

Zdzisława STEBNICKA

**A Revision of the Palaearctic Species of the Subgenus *Erytus* MULS. et REY  
(Coleoptera, Scarabaeidae, Aphodiinae)**

[with 34 text-figs.]

**Rewizja palaearktycznych gatunków podrodzaju *Erytus* MULS. et REY (Coleoptera, Scarabaeidae, Aphodiinae)**

**Abstraet:** The subgenus *Erytus* MULS. et REY is redefined and nomenclatural history discussed. Key to the twelve Palaearctic species and notes on the morphology and distribution are given. Four species names are placed in synonymy and one species is transferred out of subgenus. Pertinent morphological details are illustrated.

**INTRODUCTION**

The first species that inaugurated taxonomical history of the subgenus was described under the name *Aphodius brunneus* KLUG (1845), (primary homonym of THUNBERG's specific name). The subgenus *Erytus*, established in 1870 by MULSANT et REY was subsequently revised by REITTER (1892), who described *A. pruinosus* and *A. opacus* (primary homonym of LE CONTE's specific name), included *A. nitidus* BALLION (primary homonym of KÜSTER's specific name) and designated *A. brunneus* KLUG as the type of subgenus. The present classification is essentially that of A. SCHMIDT (1922), in which he included in the subgenus the remained representatives already known at that time, except *A. confirmatus* A. SCHM. and *A. chobauti* CLOUËT. Later, BALTHASAR (1941, 1960) described three new species and in 1964 he transferred *A. confirmatus* from subgenus *Erytodes* A. SCHM. to *Erytus* MULS. et REY, including conditionally also *A. chobauti* CLOUËT. In 1961 PETROVITZ described five new species closely allied to *A. klugi* A. SCHM. and to *A. pruinosus* REITT. and provided a key to this group, however, the descriptions of his new taxa are rather incomplete. With these exceptions, subgenus *Erytus* MULS. et REY has not been taxonomically treated of late years in its entirety. It contains a group of species that are not uncommon in collections, difficult to recognize, and the need to identify them arises frequently. It has not previously been possible to do this

satisfactorily, so I have studied the group in detail, and the results of the study are presented herein.

The present review has been performed on the base of 32 investigated holotypes and paratypes, 435 other specimens and the existing literature. The synonyms and comments concerning individual taxons are included in the systematic part. In cases, when I had no opportunity to verify the type-specimens, appropriate references from literature were employed and the original comments cited.

Specimens used are the property of the following institutions and private sources (abbreviations for each as used herein are indicated):

GD	— Collection of Giovanni DELLACASA, Genova
HMNH	— Hungarian Museum of Natural History, Budapest
ISEZ	— Institute of Systematic and Experimental Zoology, Cracow
JB	— Collection of Jacques BARAUD, Bordeaux
MHNG	— Muséum d'Histoire Naturelle, Genève
NMP	— National Museum, Prague
VB	— Collection of Vladimir BALTHASAR, Prague
ZIW	— Zoological Institute, Polish Academy of Sciences, Warsaw

I wish to express my gratitude to the custodians of the museums and to private collectors for their helpful approach and valuable informations.

#### Genus: *Aphodius* ILLIGER, Subgenus *Erytus* MULSANT et REY

*Erytus* MULSANT et REY, 1870: 513; 1871: 273; REITTER, 1892: 52; 1892 a: 190; d'ORBIGNY, 1892—1896: 200, 215, 261; A. SCHMIDT, 1922: 77; PAULIAN, 1942: 71; ENDRÖDI, 1960: 98, 194; BALTHASAR, 1964: 92; ENDRÖDI, 1964: 57, 261; DELLACASA, 1973: 85—86; BARAUD, 1977: 59, 67; ENDRÖDI et RAKOVIČ, 1981: 38;

*Erytodes*: A. SCHMIDT, 1916: 115.

Type species: *A. (E.) klugi* A. SCHMIDT.

**Description.** Body elongate, subparallel or parallel-sided, slightly convex; colour yellow, yellowish brown, reddish, reddish brown or brown. Upper side of the body usually shining, in part shagreened, rarely mat; elytra usually with very short, sometimes inconspicuous setae. Head without tubercles, distinctly convex on the middle, genae small, eyes great. Sides and base of pronotum narrowly margined, posterior angles obtusely rounded or truncate. Scutellum narrow, subparallel-sided at base. Elytra oblong, elytral striae fine, shallowly impressed. Legs slender, apical setae of middle and hind tibia equal or unequal in length, apical spurs thin, tarsi long, slender. Sexual characters evident in the shape of anterior tibial spurs, in the punctuation of the head and pronotum, sometimes in the surface of metasternum.

**Distribution and bionomy.** The subgenus contains presently the seventeen species inhabiting Eurasia, African continent and North America, but by far the largest number of representatives is found in Palaearctic Region.

They populate the open terrains of South Europa, Canary Isl., Middle and South-Western Asia as well as the North Africa. The current distribution of *Erytus*-species has probably its origin in Tertiary; that group could speciate during the period of Middle Asian desert formation and subsequently disperse to the south-western territories. I do not know *A. larreae* HORN, a single North American species placed in the subgenus *Erytus* by SCHMIDT (1922). According to GORDON (1973, 1977), SCHMIDT's subgeneric assignments of the genus *Aphodius* ILL. do not readily accomodate North American species and often compose a group of species of different phyletic lineages together.

There are very scarce informations concerning the ecology of the species. Some of them are attracted to lights and to decaying vegetation, rarely to animal dung; the life cycles are not known as yet.

Remarks. On page 52 of REITTER's paper (1892), *A. brunneus* KLUG is designated as the type of subgenus. There has recently been some confusion because later, PAULIAN (1942) proposed *A. gracilis* BOH. as the subgeneric type and his designation was accepted subsequently by BALTHASAR (1964) and DELLA-CASA (1973).

Key to the Palaearctic species of *Erytus* MULS. et REY

1. Pronotum moderately convex, sides visible viewed from directly above. Clypeal surface near anterior margin finely but usually deeply and closely punctate to subgranulate, not opalescent . . . . . 2.
- . Pronotum strongly convex, sides invisible viewed from directly above. Clypeal surface near anterior margin finely, shallowly and scarcely punctate, never subgranulate, more or less opalescent . . . . . 10.
2. Posterior angles of pronotum truncate. Genae right-angled, protrudent; frontal suture slightly convex on the sides . . . . .  
9. *A. (E.) gracilis* BOH.
- . Posterior angles of pronotum obtusely rounded. Genae rounded, not protrudent; frontal suture flat . . . . . 3.
3. Head wide, clypeal edge deeply emarginate anteriorly. Tarsi rather short, first posterior tarsal segment and upper tibial spur equal in length . . . . .  
8. *A. (E.) longissimus* SAHLB.
- . Head rather narrow, clypeal edge shallowly emarginate anteriorly. Tarsi long, first posterior tarsal segment always longer than the upper tibial spur . . . . . 4.
4. Upper surface of the body mat, minutely shagreened . . . . .  
7. *A. (E.) opacior* D. KOSH.
- . Upper surface of the body shining, sometimes in part shagreened . . . 5.
5. Elytra minutely alutaceous, moderately shining. Under side of middle and hind tibia with a row of rather long setae . . . . .  
6. *A. (E.) pruinosus* REITT.

- . Elytra shining, at most apex of elytra alutaceous. Under side of middle and hind tibia without long setae . . . . . 6.
- 6. Elytra covered with very short yellow setae except middle basal area. Surface of head with fine, distinct, evenly distributed punctures. Pronotal punctures about the same size and density as the punctures of head . . . . . 5. *A. (E.) transcaspicus* PETROV.
- . Elytra setaceous only at apex and narrowly on the sides, or without setae . . . . . 7.
- 7. Elytra long, about 3.0 times as long as pronotum, without setae. Middle of clypeus weakly convex. . . . . 4. *A. (E.) persicus* PETROV.
- . Elytra shorter, less than 3.0 times the length of pronotum, sides and apex setaceous. Middle of clypeus noticeably convex . . . . . 8.
- 8. Head strongly convex, sides of clypeus before genae distinctly emarginate, clypeal surface near anterior margin finely, shallowly punctate . . . . . 3. *A. (E.) bucharicus* PETROV.
- . Head moderately convex, sides of clypeus straight or very weakly emarginate before genae, clypeal surface near anterior margin finely, deeply punctate to subgranulate . . . . . 9.
- 9. Elytra near 2.9 times as long as pronotum. Aedeagus viewed from dorsal side without membranous processes at middle of outer side of paramerae (Fig. 7) . . . . . 2. *A. (E.) hormonzensis* PETROV.
- . Elytra near 2.6 times as long as pronotum. Aedeagus viewed from dorsal side with membranous, more or less protrudent processes at middle of outer side of paramerae (Fig. 2) . . . . . 1. *A. (E.) klugi* A. SCHM.
- 10. Disc of pronotum doubly punctate, the punctures mixed fine and moderately coarse, separated by one to three their diameters . . . . . 10. *A. (E.) aequalis* A. SCHM.
- . Disc of pronotum with very fine to fine punctures separated by four or more their diameters . . . . . 11.
- 11. Head strongly narrowed anteriorly, clypeal edge truncate, genae very small, indistinctly marked . . . . . 11. *A. (E.) lindemannae* BALTH.
- . Head larger, clypeal edge weakly emarginate medially, genae slightly protrudent . . . . . 12. *A. (E.) psammophilus* BALTH.

### 1. *Aphodius (Erytus) klugi* A. SCHMIDT (Figs. 1—5)

*Aphodius klugi* A. SCHMIDT, 1910: 93 (nomen novum); 1922: 79; PETROVITZ, 1961: 109—110; BALTHASAR, 1964: 93—94; BARAUD, 1977: 67; type locality: „Nubia”;  
*Aphodius brunneus*: KLUG, 1845: tbl. 42, f. 6 (non THUNBERG, 1818: 401); HAROLD, 1871: 258, 285; REITTER, 1892: 53; REITTER, 1892 a: 191; d'ORBIGNY, 1892—1896: 217;  
*Aphodius unicolor*: LUCAS, 1849: 264 (nec OLIVIER, 1789: 183); type locality: Algeria (Oran);  
*Aphodius cognatus*: FAIRMAIRE et COQUEREL, 1860: 172 (partim); type localities: Tanger, Arabia, Senegal;  
*Aphodius tekkensis*: PETROVITZ, 1961: 108; BALTHASAR, 1964: 98 (syn. nov.); type localities:

Turkmen SSR — Tedžen, Kara-Kum, Mary, Džebel, Repetek, Lutfabad; Iran — Džiroft, Anbar-Abad;

*Aphodius mesopotamicus*: PETROVITZ, 1961: 109; BALTHASAR, 1964: 98 (syn. nov.); type locality: Iraq — Mosul.

**Description.** Length 4.3—6.5 mm. Body shining, apex of elytra more or less alutaceous with very short, sometimes inconspicuous setae; color yellowish brown or castaneous, occiput, frontal suture and elytral suture usually darkened, in some specimens the two sutural intervals lighter than the remained. Head convex medially, clypeal edge finely reflexed, rounded each side of shallow median emargination, sides straight or weakly rounded to small genae; clypeal surface near anterior margin finely, densely punctate to subgranulate, frontal and occipital area with fine, moderately close punctures. Pronotum rectangular, sides and base finely margined, disc with very fine to fine punctures not closely distributed. Scutellum finely punctate. Elytra near 2.6 times as long as pronotum, striae finely punctate; intervals shining, sometimes minutely alutaceous, very finely punctate or impunctate; two sutural intervals narrowed before apex. Hind tarsus usually longer than tibia, apical setae of middle and hind tibia unequal in length, apical spurs thin, nearly equal in length, slightly curved; first posterior tarsal segment longer than apical spurs and usually shorter than the two following segments combined.

**Male.** Apical spur of fore tibia thicker than in female, slightly curved inwardly and obtuse at the tip. Clypeal sides slightly rounded toward genae, surface of the head and pronotum less distinctly punctate than in female. Metasternum convex, surface shining, impunctate or very finely punctate and shortly setaceous. Aedeagus and trigonum copulatrix as in figs. 1, 2, 4. (Variation of membranous structures of aedeagus is marked with broken lines).

**Female.** Apical spur of fore tibia thinner than in male, straight and acute. Clypeal sides usually straight toward genae, surface of the head and pronotum more distinctly punctate than in male. Metasternum convex, midline more or less strongly impressed, surface punctures moderately fine to fine bearing very short setae. Stylus as in fig. 5.

**Epipharynx.** Acanthoparia with moderately thick setae, aeroparia with mixed thin and thicker setae; 8—10 bristles of chaetopodium somewhat thicker and shorter than those of chaetoparia. The remaining setae of pedium short and thin, decreasing in size toward crepis.

**Variation.** *A. klugi* A. SCHM. is characterized by a considerable variability, especially as far as the body facies, colour, the sculpture, the length of tibiae as well as the proportion of tarsal segments and structures of aedeagus are concerned. As I observed during my investigations in Near East, the specimens of *A. klugi* occur in semi-desert but near streams or standing water. This means, that there are many areas not inhabited by *klugi* and the possibility of isolation of populations is great, especially in arid regions. I believe, that much of the morphological variation observed is a direct result of such isolation.

**Distribution.** South Europa, Africa, Middle and South-Western Asia.

Recorded from: South Spain — Alicante; Italy — Sicilia; Canaria Isl. — Tenerifa; Algeria; Syria; Liban — Beirut; Iraq — Rutba; Iran — Bandar Langeh, Minab, Khash, Zabol, Nakhilab, Ab Kharan, Chabar, Kawir; Uzbek SSR — Kyzylkum; Afghanistan; Pakistan (PETROVITZ, 1958, 1961, 1965, 1967; BARAUD 1968, 1977; PIERRE, 1974; RAKOVIČ, 1977).

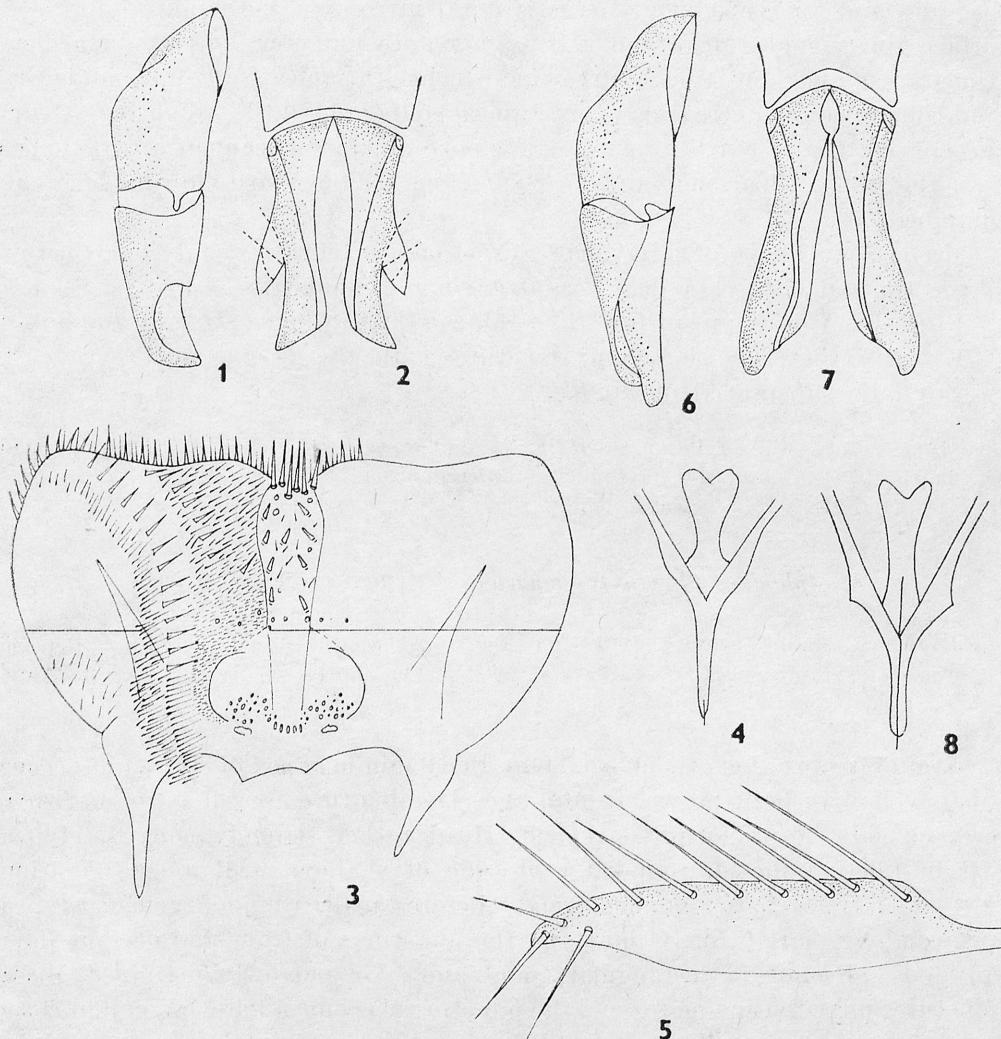
Material examined. Cotype of *A. klugi*: Tunisia — Kebili, 17 VI 1906 (MHNG); holotype and paratypes of *A. tekkensis*; holotype and paratype of *A. mesopotamicus* (MHNG) and 110 specimens: Algeria — Ain Sefra; Egypt — Kairo, Ismaila, 13 VI 1939, leg. C. KOCH (GD); Libya — Tripoli (ISEZ), Zuara, 3 IV 1924, Sirte, 22 V 1936, Tagiura, 16 III 1926, Homs, 7 V 1936 (GD); Turkmen SSR — Serachs, 28 IV 1900 (ISEZ); Kirghiz SSR (GD); Iraq — Hatra, 24 IV 1969, leg. A. RASSOUL, 3 V 1979, at light, leg. Z. STEBNICKA (ISEZ); E Iran — Gav Koshi, 1650 m, 7—8 V 1973, 37 km SW Zahedan, 22—23 IV 1973, Mohammadabad, 3—5 V 1974, C Iran — Post e Kuh, 1700 m, 21—22 V 1977; SE Iran — Ghasemabad 10 km Bampur (vall); 11—12 IV 1973, 9 km S Espakeh, 10 IV 1973, Bahu Kalat, 3—4 IV 1973, coll. Exp. Nat. Mus. Praha (NMP).

Remarks. The names *A. unicolor* LUC. and *A. cognatus* FAIRM. were hitherto mistakenly treated as synonyms of *A. pruinosus* REITT. (A. SCHMIDT, 1910; 1922; BALTHASAR, 1964). I have not examined the specimens described by LUCAS and FAIRMAIRE, therefore, my suggestion presented below is tentative, based upon the rather brief original descriptions and notes. *A. cognatus* was described in 1860 by FAIRMAIRE and compared with *A. ferrugineus* [presently: *A. (Calamosternus) unicolor* (OLIVIER, 1789) nec LUCAS, 1849] as follows: "Ressemble à l'*A. ferrugineus*, en diffère par la corselet moins rétréci en avant, à ponctuation plus fine, très brillant, ainsi que la tête qui est lisse, et par les stries des elytres plus fine, imponctuées; le corps est aussi plus étroit, plus parallèle". According to FAIRMAIRE, *A. cognatus* appears to be conspecific with *A. klugi*, not with *A. pruinosus*. Moreover, *A. cognatus* named in the year 1860, can be hardly regarded as synonym of *A. pruinosus* described by REITTER in 1892. In 1871, on the page 285 HAROLD correctly demonstrated the mentioned synonyms: "*A. brunneus* KLUG [= *A. unicolor* LUC. (= *A. cognatus* FAIRM.)]". A. SCHMIDT (1907, p. 208 and 1910, p. 48), basing on CLOUËT's (1898) statement, held *A. brunneus* KLUG to be conspecific with *A. pruinosus* REITT. As early as on the page 93 of Col. Cat. (SCHMIDT, 1910) he has modified previous opinion, rightly treating *A. brunneus* and *A. pruinosus* as separate species and changing the preoccupied name *brunneus* into a new name *A. klugi* A. SCHM. However, on the page 48 of Col. Cat. (SCHMIDT, 1910) mistakenly placed names *unicolor* and *cognatus* remained as synonyms of *A. pruinosus* REITT. The error has been repeated by A. SCHMIDT (1922) in his monograph.

## 2. *Aphodius (Erytus) hormonzensis* PETROVITZ (Figs. 6—8)

*Aphodius hormonzensis* PETROVITZ, 1980: 610—611; type locality: Iran — Bandar Abbas.

Description. Length 4.5—5.5 mm. Body shining, apex of elytra alutaceous; colour yellowish brown, frontal and elytral suture, anterior edge of pronotum



Figs. 1—8. Subgenus *Erytus* MULS. et REY; 1—5. *A. (E.) klugi* A. SCHM.: 1 — aedeagus laterally, 2 — aedeagus dorsally (variation of membranous structures is marked with broken line), 3 — epipharynx, 4 — trigonum copulatrix, 5 — stylus; 6—8. *A. (E.) hormonensis* PERTOV.: 6 — aedeagus laterally, 7 — aedeagus dorsally, 8 — trigonum copulatrix

and sometimes disc of pronotum darkened. Head convex medially, clypeal edge finely reflexed, obtusely rounded each side of rather deep median emargination, sides slightly arcuate to small, rounded genae; clypeal surface finely punctate to subgranulate, front and occiput very finely, uniformly punctate. Pronotum nearly rectangular, sides and base narrowly margined, the punctures very fine to fine, closer laterally. Scutellum narrow, finely punctate. Elytra nearly 2.9 times as long as pronotum, sides and apex shortly setaceous, striae very fine, intervals minutely punctate, the punctures are somewhat larger on

the sides and apex of elytra. Metasternum convex, midline weakly impressed, surface finely, more or less distinctly punctate and very shortly setaceous. Hind tarsus and hind tibia nearly equal in length, apical setae of middle and hind tibia unequal, decreasing in size, apical spurs of hind tibia slightly flattened and curved, nearly equal in length; first posterior tarsal segment a trifle longer than the upper tibial spur and nearly as long as the two following segments combined.

**Male.** Apical spur of fore tibia thicker than in female, weakly bent inward at the tip and obtuse. Aedeagus and trigonum copulatrix as in figs. 6—8.

**Female.** Apical spur of fore tibia thinner than in male, straight and acute.

**Epipharynx.** The shape and structure nearly the same as in *A. bucharicus* PETROV.; no substantial difference.

**Material examined.** Paratypes (MHNG) and 95 specimens: E Iran, 37 km SW Zahedan, 22—23 IV 1973; SE Iran, 10 km Bampur — Ghasemabad, 11—12 IV 1973, coll. Exp. Nat. Mus. Praha (NMP); Iraq — Hatra, 24 IV 1969, leg. A. RASSOUL (ISEZ).

### 3. *Aphodius (Erytus) bucharicus* PETROVITZ (Figs. 9—11)

*Aphodius bucharicus* PETROVITZ, 1961: 108—109; type localities: Turkmen SSR — Repetek, Tedžen, Kara Kum, Džebel, Mary, Džu Džu klu, Lutfabad; Iran — Džiroft, Anbar Abad.

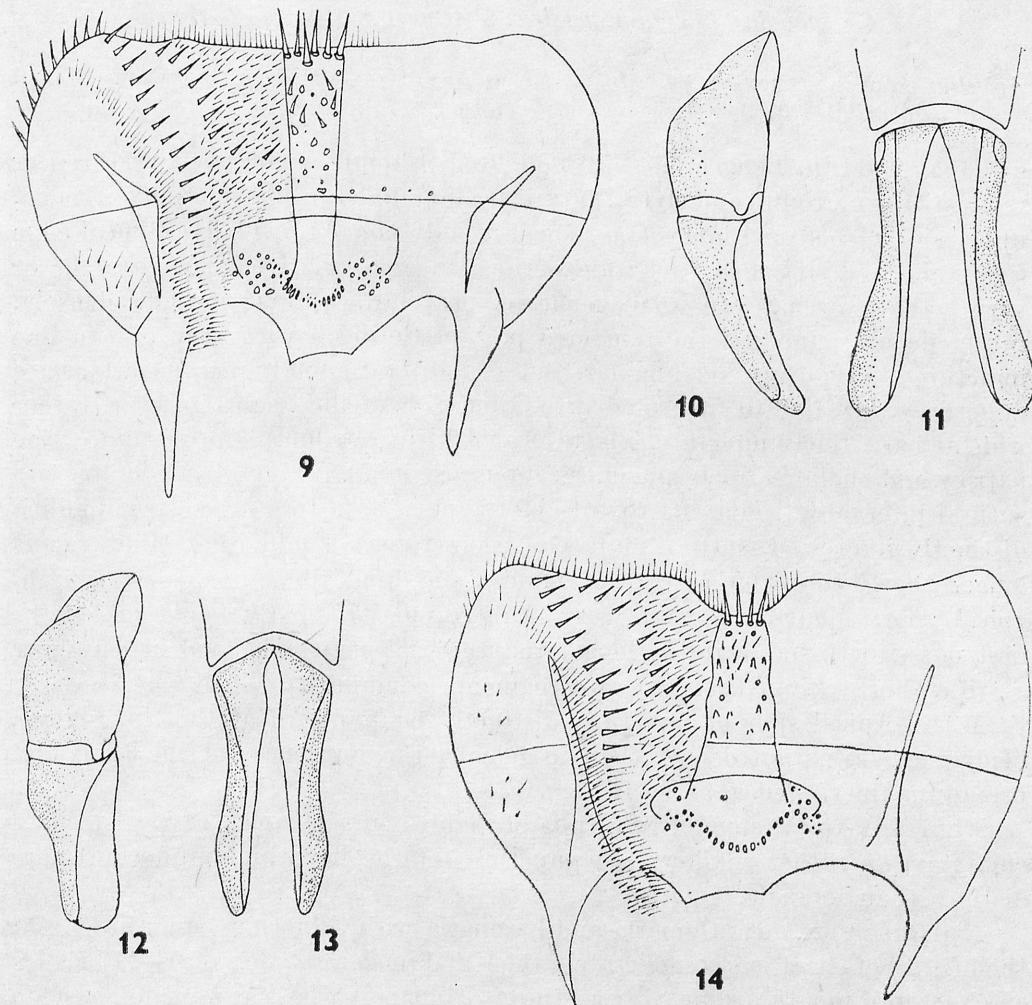
**Description.** Length 5.0—6.5 mm. Body shining, apex of elytra alutaceous; colour yellow or light brown, frontal and elytral suture as well as round foveae on each side of pronotum darkened. Head rather strongly convex, clypeal margin finely reflexed, rounded each side of shallow median emargination, sides weakly arcuate and emarginate before small, rounded genae; clypeal surface along margin finely punctate, the punctures of front and occiput finer, not dense. Pronotum rectangular, sides and base narrowly margined, discal punctures mixed very fine to fine, the punctures become a trifle larger and closer toward the sides. Scutellum subparallel-sided at base, minutely punctate. Elytra near 2.5 times as long as pronotum, striae very fine, minutely punctate or impunctate; intervals impunctate or inconspicuously punctate, sides and apex of elytra shortly setaceous. Metasternum convex, midline strongly impressed, surface with rather coarse punctures bearing short setae. Hind tarsus longer than the tibia; apical setae of middle and hind tibia unequal in length, apical spurs of hind tibia short and thin, slightly curved, nearly equal in length; first posterior tarsal segment near two times as long as the upper tibial spur and significantly shorter than the next two segments combined.

**Male.** Apical spur of fore tibia bent inward at the tip. Aedeagus as in figs. 10, 11.

**Female.** Apical spur of fore tibia straight and acute.

**Epipharynx.** Acanthoparia with moderately thick bristles, the setae of acroparia thin, equal in size; the bristles of chaetoparia and 8—10 bristles

of chaetopodium equal in size, longer and thicker than those of acanthoparia; the remained setae of pedium thin, decreasing in size toward nesum. No constant differences as compared with epipharynx of *A. hormonzensis* PETROV.



Figs. 9—14. Subgenus *Erytus* MULS. et REY; 9—11. *A. (E.) bucharicus* PETROV.: 9 — epipharynx, 10 — aedeagus laterally, 11 — aedeagus dorsally; 12—14. *A. (E.) persicus* PETROV.: 12 — aedeagus laterally, 13 — aedeagus dorsally, 14 — epipharynx

**Distribution.** Middle Asia. Recorded from: Pakistan; Afghanistan — vicinity of Kabul, Petsch valley (PETROVITZ, 1967).

**Material examined.** Holotype (MHNG), paratypes (MHNG, HMNH) and 12 specimens; Turkmen SSR — Repetek, Tedžen, coll. J. LGOCKI (ISEZ), coll. G. DELLACASA (GD); "Transcaucasia — New Saratow", coll. G. DELLACASA (GD).

Remarks. One of the paratypes of *A. tekkensis* labelled by PETROVITZ has turned out to be *A. bucharicus* PETROV.: Transcaspia — Džu džu klu, V 1900, leg. HAUSER (MHNG).

#### 4. *Aphodius (Erytus) persicus* PETROVITZ (Figs. 12—14)

*Aphodius persicus* PETROVITZ, 1961: 105; type localities: Iran — Aladagh (Budschnur), Jamal Bariz (Deh Bakri), Bala Ischem; Turkey — Konya.

Description. Length 5.5—7.0 mm. Body shining, colour yellowish red or reddish brown, frontal and elytral suture, occiput and disc of pronotum darkened, upper side of body without setae. Head weakly convex medially, clypeal edge finely reflexed, rounded each side of median emargination, sides straight or very weakly areuate to small genae; clypeal surface along margins densely, rather deeply punctate, the remained part of the head with very fine to fine punctures. Pronotum rectangular, sides and base finely margined, surface punctures very fine to fine, moderately dense. Scutellum subtriangular, rather wide at base, finely punctate. Elytra near 3.0 times as long as pronotum, striae narrow and shallow, finely punctate; intervals shining, minutely punctate, two sutural intervals strongly narrowed before apex. Mesternum convex, midline distinctly impressed, surface alutaceous, punctate and piliferous. Hind tarsus longer than tibia; apical setae of middle and hind tibia unequal in length, apical spurs moderately thin, very slightly curved, nearly equal in length; first posterior tarsal segment longer than apical spurs and equal in length or a trifle shorter than the next two segments combined.

Male. Apical spur of fore tibia distinctly bent inward at the tip. Clypeal median emargination deeper than in female, the punctures of the head and pronotum finer. Aedeagus as in figs. 12, 13.

Female. Apical spur of fore tibia straight, acute at apex. Clypeal median emargination rather shallow, the punctures of the head and pronotum more distinct than in male.

Epipharynx. Acanthoparia and acroparia with thin setae equal in length; the bristles of chaetoparia moderately thick and moderately long, 10—11 bristles of chaetopodium the same size as those of chaetoparia; the remaining setae of pedium thin, scarce, mixed longer and shorter.

Distribution. Middle and South-Western Asia. Recorded from: Iran — Derbend, vicinity of Teheran, Kerman; Afghanistan — Khurd Kabul, Pagman, Petsch valley, vicinity of Ghazni; Pakistan — vicinity of Quetta (PETROVITZ, 1965, 1967).

Material examined. Paratypes (MHNG) and 40 specimens: Turkey — Nigde, 1250 m, leg. PETROVITZ-RESSL; Jordania — Amman, 13 IV 1963, Petra, 600 m, 13 V 1968, Schaubak, 3 V 1968, leg. J. KLAPPERICH (MHNG); E Iran — Mohammadabad, 1600 m, 3—6 V 1973, Deh Bakri, 1700—1750 m, 30 IV — 3 V 1973; C Iran — 50 km NW Dowlatabad, Post e Kuh, 21—22 V 1977; S Iran — Zagros, Sisakht, 2400 m, 13—15 V 1973; NW Iran — 20 km SE Marand, 5—6 VII 1973, coll. Exp. Nat. Mus. Praha (NMP).

### 5. *Aphodius (Erytus) transcaspicus* PETROVITZ (Figs. 15—18)

*Aphodius transcaspicus* PETROVITZ, 1961: 105—106; type localities: Turkmen SSR — Ašchabad, Lufabād, Repetek, Džu džu klu; Uzbek SSR — Buchara; Karakorum — Henzal.

**Description.** Length 4.0—5.5 mm. Body shining, colour yellow or yellowish brown, frontal suture, occiput and anterior edge of pronotum darkened, elytra covered with very short yellow setae except middle basal area. Head moderately convex medially, clypeus rather narrow, clypeal edge distinctly reflexed, obtusely rounded each side of very shallow median emargination, sides straight to very small, rounded genae; surface of head with moderately fine, rather dense, uniformly distributed punctures, occiput impunctate. Pronotum nearly rectangular, sides and base narrowly margined, discal punctures practically contiguous the same size as the punctures of the head, somewhat larger and closer on the sides of pronotum. Scutellum narrow, punctate. Elytra near 2.5 times as long as pronotum, striae narrow, moderately deep, strial punctures fine, close; intervals shining, sometimes minutely shagreened, apex of elytra alutaceous; the punctures very fine to fine, usually larger and more distinct in the lateral and sutural intervals. Metasternum convex, midline weakly impressed, surface minutely shagreened, punctate and very shortly setaceous. Hind tarsus usually longer than the tibia, apical setae of middle and hind tibia nearly equal in length, apical spurs thin, slightly curved; first posterior tarsal segment longer than the upper tibial spur and a trifle shorter than the next two segments combined.

**Male.** Apical spur of fore tibia slightly bent inward at the tip, obtuse. The punctuation of upper side of body finer than in female. Aedeagus and trigonum copulatrix as in figs. 16—18.

**Female.** Apical spur of fore tibia straight and acute. The punctuation of upper side of body usually larger and more distinct than in male.

**Epipharynx.** The bristles of acanthoparia decreasing in size toward acroparia, setae of acroparia moderately long, thin; 8—9 bristles of chaetopodium somewhat thicker and shorter than those of chaetoparia; the remained setae of paria moderately long, thin. Very similar to epipharynx of *A. pruinosus* REITT.

**Distribution.** Middle Asia.

**Material examined.** Holotype, paratypes (MHNG) and 10 specimens: SE Iran—Sekand, 27 km ENE Sarbaz, 31 III—1 IV 1974; 13 km SSE Nikshahr (river), 8—9 IV 1973, Bahū Kalat, 3—4 IV 1973; E Iran—37 km SW Zahedan, 22—23 IV 1973, coll. Exp. Nat. Mus. Praha (NMP).

### 6. *Aphodius (Erytus) pruinosus* REITTER (Figs. 19—22)

*Aphodius pruinosus* REITTER, 1892: 53; d'ORBIGNY, 1892: 217; A. SCHMIDT, 1910: 48; 1922: 78, 79; PETROVITZ, 1961: 106, 107, 110; BALTHASAR, 1964: 93, 94; type localities: Turkestan (Margelan), Transcaspia, Persia;

*Aphodius irakensis*: BARAUD, 1977: 55 (partim: female), syn. nov.; type locality: Iraq—Lae Tharthar.

**Description.** Length 3.0—5.2 mm. Body moderately shining, elytra alutaceous, sides and apical part of elytra more or less distinctly setaceous; colour yellowish, yellowish brown, reddish or brown, occiput, frontal suture, disc of pronotum and elytral suture usually darkened. Head moderately convex medially, clypeal edge finely reflexed, rounded each side of narrow median emargination, sides straight or weakly arcuate to small genae; clypeal surface finely, closely punctate to subgranulate, sometimes wrinkled, front and occiput with fine moderately dense punctures. Sides and base of pronotum narrowly margined, pronotal surface moderately shining, sometimes minutely shagreened, with more or less evidently impressed median longitudinal line occurring in some specimens; the punctures fine, evenly distributed, closer laterally. Scutellum alutaceous, inconspicuously pubescent. Elytra 2.5 times as long as pronotum, striae narrow, minutely punctate, intervals more or less alutaceous, impunctate or minutely punctate. Hind tarsus usually longer than the tibia, under side of middle and hind tibia with a row of longer or shorter, more or less numerous setae; apical setae and apical spurs of hind tibia nearly equal in length; first posterior tarsal segment longer than apical spurs, usually shorter than the two following segments combined.

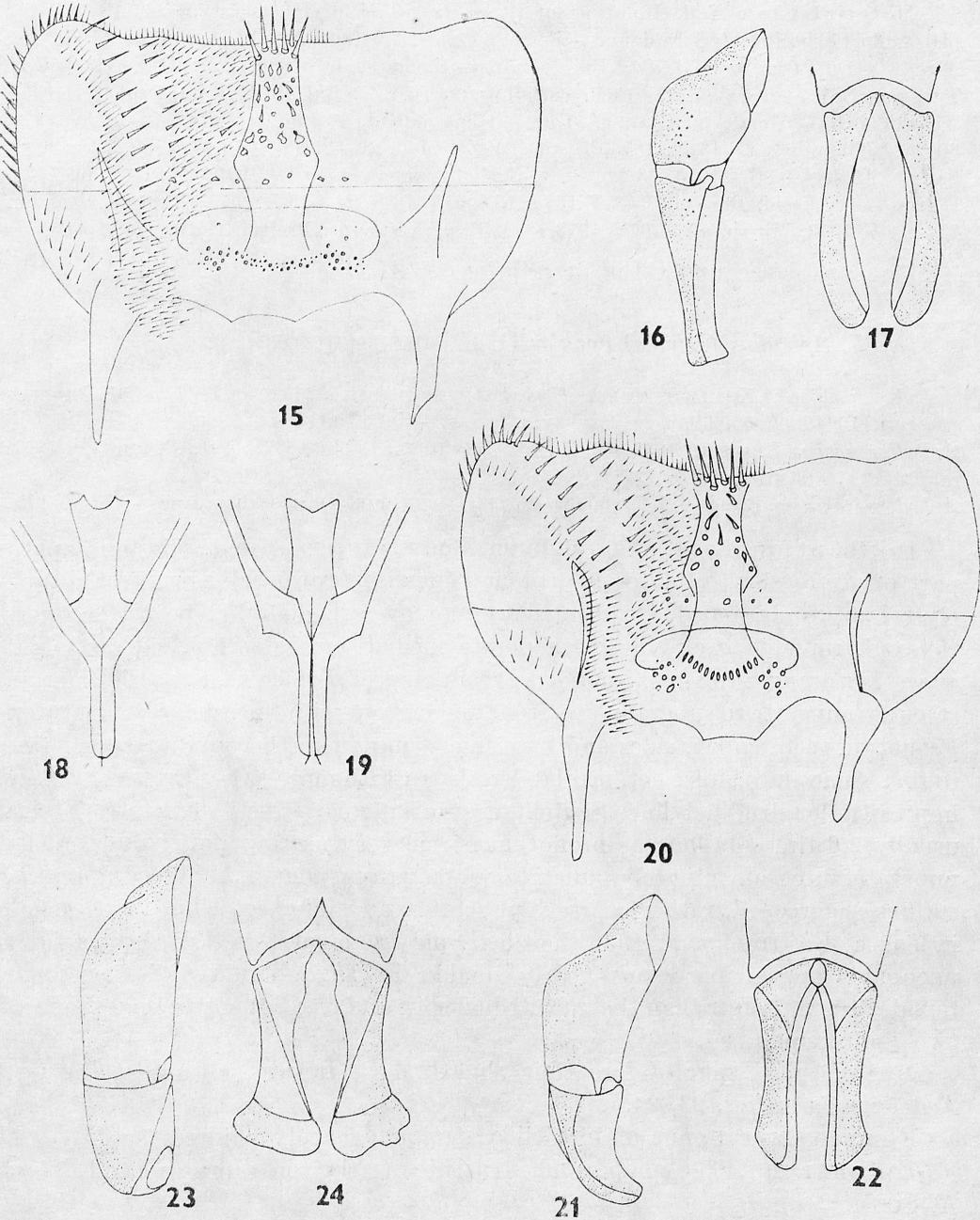
**Male.** Apical spur of fore tibia slightly bent inward at the tip. Sides of clypeus slightly arcuate to weakly marked genae, clypeal surface with the punctures less dense than in female. Metasternum convex, midline weakly impressed, surface minutely shagreened, finely punctate and shortly piliferous. Aedeagus and trigonum copulatrix as in figs. 19, 21, 22.

**Female.** Apical spur of fore tibia straight and acute. Sides of clypeus straight to slightly prominent genae, clypeal punctures closer than in male. Metasternum convex, midline strongly impressed, surface more distinctly punctate than in male, piliferous.

**Epipharynx.** Acanthoparia with a row of bristles the same size as these of chaetoparia, setae of acroparia moderately long, thin; 7—8 bristles of chaetopodium somewhat thicker and shorter than those of chaetoparia, the remained setae of paria and pedium thin, moderately long, not close. Very similar to epipharynx of *A. transcaspicus*. About the only differences seem to be the kind and composition of sensillae of nesium and epitorma anterior, the shape of epitormal sclerit and number of parial setae.

**Variation.** The species, similarly as *A. klugi* A. SCHM. is characterized by a great individual variation. Some specimens show the punctures of the head, pronotum and elytra more evident, in some upper side of the body is minutely alutaceous, in some shining and very finely punctate.

**Distribution.** North Africa, Middle and South-Western Asia. Recorded from: Turkey — Anatolia; Egypt; Libya — Tripolitania; Algeria; Liban — vicinity of Beiruth; Iran — Bandar Langeh, Minab, Zabol, Nimdeh, Iranshar, Chabahar, Kahuran, Anbar Abad; Iraq — Baquba; Afghanistan (PETROVITZ, 1958, 1961, 1965, 1967; BALTHASAR, 1964, 1968; BARAUD, 1968).



Figs. 15—24. Subgenus *Erytus* MULS. et REY; 15—18. *A. (E.) transcaspicus* PETROV.: 15 — epipharynx, 16 — aedeagus laterally, 17 — aedeagus dorsally, 18 — trigonum copulatrix 19—22. *A. (E.) pruinosus* REITT.: 19 — trigonum copulatrix, 20 — epipharynx, 21 — aedeagus laterally, 22 — aedeagus dorsally; 23—24. *A. (E.) opacior* D. KOSH.: 23 — aedeagus laterally, 24 — aedeagus dorsally

Material examined. Holotype of *A. pruinosis* (HMNH), paratype of *A. irakensis* (JB) and 117 specimens: S Jordania — Petra, 600 m, 13 V 1964, leg. J. KLAPPERICH (MHNG); Algeria — Oa. Tugurt (MHNG); Uzbek SSR — Buchara, IV 1900, coll. HAUSER (ISEZ); Turkmen SSR — Repetek, IV 1900, coll. HAUSER (ISEZ), Lutfabad, Kara Kum (MHNG); Kazakh SSR — Alma Ata (GD); SE Iran — Ghasemabad, 10 km Bampur, 11—12 IV 1973, 30 km N Bampur, 12—13 IV 1973, 37 km SW Zahedan, 22—23 IV 1973, Sekand 27 km ENE Sarbaz, 31 III — 1 IV 1973, 13 km SSE Nikshahr (river), 8—9 IV 1973, Tis, 6—7 IV 1973; E Iran — Gavkoshi, 1650 m, 7—8 V 1973, 16 km N Jask, 21—23 V 1973, 7 km W Kahkom, 27—28 V 1973, Minab, 19—20 V 1973, coll. Exp. Nat. Mus. Praha (NMP).

Remarks (see under the description of *A. klugi* A. SCHM.).

### 7. *Aphodius (Erytus) opacior* D. KOSHANTSCHIKOV (Figs. 23, 24)

*Aphodius opacior* D. KOSHANTSCHIKOV, 1894: 102 (nom. nov.); A. SCHMIDT, 1922: 78, 81; BALTHASAR, 1964: 92, 96, 97; type locality: Algeria — Kef el dor;

*Aphodius opacus* REITTER, 1892: 52, 53 (nec LE CONTE, 1872); 1892a: 191; d'ORBIGNY, 1892: 217; A. SCHMIDT, 1913: 127;

*Aphodius irakensis*: BARAUD, 1977: 55 (partim: male) syn. nov.; type locality: Iraq — Al Ukhaidir.

Description. Length 5.0—6.5 mm. Body alutaceous, mat, sides and apical part of elytra shortly piliferous; colour yellowish brown or brown, frontal and elytral suture darkened. Head moderately convex medially, clypeal edge finely reflexed, rounded each side of moderate median emargination, sides straight or weakly arcuate to small, rounded genae; clypeal surface near anterior margin strongly punctate to subgranulate, front and occiput with fine, shallow punctures. Pronotum rectangular, sides and base finely margined, the punctures very fine to fine, sometimes indistinct, median basal area with more or less evident, weakly impressed longitudinal line. Scutellum subtriangular, finely punctate. Elytra usually 2.6 times as long as pronotum, striae very narrow and shallow, finely punctate, intervals minutely punctate. Metasternum convex, midline impressed, surface shagreened, rather coarsely punctate and piliferous. Hind tarsus equal in length or a trifle longer than the tibia, apical setae of hind tibia short, faintly unequal in length, apical spurs nearly equal in size, slightly curved; first posterior tarsal segment longer than the upper tibial spur and a trifle shorter than the next two joints combined.

Male. Apical spur of fore tibia slightly bent inward, obtuse at the tip. Aedeagus as in figs. 23, 24.

Female. Apical spur of fore tibia straight, sharply pointed.

Epipharynx. The shape and structure nearly the same as in *A. klugi* A. SCHM.

Distribution. North Africa and South-Western Asia. Recorded from: Algeria; Tunisia (A. SCHMIDT, 1922; BALTHASAR, 1964).

Material examined. Type specimen of *A. opacus* REITT. (HMNH); holotype of *A. irakensis* (JB) and 13 specimens: Algeria — Sahara N El Golea, V 1912 (MHNG), Oran, coll. PLASUN (GD); Tunisia — Kebili, VII 1952, leg. G. DEMOFLYS (GD); Libya — Tripolitania, Misda (GD); Iraq — Habaniya Lake, III 1978, leg. MORELET (JB); Iran — Bandar Abbas, Shaghoo, leg. RESSL (MHNG).

### 8. *Aphodius (Erytus) longissimus* SAHLBERG

*Aphodius longissimus* SAHLBERG, 1908: 581; A. SCHMIDT, 1922: 78—80; BALTHASAR, 1964: 92, 97; type locality: Israel — Tel Aviv („Joppe”).

**Description.** Length 7.0—8.0 mm. Body oblong, strongly shining, apex of elytra very minutely piliferous; colour yellowish brown, frontal and elytral suture darkened. Head large, convex with more or less distinctly marked transverse convexity at middle of clypeus; clypeal margin reflexed, rounded each side of moderately deep, rather wide median emargination, sides weakly arcuate and slightly emarginate before small genae; surface finely, rather deeply punctate. Pronotum with broadly rounded posterior angles and slightly sinuate, narrowly margined base, surface punctures fine, not closely distributed. Scutellum triangular, finely punctate. Elytra near 2.8 times as long as pronotum, striae narrow, moderately deep, very finely punctate; intervals flat with minute to very fine punctures. Metasternum shining, punctate and minutely piliferous. Hind tarsus shorter than the tibia, apical setae of hind tibia moderately long, unequal in length, apical spurs flattened, sharply pointed, unequal in length; first posterior tarsal segment as long as the upper tibial spur and considerably longer than the next two segments combined.

**Male.** Apical spur of fore tibia robust, slightly bent downward, truncate at the tip. Surface of metasternum concave.

**Female.** Apical spur of fore tibia slender, straight and acute. Surface of metasternum convex.

**Distribution.** Egypt, Israel.

**Material examined.** Paratype (HMNH) and 2 specimens: Egypt, coll. Alfieri (MHNG, NMP).

**Remarks.** *A. longissimus* is a very rare species known so far only from the two localities. As recognized here, it may be easily separated from the remained *Erytus*-species by its large size, the shape of head and flattened apical spurs of hind tibia as well as the proportion of tarsal joints.

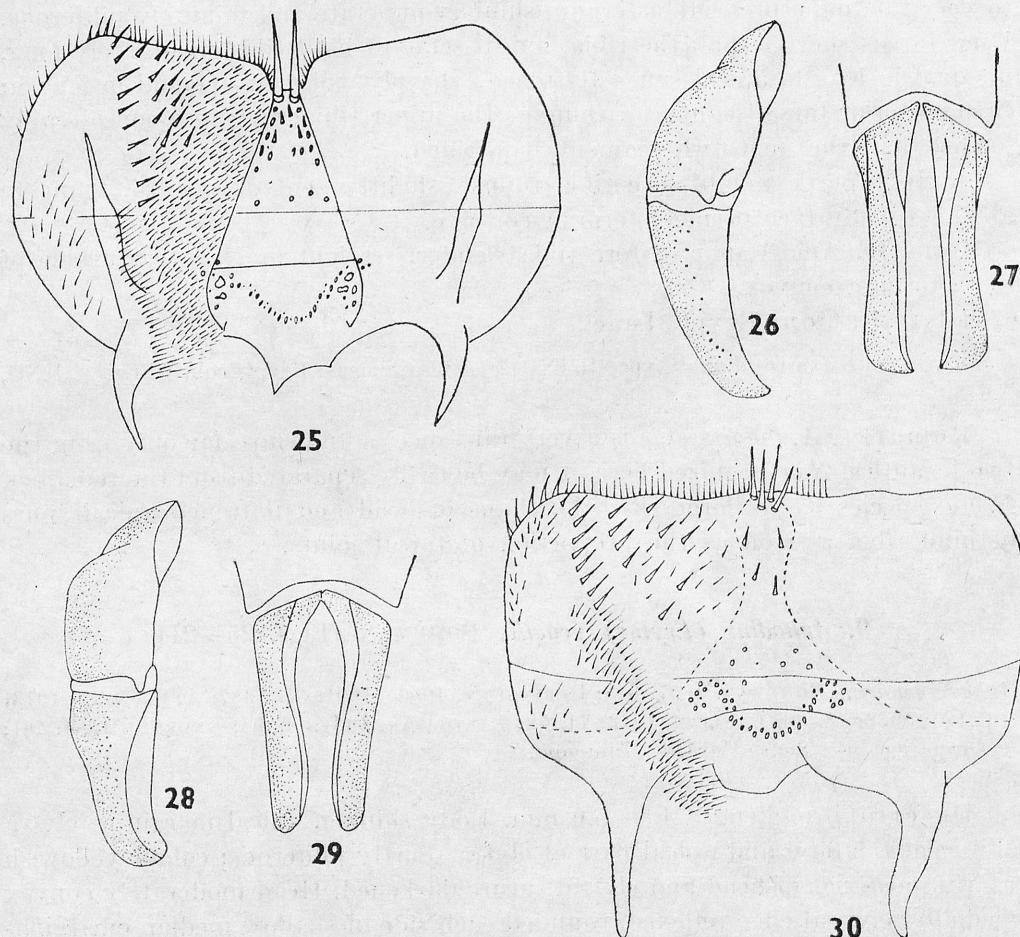
### 9. *Aphodius (Erytus) gracilis* BOHEMAN (Figs. 25—27)

*Aphodius gracilis* BOHEMAN, 1857: 343; PÉRINGUEY, 1900—1901: 375, 387; A. SCHMIDT, 1913: 126; 1922: 78, 80; PAULIAN, 1942: 71, 72; BALTHASAR, 1964: 92, 96; ENDRÖDI, 1964: 261; type locality: South Africa — Limpopo.

**Description.** Length 4.8—5.0 mm. Body shining, apical margin of elytra alutaceous, lateral and apical part of elytra shortly piliferous; colour yellowish brown, posterior of head and elytral suture darkened. Head moderately convex medially, clypeal edge reflexed, rounded each side of shallow median emargination, sides very weakly arcuate to small but right-angled genae, surface finely, uniformly punctate. Pronotum slightly convex, sides and base margined, posterior angles truncate, base sinuate; discal punctures very fine to fine,

evenly distributed, lateral part of pronotum with mixed fine and coarse punctures concentrated near foveae. Scutellum narrow, triangular, finely punctate. Elytra near 2.6—2.7 times as long as pronotum, striae fine, distinctly punctate, intervals rather flat, very finely punctate, the punctures are larger at apex of elytra. Metasternum convex, midline weakly impressed, surface finely punctate and shortly piliferous. Hind tarsi slender, a trifle longer than the tibia; apical setae of middle and hind tibia moderately long, unequal in length, apical spurs nearly equal in size, thin, weakly curved; first posterior tarsal segment flattened, one-third longer than the upper tibial spur and nearly equal the length of the following three segments combined.

Male. Inner side of anterior tibia distinctly widened in basal two-thirds, emarginate before apex; apical spur slender, sharply pointed. Aedeagus as in figs. 26, 27.



Figs. 25—30. Subgenus *Erytus* MULS. et REY; 25—27. *A. (E.) gracilis* BOHL.; 25 — epipharynx, 26 — aedeagus laterally, 27 — aedeagus dorsally; 28—30. *A. (E.) aequalis* A. SCHM. 28 — aedeagus laterally, 29 — aedeagus dorsally, 30 — epipharynx

Female. Anterior tibia normal, apical spur slender, sharply pointed.

Epipharynx. Setae of acanthoparia short, thin and scarce, those of acroparia longer and closer. The bristles of chaetoparia moderately long and moderately thick, 10—11 bristles of chaetopodium a trifle thicker and shorter than those of chaetoparia; the remaining setae of pedium short, dense.

Distribution. Africa. Recorded from: South Africa, Egypt, Ethiopia (SCHMIDT, 1922; PAULIAN, 1942; ENDRÖDI, 1964).

Material examined. Two specimens: South Africa — Botswana, Kanyu, leg. ZUMPT (MHNG).

Remarks. *A. gracilis* is rather an atypical member of the subgenus *Erytus*, because of the shape of anterior tibia of male, right-angled genae and posterior angles of pronotum truncate. The species seems to be the representative of Ethiopian fauna spreading northward, however, data concerning its occurrence in Egypt have not been confirmed by the author of the present study.

#### 10. *Aphodius (Erytus) aequalis* A. SCHMIDT (Figs. 28—30)

*Aphodius aequalis* A. SCHMIDT, 1907: 201 (nom. nov.); BALTHASAR, 1964: 95; PETROVITZ, 1965: 674; DELLACASA, 1973: 86; BARAUD, 1977: 67; type locality: Turkestan;

*Aphodius aequalis* REITTER (sic!): A. SCHMIDT, 1922: 80; BALTHASAR, 1964: 93; PETROVITZ, 1965: 674;

*Aphodius nitidus*: BALLION, 1871: 333 (non KÜSTER, 1849); REITTER, 1892: 53; 1892 a: 191; d'ORBIGNY, 1892—1896: 217;

*Aphodius stepicola*: BALTHASAR, 1941: 88 (females); type locality: Kazakh SSR — Semirečye.

Description. Length 4.5—5.5 mm. Body shining, colour yellowish brown or reddish brown, posterior of head, disc of pronotum and elytral suture darkened. Head small, weakly convex medially, clypeal edge finely reflexed, truncate anteriorly or inconspicuously emarginate, sides straight to small, broadly rounded genae; surface minutely alutaceous, slightly opalescent, the punctures very fine to fine, more concentrated in occipital area. Pronotum convex, sides and base narrowly margined, posterior angles obtusely rounded, base weakly sinuate; surface minutely alutaceous, the punctures mixed fine and moderately coarse unevenly distributed. Scutellum subtriangular, alutaceous. Elytra near 2.9 times as long as pronotum, striae narrow, finely punctate, intervals with minute to very fine punctures or impunctate. Metasternum convex, minutely alutaceous, finely punctate. Hind tarsus longer than the tibia, apical setae of middle and hind tibia equal in length; first posterior tarsal segment one-third to one-fifth longer than the upper tibial spur and a trifle shorter or longer than the next two segments combined.

Male. Apical spur of anterior tibia slightly bent inward at the tip. Aedeagus as in figs. 28, 29.

Female. Apical spur of anterior tibia straight, sharply pointed.

**Epipharynx.** Acroparia with rather dense, thin setae equal in length; the bristles of chaetoparia moderately thick, 9—10 bristles of chaetopodium the same size as those of chaetoparia; the remaining setae of pedium short, thin and scarce.

**Distribution.** South Europa, Middle and South-Western Asia. Recorded from: Italy — Otranto, Gioia Tauro, Maida, Aritzo, Lostia; Peloponissos — Gythion, Kyparissia; Transcaucasia — Araxes; Ural; Iran — Derbend, Bandar Langeh, Zabol (PETROVITZ, 1965; BARAUD, 1968, 1977; DELLACASA, 1973).

**Material examined.** Holotype of *A. stepicola* (VB) and 22 specimens: Israel — Gebatha, 2 V 1927, Dilb, 3 V 1927, Haifa, 1 VI 1936, coll. S. TENENBAUM (ZIW); Azerbaijan SSR — Baku, leg. MARTIN (MHNG); Turkmen SSR — Repetek (MHNG); Kazakh SSR — Semirečye (GD, MHNG); West China — Jungaria, Karlyk Tag, Tian Šan (GD).

### 11. *Aphodius (Erytus) lindemannae* BALTHASAR (Fig. 34)

*Aphodius lindemannae* BALTHASAR, 1960: 3; 1964: 93, 95—96; type locality: Iraq — Rutba.

**Description.** Length 4.8—5.8 mm. Body shining, colour yellowish brown or castaneous, posterior of the head, disc of pronotum and elytral suture darkened, the two sutural intervals sometimes lighter than the remained. Head very small, slightly convex at middle, clypeal margin finely reflexed, truncate anteriorly, sides straight to small, rounded genae; surface minutely alutaceous, faintly opalescent, the very fine to fine punctures more evident in occipital area. Pronotum convex, sides and base narrowly margined, surface minutely alutaceous with very fine to fine punctures somewhat closer on the sides of pronotum. Scutellum subtriangular, finely punctate or impunctate. Elytra near 2.7 times as long as pronotum, striae narrow, finely punctate; intervals sometimes minutely alutaceous, very finely punctate. Metasternum convex, midline impressed, surface minutely alutaceous, finely punctate. Hind tarsus a trifle longer than the tibia, apical setae of middle and hind tibia short, unequal in length, apical spurs of hind tibia unequal in length, thin; first posterior tarsal segment one-third longer than the upper tibial spur and subequal or somewhat longer than the next two segments combined.

**Epipharynx.** Acroparia with mixed thicker and thinner setae; the bristles of chaetoparia moderately thick and moderately long; 5—6 bristles of chaetopodium nearly the same size as those of chaetoparia, the remaining setae of paria and pedium short and thin, rather dense.

**Distribution.** Near East.

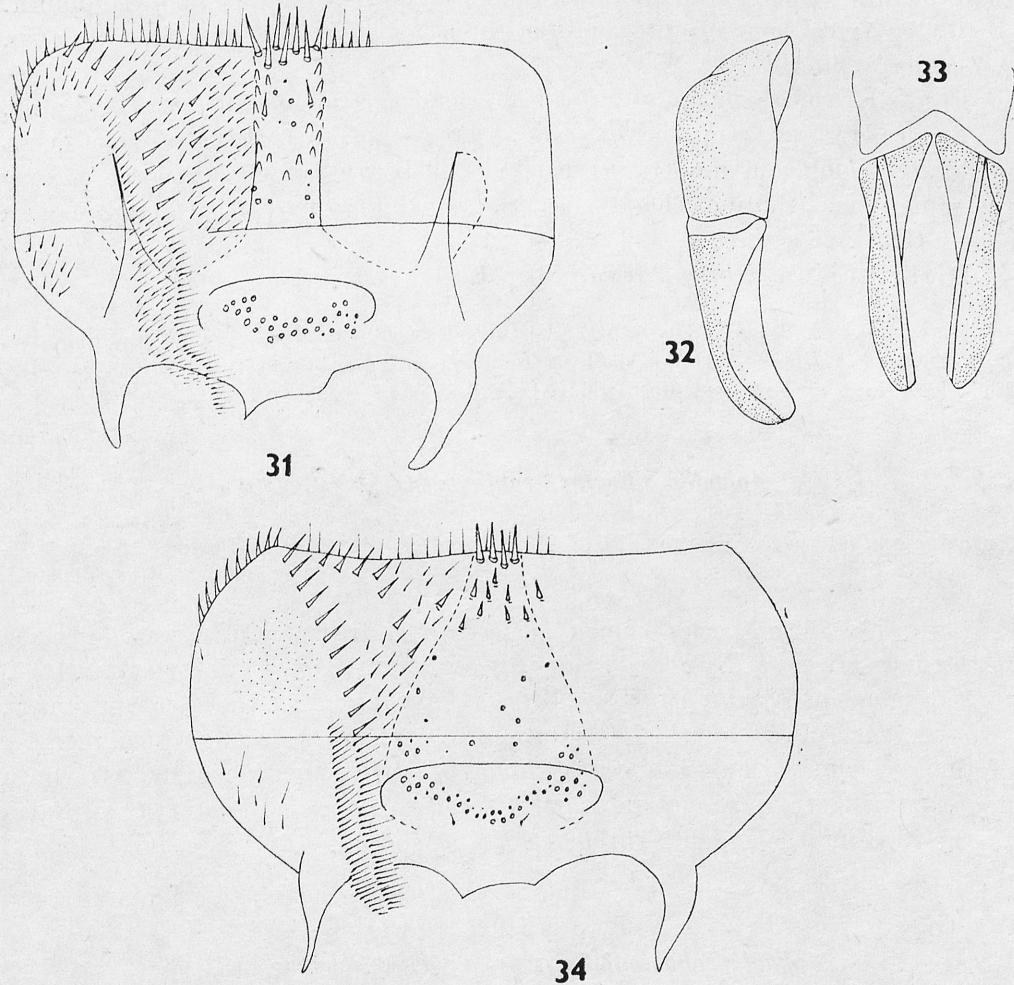
**Material examined.** Paratypes (VB) and 7 specimens: Iran — Bandar Abbas, leg. R. PETROVITZ, vicinity of Sabzawaran, 20 III 1950, coll. Österr. Exp. 1949—1950 (MHNG); E Iran, 37 km SW Zahedan, 22—23 IV 1973, Gav Koshi, 1650 m, 7—8 V 1973, coll. Exp. Nat. Mus. Praha (NMP).

Remarks. Aedeagus is not illustrated because of the lack of male specimens in the material examined. It is apparent from BALTHASAR'S (1960) original description that the male is probably labelled as holotype, but I have not found it in BALTHASAR'S collection.

**12. *Aphodius (Erytus) psammophilus* BALTHASAR (Figs. 31—33)**

*Aphodius psammophilus* BALTHASAR, 1941: 87; BALTHASAR, 1964: 93, 94; type locality: Algeria — Mzab.

Description. Length 4.8—5.3 mm. Body shining, colour yellowish brown or reddish brown, posterior of head, disc of pronotum and elytral suture slightly darkened, the two sutural intervals sometimes lighter than the remained.



Figs. 31—34. Subgenus *Erytus* MULS. et REY; 31—33. *A. (E.) psammophilus* BALTH.; 31 — epipharynx, 32 — aedeagus laterally, 33 — aedeagus dorsally; 34. *A. (E.) lindemannae* BALTH. — epipharynx

Head small, weakly convex at middle, clypeal edge finely reflexed, rounded each side of very shallow, sometimes vanishing median emargination, sides straight or very weakly arcuate to small, but slightly protrudent genae; surface minutely alutaceous near anterior margin, the very fine to fine punctures are more concentrated in occiput. Pronotum convex, sides and base narrowly margined, posterior angles obtusely rounded; surface minutely alutaceous on the sides, discal punctures very fine to fine. Scutellum subtriangular, minutely punctate. Elytra near 2.4 times as long as pronotum, striae narrow, finely punctate; intervals minutely alutaceous, finely punctate. Metasternum convex, finely punctate, midline weakly impressed. Hind tarsus longer than the tibia, apical setae of middle and hind tibia short, unequal in length, apical spurs of hind tibia unequal in length, thin; first posterior tarsal segment one-third longer than the upper tibial spur and longer than the two following segments combined.

**Male.** Apical spur of anterior tibia robust, slightly bent inward at the tip. Aedeagus as in figs. 32, 33.

**Female.** Apical spur of anterior tibia slender, straight and sharply pointed.

**Epipharynx.** Acroparia with thin, scarce setae; the bristles of chaetoparia moderately long and moderately thick; 8—9 bristles of chaetopodium nearly the same size as those of chaetoparia, the remaining setae of paria and pedium short, thin and scarce.

**Distribution.** North Africa, Near East.

**Material examined.** Holotype (VB) and 5 specimens: Iran — Bandar Abbas, leg. R. PETROVITZ; SE Iran — Abbar Abad, 30 IV 1956, leg. W. RICHTER; Iraq — Rutba, 21 V 1963, leg. KASY et VARTIAN, Mosul (MHNG).

### *Aphodius (Erytus) confirmatus* A. SCHMIDT

*Aphodius confirmatus* A. SCHMIDT, 1916: 115 (*Erytodes*); BALTHASAR, 1964: 93, 98; type locality: India — Madras.

**Remarks.** The species known hitherto only from Madras, was described in the new subgenus *Erytodes* A. SCHMIDT and transferred by BALTHASAR (1964) to the subgenus *Erytus* MULS. et REY. I have not seen the type-specimens, however, according to original description, *A. confirmatus* is an atypical member of the subgenus discussed, because of clypeal edge dentate and elytra with lighter transverse spots. As an oriental species, *A. confirmatus* is not included to the key for the identification of *Erytus*-species.

\* \* \*

### *Aphodius chobauti* CLOUËT (species incertae sedis)

*Aphodius chobauti* CLOUËT, 1896: 371, 372 (*Erytus*); A. SCHMIDT, 1913: 128 (*Mendidaphodius*); A. SCHMIDT, 1922: 86 (*Mendidaphodius*); BALTHASAR, 1964: 93, 97—98 (*Erytus*?); type locality: Algeria.

Original description. "... capite, prothoracis basi et lateribus, sutura elytrorum angustissime nigro marginatis; sutura frontali et pronoti macula parva laterali, nigris ... Clypeo fere ut in genere *Mendidius* granulato; sutura frontali elevata, medio laeviter tuberculata, vertice fortifer dense punctato, fere granulato ..."

Remarks. The taxonomical status of this very poorly known species can not be clarified completely in the present study, because of the lack of the type-specimens. From the latin sentences it may be concluded, that *A. chobauti* is most likely the representative of the subgenus *Mendidaphodius* (according to the suggestion of A. SCHMIDT, 1913, 1922).

### *Aphodius (Volinus) variicolor* D. KOSH.

*Aphodius (Erytus) aralensis*: STEBNICKA, 1978: 257—258, syn. nov.

Institute of Systematic and Experimental Zoology  
Polish Academy of Sciences,  
Sławkowska 17, 31-016 Kraków, Poland

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#### STRESZCZENIE

Praca zawiera rewizję gatunków objętych jednym z podrodzajów rodzaju *Aphodius* ILLIG., z omówieniem ich morfologii, taksonomii i rozsiedlenia oraz klucz do oznaczania gatunków występujących w Palearktyce. Skomplikowana synonimika i luki w opisach poszczególnych taksonów nie pozwalały dotychczas na właściwą determinację gatunków tej grupy. W wyniku rewizji jeden gatunek został wyłączony z podrodzaju i cztery nazwy gatunkowe wykazane jako nowe synonimy.

Redaktor pracy: prof. dr J. Pawłowski

