) 1 m; Sam-Col-AO 11789, (SAM) 1 m; Schöuland Dec. 92.; *Trigonopus marginatus*; Sam-Col-AO 11790, (SAM) 1 m; Afrique Delalande; Museum Paris, Afrique Australe, Delalande, (MNHN) 1 f; Caffraria; coll. R. Oberthür ex coll. Deyrolle, (MNHN) 1 f.

**Distribution.** South Africa (Cape Province: East London) (Fig. 138).

*Crypticanus amicus* (Koch, 1956) comb. nov.  
(Figs 23–26, 138)

*Melanopterus amicus* Koch, 1956: 452. – Iwan 1997: 450.

**Locus typicus.** George (South Africa, Cape Province).

**Diagnosis.** With *marginicollis*, *robustus*, *bremeri*, *brzeskii*, *dentatus* and *supervacaneus*, *C. amicus* forms a group with saddle-like prosternal process.

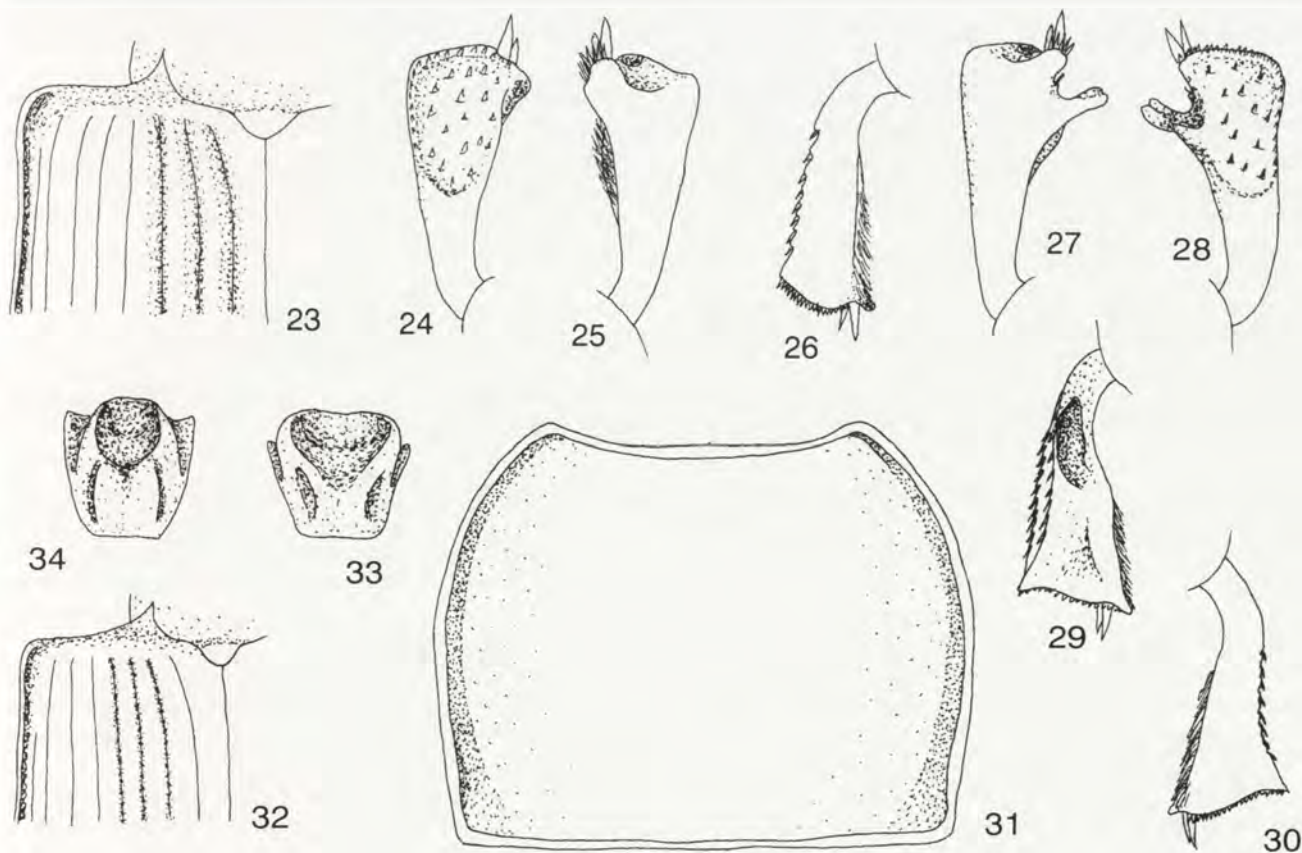
The absence of denticle on the inner side of male fore tibia and the very strongly convex elytral intervals distinguish this species from all other members of the group.

**Description.** Body length 13.0–16.5 mm, pl/pb = 0.66–0.72, el/eb = 1.15–1.34, el/pl = 1.81–2.24, eb/pb = 1.07–1.10 (elytra much wider than pronotum). Head sparsely and delicately punctate; elytral intervals smooth; on pronotum coarse punctures along lateral border, disc smooth. Underside of body slightly shiny, puncturation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites practically smooth; prosternum delicately wrinkled, episternum smooth. Eyes laterally narrowed, between gena and tempus 1–3 facets visible. Antennal segment 3 ca. 2.0–2.5 × longer than segment 2. Anterior angles of pronotum rounded, not produced anteriorly; posterior angles obtuse, widely rounded; lateral border as wide as antennal segment 3; along border a fairly deep gutter running along whole length of lateral margin. Pronotal sides clearly rounded, pronotum widest at 1/2 length from base. Pronotal base as wide as or somewhat narrower than base of elytra. Scutellum of medium width, pkp/st ratio ca. 2.1–2.5. Elytral intervals very strongly convex, slightly wrinkled at slopes of striae; striae deep, punctures invisible (Fig. 23). Prosternal process saddle-like concave, only apex protruding towards mesosternum, border disappearing at apex. Male legs: ratio of 1:2 hind tarsal segments ca. 2.3–2.5; inner side of fore tibia with a slightly

widened ridge and a row of hairs (Figs 24–25); on inner side of mid tibia a row of setae and an apical denticle (Fig. 26); outer margin of hind tibia slightly convex or somewhat flattened (in both sexes), with a row of setae on inside, dtk/dod ratio ca. 1.8–2.3, dod/dok ratio ca. 1.5–1.7. Aedeagus: lap/lbp/ll = 1.0/2.2/0.6; female genitalia: lp/lc1 = 4.1, bc1/lc1 = 2.7, c1/c2/c3/c4/c4-c3 = 1.0/1.6/1.9/2.2/0.3.

**Remarks.** In my 1997 paper I retained this species (in agreement with Koch's original interpretation of 1956) in the genus *Melanopterus*. My later studies (based on a more extensive material) made me change my opinion and transfer *amicus* to *Crypticanus*. The genus includes species with more or less convex ridges on the outer margin of hind tibia. This character as well as the gutter-like mid part of mentum, distinguish *amicus* from other species of *Melanopterus*. The pronotum puncturation in *amicus* is variable – there exist specimens in which large punctures at lateral margin of pronotum are practically invisible (character of *Melanopterus*). The species has no border of the anterior margin of elytra and the latter is only slightly convex. The above arguments, however, do not invalidate my opinion that the species can be regarded as transitory between *Melanopterus* and *Crypticanus*.

**Material examined.** S. Afr., Cape Prov., Outeniqua Berge, Robinson Pass, 7.I.51. No.125; Swedish South



Figures 23–34. *Crypticanus* spp. 23–26. *C. amicus*. 27–33. *C. bremeri*. 34. *C. supervacaneus*: (23, 32) anterior part of elytron; (24, 28) ventral and (25, 27) dorsal view of male fore tibia; (29) dorsal and (30) ventral view of male mid tibia; (33, 34) mentum.

Africa Expedition 1950–1951 Brinck-Rudebeck; *Melanopterus amicus* Koch C. Koch det., (MZLU) 2 m, 4 f; Cape Prov., Hartenbog, Dec. 1988 CR. Owen, (JFC) 1 m; George; Sam-Col-AO 11839, (SAM) 1 m, 1 f; Cap. B. Spei.; Victorin; Naturhistoriska Riksmuseet Stockholm, Loan no 1232/95, (ZMS) 1 m; Knysna, Prcell, 1896, (TM) 1 f; Cape Province, R. S. A., 4 mi. N. Knysna, Concordia Forest Reserve, 34 23 AA, 7.II. 1972; van Reenen&Mathabathe, (TM) 1 m, 1 f; S. Afr. Cape Province, Kranshoek for., leg. K. Hoffmann (TM) 1 m; S. Afr. Cape Prov., Knysna, Buffelsbaai, coast fynbos, 21-26. XII. 1981, leg. S&J Deok, (TM) 1 m; Knysna C. P., X. 1949, B. Malkin, (TM) 1 m, 1 f; Riversdale, Cape Colony, W. G. Kobrow, 339, (TM) 1 m, 1 f; S. Afr., Cape Prov., Tzitzikama Forest, Storms River Mouth, 14. I. 51, No 138, (JFC) 1 f; Cap. b. sp., *Melanopterus marginicollis*, det. dr. Kaszab, (HNHM) 1 f; Cap. b. sp., *Exaratus Dej.*; Cap. B. Esp., coll. Oberthur ex coll. Deyrolle, (MNHN) 1 f; *Trigonopus exaratus*. Cap b. sp., Museum Paris, coll. De Marseul 1890, (MNHN) 1 m; *Trigonopus*, Cape, Museum Paris, coll. De Marseul 1890, (MNHN) 1 m, 2 f; *Trigonopus exaratus* Muls., Cape, ex Musae E. Allard, 1899, Museum Paris, coll. De Marseul 1890, (MNHN) 1 m.

**Distribution.** South Africa (Cape Province: George, Humansdorp, Knysna, Mossel Bay, Willowmore) (Fig. 138).

*Crypticanus bremeri* sp. nov.  
(Figs 27–33, 35, 138)

**Name derivation.** The species is named in honour of Professor Hans J. Bremer, an outstanding coleopterist and beetle collector.

**Locus typicus.** Joubertina (South Africa, Cape Province).

**Diagnosis.** The saddle-shaped prosternal process, 2 denticles on inner margin of the male fore tibia and the apical denticle on the mid tibia place the species close to *brzeskii*, *robustus* and *marginicollis*.

*C. bremeri* differs from the above-mentioned species in the structure of the dorsal side of male mid tibia (with a fairly deep concavity). The character is shared with *supervacaneus* and *aequus*; these three species differ in the convexity of their elytral intervals (poor in *bremeri*, distinct in *supervacaneus*, flat in *aequus*); structure of prosternal process and male fore tibia (cf. Figs 27–28, 123–124 and 3–4).

**Description.** Body length 13.0–15.5.0 mm, pl/pb = 0.71–0.74, el/eb = 1.26–1.32, el/pl = 1.83–1.91, eb/pb = 1.02–1.10 (elytra much wider than pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body slightly shiny, puncturation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites smooth; sides of prosternum and episternum delicately wrinkled, prosternal process delicately punctate. Eyes laterally narrowed, between gena and tempus 3–4 facets visible. Antennal segment 3 ca. 1.6–1.9 × longer than segment 2. Mid part of mentum widened anteriorly (Fig. 33). Anterior angles of pronotum rounded, not produced anteriorly; posterior angles

obtuse, widely rounded; lateral border as wide as or slightly narrower than antennal segment 3; along border a very deep and fairly wide gutter, running along whole length of lateral margin. Pronotal sides in male slightly rounded (widest at 1/2 length from base) (Fig. 31), in females almost parallel for 2/3 length from base, pronotum widest at base and bell-shaped (Fig. 35). Pronotal base as wide as or slightly narrower than elytral base. Scutellum of medium width, pkp/st ratio ca. 2.4–2.6. Elytral intervals very poorly convex; striae shallow, punctures very small, on disc practically invisible (Fig. 32). Prosternal process saddle-like concave, only apex produced towards mesosternum, border disappearing at apex. Male legs: ratio of segments 1:2 of hind tarsi ca. 2.3–2.4; inner side of fore tibia with a sharp, strongly protruding denticle (bifurcate at apex), below which there is a double ridge terminating with a straight, short denticle (Figs 27–28); mid tibia with a row of setae and an apical denticle on inner side, on outer side a relatively deep concavity (Figs 29–30); inner margin of hind tibia slightly convex, rounded or somewhat flattened (in both sexes), with a row of setae on the inside, dtk/dod ratio ca. 1.7–1.9, dod/dok ratio ca. 1.6–1.7. Aedeagus: lap/lbp/ll = 1.0/2.2/0.7; female genitalia: lp/lc1 = 3.2, bc1/lc1 = 2.4, c1/c2/c3/c4/c4-c3 = 1.0/1.3/1.0/1.8/0.3.

**Types.** Holotype: male (HBC): "South Africa; südl. Kap-Prov. im Tal des Kouga Rivers der Kouga Mountains; 15 km nörd. Joubertina; unter Stein, 12. III. 1992, H. J. Bremer leg."

Paratypes: South Africa; südl. Kap-Prov. im Tal des Kouga Rivers der Kouga Mountains; 15 km nörd. Joubertina; unter Stein, 12. III. 1992, H. J. Bremer leg., (HBC) 23 m, 6 f.

**Distribution.** South Africa (Cape Province: Humansdorp) (Fig. 138).

*Crypticanus brzeskii* sp. nov.  
(Figs 36–47, 138)

**Name derivation.** In honour of Professor Michał Brzeski, an outstanding Polish nematologist.

**Locus typicus.** Struisbaai (South Africa, Cape Province).

**Diagnosis.** With *marginicollis*, *robustus*, *bremeri*, *amicus*, *dentatus* and *supervacaneus*, *brzeskii* forms a group with saddle-like prosternal process. The above species differ in the structure of male fore tibia – *amicus* without denticle, *dentatus* and *supervacaneus* with 1 denticle, the remaining species – 2 denticles.

*C. brzeskii* differs from all of them in a poor convexity of elytral intervals, which on disc are practically flat, and in shallow striae composed of very small punctures. These characters place it close to *aequus*.

**Description.** Body length 14.0–17.0 mm, pl/pb = 0.64–0.69, el/eb = 1.12–1.27, el/pl = 1.74–2.04, eb/pb = 1.03–1.12 (elytra much wider than pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body strongly shiny, puncturation of abdominal ventrites very delicate, last two ven-



trites smooth; episternum and sides of prosternum practically smooth, prosternal process delicately punctate. Eyes laterally moderately narrowed, between gena and tempus 3–4 facets visible. Mentum as in fig. 37. Antennal segment 3 ca. 2.2–2.5 × longer than segment 2. Anterior angles of pronotum rounded, not produced anteriorly; posterior angles widely

rounded; lateral border 1.0–1.2 × wider than antennal segment 3, along border a fairly deep gutter running on whole length of lateral margin. Pronotal sides gently rounded, pronotum widest at ca. 1/2 length from base. Pronotal base as wide as elytral base or slightly narrower (Fig. 38). Scutellum moderately wide, pkp/st ratio ca. 2.1–2.9. Elytral



Figures 35–47. *Crypticanus* spp. 35. *C. bremeri*. 36–47. *C. brzeskii*: (35, 38) pronotum; (36) anterior part of elytron; (37) mentum; (39) ventral and (40) dorsal view of male fore tibia; (41) apical part of hind tibia; (42) dorsal and (43) ventral view of male fore tarsus; (44) dorsal and (45) ventral view of male mid tarsus; (46) dorsal and (47) ventral view of male hind tarsus.

intervals flat and smooth; striae very shallow, formed of small, delicate punctures (Fig. 36). Prosternal process saddle-like concave, only apex protruding towards mesosternum, border disappearing at base. Male legs: tarsi as in figs 42–47, ratio of segments in hind tarsi 1:2 ca. 2.3–2.5; inner side of fore tibia with a sharp, strongly produced denticle, below it a double ridge terminated with a straight, short denticle (Figs 39–40); mid tibia with a row of setae and an apical denticle on inner side; outer margin of hind tibia rounded, sometimes slightly flattened, with a row of setae on inner side, dtk/dod ratio ca. 1.9–2.3, dod/dok ratio ca. 1.7–2.0 (Fig. 41). Aedeagus: lap/lbp/ll = 1.0/2.4/0.6; female genitalia: lp/lc1 = 2.8, bc1/lc1 = 2.0, c1/c2/c3/c4/c4-c3 = 1.0/1.2/1.2/1.6/0.2.

**Types.** Holotype: male (TM): "S. Afr., S. W. Cape, Struisbaai, 34.46 S – 20.03 E; 28. 8. 1983; E-Y: 1991, from under stones, leg. Endrödy, Penrith". Paratypes: S. Afr., S. W. Cape, Struisbaai, 34.46 S – 20.03 E; 28. 8. 1983; E-Y: 1991, from under stones, leg. Endrödy, Penrith, (TM) 8 m, 11 f; . Afr., S. W. Cape, Verlorevlei farm, 32.19 S – 18.22 E; 28. 8. 1983; E-Y: 1991, groundtraps 60 days, leg. Endrödy, Penrith; groundtrap with banana bait, (TM) 1 m; S. Afr., SW Cape, Gansbaai, 34.35 S – 19.21 E, 23. 2. 1981; E-Y: 1745, veget. sand, night, leg. Endrödy-Younga, (TM) 1 f; S. Afr. S.W. Cape, Ryspuntstrandt, 34.36 S – 20.19 E; 30. 9. 1984; E-Y: 2130, ground & vegetation, leg. Müller (TM) 1 f.

**Distribution.** South Africa (Cape Province: Bredasdorp, Clanwilliam) (Fig. 138).

*Crypticanus dentatus* sp. nov.  
(Figs 67–68)

**Name derivation.** Latin adjective, *dentatus*: provided with a tooth.

**Terra typica.** "Caffraria" [South Africa, Cape Province].

**Diagnosis.** With *marginicollis*, *robustus*, *bremeri*, *brzeskii*, *amicus* and *supervacaneus*, *dentatus* forms a groups with a saddle-like prosternal process.

Due to its very strongly convex elytral intervals *dentatus* resembles *amicus*; the two species differ in the structure of male fore tibia (*dentatus* has a very small, sharp denticle just before the apex, on the inner side).

**Description.** Body length 14.5 mm, pl/pb = 0.70, el/eb = 1.25, el/pl = 2.00, eb/pb = 1.13 (elytra much wider than pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body slightly shiny, punctation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites practically smooth; prosternum delicately wrinkled, episternum smooth. Eyes laterally narrowed, between gena and tempus 2 facets visible. Antennal segment 3 ca. 2.4 × longer than segment 2. Anterior angles of pronotum rounded, not produced anteriorly; posterior angles obtuse, widely rounded; lateral border as wide as antennal segment 3; along border a fairly deep gutter running along whole lateral margin. Pronotal sides distinctly rounded, pronotum widest at 1/2 length from base. Pronotal base as wide as or slightly nar-

rower than elytral base. Scutellum of medium width, pkp/st ratio ca. 2.2. Elytral intervals strongly convex; striae fairly deep, punctures invisible. Prosternal process saddle-like concave, only apex protruding towards mesosternum, border disappearing at apex. Male legs: inner side of fore tibia with a small, sharp subapical denticle and a row of long, dense hairs (Figs 67–68); inner side of mid tibia with a row of setae and an apical denticle; outer margin of hind tibia slightly convex or slightly flattened (in both sexes), with a row of setae on inner side, dtk/dod ratio ca. 2.0, dod/dok ratio ca. 1.9.

**Type.** Holotype: male (MNHN): "Caffraria, Muséum Paris, 1952, coll. R. Oberthür".

*Crypticanus edwardsi* (Mulsant et Rey, 1854)  
(Figs 48–65, 138)

*Melanopterus Edwardsii* Mulsant et Rey, 1854: 162.

*Melanopterus Edwardsi* Mulsant et Rey: Gemminger et Harold 1870: 1912; Gebien 1910: 273; 1938: 292.

*Melanopterus edwardsi* Mulsant et Rey: Koch 1956: 90.

*Crypticanus cuneatus* Fairmaire, 1897: 119. – syn. by Koch 1956: 90.

**Terra typica.** "L'Afrique".

**Diagnosis.** The structure of male tibiae: fore (without denticle on inner side) and mid (S-like inner margin) place *edwardsi* close to *trivialis*, *amaroides*, *incisus* and *iubatus*. *C. edwardsi* is the closest to *trivialis* and *amaroides* (trapezial pronotum and convexity of elytral intervals).

*C. edwardsi* differs from all the mentioned species in very delicate, practically disappearing elytral striae, widened mid tarsi and in the presence of a denticle on male hind femora.

**Description.** Body length 11.5–14.0 mm, pl/pb = 0.50–0.54, el/eb = 1.09–1.20, el/pl = 1.95–2.30, eb/pb = 0.97–1.03. Head and intervals as well as pronotum at lateral margin delicately but clearly punctate, pronotal disc smooth. Underside of body slightly shiny, abdominal ventrites covered with deep, longitudinal wrinkles, last two ventrites very delicately punctate; episternum smooth, prosternum delicately punctate, sometimes shallowly wrinkled. Head widest anterior to eyes (Fig. 50); eyes laterally narrowed, between gena and tempus 2–3 facets visible. Mentum as in fig. 51. Antennal segment 3 ca. 2.1–2.4 × longer than segment 2. Pronotum trapezial, widest at base (Fig. 48); its sides arcuately but decidedly convergent anteriorly; anterior angles slightly rounded, not produced anteriorly; posterior angles widely rounded; lateral border comparatively wide, ca. 1.20–1.30 × wider than antennal segment 3; on disc border separated by a thin line, longitudinal concavity absent. Pronotal base most often somewhat narrower than elytral base. Scutellum relatively small, pkp/st ratio ca. 2.8–3.1. Elytral intervals flat; striae built of small, round punctures (Fig. 49). Prosternal process flat, widened towards apex, border disappearing at apex. Male legs: tarsi as in figs 56–61; mid tarsi somewhat widened; length ratio of segments 1:2 of hind tarsus ca. 2.5–2.6; inner side of fore tibia with a delicate, longitudinal ridge (Figs 62–63); inner margin of mid tibia gently S-like bent, with a longitudinal group of dense, adherent hairs at apex (Figs 64–65); outer margin of hind tibia slightly convex, with a row

of short hairs on inner side; dtk/dod ratio ca. 1.5–1.6, dod/dok ratio ca. 1.7–1.8; fore and mid femora as in figs 52–53. Aedeagus:  $lap/lbp/tll = 1.0/2.3/0.6$ ; female genitalia:  $lp/lc1 = 4.7$ ,  $bc1/lc1 = 2.5$ ,  $c1/c2/c3/c4/c4-c3 = 1.0/1.7/1.9/2.3/0.2$ .

**Remarks.** Mulsant and Rey dedicated this species to M. Milne-Edwards (1854: 163): "...Nous avons dédié cette espèce remarquable à M. Milne-Edwards, membre de l'Institut, professeur administrateur du Muséum d'Histoire Naturelle de Paris...". Already in the 1870 catalogue by Gemminger and Harold the specific name *Edwardsii* was amended to *Edwardsi* (amendment justified, in accordance with the Code: Art. 31–33 ICNZ). Later Koch (1956: 90) applied Art. 28 ICNZ (species-group names).

**Types.** Lectotype (male) MNHN: "Afrique, Delalande; Museum Paris, Afrique Australe, Delalande; Trigonopus ovalis Sol., Eurynotus ovalis Dej.; Melanopterus Edwardsii; Museum Paris, 1906, Coll. L. Fairmaire". Paralectotype: Afrique, Delalande; Museum Paris, Afrique Australe, Delalande; Melanopterus Edwardsii; Museum Paris, 1906, Coll. L. Fairmaire (MNHN) 1 f. Present designation.

**Material examined.** Algoa Bay, Capland, 1. 6. 98, Dr. Brauns, (TM) 1 m; Algoa Bay, Capland, 5. 6. 97, Dr. Brauns, (TM) f m; Natal, Melanopterus Edwardsii, Museum Paris, 1930, Coll. Sicard, (MNHN) 1 m; sand dunes, Kleinemonde, 22.1.41, (TM) 1 f.

**Distribution.** South Africa (Cape Province: East London) (Fig. 138).

*Crypticanus incisus* (Koch, 1956) comb. nov.  
(Figs 66, 69–76, 138)

*Melanopterus incisus* Koch, 1956: 454.

**Locus typicus.** Willowmore (South Africa, Cape Province).

**Diagnosis.** With *C. amaroides*, *edwardsi*, *trivialis* and *iubatus*, *incisus* forms a group of closely related species (inner margin of male fore tibia without denticle, mid tibia S-like bent).

Pronotal shape and structure of male fore tibia place the species closest to *iubatus*. Both these species differ in the prosternal process (protruding in *incisus*, truncate in *iubatus*), hairs of femora and tibiae (very delicate, practically absent in *incisus*, long and dense in *iubatus*) and details of the structure of male legs (cf. Figs 71–72 and 93–94, 73–74 and 87–88).

**Description.** Body length 14.5 mm,  $pl/pb = 0.71$ ,  $el/eb = 1.39$ ,  $el/pl = 2.00$ ,  $eb/pb = 1.03$ . Head moderately densely, distinctly punctate, pronotum and intervals delicately, barely visibly punctate. Underside of body slightly shiny, puncturation of abdominal ventrites dense, at margins longitudinal wrinkles, last two ventrites very delicately punctate; episternum smooth, at margins delicate longitudinal wrinkles; prosternum clearly punctate. Head widest anterior to eyes; eyes laterally narrowed, between gena and tempus 2 facets visible. Mentum as in fig. 66. Antennal segment 3 ca. 1.8 × longer than segment 2. Pronotum as in fig. 69; widest posterior to anterior angles, almost parallel sided for 2/3 length

from base; anterior angles straight, rounded, not produced anteriorly; posterior angles straight, widely rounded; lateral border fairly wide, ca. 1.18 × wider than antennal segment 3; along lateral border, on whole length a moderately deep, narrow gutter. Pronotal base as wide as elytral base. Scutellum rather wide,  $pkp/st$  ratio ca. 2.16. Elytral intervals flat (Fig. 70); striae narrow, shallow but distinct, punctures small, well developed. Prosternal process flat, protruding towards mesosternum, border disappearing at apex. Male legs: length ratio of segments 1:2 in hind tarsus ca. 2.8; all tibiae moderately widened, femora practically bare; inner side of fore tibia with a blunt tubercle at 4/5 length from apex (Figs 71–72); inner margin of mid tibia delicately S-like bent (Figs 73–74); outer margin of hind tibia somewhat convex (Figs 75–76); dtk/dod ratio ca. 2.2, dod/dok ratio ca. 1.4.

**Type.** Holotype (male), TM: "Willowmore, Capland, Dr. Brauns; Holotype No: 3823, Melanopterus incisus Koch".

**Distribution.** South Africa (Cape Province: Willowmore) (Fig. 138).

*Crypticanus iubatus* sp. nov.  
(Figs 85–94, 139)

**Name derivation.** Latin adjective, *iubatus*: mane-bearing.

**Locus typicus.** Uitenhage (South Africa, Cape Province).

**Diagnosis.** The absence of denticles on the inner side of the male fore tibia places the species close to *edwardsi*, *trivialis*, *amaroides*, *incisus* and *simplex*. *C. iubatus*, like *amaroides*, has the inner margin of its male mid tibia very strongly S-like bent (with a distinct angle before apex); the two species differ in the pronotal shape, which, together with the structure of the male fore tibia (incision before apex of inner margin), place *iubatus* close to *incisus*.

Distinctive features of *iubatus* compared with all the species just named are: strong widening of all tibiae and very long and dense hairs on tibiae and femora.

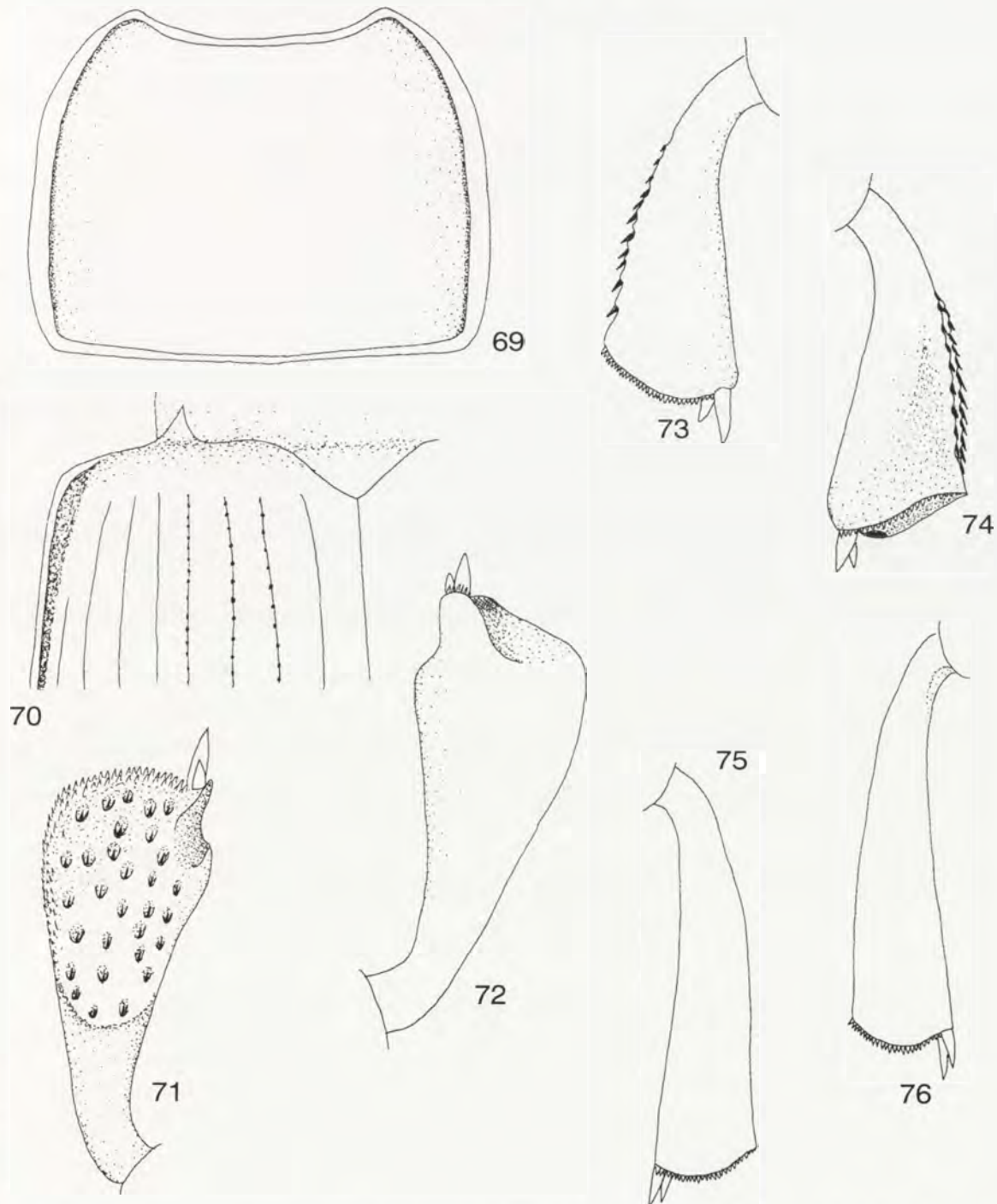
**Description.** Body length 12.5–14.5 mm,  $pl/pb = 0.65$ – $0.67$ ,  $el/eb = 1.12$ – $1.35$ ,  $el/pl = 1.88$ – $2.13$ ,  $eb/pb = 1.02$ – $1.08$ . Head sparsely but distinctly punctate, pronotum and intervals delicately, barely visibly punctate. Underside of body slightly shiny, puncturation of abdominal ventrites dense, at margins longitudinal wrinkles, last two ventrites very delicately punctate; episternum smooth, prosternum clearly punctate. Head widest anterior to eyes; eyes laterally narrowed, between gena and tempus 2–3 facets visible. Antennal segment 3 ca. 2.2–2.5 × longer than segment 2. Pronotum: in male widest posterior to anterior angles, almost parallel sided for 2/3 from base; in female widest at base, bell-shaped; anterior angles straight, rounded, not produced anteriorly; posterior angles straight, widely rounded; lateral border fairly wide, ca. 1.00–1.16 × length of antennal segment 3; along lateral border, on whole length, a shallow and narrow gutter. Pronotal base as wide as elytral base. Scutellum moderately wide,  $pkp/st$  ratio ca. 2.6–2.9. Elytral intervals flat; striae narrow, but very distinctly and regularly incised, punctures small, very well developed. Prosternal



Figures 48–68. *Crypticanus* spp. 48–65. *C. edwardsi*. 66. *C. incisus*. 67–68. *C. dentatus*: (48) pronotum; (49) anterior part of elytron; (50) head; (51, 66) mentum; (52) male fore femur; (53) male mid femur; (54) ventral and (55) dorsal view of male hind tibia; (56) dorsal and (57) ventral view of male fore tarsus; (58) dorsal and (59) ventral view of male mid tarsus; (60) dorsal and (61) ventral view of male hind tarsus; (62) dorsal and (63) ventral view of male fore tibia; (64) ventral and (65) dorsal view of male mid tibia.

process bent downwards, border disappearing at apex. Male legs: length ration of segments 1:2 of hind tarsus ca. 2.2; all tibiae strongly widened, all femora with long and dense hairs (Figs 90–92); inner side of fore tibia with a wide double ridge and a blunt tubercle at 1/3 from apex (Figs 93–94); inner margin of mid tibia strongly S-like bent, with a longi-

tudinal group of dense, adherent hairs at apex (Figs 87–88); outer margin of hind tibia slightly convex, with a row of short hairs on inner side (Fig. 89); dtk/dod ratio ca. 1.9, dod/dok ratio ca. 1.5. Aedeagus: lap/lbp/ll = 1.0/2.3/0.6; female genitalia: lp/lc1 = 4.3, bc1/lc1 = 2.7, c1/c2/c3/c4/c4-c3 = 1.0/1.3/1.7/2.1/0.3.



Figures 69–76. *Crypticanus incisus*: (69) pronotum; (70) anterior part of elytron; (71) ventral and (72) dorsal view of male fore tibia; (73) ventral and (74) dorsal view of male mid tibia; (75) ventral and (76) dorsal view of male hind tibia.

**Types.** Holotype (male), JFC: "S. A. Cape Prov., Uitenhage 26–28.03.93, fc. Arndt; *Melanopterus varus* Koch. det. Julio Ferrer 1993". Paratypes: Mars 1896, Rockhurst, Grahamstown, Afrique du Sud, Muséum Paris, (MNHN) 2 f; Uitenhage, CC, Durban Museum (TM) 1 f; Dunbrody, E. Cape Prov., J. O'Neill, (NHMB) 1 f; South Africa, West-Cape, Addo, 16.02–18.02.1996, Addo Elephant NR, leg. H. Sparmberg, (HC) 1 f.

**Distribution.** South Africa (Cape Province: Uitenhage) (Fig. 139).

*Crypticanus lacrimosus* sp. nov.

(Figs 77–88, 139)

**Locus typicus.** Droëvlakte (South Africa: Cape Province).

**Name derivation.** Latin adjective, *lacrimosus*: full of tears, tearful.

**Diagnosis.** See diagnosis of *C. aeternus*.

**Description.** Body length 12.5–15.5 mm, pl/pb = 0.54–0.59, el/eb = 1.13–1.24, el/pl = 2.05–2.31, eb/pb = 0.98–1.08. Head sparsely and delicately punctate, punctures well visible; pronotum and intervals smooth. Underside of body slightly shiny, puncturation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites very delicately punctate; sides of prosternum and episternum smooth, prosternal process very sparsely and delicately punctate. Head somewhat widened anterior to eyes (Fig. 79); eyes laterally narrowed, between gena and tempus 1–2 facets visible. Antennal segment 3 ca. 2.5 × longer than segment 2. Pronotum widest at base (female – fig. 78) or just anterior to it (male – fig. 77), trapezoidal; sides gently, but distinctly convergent anteriorly; anterior angles rounded, not produced anteriorly; posterior angles widely rounded; lateral border very wide, ca. 1.50 × wider than antennal segment 3; along margin a wide and fairly deep, gutter-like concavity. Pronotal base as wide as or wider than elytral base. Elytral intervals relatively strongly convex (Fig. 80); striae deep, punctures invisible; apical part of epipleura as in fig. 81. Prosternal process strongly widened towards apex, flat, protruding towards mesosternum, border disappearing. Scutellum moderately wide, pcp/st ratio ca. 2.5–2.6. Male legs: length ratio of segments 1:2 in hind tarsi ca. 3.0; inner side of fore tibia with a rectangular, wide, moderately produced denticle (Figs 82–83); mid tibia with a row of setae and a poorly developed, barely visible apical denticle on inner side (Figs 85–86); outer margin of hind tibia rounded, dtk/dod ratio ca. 1.4–1.5, dod/dok ratio ca. 1.7–1.8. Aedeagus: lap/lbp/l = 1.0/2.4/0.5; female genitalia: lp/lc1 = 5.0, bc1/lc1 = 3.1, c1/c2/c3/c4/c4-c3 = 1.0/1.3/2.0/2.4/0.2.

**Types.** Holotype (male), NNIC: "Droëvlakte, 34°16'S., 21°24'E. Cape R.S.A. 11 Apr. 1975 M.J. & M-L Penrith; H 31497; Namibian National Insect Collection State Museum P.O.Box 1203 Windhoek, Namibia". Paratypes: Droëvlakte, 34°16'S., 21°24'E. Cape R.S.A. 11 Apr. 1975 M.J. & M-L Penrith; H 31497; Namibian National Insect Collection

State Museum P.O.Box 1203 Windhoek, Namibia, (NNIC) 7 m; Mossel Bay SE 3422 Aa Cape R.S.A. 22 Mar 1973; H 12406; Namibian National Insect Collection State Museum P.O. Box 1203 Windhoek, Namibia, (NNIC) 4 f.

**Distribution.** South Africa (Cape Province: Riversdale, Mossel Bay) (Fig. 139).

*Crypticanus marginicollis*

(Mulsant et Rey, 1854) comb. nov.

(Figs 95–108, 139)

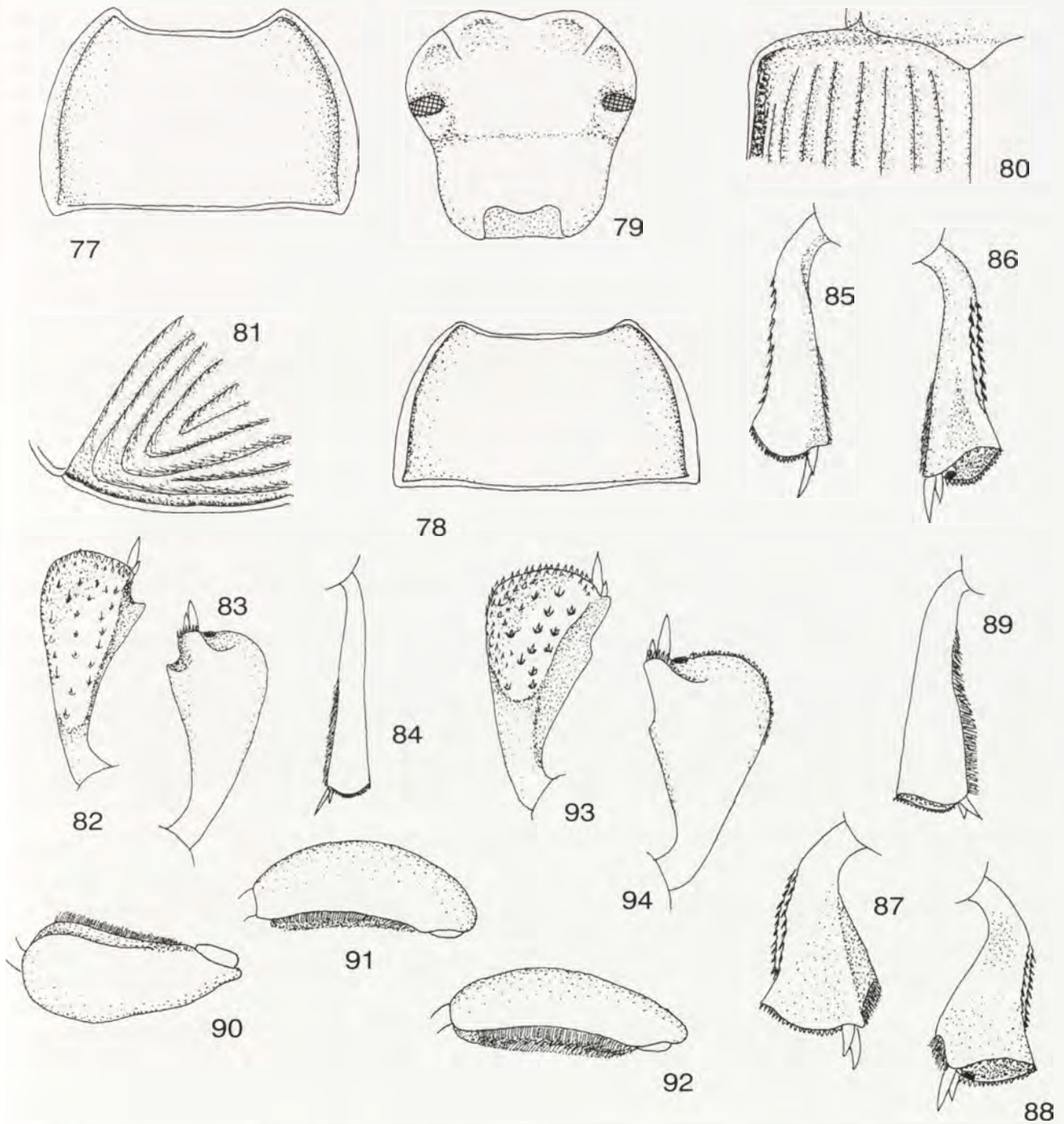
*Melanopterus marginicollis* Mulsant et Rey, 1854: 160. – Gemminger et Harold 1870: 1912; Gebien 1910: 273; 1938: 292; Koch 1956: 89.

**Terra typica.** "Cape de Bonne Espérance" [South Africa: Cape Province].

**Diagnosis.** The structure of male fore tibia (presence of 2 denticles on the inner side) places it close to *brzeskii*, *robustus* and *bremeri*. The last two species and *marginicollis* have distinctly convex intervals and fairly deep elytral striae.

The evenly convex, practically flat dorsal side of the male mid tibia distinguishes *marginicollis* and *robustus* from *bremeri*, in which there is an impression (a fairly deep concavity); the structure of hind tibia distinguishes *marginicollis* from *robustus* (cf. Figs 103–115).

**Description.** Body length 13.0–18.0 mm, pl/pb = 0.66–0.76, el/eb = 1.24–1.33, el/pl = 1.88–2.19, eb/pb = 1.03–1.18 (elytra much wider than pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body slightly shiny, puncturation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites smooth; sides of prosternum smooth, prosternal process and episternum sparsely and delicately punctate. Head as in fig. 98. Eyes laterally narrowed, between gena and tempus 1–4 facets visible. Mentum as in fig. 100. Antennal segment 3 ca. 2.2–2.7 × longer than segment 2. Anterior angles of pronotum rounded, not produced anteriorly; posterior angles obtuse, widely rounded; lateral border 0.9–1.20 × wider than antennal segment 3; along border a fairly deep gutter along whole lateral margin. Pronotal sides distinctly rounded (pronotum widest at 1/2 length from base) or only slightly so, and just anterior to base strongly widened in such a way that pronotum is widest at base and assumes a shape of bell (in females widening of pronotal base greater than in males). Pronotal base as wide as elytral base. Scutellum moderately wide, pcp/st ratio ca. 2.6–2.9. Elytral intervals moderately convex; striae fairly deep, punctures very small, practically invisible (Fig. 97). Prosternal process saddle-like concave, only apex protruding towards mesosternum (Fig. 98), border disappearing at apex. Male legs: length ratio of segments 1:2 of hind tarsus ca. 2.3–2.5; inner side of fore tibia with a sharp, strongly produced denticle, below which there is a longitudinal ridge terminated with a straight, short denticle (Figs 101–102); mid tibia with a row of setae and an apical denticle on inner side (Figs 104–105); outer margin of hind tibia slightly convex or



Figures 77–94. *Crypticanus* spp. 77–86. *C. lacrimosus*. 87–94. *C. iubatus*: (77, 78) pronotum; (79) head; (80) anterior part of elytron; (81) apical part of elytron; (82, 85) ventral and (83, 86) dorsal view of male fore tibia; (84, 89) male hind tibia; (87) dorsal and (88) ventral view of male mid tibia; male (90) fore, (91) mid and (92) hind tibia.

somewhat flattened (in both sexes), with a row of setae on the inside (Fig. 103), dtk/dod ratio ca. 1.9–2.1, dod/dok ratio ca. 1.7–1.8; fore femur as in fig. 108. Aedeagus (Figs 106–107): lap/lbp/ll = 1.0/2.2/0.5; female genitalia: lp/lc1 = 3.8, bc1/lc1 = 2.4, c1/c2/c3/g/g-c3 = 1.0/1.1/1.8/2.1/0.2.

**Variation.** Most of the examined specimens of this species had a peculiar shape of pronotum whose sides are

subparallel for 2/3 length from base (in males – fig. 96); in females the posterior angles are additionally produced outwards (Fig. 95). There are, however, specimens with pronotal sides rounded (greatest width at half length). I have decided not to distinguish formally two subspecies, since only a few specimens with rounded pronotal sides were provided with exact locality data (region of Swellendam).

**Types.** Lectotype (male), MNHN: "Melanopterus marginicollis Muls. C. B. Esp., Cap b esp, coll R. Oberthür ex coll Deyrolle". Paralectotypes: Caffrerie, Castelnau, C. B. Esp., coll R. Oberthür ex coll Deyrolle, (MNHN) 1 m; *Melanopterus marginicollis*, Museum Paris, Cap De Bonne Eperance, Verreaux 1835, (MNHN) 1 f; *Melanopterus marginicollis* Muls., Cap., Museum Paris 1906, coll Léon Fairmaire, (MNHN) 1 m; Cap b esp, coll R. Oberthür ex coll Deyrolle, (MNHN) 1 f; Caffrerie, Castelnau, coll R. Oberthür ex coll Deyrolle, (MNHN) 1 f (present designation).

**Material examined.** Cap b sp., M. Wien, Naturhistoriska Riksmuseet Stockholm Loan no 1230/95 and 1231/95, (ZMS) 2 m; *Platynotus fuscus* Cap, Museum Paris, (MNHN) 1 m; Cap b sp., ex Museo Mniszech, coll R. Oberthür ex coll Deyrolle, (MNHN) 1 m, 1 f; S. Afr. Cape Prov. 20 miles SE Swellendam 3.I.51. No.110; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck, (MZLU) 1 m, 3 f; (JFC) 1 f, 2 m; Cap. B. Spei, *Melanopterus spinipes* Muls., det. Julio Ferrer 1985, (JFC) 1 m; *platyderus* Mls., Afr. *Trigonopus*, Museum Paris, coll De Marseul, 1890, (MNHN) 1 f; *Trigonopus platyderus*, Museum Paris 1906, coll Léon Fairmaire, (MNHN) 1 f; *Trigonopus platyderus*, Cap b. sp., Museum Paris 1906, coll Léon Fairmaire, (MNHN) 1 f; *Melanopterus marginicollis* Muls., Cap b. sp., ex Museo D. Allard, 1899, Museum Paris 1952 coll. R. Oberthür, (MNHN) 1 m; *Trigonopus*, Museum Paris coll. De Marseul 1890, (MNHN) 1 m; Bredasdorp (TM) 1 f; *Eurynotus fuscus* Brem., *Melanopterus marginicollis*, C.B.Esp., Museum Paris coll. De Marseul 1890, (MNHN) 1 m; *Exaratus*, *Melanopterus marginicollis*, C.B.Esp., Museum Paris coll. De Marseul 1890, (MNHN) 1 m; Caffrerie, Museum Paris coll. De Marseul 1890, (MNHN) 1 f; Museum Paris, Cap De Bonne Espérance, Buquet 1847, (MNHN) 1 f; *Eurynotus fuscus* Breme, Museum Paris, Cap De Bonne Espérance, Buquet 1847, (MNHN) 1 m; Cape; Mus. Zool. Polonicum Warszawa 12/45, (MIZPAN) 1 m; Capetown (Cape Colony); G.B. Juin 1913; Museum Paris, (MNHN) 1 m; Mossel Bay (Cape Colony); G.B. Mai 1913; Museum Paris, (MNHN) 2 m, 3 f; S. Afr. Cape Prov. De Hoop Vlei 20 miles ENE Bredasdorp 2–3.I.51. No.108; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck, (MZLU) 3 f; 13.XII.1969., 14.XII.1969. Mossel Bay, Afrique Du Sud, Cl. Besnard leg., Museum Paris, (MNHN) 11 m, 1 f; 28.XI.1970. Mossel Bay, Afrique Du Sud, J. & N. Sedlacek; Museum Paris, (MNHN) 1 m, 1 f; G. B. Mai 1913; Caffrerie; coll. R. Oberthür ex coll. Deyrolle, (MNHN) 1 m; Museum Paris, Coll Guy Babault 1930, (MNHN) 1 m, 1 f; *Trigonopus* Cape 66; Caffraria Castelnau; Museum Paris Coll. De Marseul 1890, (MNHN) 1 f; Mossel Bay 1897; Sam-Col-AO 11863, (SAM) 1 m; Mossel B. Orevpeek 1897; Sam-Col-AO 11863, (SAM) 1 f; Knysna Pureel 1896; Sam-Col-AO 11864, (SAM) 2 f; Mossel B. Drege; Sam-Col-AO 11865, (SAM) 1 f; Mossel Bay Bro. Power 1913; Sam-Col-AO 11866, (SAM) 1 f; S. Afr. Cape Prov. Mosselbaai 8.I.51. No.127; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck; *Melanopterus marginicollis* Muls. Rey, (MZLU) 2 m, 4 f; S.

Afr. Cape Prov. Tzitzikama Forest Storms River Mouth 12–14.I.51. No.136; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck, (MZLU) 2 f; Mossel Bay SE 3422 Aa Cape R.S.A. 22 Mar 1973; H 12406; Namibian National Insect Collection State Museum P.O. Box 1203 Windhoek, Namibia, (NNIC) 2 m, 4 f; Riversdale S. Africa; Muséum Paris, (MNHN) 3 f; Hartenbos Cape, 8. XII., 1981, Colin R. Owen., (JFC) 1 m, 2 f; Caffraria, Museum Paris 1952, Coll. R. Oberthür (MNHN) 8 m; *Eurynotus marginatus*, coll. M. Sedillot, (MNHN) 1 f; *Trigonopus fuscus*, cap. b. sp., Museum Paris coll. De Marseul, (MNHN) 1 f; S. Africa, R. E. Turner, Brit. Mus. 1921 – 248, Mossel Bay, Cape Province, May 1921, (TM) 1 f; Victoria bay, Cape Colony, W. G. Kobrow, 3–39, (TM) 1 m, 2 f.

**Distribution.** South Africa (Cape Province: Cape Town, Bredasdorp, Riversdale, Swellendam, Knysna, Mossel Bay) (Fig. 139).

*Crypticanus robustus* sp. nov.  
(Figs 109–115, 139)

**Name derivation.** Latin adjective, *robustus*: robust, strong.

**Locus typicus.** Swartberge (South Africa, Cape Province).

**Diagnosis.** *C. robustus* resembles *marginicollis*, *brzeskii* and *bremeri* in the structure of the male fore tibia. These species, like *dentatus* and *supervacaneus*, have a saddle-like prosternal process. An evenly convex, practically flat dorsal side of the male mid tibia distinguishes *robustus* from *bremeri* and *supervacaneus*; *robustus*, *brzeskii* and *dentatus* differ in the convexity of intervals and in the depth of elytral striae (*robustus* – moderate, *brzeskii* – very shallow, *dentatus* – deep).

A longitudinal concavity on the outer side of hind tibia (Fig. 115), present in *robustus* (visible in both sexes) distinguishes this species from all the species just named.

**Description.** Body length 16.0–17.5 mm, pl/pb = 0.70–0.76, el/eb = 1.26–1.32, el/pl = 1.81–1.91, eb/pb = 1.04–1.11 (elytra much wider than pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body slightly shiny, punctation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites smooth; episternum sparsely and delicately punctate; middle and sides of prosternum with delicate, longitudinal wrinkles. Eyes laterally narrowed, between gena and tempus 1–2 facets visible. Mentum as in fig. 111. Antennal segment 3 ca. 1.9–2.1 × longer than segment 2. Anterior angles of pronotum rounded, slightly produced anteriorly; posterior angles widely rounded; lateral border 0.8–0.9 × as wide as antennal segment 3, along border a fairly deep gutter along whole lateral margin. Pronotal sides gently rounded, in male pronotum widest ca. 1/2 length from base (Fig. 109), in females posterior angles produced outwards so that pronotum widest at base and assumes a bell-like shape (Fig. 110). Pronotal base as wide as elytral base. Scutellum not very wide, pkp/st



ratio ca. 2.9–3.4. Elytral intervals moderately convex, smooth or sometimes with transverse shallow grooves; striae fairly deep, punctures very small, practically invisible. Prosternal process saddle-like concave, only apex protruding towards mesosternum, border disappearing at apex. Male legs: length ratio of segments 1:2 in hind tarsus ca. 2.4–2.5; inner side of fore tibia with a sharp, strongly produced denticle, below it a longitudinal ridge terminated with a straight, short denticle (Figs 112–113); mid tibia with a row of setae and an apical denticle on inner side (Fig. 114); outer margin of hind tibia with a longitudinal concavity (in both sexes) and a row of setae on inner side (Fig. 115),  $dtk/dod$  ratio ca. 2.4–3.1,  $dod/dok$  ratio ca. 1.3–1.5. Aedeagus:  $lap/lbp/ll$  = 1.0/2.2/0.5; female genitalia:  $lp/lc1$  = 3.8,  $bc1/lc1$  = 2.4,  $c1/c2/c3/g/g-c3$  = 1.0/1.1/1.8/2.1/0.2.

**Types.** Holotype: male (HBC): “South Africa, Kap-Provinz, Swartberge, I. 1993, Rautenstrauch leg., coll H. J. Bremer”. Paratypes: South Africa, Kap-Provinz, Swartberge, I. 1993, Rautenstrauch leg., coll H. J. Bremer, (HBC)

3 m, 3 f; S. Afr., Little Karoo, Raubenheimer Dam, 32.25 S – 22.17 E; 21. 10. 1993, E-Y: 2891, ground and stones, leg. Endrödy-Younga, (TM) 3 m; Cape Infanta, Swellendam Cape; 9–10. 10. 1976, H. Geertsema (TM) 1 m.

**Distribution.** South Africa (Cape Province: Beaufort West, Swartberge, Swellendam) (Fig. 139).

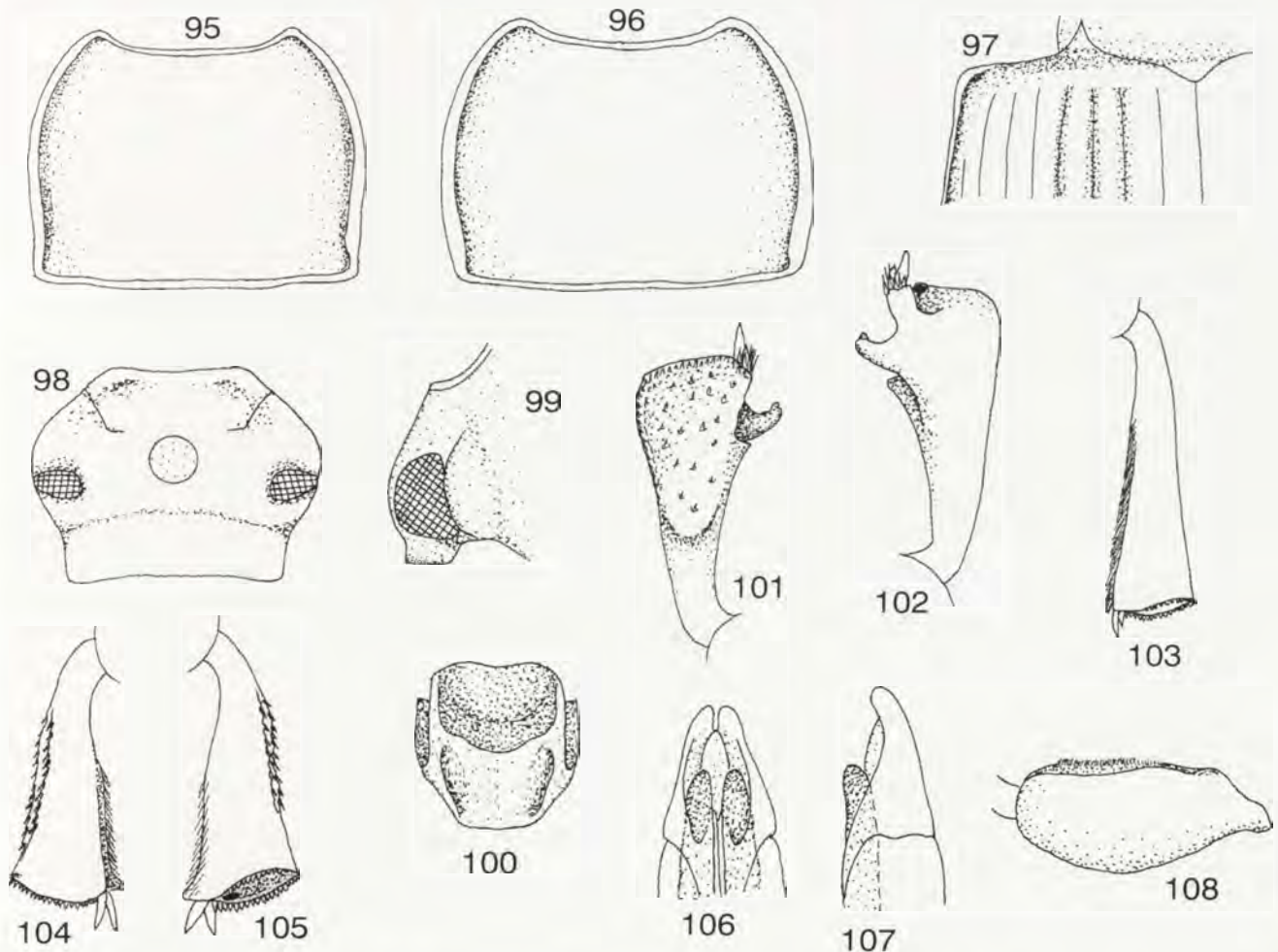
*Crypticanus simplex* sp. nov.  
(Figs 116–122, 139)

**Name derivation.** Latin adjective, *simplex*: simple.

**Locus typicus.** Woodcliff farm (South Africa, Cape Province).

**Diagnosis.** The structure of the male fore tibia places *simplex* close to the group comprising *trivialis*, *amaroides*, *edwardsi*, *incisus* and *iubatus*, while that of mid tibia resembles the group *marginicollis*.

*C. simplex* resembles *iubatus* in the structure of pronotum (wide lateral border, along which there runs a narrow, shallow gutter) and of prosternal process (bent downwards);



Figures 95–108. *Crypticanus marginicollis*: (95, 96) pronotum; (97) anterior part of elytron; (98) head; (99) lateral view of prosternal process; (100) mentum; (101) ventral and (102) dorsal view of male fore tibia; (103) male hind tibia; (104) dorsal and (105) ventral view of male mid tibia; (106) ventral and (107) lateral view of apical part of aedeagus; (108) male fore femur.

the two species differ in the structure of the male fore and mid tibia (cf. Figs 118–119 and 93–94, 120–121 and 87–88).

**Description.** Body length 12.5 mm, pl/pb = 0.67, el/eb = 1.36, el/pl = 2.06, eb/pb = 1.01. Head distinctly and densely, and pronotum delicately and sparsely punctate, elytral intervals slightly shiny, puncturation practically invisible. Underside of body shiny, puncturation of abdominal ventrites dense, at margins longitudinal wrinkles, last two ventrites very delicately punctate; episternum smooth, prosternum sparsely and delicately punctate. Head widest anterior to eyes; eyes laterally narrowed, between gena and tempus 1 facet visible. Antennal segment 3 ca. 2.2 × longer than segment 2. Pronotal sides very slightly rounded (Fig. 116); anterior angles straight, rounded, not produced anteriorly; posterior angles widely rounded; lateral border as wide as antennal segment 3. Pronotal base as wide as elytral base. Scutellum moderately wide, pkp/st ratio ca. 2.6–2.7. Elytral intervals flat; striae narrow but very distinctly and regularly incised, punctures small, very well developed (Fig. 117). Prosternal process bent downwards, border disappearing at apex. Male legs: length ratio of segments 1:2 in hind tarsus ca. 2.1–2.2; all tibiae only slightly widened, without denticles or ridges, inner side sparsely hairy (Figs 118–121); outer margin of hind tibia slightly convex (Fig. 122); dtk/dod ratio ca. 2.3–2.4, dod/dok ratio ca. 1.3–1.4. Aedeagus: lap/lbp/l = 1.0/2.0/0.6; female genitalia: lp/lc1 = 4.3, bc1/lc1 = 3.1, c1/c2/c3/c4/c4-c3 = 1.0/1.9/1.3/2.3/0.4.

**Types.** Holotype (male), TM: "S. Afr., Cape-Karoo, Woodcliff farm, 31.57 S – 24.38 E; 13.9.1983; E-Y: 2004, singled, day, leg. Penrith". Paratypes: S. Afr., Cape Prov., Graaf-Reinet 29/30.03.93. fc. Arndt; *Atrocates striatus* (Quensel) det. Julio Ferrer 1993, (JFC) 1 m; S. Afr., Cape-Karoo, Woodcliff farm, 31.57 S – 24.38 E; 13.9.1983; E-Y: 2004, singled, day, leg. Penrith (TM) 2 f.

**Distribution.** South Africa (Cape Province; Graaff-Reinet) (Fig. 139).

*Crypticanus supervacaneus* sp. nov.  
(Figs 34, 123–126)

**Name derivation.** Latin adjective, *supervacaneus*: unnecessary, dispensable.

**Terra typica.** "Caffraria" [Cape Province, South Africa].

**Diagnosis.** The presence of a deep concavity on the dorsal side of the male mid tibia places the species close to *bremeri* and *aequus*. *C. supervacaneus* resembles *bremeri* due to the saddle-like prosternal process (bent in *aequus*), and *aequus* due to the number of denticles on the inner side of the male fore tibia (1 – *supervacaneus*, *aequus*; 2 – *bremeri*).

It differs from these species in the structure of elytral intervals and striae, and in the narrowed mid part of mentum.

**Description.** Body length 14.0 mm, pl/pb = 0.71, el/eb = 1.33, el/pl = 1.86, eb/pb = 1.00 (elytra as wide as pronotum). Head sparsely and delicately punctate, pronotum and intervals smooth, punctures invisible. Underside of body slightly shiny, abdominal ventrites with fairly deep, longitudinal wrinkles, last two ventrites delicately but clearly punctate;

prosternum and episternum almost smooth, with delicate wrinkles. Eyes laterally narrowed, between gena and tempus 3 facets visible. Antennal segment 3 ca. 1.3 × longer than segment 2. Mid part of mentum slightly narrowed anteriorly (Fig. 34). Anterior angles of pronotum rounded, not produced anteriorly; posterior angles obtuse, widely rounded; lateral border 1.1 × as wide as antennal segment 3; along border a very deep and fairly wide gutter running along whole lateral margin. Pronotal sides very distinctly rounded, widest at 1/2 from base. Pronotal base as wide as elytral base. Scutellum moderately wide, pkp/st ratio ca. 2.7. Elytral intervals well convex, with transverse wrinkles; striae comparatively deep, irregular, punctures practically invisible. Prosternal process very strongly saddle-like concave, with very well developed border. Male legs: length ratio of segments 1:2 in hind tarsus ca. 1.7; inner side of fore tibia with a sharp, strongly produced denticle (at half length bifurcated) (Figs 123–124); mid tibia with a row of setae and a very small apical denticle on inner side, on outer side a very deep, longitudinal concavity making the tibia bent inwards (Figs 125–126); outer margin of hind tibia slightly convex, somewhat flattened, with a row of very dense setae on inner side, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.4. Aedeagus: lap/lbp/l = 1.0/2.2/0.7.

**Type.** Holotype: male (MNHN): "Caffraria, Muséum Paris, 1952, coll. R. Oberthür".

*Crypticanus trivialis* (Fähræus, 1870) comb. nov.  
(Figs 127–133, 139)

*Trigonopus trivialis* Fähræus, 1870: 286. – Gebien 1910: 272; 1938: 292.

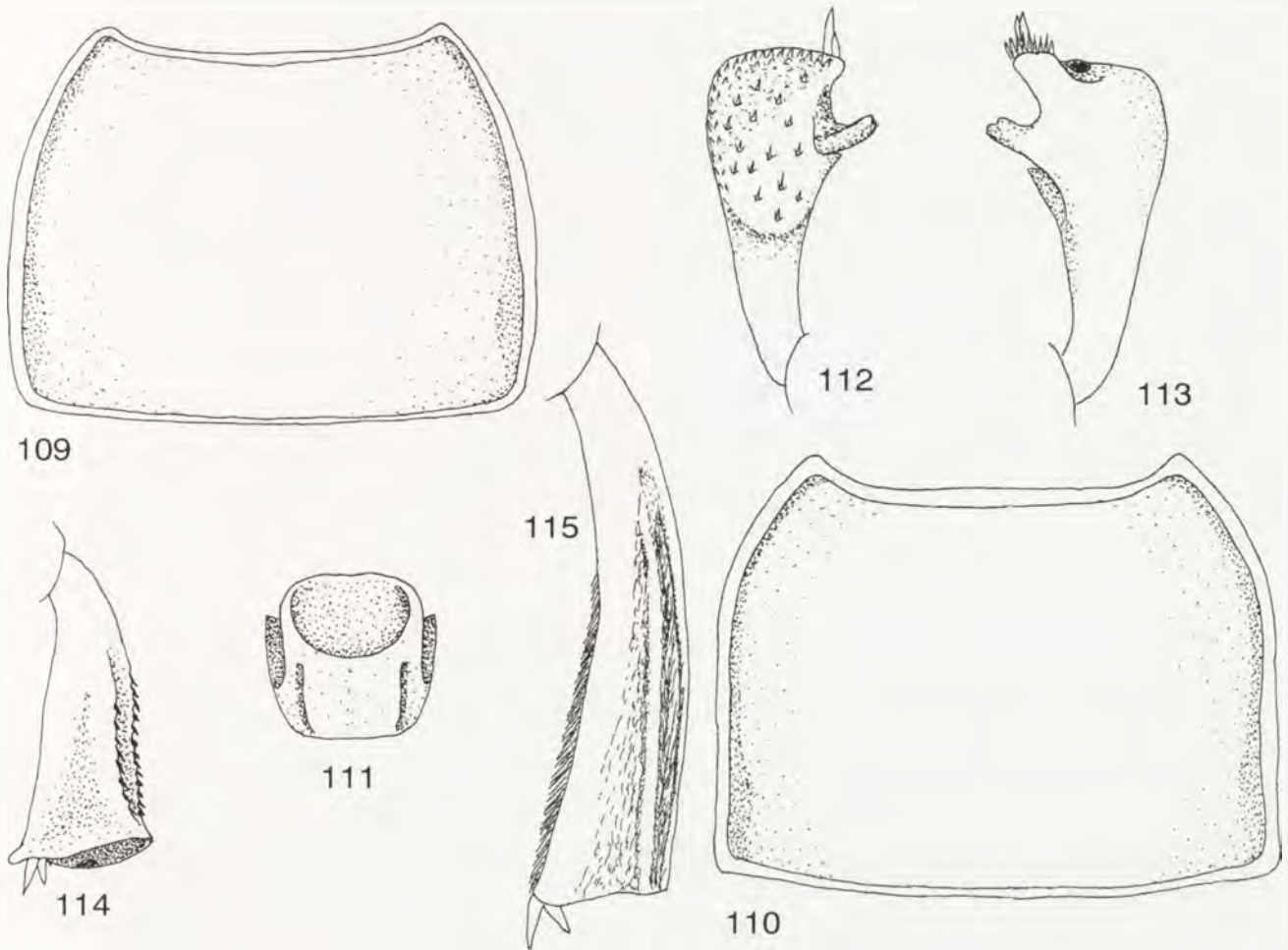
*Melanopterus trivialis* (Fähræus): Koch 1956: 89.

**Terra typica.** "Caffraria" [South Africa, Cape Province].

**Diagnosis.** The structure of the male fore tibia (without denticle on inner side) place *trivialis* close to *edwardsi*, *simplex*, *amaroides*, *incisus* and *iubatus*. In these species (except *simplex*) the male mid tibia is S-like bent.

*C. trivialis* is the closest to *amaroides* (trapezoidal pronotum and convexity of elytral intervals), from which it differs in the structure of the male fore tibia (cf. Figs 130–131 and 16–17).

**Description.** Body length 9.5–11.0 mm, pl/pb = 0.62–0.67, el/eb = 1.18–1.23, el/pl = 1.79–1.97, eb/pb = 0.99–1.08. Head and intervals as well as pronotum at lateral border delicately but clearly punctate, pronotal disc smooth. Underside of body slightly shiny, puncturation of abdominal ventrites dense, at margins longitudinal wrinkles, last two ventrites very delicately punctate; episternum smooth, prosternum delicately punctate, sometimes shallowly wrinkled. Head widest anterior to eyes; eyes laterally narrowed, between gena and tempus 1–3 facets visible. Mentum as in fig. 129. Antennal segment 3 ca. 2.0 × longer than segment 2. Pronotum trapezoidal, widest at base (Fig. 127); its sides slightly convergent anteriorly; anterior angles somewhat rounded, not produced anteriorly; posterior angles widely rounded; lateral border fairly narrow, ca. 0.51–0.57 × as wide as antennal segment 3; along border a very narrow gutter, clearly widened before posterior angles. Pronotal



Figures 109–115. *Crypticanus robustus*: (109, 110) pronotum; (111) mentum; (112) ventral and (113) dorsal view of male fore tibia; (114) male mid tibia; (115) male hind tibia.

base as wide as elytral base. Scutellum comparatively small, pkp/st ratio ca. 3.2–3.4. Elytral intervals flat (Fig. 128); striae narrow, but very clearly and regularly incised, punctures small, very well developed. Prosternal process flat, widened towards apex, border disappearing at apex. Male legs: length ratio of segments 1:2 in hind tarsi ca. 3.2–3.5; inner side of fore tibia with a narrow, longitudinal ridge (Figs 130–131); inner margin of mid tibia gently S-like bent, with a longitudinal group of dense, adherent hairs at apex (Figs 132–133); outer margin of hind tibia slightly convex, with a row of short hairs on inner side; dtk/dod ratio ca. 1.3–1.7, dod/dok ratio ca. 1.4–1.5. Aedeagus: lap/lbp/tll/ll = 1.0/2.5/0.6/0.6; female genitalia: lp/lc1 = 4.1, bc1/lc1 = 2.0, c1/c2/c3/c4/c4-c3 = 1.0/1.3/1.4/2.0/0.2.

**Type.** Holotype (male), ZMS: "Trigonopus trivialis; Typus; J.Wahlb.; P.F.; Caffraria; Trigonopus trivialis Fahr. Naturhistoriska Riksmuseet Stockholm Loan no 1238/95".

**Material examined.** Caffrerie; coll. R. Oberthür ex coll. Deyrolle, (MNHN) 1 m; Pt. Elizabeth, C.C., A. Moorhouze,

1905; SAM-COL-A011794, (SAM) 1 m, 2 f; Witteklip summit, nr. Port Elizabeth, VIII. 1950, C. Dickson, 33.50 S – 25.30 E, (TM) 1 f; S. Afr., Cape Prov., Ladies Slipper Mtn., Duke, 9. I. 1977, (TM) 3 m, 4 f.

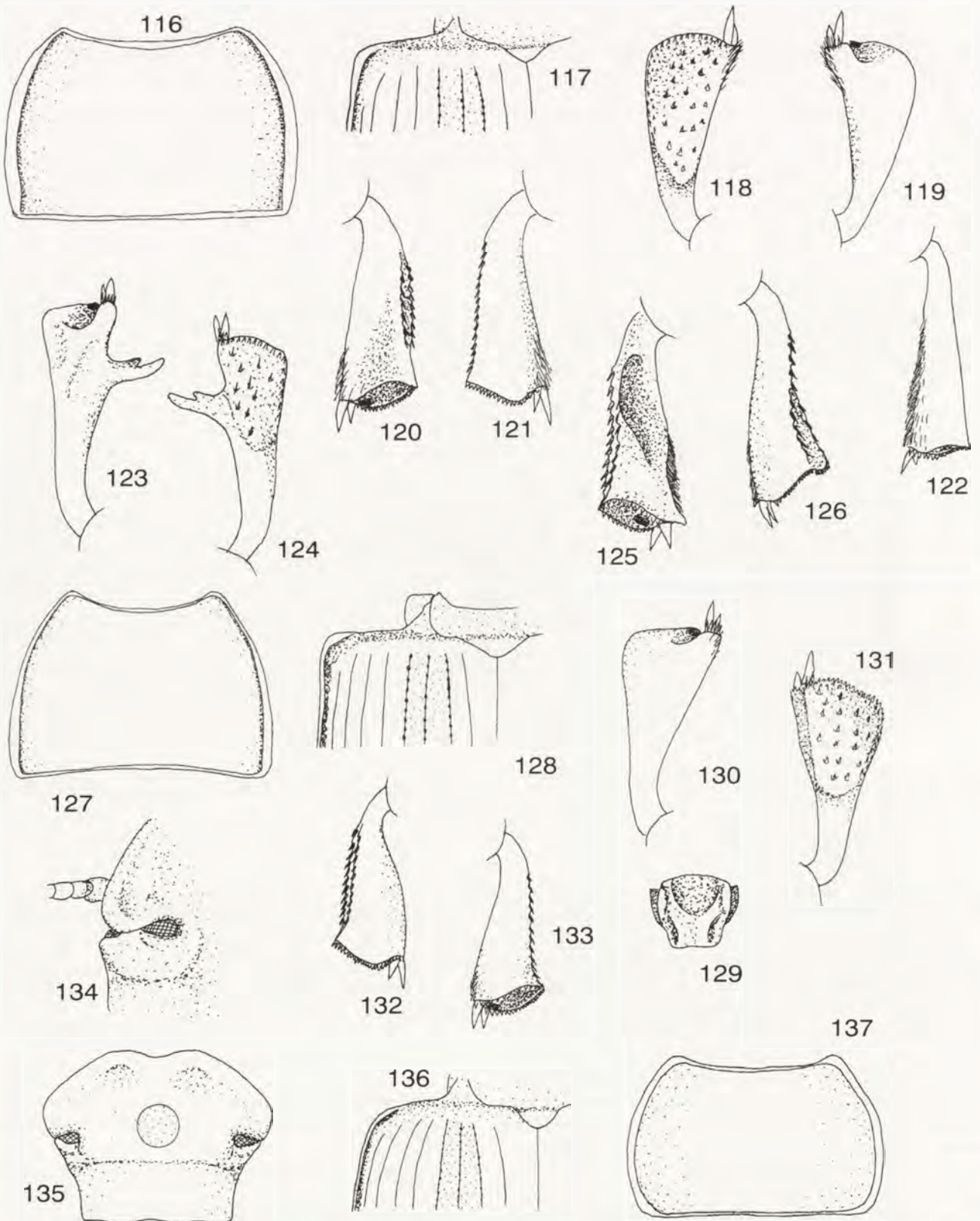
**Distribution.** South Africa (Cape Province: Port Elizabeth) (Fig. 139).

#### *Atrocrypticanus* gen. nov.

**Name derivation.** It is a hybrid of generic names *Atrocates* and *Crypticanus*; the new genus is closely related to both.

**Type species.** *Atrocrypticanus fraternus* sp. nov., gender masculine.

**Diagnosis.** *Atrocrypticanus* is characterized by a character not found in other genera of trigonopoid Platynotina – complete division of eye in two parts, resulting from fusion of gena and tempus. Other characters place it between other genera – widened mid part of mentum (*Amblychirus* and



Figures 116–137. (116–133). *Crypticanus* spp. (116–122). *C. simplex*. (123–126). *C. supervacaneus*. (127–133). *C. trivialis*. (134–137). *Atrocrypticanus fraternus*: (116, 127, 137) pronotum; (117, 128, 136) anterior part of elytron; (118, 124, 131) ventral and (119, 123, 130) dorsal view of male fore tibia; (120, 125, 133) dorsal and (121, 126, 132) ventral view of male mid tibia; (122) male hind tibia; (129) mentum; (134) lateral and (135) dorsal view of head.



Figure 139. Distribution of *Crypticanus marginicollis* (open circle), *C. trivialis* (solid circle), *C. laerimosus* (open/solid circle), *C. iubatus* (open triangle), *C. simplex* (solid triangle), *C. robustus* (open/solid triangle), *Atrocrypticanus fraternus* (solid square).



Figure 138. Distribution of *Crypticanus amaroides* (solid circle), *C. aeternus* (open/solid circle), *C. brzeskii* (solid circle), *C. amicus* (open triangle), *C. bremeri* (solid triangle), *C. incisus* (open/solid triangle), *C. edwardsi* (open square).

*Melanopterus*); gently truncate anterior margin of elytra, practically smooth body surface (*Crypticanus* and *Atrocrites*) and the structure of pronotum as in *Atrocrites*. Regretfully, only a female of the type species is known. Further considerations on its relationships will be possible only after the details of male structure have been studied.

**Description.** See description of *A. fraternus* sp. nov.

*Atrocrypticanus fraternus* sp. nov.

(Figs 134–137, 139)

**Name derivation.** Latin adjective, *fraternus*: kin, related.

**Locus typicus.** Warmwaterberg (South Africa, Cape Province).

**Diagnosis.** See diagnosis of the genus *Atrocrypticanus* gen. nov.

**Description.** Body length 14.0–15.0 mm, pl/pb = 0.55–0.56 (pronotum relatively wide), el/eb = 1.16–1.24, el/pl = 2.15–2.24, eb/pb = 1.01–1.02. Body oval, fairly strongly convex, elytra slightly tucked underneath in posterior part (fragment of interval IX visible from underside); colour black, upperside mat, with a greasy sheen; head, pronotum and intervals sparsely and delicately punctate, punctures well visible. Underside of body slightly shiny, episternum practically smooth, prosternum with dense, fairly large punctures passing into wrinkles; puncturation of abdominal ventrites distinct, at margins longitudinal, delicate wrinkles, last two ventrites delicately punctate. Head very strongly widened anterior to eyes. Mentum as in fig.; mid part of mentum wide, spade-shaped; median keel not reaching anterior margin; lateral wings very narrow, barely visible. Eyes laterally divided by the angle of gena and tempus, which are united by a suture (Figs 134–135). Antenna like in the genus *Trigonopus*, segment 3 ca. 2.0 × longer than 2. Fronto-

clypeal suture poorly marked, practically invisible. Pronotal sides strongly rounded (Fig. 137); anterior angles slightly produced anteriorly; posterior angles widely obtuse; lateral border 1.40 × as wide as antennal segment 3, flat, formed of a narrow, regular groove (pronotal surface at the same level as border, without gutter-like concavity along lateral margins); border of base very narrow. Scutellum small, pkp/st ratio ca. 3.0–3.4. Lower edge of anterior margin of elytra poorly convex, upper edge smooth; humeral angles widely rounded. Elytral intervals moderately convex (Fig. 136); striae distinct, punctures practically invisible. Upper margin of elytral epipleura in apical part invisible. Prosternal process protruding towards mesosternum, with border interrupted at apex. Last abdominal ventrite bordered. In female all tarsi narrow with distinct bare gutters on the underside of all segments; length ratio of segments 1:2 in hind tarsus ca. 2.5–2.6. Outer margin of hind tibia smooth, without longitudinal ridges; dtk/dod ratio ca. 2.3–2.4, dod/dok ratio ca. 1.1–1.2. Female genitalia: lp/lc1 = 5.0, bc1/lc1 = 4.6, c1/c2/c3/c4/c4-c3 = 1.0/1.5/2.1/2.5/0.2.

**Types.** Holotype (female), JFC: "S. Africa., Cape Prov., Warmwaterberg 12 miles NE Barrydale, 4.I.51. No.113; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck". Paratype: S. Africa., Cape Prov., Warmwaterberg 12 miles NE Barrydale, 4.I.51. No.113; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck, (JFC) 1 f.

**Distribution.** South Africa (Cape Province: Swellendam) (Fig. 139).

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