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**A preliminary review of Western Palearctic *Macrocoma* CHEVROLAT, 1837
(Coleoptera: Chrysomelidae: Eumolpinae)**

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ABSTRACT. A short review of Mediterranean and W Asian species of the genus *Macrocoma* CHEVROLAT, 1837 and a key to their determination are given. Replacement name *M. franzi officiens* nom. nov. is proposed for *M. occidentalis* PALM, 1976, nec *M. henoni occidentalis* (ESCALERA 1914).

Key words: entomology, taxonomy, *Coleoptera*, *Chrysomelidae*, *Eumolpinae*, *Macrocoma*, W Palearctic, review, key.

INTRODUCTION

The genus *Macrocoma* CHEVR., in W Palearctic represented by about 40 species, belongs to relatively feebly studied groups of Eumolpinae and still requires a taxonomic revision. Separate discussions were devoted to species inhabiting the Canary Islands (PALM 1976), Morocco (KOCHER 1967) and Saudi Arabia (MEDVEDEV 1996). Some groups include species displaying a wide individual and local variation, which provided a basis for description of some very doubtful taxa. For some insufficiently studied taxa conjectures concerning their systematic position are given; in future all the conjectures should be verified.

KOCHER (1958) proposed a division into groups, based on two characters (arrangement of hairs covering elytra and the presence of emargination on apex of aedeagus); this division is followed also in the present paper. Fairly limited distribution ranges of most species make it possible to introduce an auxiliary division based on biogeographic data. When identifying species difficult to

distinguish based on morphological characters, the origin (locality of capture) of the specimens may be an important indication.

This paper is an attempt at presenting the current state of knowledge of the genus *Macrocoma* in the discussed area.

KEY TO SPECIES

The Ethiopian species *M. chrysites* GERSTAECKER, 1871, probably erroneously reported from Arabian Peninsula, is not included in the key

1. Species from Canary Islands 2.
- Species from other regions 9.
2. Elytra oval, rounded laterally, humeral calli feebly developed. 3.
- Elytra with well-developed humeral calli. 4.
3. Length of body **2.8-3.2 mm**. Antennae and legs reddish brown. Upper side shining, dark, with metallic reflex. Aedeagus as in fig. 28. Described from Lanzarote.
..... *divisa* (WOLLASTON, 1864).
- Length of body **3.8-4.4 mm**. Body brown, differently darkened. Aedeagus as in fig. 40. Described from Alegranza.
..... *oromiana* DACCORDI, 1978.
4. Habitus as in fig. 13. Antennae and legs blackish with metallic reflex. Upper side dark brassy. Apex of aedeagus with a small, sharp emargination (fig. 39). Length **3.0-4.2 mm**. Described from Gran Canaria.
..... *obscuripes* (WOLLASTON, 1864).
- Legs not entirely blackish 5.
5. Length under **3.1 mm**. Head and pronotum dark brown or blackish, anterior border of pronotum reddish. Elytra, legs and antennae reddish-brown. Hind femora usually darker. Upper side shining, finely and rather densely punctate. Background of pronotum smooth. Humeral calli present but not protruding. Described from Fuerteventura.
Length over 3.2 mm 6. *dubia* (WOLLASTON, 1864).
6. Habitus as in fig. 11. Dark coloured, upper side with cupreous reflex. Legs dark reddish brown, femora apically and tarsi often blackened. Head and eyes larger. Legs stouter and humeral calli stronger protruding than in following species. Aedeagus as in fig. 35. Length **3.3-4.0 mm**. Described from Tenerife.
..... *latifrons* LINDBERG, 1952.
- Coloration of body more pale with cupreous or bronzy reflex, head and eyes smaller 7.
7. Upper side feebly shining, finely and densely punctate. Basis of antennae brown, their apical part black. Legs reddish brown, femora apically more or less darkened. Hairs covering elytra relatively short. Aedeagus as in fig. 49.

Length **3.5-4.2 mm**. Described from Gran Canaria, originally reported also from Hierro, La Palma and Tenerife.

- *spendiduia* (WOLLASTON, 1864).
- Upper side shining, moderately densely punctate. Antennae unicoloured or in apical part more or less darkened. Legs unicoloured, reddish brown, femora sometimes slightly darkened apically 8.
 - 8. Body outline more slender. Pronotum more strongly, elytra considerably stronger punctate. Elytra shiny, hairs on their surface longer. Aedeagus as in fig. 48. Length **3.3-4.0 mm**. Described from Tenerife.
..... *splendens* s. str. LINDBERG, 1951.
 - Body outline more stout. Pronotum more finely, elytra considerably more finely punctate. Elytra feebly shining, hairs on their surface shorter. Aedeagus as in fig. 30. Length **3.2-4.0 mm**. (= *occidentalis* PALM, 1976, nec ESCALERA, 1914). Forms two subspecies: elytra stronger shining, legs usually slightly darkened (nominotypical subspecies), elytra feebly shining, legs pale reddish (subsp. *officiens* nom. nov.). Nominotypical is described from Hierro, subsp. *officiens* from La Palma.
..... *franzi* PALM, 1976.
 - 9. Iberian and N African species 10.
 - Species from E Mediterranean area and W Asia 27.
 - 10. Species from Iberian Peninsula. Habitus as in fig. 4. Upper side black with distinct cupreous sheen. Legs black, tibiae usually reddish-brown. Aedeagus as in fig. 25. Length **4.8-5.5 mm**. Distributed in southern Spain.
..... *cyindrica* KÜSTER, 1846.
 - Species from Morocco, Algeria, Tunisia (and Sicily) 11.
 - 11. Mid and hind tibiae in both sexes conspicuously, just behind knees, thickened (fig. 3). Upper side black with bronzy reflex, legs and antennae reddish brown, femora, thickenings of tibiae and last 3-4 antennomeres usually darkened. Pronotum covered by randomly scattered, long, white, erect hairs. Scale-like hairs of elytra arranged in longitudinal rows. Aedeagus as in fig. 24. Length **2.8-3.2 mm**. Distributed in Algeria and Morocco.
..... *crassipes* (LÉFÈVRE, 1876).
 - Tibiae, particularly in male, often thickened, but the thickening is gradual. Length (except *aeneonigra*, thesis 25 and *seriesericans*, thesis 24) over **3.5 mm** 12.
 - 12. Apex of aedeagus in dorsal view distinctly incised or emarginate 13.
 - Apex of aedeagus in dorsal view neither emarginate nor distinctly emarginate, sometimes impressed or indistinctly emarginate on ventral side only 21.
 - 13. Habitus as in fig. 6. On elytra setae arranged in longitudinal series. Body black. Upper side with distinct greenish (on pronotum slightly aeneous) metallic reflex, strongly and densely punctate. Pronotum widest behind its midlength, subglobose, with broadly rounded lateral sides. Elytra widest at basis, very feebly narrowed posterad, their apex regularly rounded.

Antennomeres 1-5 or 1-6 reddish brown, the remaining antennomeres black. Legs black, tibiae and tarsi barely lightened, dark brown to pitchy. Aedeagus as in fig. 29. Length 4.0-4.3 mm. Described from N Algeria.

- *djurdjurensis* WARCHALOWSKI, 2001.
- . Punctures and hairs (or setae) confuse or partly subseriate (*henoni*-group) 14.
14. Elytra reddish with a great blackish spot near scutellum. Length about 4.8 mm. Described from Morocco. Perhaps identical with *henoni occidentalis* ab. *pardoi* (antithesis 16).
..... *bipartita* KOCHER, 1962.
- . Elytra uniformly coloured, or dark rust-reddish, in anterior part somewhat darkened 15.
15. Apex of aedeagus deeply emarginate. Body 5.5-8.5 mm long, rarely shorter (about 5 mm), Habitus as in fig. 7 16.
- . Apex of aedeagus deeply and narrowly emarginate or shallowly and broadly emarginate 17.
16. Habitus as in fig. 7. On elytra hairs entirely confused, upper side black, sexual dimorphism involves structure of legs only. Legs always black or black with feeble metallic reflex. Variation: hairs on pronotum very short (ab. *reymondi* KOCHER, 1958), upper side black, elytra sometimes with cupreous metallic reflex, on pronotum median longitudinal line very distinct, shining, slightly convex (ab. *sarroensis* KOCHER, 1958). Aedeagus as in fig. 31. Distributed mainly in northern Morocco and in Algeria.
..... *henoni* (PIC, 1894) s. str.
- . On elytra hairs often partly arranged in longitudinal series, sexual dimorphism usually involves also colouring of upper side (= *pici* ESCALERA, 1914). Variation: upper side black, without metallic reflex (ab. *nigrita* KOCHER, 1958), upper side olive-green with bronzy or greenish metallic sheen (ab. *atlasica* KOCHER, 1958 = ?*mogadorensis* PIC, 1912), upper side cupreous, darker in female (ab. *susica* KOCHER, 1967), upper side with bluish metallic sheen (ab. *coerulescens* KOCHER, 1958), upper side in male black, in female legs, antennae and elytra reddish-brown (ab. *pardoi* KOCHER, 1967), body rather large (6.5-7.0 mm), upper side covered with light rust-yellow hairs as in fig. 7 (ab. *lindbergi* KOCHER, 1967). Here probably also *debduensis* KOCHER, 1967, black, rather plump, almost hairless on pronotum and very sparsely pubescent on elytra. Distributed mainly in southern part of Morocco.
..... *henoni occidentalis* (ESCALERA, 1914).
17. Apex of aedeagus deeply and narrowly emarginate 18.
- . Apex of aedeagus shallowly and broadly emarginate. Upper side black or black with rather feeble cupreous metallic sheen. Length 4.2-5.5 mm 19.
18. Legs and antennae black, tibiae and tarsi sometimes dark reddish brown. Upper side sparsely pubescent (hairs very short), black with bronzy-cupreous metallic sheen. Legs robust, black. Aedeagus as in *henoni* (fig. 31). Length

5.0-6.0 mm. Perhaps a local form or subspecies of *henoni*. Described from southern Morocco.

- *peyerimhoffi* KOCHER, 1958.
- Legs and antennae reddish. Upper side black, in male with fairly strong bronzy-cupreous metallic sheen, in female darker. Aedeagus as in fig. 31. Length 4.0-5.0 mm. Described from Morocco.
- *haiensis* KOCHER, 1967.
19. Species from Moroccan Sahara. Bronzy or cupreous sheen of upper side distinct 20.
- Species from Algerian Sahara. Cupreous metallic sheen of upper side feeble or absent. Length 4.5-5.0 mm. Perhaps conspecific with *saharica* (thesis 20).
..... *carbonaria* LEFÈVRE, 1876.
20. Habitus as in fig. 15. Upper side blackish or dark brown, with bronzy, cupreous or dark purplish metallic sheen. Legs reddish, femora and tarsi usually slightly darker, brownish-red. Pronotum slightly transverse. Legs robust, tibiae thickened apically. Apex of aedeagus gently arcuate emarginate (fig. 43). Length 4.2-5.2 mm.
..... *saharica* KOCHER, 1958.
- Upper side blackish or dark bronzy, with greenish-bronzy or greenish-cupreous, on elytra usually slightly more green metallic sheen. Legs brown. Pronotum more globose. Apex of aedeagus as in *saharica* (thesis 20), somewhat more deeply emarginate. Length 3.8-4.8 mm. Perhaps conspecific with *saharica*.
..... *dakkai* KOCHER, 1962.
21. On elytra punctures and hairs confusedly scattered. Teeth on anterior femur extremely small (*heydeni*-group) 22.
- On elytra hairs arranged in regular, longitudinal series (*cylindrica*-group) 24.
22. Habitus as in fig. 8. Upper side green or greenish-bronzy, legs dark brown. Aedeagus as in fig. 32. Length 4.3-5.2 mm. Variations: upper side bluish as in fig. 8 (ab. *coerulea* KOCHER, 1967). Distributed in Morocco.
..... *heydeni* LEFÈVRE, 1876.
- Upper side black with bronzy or cupreous metallic reflex 23.
23. Hairs covering upper side long and dense. Aedeagus as in *heydeni* (fig. 32). Length 4.5-5.0 mm. Described from Spanish Sahara. Perhaps a southern form of *bolivari* (antithesis 23).
..... *mateui* KOCHER, 1958.
- Habitus as in fig. 1. Body black, often with very feeble metallic reflex, legs and antennae black or blackish. Hairs covering upper side rather short, semierect, moderately dense, on elytra uniformly scattered. Length 4.2-5.1 mm. Variations: upper side bluish (ab. *smirnovi* KOCHER, 1969). Aedeagus similar as in *heydeni* (fig. 32). One subspecies from AntiAtlas was described: upper side more shining and more finely punctate, apex of aedeagus somewhat shorter rounded (subsp. *antiatlantis* KOCHER, 1967) with variation ab.

siruensis KOCHER, 1969 (pronotum strongly while finely punctate). Perhaps here also *M. rotroi* KOCHER, 1962. Morocco.

- *bolivari* ESCALERA, 1914.
24. Habitus as in fig. 17. Body small, entirely rust-reddish, pronotum sometimes partly darker. Setae on pronotum adhering, on elytra squarniform, semi-erect. Fore femora without any trace of teeth. Aedeagus as in fig. 46. Length 3.1-4.0 mm. (= *gossypiata* FAIRMAIRE, 1876). Algeria
- *seriesericans* FAIRMAIRE, 1876.
- Not as above 25.
25. Body shorter than 3 mm. Upper side black with aeneous metallic sheen. Described from Algeria. Perhaps a dwarf form of *feprieuri* (thesis 26).
- *aeneonigra* (FAIRMAIRE, 1873).
- Body longer than 3.5 mm 26.
26. Punctures of elytra entirely confuse, setae squarniform, in apical part about 4-5 x longer than broad. Upper side usually black with bronzy reflex, apical part of aedeagus rounded (fig. 37). Length 3.6-4.5 mm. (= *?melillensis* KOCHER, 1967 described from Morocco = *?pachydera* FAIRMAIRE, 1876). Distributed in Morocco, Algeria and Tunisia.
- *leprieirri* (LEFÈVRE, 1876).
- Habitus as in fig. 18. Punctures of elytra often arranged in 3-4 longitudinal rows blurred by equally strong puncturation of intervals, setae thinner, in apical part about 6-8 x longer than broad. Much variable. Upper side differently coloured, usually bronzy green or green with rather strong metallic sheen, pronotum often golden-green or bronzy-cupreous (typical form). Legs entirely reddish brown or brown, femora sometimes slightly darker. Apical part of aedeagus narrowed-rounded (fig. 47). Length 3.8-6.2 mm. (= *cylindrica vaucheri* PIC, 1907). The Middle Atlas is inhabited by subsp. *mesatiantica* KOCHER, 1958, on average smaller (4.0-4.5 mm), darker, with blackish legs and with more confused punctures of elytra. This subspecies forms an aberration coloured like the typical form of *setosa* s. str. (ab. *fauconnieri* KOCHER, 1958). Distributed in Morocco, Algeria and Sicily.
- *setosa* (LUCAS, 1849).
27. Habitus as in fig. 12. Upper side without hairs, but with dense adherent scales forming broad, longitudinal stripes, particularly along suture. Body black usually with bronzy metallic reflex, elytra brown, often with black, triangular, blurred spot in scutellar area. Legs robust. Scales sometimes form on each elytron 4-5 narrow longitudinal stripes (ab. *decemlineata* PIC, 1903). Elytra strongly narrowed posterad. Length 4.3-6.0 mm. Aedeagus as in fig. 36. Distributed in Saudi Arabia, Oman and Iran.
- *lefevrei* (BALY, 1879).
- Upper side covered by hairs 28.
28. Upper side brown without metallic reflex or black with a very feeble, often barely perceptible bronzy metallic reflex 29.

- Upper side with distinct metallic sheen 33.
 29. Elytra brown without any metallic reflex 30.
 - Elytra pure black or black with very weak bronzy metallic reflex 31.
 30. Apex of aedeagus emarginate (fig. 20). General coloration of body relatively pale. Upper side reddish brown, underside fulvous clothed with close pale pubescence. Antennae flavous, first antennomere thickened, twice as long as the second. Tibiae thickened at apex. Length 4.5-5.6 mm. Known from Yemen only.
 *brunnea* BRYANT, 1957.
 - Habitus as in fig. 9. Apex of aedeagus not emarginate (fig. 33). Elytra, underside, legs and antennae pale reddish brown to chestnut, elytra often with undefined, blurred darkenings. Head blackish or black, mouth parts and sometimes vertex reddish brown. Pronotum black, its anterior border reddish brown, surface with extremely feeble, often imperceptible, bronze metallic reflex. On elytra hairs semierect, arranged in slightly confused but distinct germinate longitudinal rows. On each elytron usually 8 pairs of rows. Femoral teeth very small and sharp. Aedeagus as in fig. 33. Length 4.0-4.7 mm (male) to 4.3-5.3 mm (female). Described from S Iran.
 *hormuziaca* WARCHALOWSKI, 2001.
 31. Habitus as in fig. 10. Upper side pure black or with extremely feeble metallic reflex, legs and basal part of antennae uniformly red or brownish red, apical 4-5 antennomeres blackish. Elytra rather strongly and densely, randomly, similar as on pronotum punctate, covered by very short, fairly sparse, semierect, often almost or entirely disappearing, white hairs. Apex of aedeagus not emarginate (fig. 34). Length 3.3-4.9 mm (both sexes). Distributed in Asia Minor.
 *korbi* (PIC, 1901).
 - Upper side black with feeble but perceptible bronzy metallic reflex 32.
 32. Habitus as in fig. 16. Apex of aedeagus emarginate (fig. 21). Legs dark brown, sometimes tibiae dark reddish-brown. Length 5.0-6.0 mm. See *brunnipes* ab. *obscuricolor* (thesis 34).
 - Habitus as in fig. 16. Apex of aedeagus not emarginate (fig. 44). Body black with feeble bronzy reflex, legs and antennae uniformly red-brown, claw tarsomeres and apical 3-4 antennomeres sometimes slightly darkened. Elytral puncturation dense, randomly scattered, adherent hairs arranged in regular longitudinal rows. The regularity of hair rows not always at first glance distinct. Length 3.0-3.7 mm (male) to 3.3-5.0 mm (female). Distributed in Central Asia.
 *sarvadensis* (SOLSKY, 1882).
 33. Elytra densely covered by long, white, adherent or semierect hairs, not arranged in longitudinal rows 34.
 - On elytra hairs at least partly arranged in longitudinal rows 36.

34. Habitus as in fig. 2. Length of body 5.0-7.0 mm. Pronotum large, widest in or just behind its midlength. Legs robust, particularly in male. Upper side pure green, sometimes bronzy- or bluish green, metallic sheen strong. Legs brown, more rarely red or dark brown. Aedeagus as in fig. 21. Variation: Length of body 5.0-5.5 mm, upper side dark brown or black, with feeble bronzy sheen (ab. *obscuricolor* PIC, 1905). Typical form distributed in Near East (Israel, Syria, Iraq), ab. *obscuricolor* (perhaps a distinct species) in Asia Minor.
..... *brunnipes* (OLIVIER, 1808).
- Length of body at most 4.0 mm 35.
35. On elytra hairs moderately dense. Femoral tooth longer. Upper side golden-bronzy, shining, loosely covered by silvery-white hairs. Apex of aedeagus truncate (fig. 42). On average larger, Length 3.5-4.0 mm. Described from Saudi Arabia.
..... *sacra* (LOPATIN, 1983).
- On elytra hairs dense, covering mostly the main surface. Femoral tooth shorter. Apex of aedeagus emarginate (fig. 19). On average smaller, Length 2.8-3.7 mm. Distributed in Saudi Arabia.
..... *aladina* DACCORDI et MEDVEDEV, 1996.
36. Elytra doubly pubescent: more erect hairs arranged in longitudinal rows, intervals covered by adherent pubescence 37.
- On elytra rows of hairs only, intervals without distinct pubescence 38.
37. Apex of aedeagus sharpened (fig. 22). Upper side bronzy or aeneous, erect hairs on elytra yellowish, short and thick, adherent hairs white, slightly longer and thinner than erect hairs. Antennae dark fulvous, antennomeres 8-10 darkened. Anterior margin of clypeus gently concave. Femoral tooth thin and long. Length 4.2-4.7 mm. Described from Saudi Arabia.
..... *budura* DACCORDI et MEDVEDEV, 1996.
- Apex of aedeagus deeply emarginate, almost bilobed (fig. 45). Upper side green, erect hairs white, long and thin, adherent hairs similar to erect ones, but denser. Antennae pale, antennomeres 7-11 black. Anterior margin of clypeus triangularly emarginate. Femoral tooth minute. Length 4.8-5.2 mm.
..... *saudica* MEDVEDEV, 1996.
38. Habitus as in fig. 5. Length of body 5.2-6.2 mm. Upper side blue, often blue-black, rarely bronzy-green. Legs dark brown, almost black. Pronotum subglobose. Apex of aedeagus (fig. 27) not emarginate. Distributed in Syria and Asia Minor.
..... *delagrangiei* PIC, 1898.
- Length of body always under 5.0 mm 39.
39. Habitus as in fig. 14. Species from Balkan Peninsula, Cyprus, Asia Minor, Syria and Caucasian countries. Upper side black with green or bronzy metallic sheen. Legs dark red, often much darker, brown, even with blackish femora. Aedeagus as in fig. 41. Length 3.3-4.6 mm (= *diversicolor* SCHAUFUSS, 1871, *aenea* WALKER, 1871, *graeca* LEFÈVRE, 1876, *balcanica* APFELBECK,

1912). Here probably also *anatofica* Prc, 1898. Forms two subspecies: nominotypical subspecies distributed as above and subsp. *turkmena* LOPATIN, 1976 distributed in Turkmenia with less densely punctate pronotum and with punctures of elytra more distinctly arranged in longitudinal rows.

- *rubripes* (SCHAUFUSS, 1862).
 - Species from Arabian Peninsula 40.
 40. Body more slender, sides of elytra parallel. Hind tibiae not or very feebly broadened at apex (fig. 23). Hair rows not quite regular, duplicate, hairs very thin. Upper side usually bicoloured: head and prothorax dark aeneous, elytra brown with metallic sheen. Labrum, antennae and legs brown. Apex of aedeagus rounded (fig. 23). Length 3.4-4.1 mm. Distributed in Saudi Arabia and Oman.
 *buettikeriana* DACCORDI, 1979.
 - Body more robust, elytra narrowing posterad 41.
 41. Anterior margin of clypeus almost straight. Frons angularly broadened on sides, covering the basis of antennae. Upper side bronzy, antennae, labrum and legs dark red. Femora slender with a small acute tooth, tibiae thin and straight, moderately broadened at apex. Tarsi very thin, tarsomere 4 almost as long as three preceding combined. Apex of aedeagus rounded (fig. 26). Length 4.8 mm. Described from Yemen.
 *daccordii* MEDVEDEV, 1996.
 - Anterior margin of clypeus gently emarginate. Frons without broadenings. Upper side dark green or cupreous, antennae and legs reddish. Setae on elytra broad, scale-like. Apex of aedeagus with an apical tooth (fig. 38). Length 3.2-4.5 mm (= *leprieuri* auctorum, *arabica* DACCORDI in litt.). Variation: upper side greenish-aeneous, anterior margin of clypeus more strongly emarginate (ab. *mesopotamica* Prc, 1898). Distributed in Arabian Peninsula (typical form) and in Mesopotamia (ab. *mesopotamica*).
 *millingeni* Prc, 1898.

LIST OF SPECIES

aeneonigra (FAIRMAIRE, 1873)

Pseudocolaspis aeneo-nigra FAIRMAIRE, 1873: 392

Terra typica: Algeria.

Described based on one specimen only (sex unknown). Probably a dwarf form of *leprieuri* (key, thesis 26).

aladina DACCORDI et MEDVEDEV, 1996
 (fig. 19)

Macrocoma aladina DACCORDI et MEDVEDEV, 1996: 244.

Locus typicus Wadi Daykah, Saudi Arabia.

Described based on 7 specimens. Close to *M. sacra* (key, thesis 35), but differs in dense pubescence of upper side of body and different form of aedeagus.

***bipartita* KOCHER, 1962**

Macrocoma bipartita KOCHER, 1962: 214.

Locus typicus Bou-Anane, about 100 km NEE from Ksar-es Souk, Morocco.

I examined two females from the collection of KOCHER (Rabat). General habitus as in *henoni* (fig. 7), elytra distinctly narrowed posterad. Pronotum deep brown, elytra reddish brown with a great, almost triangular, blackish spot in scutellar area, reaching to 2/3 length of elytra. Perhaps a colour variation of *henoni* (key, thesis and antithesis 16).

***bolivari* (ESCALERA, 1914)
(fig. 1)**

Psetidocolaspis Bolivari ESCALERA, 1914: 519.

Macrocoma bolivari ab. *smirnovi* KOCHER, 1969: 112.

Locus typicus Tarudant, Sous region, W Morocco.

Common in High Atlas and in its vicinity.

***bolivari antiatlantis* KOCHER, 1967**

Macrocoma bolivari subsp. *antiatlantis* KOCHER, 1967: 299.

Macrocoma bolivari antiatlantis var. *siriensis* KOCHER, 1969: 113.

Locus typicus: Bou-Izakarne, about 60 km south of Tiznit, W AntiAtlas mts., Morocco.

***brunnea* BRYANT, 1957
(fig. 20)**

Macrocoma brinnea BRYANT, 1957: 357.

Locus typicus Dhala, W Yemen. Described based on 3 specimens.

Entirely reddish brown, head very finely and closely punctate. Antennae dark yellowish. Underside dark yellowish, covered by close pale pubescence. Exter-

nally similar to *hormuziaca* (fig. 9), but larger, paler coloured and with emarginate apex of aedeagus.

brunnipes (OLIVIER, 1808)

(fig. 2 and 21)

Eumolpus brunnipes OLIVIER, 1808: 913.

Pseudocolaspis variabilis SCHAUFUSS, 1871: 202.

Pseudocolaspis brunnipes var. γ LEFÈVRE, 1876: 8.

Pseudocolaspis brunnipes var. *obscuricolor* PIC, 1905: 179

variabilis = *brunnipes*: CLAVAREAU, 1914: 114.

Locus typicus Baghdad, Iraq.

In size, randomly pubescent elytra, general outline of body (fig. 2) and emarginate apex of aedeagus somewhat similar to W Mediterranean *henoni*. Upper side with rather strongly metallic sheen, usually green. *Pseudocolaspis cyanea* RAFFRAY, 1873, an N African form usually considered as a synonym of *brunnipes*, belongs not here, it is probably identical with *henoni occidentalis* ab. *coerulescens* KOCHER (see). The form *Pseudocolaspis brunneipes* var. *mogadorensis* PIC, 1912 described from Morocco belongs probably also to *henoni*. The form *obscuricolor* PIC (= var. γ LEFÈVRE) occurring in S Turkey is probably a geographical race (subspecies) of *brunnipes* or even a distinct species.

budura DACCORDI et MEDVEDEV, 1996

(fig. 22)

Macrocoma budura DACCORDI et MEDVEDEV, 1996: 224.

Locus typicus: Jizan on Red Sea, Saudi Arabia.

Described based on 3 males. Resembles *M. millingeni* (PIC), differs in having interstices of hairy rows on elytra covered by pubescence and broadly emarginate apex of aedeagus.

buettikeriana DACCORDI, 1979

(fig. 23)

Macrocoma buettikeriana DACCORDI, 1979: 305

Locus typicus: Wadi Khurnra, Saudi Arabia.

Described based on one female only. Externally similar to *millingeni* (key, antithesis 41). Body rather elongate. Upper side darker brownish with feeble bronzy reflex and with lightened anterior margin of pronotum, legs ochraceous.

carbonaria (LEFÈVRE, 1876)

Pseudocolaspis carbonaria LEFÈVRE, 1816: 7.

Locus typicus Bou-Saada, about 200 km south-east of Alger, Algeria.

Known from Algeria only; I collected 3 specimens near M'Sila, in the region of Bou-Saada. No significant characters that would allow a distinction between *saharica* and *carbonaria*, except the hue of the feeble metallic reflex (very variable in *Macrocoma*) on upper side: in *saharica* usually cupreous or purplish, in *carbonaria* dark bronzy. Probably both taxa are conspecific.

crassipes (LEFÈVRE, 1876)

(fig. 3 and 24)

Pseudocolaspis crassipes LEFÈVRE, 1876: 3.

Locus typicus Bou-Saada, about 200 km south-east of Alger, Algeria.

Well-characterized by small size and conspicuously thickened (in both sexes, but stronger in male) mid and hind tibiae. Distributed rather broadly in NW Africa; recorded by KOCHER (1958) in Moulaya-valley in Morocco, by me near M'Sila (Bou-Saada region) and near Bejad'a on coast of Mediterranean Sea.

cylindrica (KÜSTER, 1846)

(fig. 4 and 25)

Pachnephorus cylindricus KÜSTER, 1846: 92.

Terra typica: Andalusia.

The unique W Mediterranean species of the genus *Macrocoma* occurring on European continent. Known from S Spain only; collected by me east of Almeria in Cabo de Gata.

daccordii MEDVEDEV, 1996

(fig. 26)

Macrocoma daccordii MEDVEDEV, 1996: 224

Locus typicus: Gheyi-Bawa Zir (NW of Mukalla), Hadramaut, S Yemen.

Described based on one male only. Characteristic is the form of frons angularly broadened on sides and covering base of antennae. Externally similar to *leprieuri*, but larger, belonging to group of species with longitudinal hair rows on elytra and not emarginate apex of aedeagus.

dakkai KOCHER, 1962

Macrocoma dakkai KOCHER, 1962: 204

Locus typicus Imini valley near Ouarzazate (about 200 km SE Marrakech), High Atlas, Morocco.

The very detailed original description does not contain any significant characters that would allow distinction between *dakkai* and *saharica*; *dakkai* represents probably a local form of the mentioned species.

delagrangei PIC, 1898

(fig. 5 and 27)

Pseudocolaspis Defagrangei PIC, 1898: 93.

Locus typicus: Akbès, (actually: Maydan Ikbis), Haleb region, NW Syria.

divisa (WOLLASTON, 1864)

(fig. 28)

Pseudocolaspis divisa WOLLASTON, 1864: 394.

Terra typica: Lanzarote, Canary Islands.

In body outline similar to *oromiana* (key, antithesis 3), but much smaller and aedeagus stronger narrowed toward apex.

djurdjurenensis WARCHALOWSKI 2001

(fig. 6 and 29)

Macrocoma djurdjurenensis WARCHALOWSKI, 2001a: 189.

Locus typicus Lalla Khedidja 2250 m, mts. Djurdjura, N Algeria.

Described based on 3 specimens. It differs from all other N African species in the combination of characters: randomly scattered hairs on elytra and emarginate apex of aedeagus. Collected on flowers of a small *Asteraceae*-species.

dubia (WOLLASTON, 1864)

Pseudocolaspis dubia WOLLASTON, 1864: 395

Locus typicus Rio Palmas, Fuerteventura, Canary Islands.

franzis. str. PALM, 1976
(fig. 30)

= *palmaris franzi*

Macrocoma occidentalis franzi PALM, 1976: 100.

Terra typica: Hierro. Canary Islands.

Similar to nominotypical species, elytra more shining, legs usually darkened.

franzi officiens nom. nov.

= *palmaris palmaris*

Macrocoma occidentalis PALM, 1976: 100, nec ESCALERA, 1914: 517.

Terra typica: La Palma, Canary Islands.

Etymology: Latin *officiens* means obstructing, blocking; owing to the collision of the name *occidentalis* PALM with the name *occidentalis* ESCALERA.

Pronotum relatively broad, widest behind middle. Head and pronotum distinctly, elytra rather feebly shining.

haiensis KOCHER, 1967

Macrocoma haiensis KOCHER, 1967: 296

Locus typicus: Berguent, about 60 km south of Oujda, NE Morocco.

In opinion of KOCHER (1967, original description), *M. haiensis* is a transitional form between *peyerimhoffi* and *saharica*. Externally similar to *saharica* (fig. 15), aedeagus as in *peyerimhoffi* or *henoni* (fig. 31).

henoni s. str. (Prc, 1894)
(fig. 7 and 31)

Pseudocolaspis Henoni Pic, 1894: 210.

?*Pseudocolaspis brunneipes* var. *mogadorensis* Pic, 1912: 220.

Macrocoma henoni var. *Reymondi* KOCHER, 1958: 30.

Macrocoma henoni var. *sarroensis* KOCHER, 1958: 30.

Locus typicus: Ain Sefra (about 300 km south of Oran), Algeria.

henoni occidentalis (ESCALERA, 1914)

?*Pseudocolaspis cyanea* RAFFRAY, 1873: 384.

Pseudocolaspis brunneipes var. *8* LEFÈVRE, 1876: 8.

Pseudocolaspis occidentalis ESCALERA, 1914: 517.

Pseudocolaspis *Escalera*, 1914: 5 18.

Macrocoma henoni ab. *coerulescens* KOCHER, 1958: 30.

Macrocoma henoni var. *atlasica* KOCHER, 1958: 30.

Macrocoma henoni var. *nigrita* KOCHER, 1958: 30.

Macrocoma henoni var. *susica* KOCHER, 1967: 290.

Macrocoma henoni occidentalis var. *pardoi* KOCHER, 1967: 291.

Macrocoma henoni occidentalis var. *linbergi* KOCHER, 1967: 292.

Terra typica: Morocco.

***heydeni* LEFÈVRE, 1876**

(fig. 8 and 32)

Pseudocolaspis Heydeni LEFÈVRE, 1876: 5.

Macrocoma heydeni ab. *coerulea* KOCHER, 1967: 298.

Terra typica: Reraya valley, Morocco.

***hormuziaca* WARCHAŁOWSKI, 2001**

(fig. 9 and 33)

Macrocoma hormuziaca WARCHAŁOWSKI, 2001b: 345.

Locus typicus: mts. Kuh-e-Biaban, 26° 27' N, 57° 38' E, Hormozgan, S Iran.

Described based on 72 specimens.

***korbi* (PIC, 1901)**

(fig. 10 and 34)

Pseudocolaspis Korbi PIC, 1901: 19.

Locus typicus: Ak-Chehir, Asia Minor.

Species fairly well characterized by black colouring of upper side, very sparse hairs on elytra and red or reddish legs.

***latifrons* LINDBERG, 1952**

(fig. 11 and 35)

Macrocoma latifrons LINDBERG, 1952: 10.

Terra typica: Tenerife, Canary Islands.

Endemic to Canary Islands. Externally similar to remaining Canarian species, aedeagus broadened at basis of tubular part, its apex broadly and deeply emarginate.

lefevrei (BALY, 1879)

(fig. 12 and 36)

Pseudocolaspis Lefevrei BALY, 1879: 260.*Pseudocolaspis Lefevrei* var. *10-lineatus* PIC, 1903: 98.

Terra typica: Arabia, Iran.

Very characteristic. Body relatively large, upper side covered by adpressed whitish scales forming longitudinal stripes, elytra strongly narrowed posterad, legs very robust (fig. 12).

leprieuri (LEFÈVRE, 1876)

(fig. 37)

Pseudocolaspis leprieuri LEFÈVRE, 1876: 6.? *Pseudocolaspis pachydera* FAIRMAIRE, 1876: 94.? *melillensis* KOCHER, 1967:

Locus typicus: Bou-Saada, about 200 km south-east of Alger, Algeria.

N African species belonging to a group with hairs arranged in longitudinal rows and not emarginate apex of aedeagus. Distributed in Morocco, Algeria and Tunisia. I have collected this species in M'Sila, Baniou (Bou-Saada region, Algeria) and in Asni (High Atlas Morocco) alike studied specimens from Ouarzazate (High Atlas) and Gabès (Tunisia, leg. Palrn).

mateui KOCHER, 1958*Macrocoma Mateui* KOCHER, 1958: 36.

Terra typica: region Segua-el-Hamra, Spanish Sahara.

millingeni (PIC, 1898)

(fig. 38)

Pseudocolaspis Millingeni PIC, 1898: 154.

Terra typica: Arabia.

An Arabian species, externally somewhat similar to *rubripes* (key, thesis 39), but without emargination on apex of aedeagus. Sometimes confused with N African *leprieuri* (key, thesis 26), but differing in the presence of a small tooth-like tip on apex of aedeagus and in geographical distribution.

obscuripes (WOLLASTON, 1862)
(fig. 13 and 39)

Pseudocoiaspis obscuripes WOLLASTON, 1862: 441.

Locus typicus: Pinal de Trajana, Gran Canaria, Canary Islands.

Endemic to Canary Islands, characteristic in dark colouring of body and black legs.

oromiana DACCORDI, 1978
(fig. 40)

Terra typica: Alegranza, Canary Islands.

In body outline similar to *divisa* (key, thesis 3), but much larger and aedeagus only slightly narrowed toward apex.

peyerimhoffi KOCHER, 1958

Macrocoma Peyerimhoffi KOCHER, 1958: 32.

Terra typica: Ziz-valley in Rich region, eastern part of High Atlas.

No significant characters that would allow a clear distinction between *peyerimhoffi* and *henoni*. Perhaps one of numerous forms of mentioned species.

rubripes s. str. (SCHAUFUSS, 1862)
(fig. 14 and 41)

Pseudocolaspis rubripes SCHAUFUSS, 1862: 311.

Pachnephorus aeneus WALKER, 1871: 18.

Pseudocolaspis diversicolor SCHAUFUSS, 1871: 202.

Pseudocolaspis graeca LEFÈVRE, 1876: 4.

Eiibrachis balcanicus APFELBECK, 1912: 246.

? *Pseudocoiaspis anatolica* PIC, 1898: 94

aenea = *rubripes*: CLAVAREAU, 1914: 116.

diversicolor = *rubripes*: WEISE, 1889: 60.

graeca = *rubripes*: WEISE, 1889: 60.

balcanica = *rubripes*: GRUEV et TOMOV, 1984: 199.

Terra typica: Greece.

rubripes turkmena LOPATIN, 1976

Macrocoma rubripes turkmena LOPATIN, 1976: 112.

Terra typica: mts. Kopet-Dag, Turkmenia.

sacra (LOPATIN, 1983)
(fig. 42)

Pseudocolaspis sacra LOPATIN, 1983: 208.

Locus typicus: Jeddah-Taif, N Hedjaz region, Saudi Arabia.

Described based on 1 specimen (sex unknown) only.

saharica KOCHER, 1958
(fig. 15 and 43)

Macrocoma saharica KOCHER, 1958: 34

Locus typicus: Merzouga, south-east of Tafilalet, Er-Rachidia region, Morocco.

sarvadensis (SOLSKY, 1882)
(fig. 16 and 44)

Pseudocolaspis sarvadensis SOLSKY, 1882: 65.

Terra typica: Zeravshan valley (Uzbekistan).

snudica MEDVEDEV, 1996
(fig. 45)

Macrocoma snudica MEDVEDEV, 1996: 224

Locus typicus: Rawdat Kharaim, Saudi Arabia.

Described based on 5 specimens. Resembles *M. millingeni* (Pic), differs in having interstices of hairy rows on elytra covered by pubescence and different form of aedeagus.

seriesericans (FAIRMAIRE, 1876)
(fig. 17 and 46)

Pseudocolaspis seriesericans FAIRMAIRE, 1876: 94.

Pseudocolaspis gossypiata FAIRMAIRE, 1876: 94.

Locus typicus: El Amri, N Algeria.

Relatively small, colouring of body characteristic, entirely rust-reddish with metallic reflex and with silvery-white rows of hairs.

***setosa* (LUCAS, 1849)**

(fig. 18 and 47)

Pseudocolaspis setosa LUCAS, 1849: 518.*Pseudocolaspis cylindrica* var. *Vaucheri* PIC, 1907: 115.*Macrocoma cylindrica mesatlantica* KOCHER, 1958: 39.*Macrocoma cylindrica mesailaniica* var. *Fauconnieri* KOCHER, 1958: 40.

Terra typica: vicinity of El Kala, NE Algeria, coasts of Mediterranean Sea.

Externally similar to *cylindrica*, but on average smaller, pronotum relatively larger, legs more robust, metallic sheen usually greenish, rather strong. Often confused with *cylindrica*, but distribution area of both species are separate.***splendens* LINDBERG, 1951**

(fig. 48)

Macrocoma splendens LINDBERG, 1951: 13.

Terra typica: Tenerife, Canary Islands.

***splendidula* (WOLLASTON, 1862)**

(fig. 49)

Pseudocolaspis splendidula WOLLASTON, 1862: 442.

Terra typica: Gran Canaria, Canary Islands.

ACKNOWLEDGMENTS

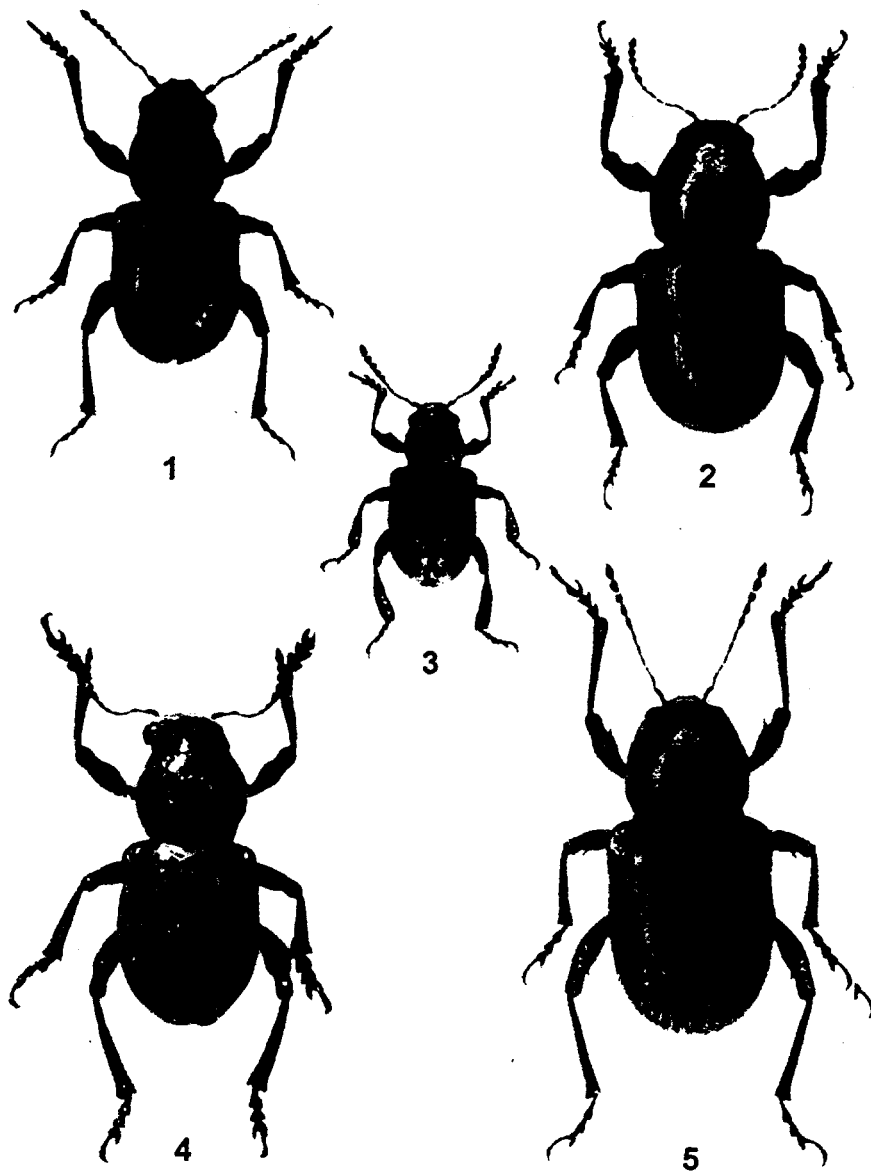
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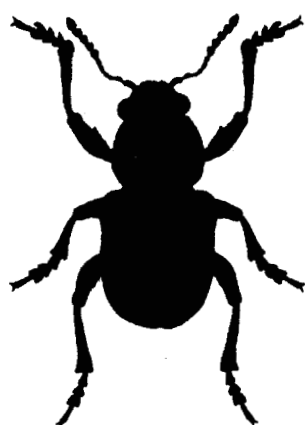
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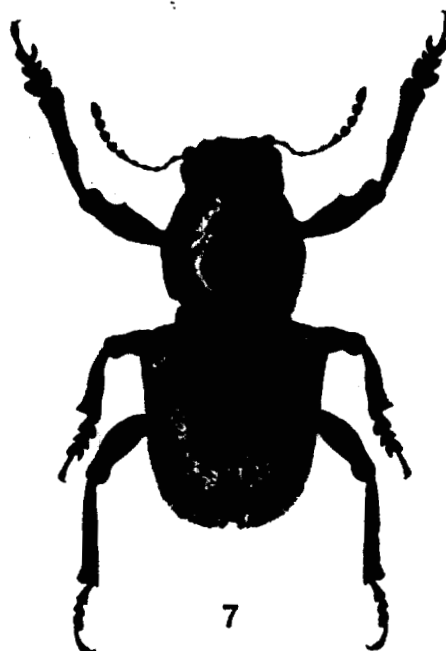
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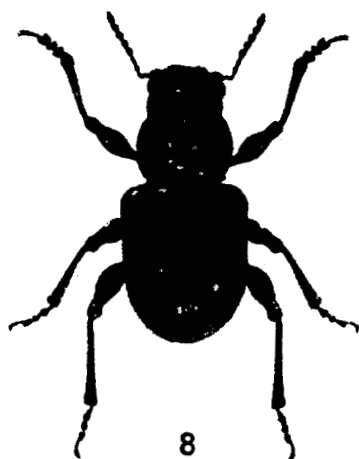
1-5. Habitus, growth 8:1 (orig.): 1 - *bolivari*, 2 - *brunnipes*, 3 - *crassipes*, 4 - *cylindrica*, 5 - *delagrangei*



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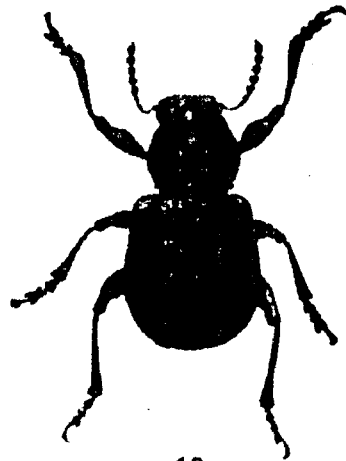


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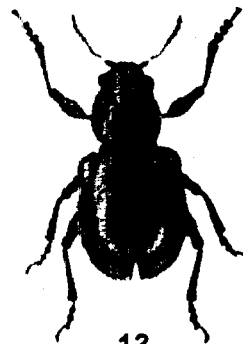
6-9. Habitus, growth 8:1 (orig.): 6 - *djurdjurenensis*, 7 - *henoni*, 8 - *heydeni*, 9 - *hormuziaca*



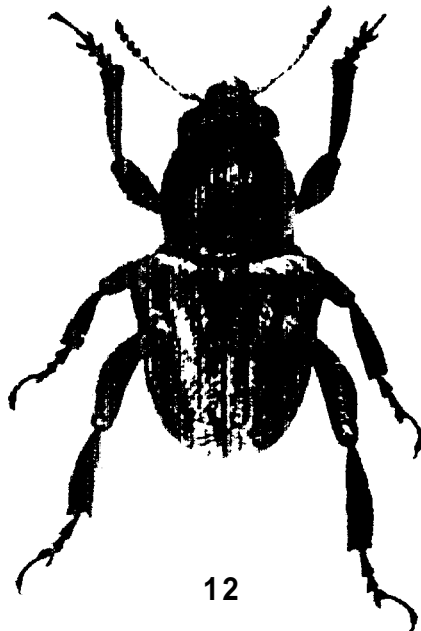
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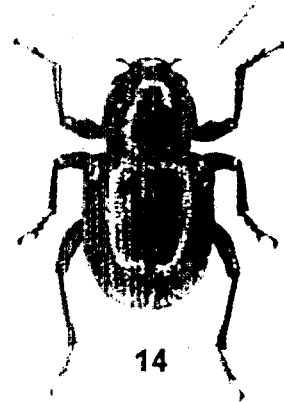
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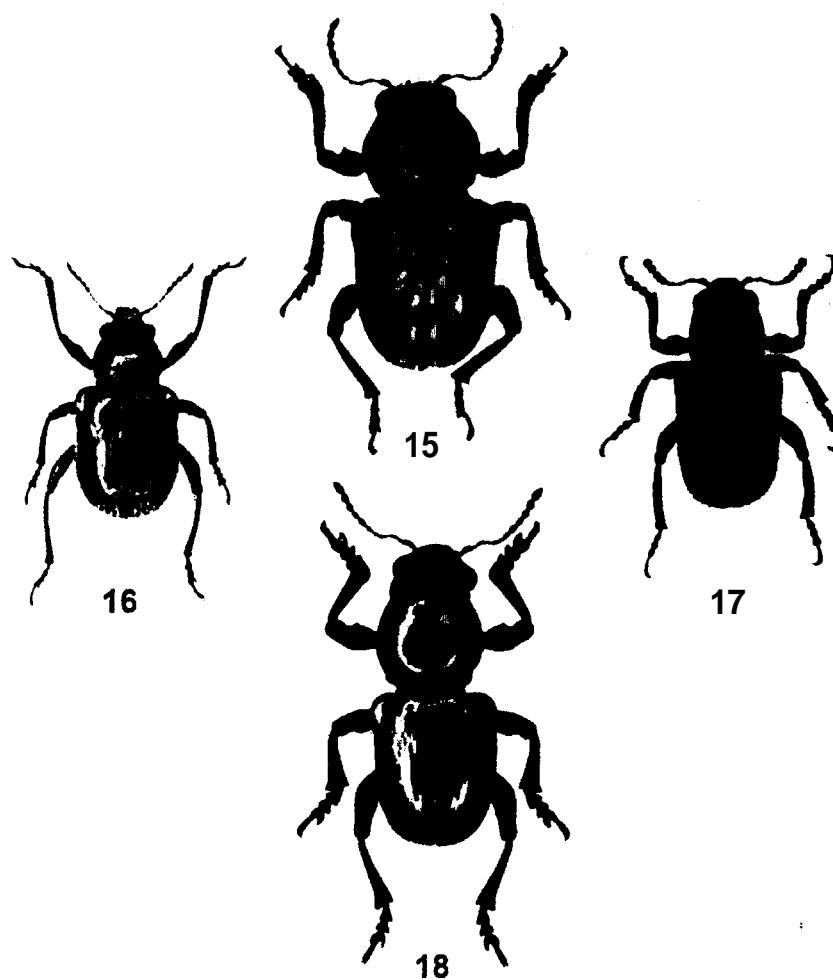


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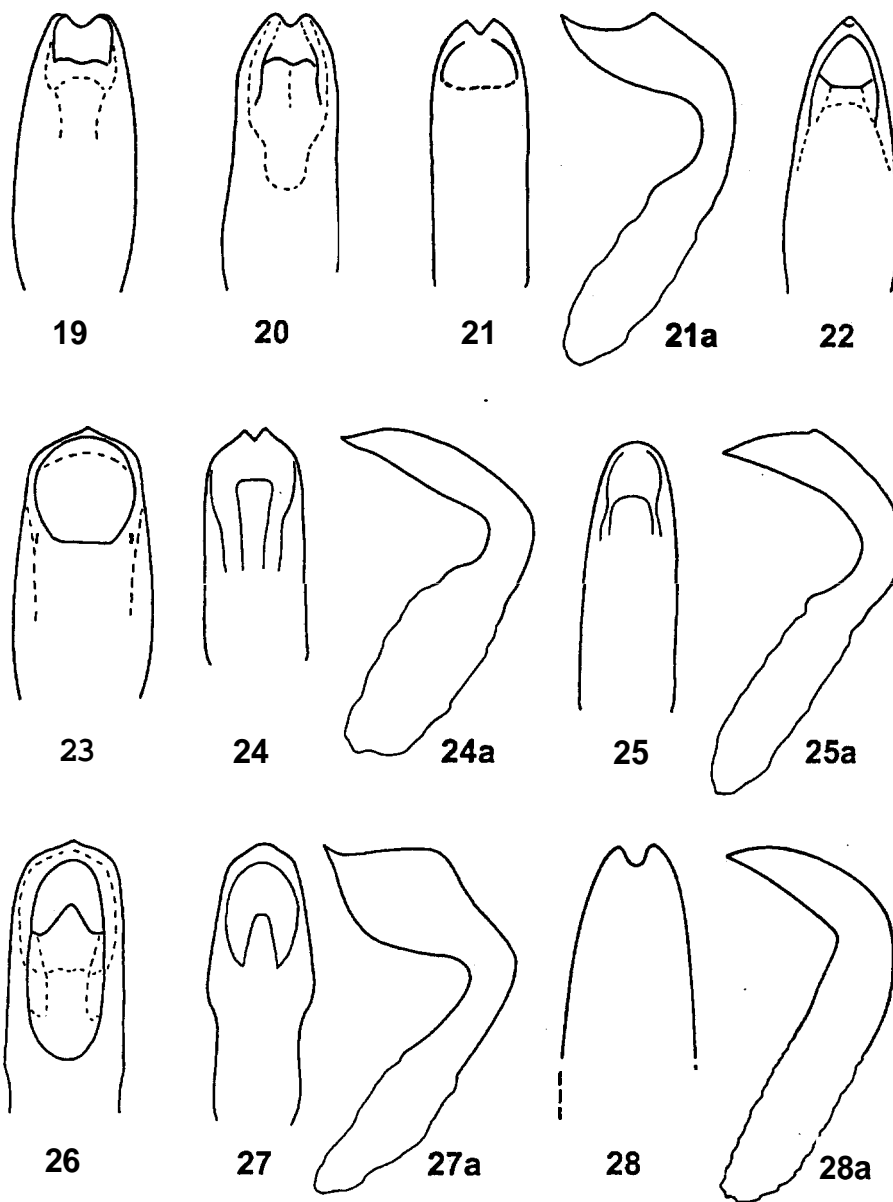


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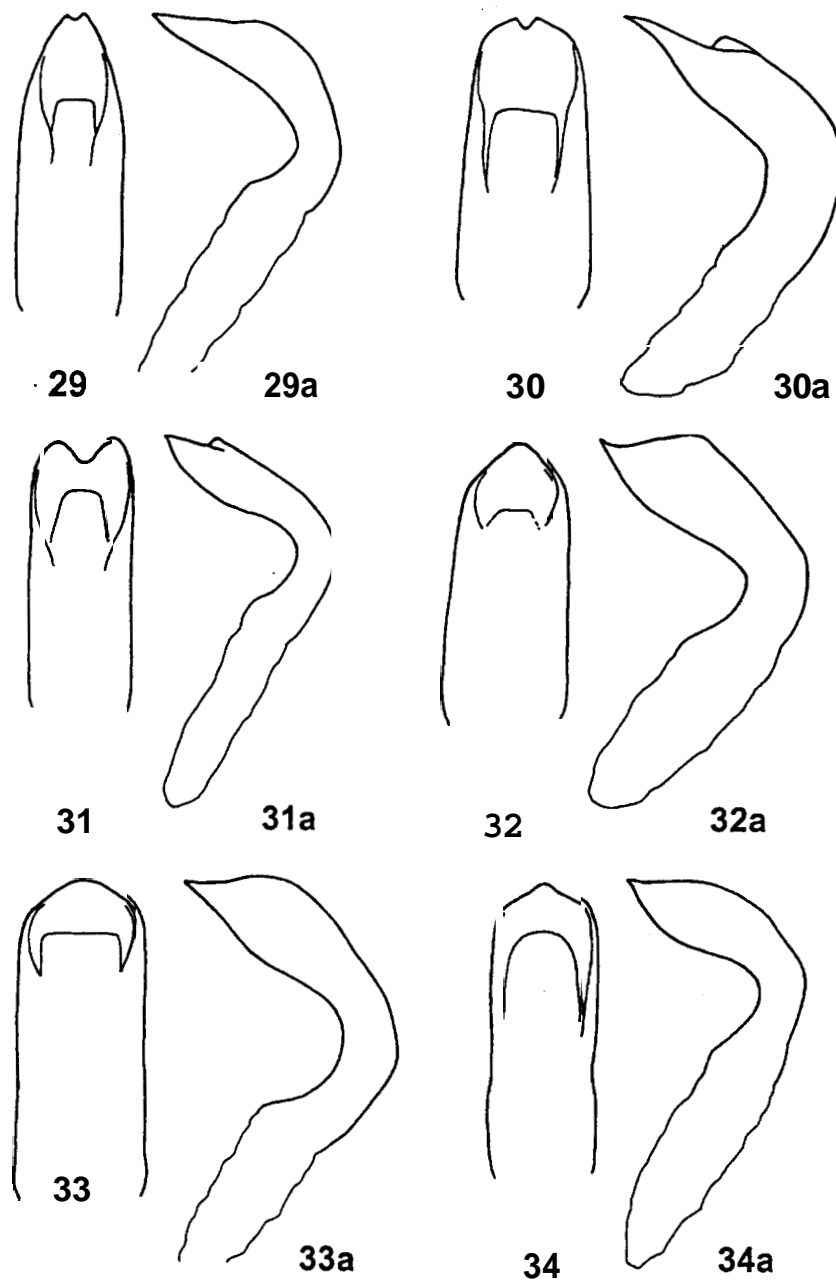
10-14. Habitus, growth S:I (orig): 10 - *korbi*, 11 - *latifrons*, 12 - *lefevrei*, 13 - *obscuripes*, 14 - *rubripes*



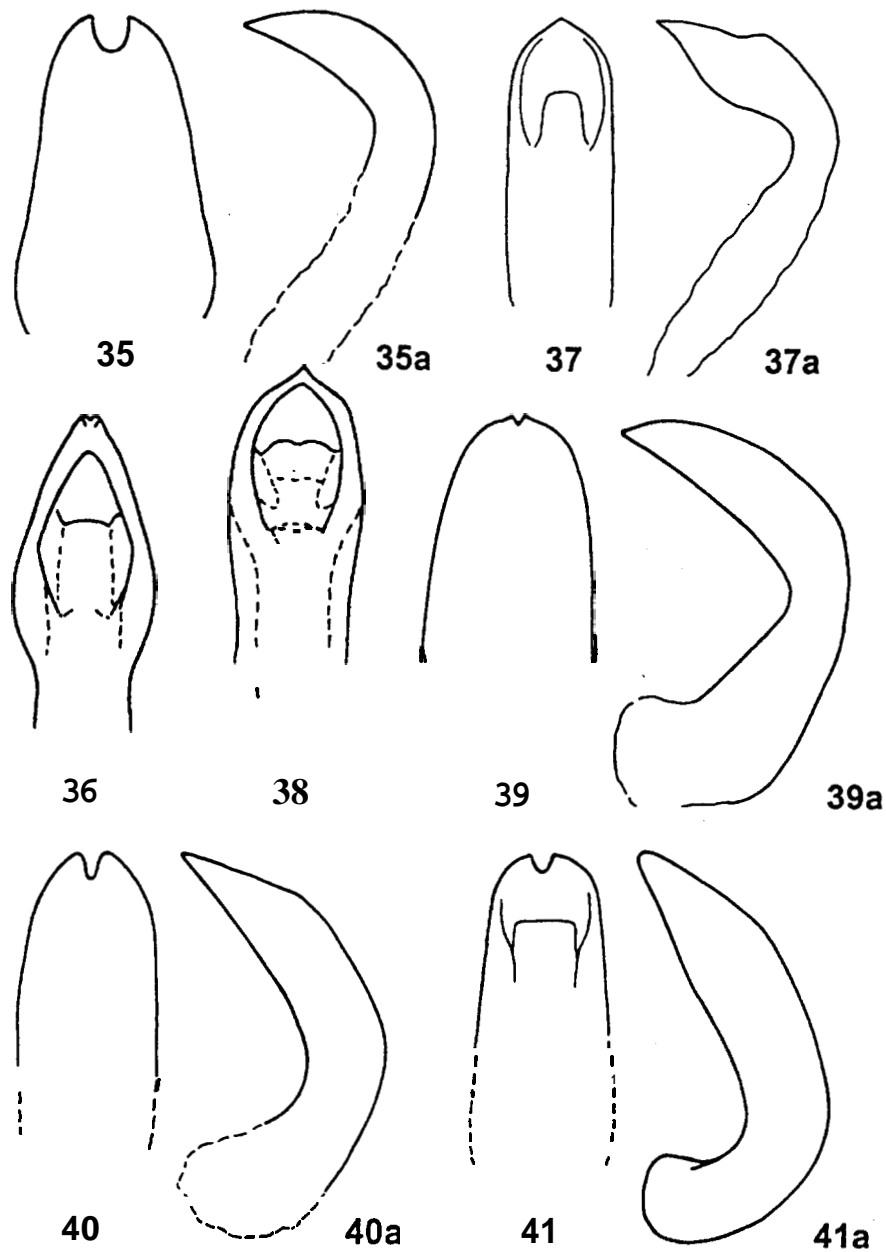
15-18. Habitus, growth 8:1 (orig.): 15 - *saharica*, 16 - *sarvadensis*, 17 - *seriesericans*, 18 - *setosa*



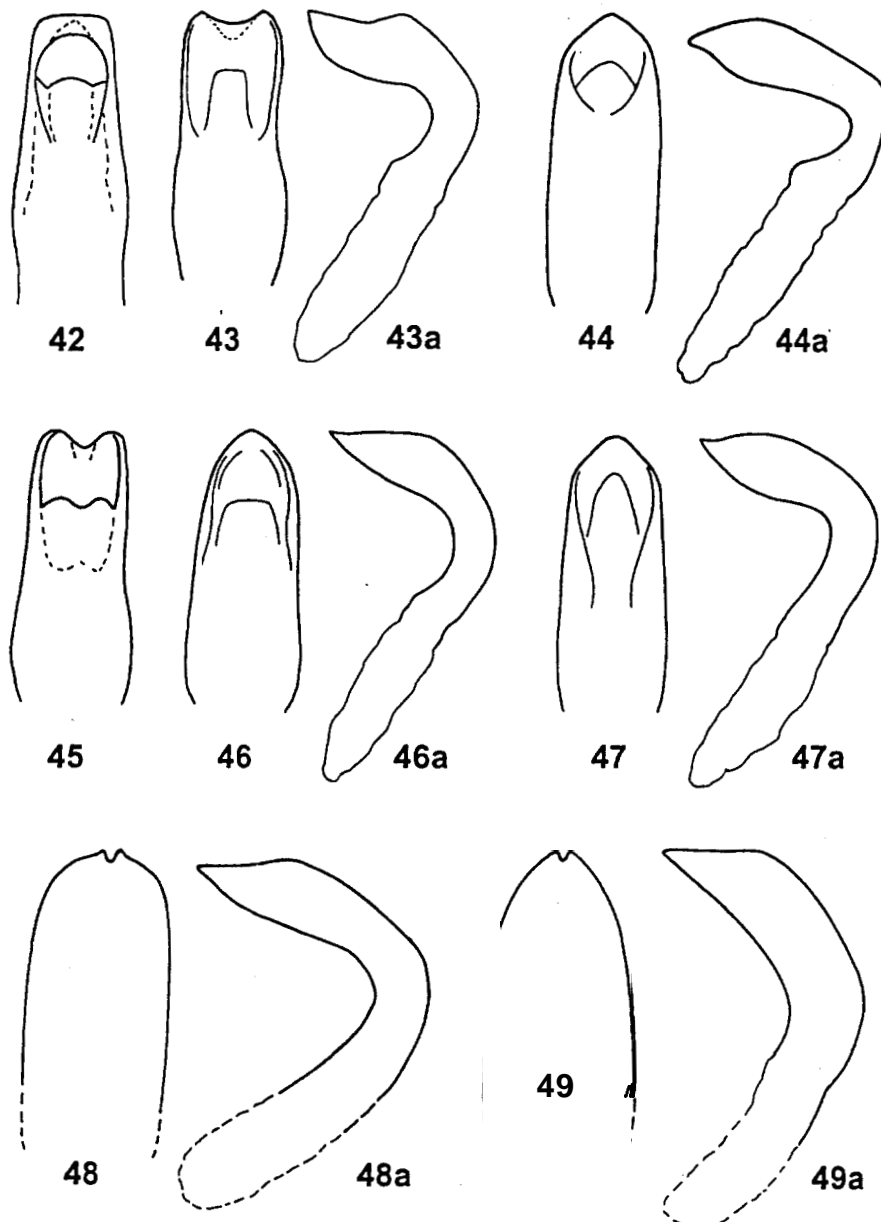
19-28. Aedeagus in dorsal and lateral (a) view (19, 20, 23, 24 and 26 from MEDVEDEV 1996, remaining orig.): 19 - *aladina*, 20 - *brunnea*, 21 - *brunnipes*, 22 - *budura*, 23 - *buettikeriana*, 24 - *crassipes*, 25 - *cylindrica*, 26 - *daccordii*, 27 - *delagrangei*, 28 - *divisa*



29-34. Aedeagus in dorsal and lateral (a) view (32 from PALM 1978, remaining orig.): 29 - *djurdjurenensis*, 30 - *franzi*, 31 - *henoni*, 32 - *heydeni*, 33 - *hormuziaca*, 34 - *korbi*



35-41. Aedeagus in dorsal and lateral (a) view (39 from PALM 1978, 40 from DACCORDI 1978, 46 and 49 from MEOVEDEV 1996, remaining orig.): 35 - *latifrons*, 36 - *lefevrei*, 37 - *leprieuri*, 38 - *millingeni*, 39 - *obscuripes*, 40 - *oromiana*, 41 - *rubripes*



42-49. Aedeagus in dorsal and lateral (a) view (42 and 45 from MEDVEDEV 1996, 48 and 49 from PALM 1978, remaining orig.): 42 - *sacra*, 43 - *saharica*, 44 - *sarvadensis*, 45 - *saudica*, 46 - *seriesericans*, 47 - *setosa*, 48 - *splendens*, 49 - *splendidula*