

Israel Journal of Entomology Vol. VI, 1971

S C A R A B A E I D A E F R O M T H E N E A R E A S T

(LAMELLICORNIA: COLEOPTERA)

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A-2013 Gollersdorf, Austria

A B S T R A C T

The following taxa are described:

Onthophaeus bedeli conterminatus ssp. n., Israel; *Aphodius stereotypus* ab. *apicalis* ab. n., Iraq; *A. bagdadensis* sp. n., Iraq; *A. chaldaeus* sp. n. Iraq; *A. wewalki* sp. n., Asia minor; *A. assyncus* sp. n., Iraq; *bytinski-salzi* sp. n., Israel (Golan); *Rhysssemus syriacus* sp. n., Syria; *Psammobius somalicus* sp. n., Aethiopia; *P. mesopotamicus* sp. n., Iraq; *Amphicoma hyrax* f. *atripilis*; f. *spendida*; f. *coerulea*; f. *nigripilis* all f.n. Asia minor; *Hellaserica elongata* f. *nigra*; f. *brunnea* f.n., Greece; *Maladera baluchistanica* sp. n., Iran; *Tanyproctus cariensis* sp. n., Asia minor; *T. crinitus* sp. n., Israel; *T. israeliticus* Heyd. female new descr., Israel; *Tanyproctoides* gen. n. *arabicus* sp. n., Saudi-Arabia; *Haplidia leutiineri* sp. n., Syria; *H. transversa* ssp. *cretica*, Crete, ssp. *peleponnesiaca* ssp. n., Greece; *Anoxoides* gen. n. *bytinski-salzi* sp. n., Israel; *Cyphonoxia preaestabilis* Reitt. female new descr., Iran.

A new genus and several new species and forms were found and hereunder described among a shipment of Scarabaeidae, which Prof. H. Bytinski-Salz, Tel Aviv kindly sent to me for determination. I am taking the opportunity to describe another new genus and some more new species and forms; these are chiefly from my collection, found in other Near Eastern countries.

I am grateful to Prof. Bytinski-Salz for the translation of the manuscript from German into English, and also for the gift of some paratypes and duplicates for my collection.

Onthopagus (*Euonthopagus*) *bedeli* Reitt. *conterrhinus* ssp. nov.

The new race differs from the nomotypical ssp. in the male by the form of its parameres (Fig. 1) and in the female by having the metasternal groove shallower and less strongly punctate. The form of the parameres of *O. bedeli bedeli* Rtt. and the nearly related *O. d'orbignyi* O1 s. are figured in Fig. 2,3 for comparison.

Holotype male and Allotype female: Beersheba 14.III; Paratypes: Beersheba 14.III. Dunes 15 km South of Beersheba 2.IV., Yeroham 29.III., 20.IV. all leg. Bytinski-Salz (herunder abbreviated By.S.) in coll. By.S. and coll. mea.

Aphodius (Mecynodes) stereotypus Kosh. apicalis ab. nov.

Similar to the nomotypical form, but tips of elytrae strongly blackened. Iraq: Assur in coll. mea.

Aphodius (Mendidius) bagdadensis spec. nov.

Elongate, slightly arched, broadened toward rear, shining. Dark reddish brown are: head, pronotum, scutellum, sutural and three lateral intervals including tip of elytrae, legs and underside. Sides of pronotum only slightly lighter, rest of elytrae straw yellow.

Male: Clypeus anteriorly slightly excised, the excavation flanked by two small but sharp, somewhat elevated teeth. The convex sides arch without interruption into the rounded cheeks which surpass the eyes; frontal suture engraved as a fine line, but not gibbous. Clypeus coarsely and densely punctate, rugose only around the edges. Frons with a finer punctation, becoming more dispersed posteriorly.

Sides of pronotum rounded, finely ciliate; base and the obtuse hind edges which border the whole disc are irregularly punctate, at the sides points slightly more dense, larger and more equal. Anterior part of scutellum parallel, with some points on the disc.

Elytral shoulders without special distinctions; the robust striae in the form of small points which distinctly notch the intervals; these slightly arched, on disc with fine disperse punctation, which becomes stronger laterally and toward the tip.

Metasternal plate arched, finely punctate, slightly grooved at the median longitudinal suture. Anterior tibiae with 3 short but sharp exterior teeth, the outer edge in front of it only indistinctly crenulate; metatarsus of hind legs as long as the upper apical spine and almost as long as the two following tarsal joints combined. Length 5,4 mm. Female unknown.

Holotype: Iraq: Bakubo, North-East of Bagdad. in coll. mea.

Coloration of A. bagdadensis similar to the slightly smaller A. sijazowi Leb. Although agreeing in general with the description of this species, the lateral obscuration of the elytrae is restricted to the 2 outer intervals; the clypeus is acute-angled, not toothed; the frontal suture is recessed and the sides of the pronotum are not ciliate. Furthermore, the occurrence of this species is more Eastern (Bokhara).

A. bivittatus A. Schm. is also similarly coloured, but easy to differentiate by the peculiar shape of the head and the 4-toothed anterior tibiae.

Aphodius (Volinus) chaldaeus spec. nov.

A small species, slightly arched, and only slightly broadened behind; shiny. Dark brown are: head, pronotum, scutellum, suture and a kidney-shaped anteapical spot on the elytrae and underside. Legs and sutural intervals light brown, anterior corner and rest of elytrae brownish-yellow; elytrae bare, except for a dustlike pubescence on tips.

Male: The trapezoidal clypeus is broadly and rather deeply notched, sides slightly concave, run uninterruptedly into the small cheeks, which only imperceptibly surmount the eyes. Frontal suture almost unrecognizable; disc finely, uniformly and rather densely punctate.

Sides of pronotum slightly arched, ciliate, hind corners bluntly rounded, base very finely bordered. Punctuation as on the head, but larger points are found in the basal half and on the lateral edges. The triangular scutellum distinctly punctate.

Shoulders without distinction, the fine striae of the elytrae with rows of rather large points, which distinctly notch the intervals and which continue up to the tip. Intervals only slightly arched, with rather dense punctuation, which becomes even denser toward the tip. Anteapical maculae lie between the 3rd and 6th intervals.

Metasternal plate slightly concave, its edges with dense long and light pilosity. Anterior tibiae slightly notched in front of the 3 exterior teeth. Middle and hind tibiae strong, with well developed transverse ledges. Hind metatarsus much longer than the upper apical spine and distinctly longer than the three following tarsal joints together; regular rows of hairs present on both sides.

Female: Frontal plate much narrower than in the male, its middle slightly bossed. Sides of clypeus straight, cheeks almost completely lacking. Punctuation of head and pronotum more dense, that of the pronotum less unequal than in the male; metasternal plate flat and not pilose. Length 4.3-4.5 mm.

Holotype male, Allotype female and Paratype: Iraq: Assur in coll. mea.

The new species is very similar to A. flavimargo Reitt., but in this, somewhat smaller, species the pronotum is broadly bordered with yellow. Clypeus in both sexes only slightly excavate. The rows of points on the elytrae small and do not notch the borders of the intervals, which are distinctly depressed in this species. Metatarsus distinctly shorter than in A. chaldaeus and the metasternal plate of the male finely and diffusely punctate. The dense and long pilosity of the new species completely lacking. Finally the 2 species occur in widely separated regions: A. flavimargo (Tashkent, Afghanistan).

Aphodius (Anomius) wewalkai spec. nov.

A somewhat stout, highly arched species, little broadened behind. Shining, only the middle of the clypeus in front of the central tubercle

mat. Light reddish-brown, occiput and centre of pronotum darker chestnut-brown, elytrae backward with black brown sutural stripe and with indistinct diffuse pattern of spots. Upperside completely nude.

Clypeus without transverse ridge, deeply excised anteriorly, the corners bluntly rounded and slightly elevate. Sides run almost straight towards the rounded cheeks which extend above the eyes and are furnished with a few ciliate hairs. Frontal suture with conical, pointed tubercle and two small lateral ledge-shaped protuberances. Clypeus roughly and densely punctate, rest of the head with large and rather dense points.

Sides of pronotum rounded, devoid of cilia, hind edges rounded, base finely but sharply bordered. Disc very finely and diffusely punctate, sides punctate as in the occiput. Scutellum triangular with a few small points.

Shoulders of the elytrae rounded. Striae impressed, deepened backward, especially along the sutural stripe. Points small, but notch the intervals, these flat, only slightly arched posteriorly; punctation distinct, almost arranged in two rows. Maculae very indistinct, distributed as follows: a small quadrate spot in the 3rd interval, slightly behind the tip of the scutellum; an elongate spot on the base of the 5th interval; an elongate spot behind the shoulder in the 7th and 8th interval and a larger one in the apical part between the 3rd and 7th interval.

Metasternal plate arched, femora rather broad, both impunctate, the chagreened sternites with diffuse hairs.

Inner edge of the robust anterior tibiae strongly concave, a few crenulations in front of the three stout outer teeth, the movable spine strong, straight and directed forward. Middle and posterior tibiae with distinct transverse ridges; apical bristles of unequal size, a smaller one always alternating with one double its length. Lower apical spur of mid-tibia normal (♂), both spines normal, slender and acute; spurs of hind tibiae broadened, blunt and about equally long. The thickened metatarsus as long as the spurs and considerably shorter than the following two tarsal joints. Length 4.9 mm.

Holotype: Turkey, Anatolia between Burdur and Antalya 1.V.1969 leg. Wawalka. The specimen was kindly given to me by its discoverer.

According to Balthasar (Monographie der Aphodiidae der palaearktischen und orientalischen Region Prag 1964, - Bestimmungstabelle der Untergattung Pseudacrossus Reitt.), the new species would be placed along A. grebenscikovi Balt. (Mongolia) and A. maderi Tesar (Turkestan) but otherwise it has no similarities with these two species.

Aphodius (Aphodaulacus) assyricus spec. nov.

Elongate oviform, flatly arched, distinctly broadened backward; shiny; yellow, middle of clypeus, disc of pronotum and spots on elytrae dark brown; elytrae completely pilose.

Female: Clypeus cut straight anteriorly, imperceivably excised; sides broadly rounded, extending straight into the slightly rounded cheeks; these extend beyond the eyes. Frontal suture straight with indication of central tubercle. The whole head with uniform, medium strong, rather dense punctation.

Sides of pronotum flatly rounded, only slightly converging anteriorly, longely ciliate; lateral borders extend beyond the blunt posterior angle towards a point opposite the bossed shoulders; rest of base unbordered, rounded, not angular. Sides broad, base only narrowly yellow. Punctation as on frons, slightly coarser and denser towards back. Scutellum triangular, base as broad as the 2nd and 3rd interval together, slightly concave without visible punctation; lateral edges darkened.

Shoulders of elytrae unarmed; striae fine with small points, which slightly notch the intervals. Intervals flatly arched, bearing rows of irregular bristle-points; these almost as large as those on frons and on the disc, decumbent on the striae; points very small and isolate on the posterior decline; 8th and 10th interval, as well as the tip, densely aciculate and pilose; lateral borders longly ciliate. The dark spots are arranged in two arched rows; the first row reaches almost the middle of the elytrae, beginning with a spot at the base of the 5th interval, others being in the 4th, 3rd and 2nd interval; the second row has two spots in the 7th interval and one each in the 6th and 2nd interval.

Underside yellow; metasternum almost impunctate; metasternal plate flat with fine dark median line. Sternites with long but sparse pilosity. Femora and tibiae slender, the latter with distinct transverse ridges and apical bristles, which are alternately longer and shorter. Anterior tibiae yellow, entirely bordered with black (which is also the color of the teeth). Hind metatarsus slightly longer than the upper apical spine, shorter than the three following tarsal joints together. Length 5.2 mm Male: unknown.

Holotype: Female Iraq: Assur in coll mea.

A. assyricus may be compared with A. turcestanicus Heyd., but the coloration is entirely different; the head (in the latter species) (female) is much more bossed, sides of the clypeus slightly excavate before the cheeks; base of pronotum either completely bordered or only slightly interrupted; punctation finer and more disperse; pilosity of the elytrae confined to the sides and tip, underside dark brown, and so on.

Aphodius (Nialus) bytinski-salzi nov. spec.

Form cylindrical, scarcely broadened in both sexes; anterior part of body only slightly shining, elytrae completely dull. Head, pronotum, scutellum, sides of elytrae and underside black without plumbeous pruinosity, sides of the head, anterior corners of pronotum and legs red brown; disc of elytrae yellow brown. Upper side without pilosity.

Male: Clypeus bossed, slightly excavate anteriorly, laterally rounded; sides slightly bent toward the cheeks, from which they are separated by a very shallow excavation. Cheeks distinctly surmount the eyes. Frontal suture almost indistinct in the centre, laterally slightly elevate, but there also

rather indistinct. Centre of clypeus finely and dispersely punctate, edges of clypeus and front between the eyes with denser, larger and coarser, unequal punctation, but in no place is the punctation rugose or granulate.

Sides of pronotum rounded, not ciliate, bordered around the rounded posterior angles toward base and extending down to opposite the 5th interval of the elytrae. Basal part of the disc with indistinct longitudinal median line. Punctation very unequal, with predominantly large points in its lateral parts. Distance between points sub-equal to their diameter; points on the disc more disperse and distance between points much larger. Shoulder bosses without large points; small points evenly distributed everywhere between the large ones. Scutellum narrow, rather elongate, chagreened, sides in basal part parallel, surface slightly uneven, but no punctation recognizable.

Shoulders of elytrae, when seen from above with small sharp tooth, formed by the epipleural keel, which distinctly projects upward at this point. Striae of disc robust, points large, distinctly notching the intervals; these completely flat, slightly arched only toward the tip. Sutural intervals tectiformly elevate. Elytrae very finely chagreened with very fine aciculate pointlets, which do not become stronger toward the sides and tip.

Metasternal plate slightly arched, impunctate. Anterior tibiae sharply dentate in front of the three sharp outer teeth; hind metatarsus as long as the upper apical spur, slightly longer than the two following tarsal joints.

Female: differs from the male only by the punctation of the pronotal disc which is laterally very densely punctate, and by the more arched metasternal plate.

Holotype male and Allotype female: Israel: Golan, Qneitra 6.IV.68. Holotype in coll. By.S., allotype in coll. mea.

A. bytinski-salzi is similar in many characters to A. plagiatus L., but is larger and of different coloration. It differs especially by the strong chagreen of the elytrae, the curvature of the sides of the pronotum (in A. plagiatus these are almost straight in lateral view), the simple, not rugose sculpture of the clypeus and the distinctly notching points on the elytrae.

Rhyssenus syriacus spec. nov.

Dark reddish-brown, pronotum black brown, slightly shiny dorsal and ventral side not pilose.

Head strongly vesicular; clypeus deeply and angularly excised, the lateral corners obtuse-angled and slightly elevated; its anterior border shiny and diffusely, finely granulate, other parts with vermiculate scratches of different length, which are concentrically arranged around the head vesicle; i.e. clypeus not tuberculate. Space between the eyes not separated from the clypeus by a suture and covered with indistinct rugosities in which four prominent tubercles are arranged in one row; the median ones may be considered as remnants of the oblique keels, which are otherwise absent.

Sides of pronotum rounded and serrate, continuing in an arch towards the base; ciliate, the cilia broadened. The first transverse ridge divided into small tubercles, the three following ones only slightly more elevate, their surface uneven and slightly broader than the adjoining furrows. Fourth ridge bent backward and divided by a shallow median furrow, the fifth tuberculate, but otherwise still well visible; the sixth obsolete. The first two transverse elevations granulate at base, the others densely umbilicate-punctate. Scutellum triangular small, matt.

Elytrae with small but acute humeral spines. Intervals flat, chagreened, in the middle with a row of small flat tubercles bend backward; inner lateral row indistinctly granulate, all intervals equally high.

Metasternal plate smooth, impunctate; only the sides of the sternites show traces of zigzag lines. Hind metatarsus slightly longer than the upper apical spine. Length 3.8-4 mm.

Holotype and Paratype: N. Syria: Lattakiye 1885 leg. F. Leuthner in coll.meae.

R. syriacus is easily distinguished from all other known species of Rhyssesus by the peculiar intuberculate sculpture of the head.

Psammobius somalicus spec. nov.

A rather large and plump species, but on account of its broad pronotum almost cylindrical. Shiny; reddish-brown, head and pronotum somewhat darder.

Clypeus slightly angularly excised, laterally with a blunt slightly elevate tooth. The sides pass straight into the cheeks, separated from them by a small notch. The oblique keels on the hind part of the head lacking, instead two indistinct oblique furrows visible. Disc of head, except for the interocular space, rather densely tuberculate, matt; this tuberculation reaches backward and disappears below the anterior edge of the pronotum.

Pronotum, as seen from above, rather strongly rounded because of the protruding lateral bosses, but the lateral edges almost straight if seen from the side, the posterior corners obtusely rounded. Base and sides finely ciliata, grooves on the base of the hairs indistinct. Disc with five transverse ridges; the two anterior ones broadened medially and almost confluent, consisting of round tubercles, each one bearing an aciculate point as large as those on the head. The remaining ridges convex, unevenly or slurringly granulate; each elevation with a small aciculate point. Transverse furrows, with the exception of the last and the longitudinal one, very narrow at their bases, indistinctly uneven. Single, large but superficial, points at the base of the fourth transverse furrow and on the longitudinal one. Sides, including shoulders; granulate. Scutellum small, triangular, smooth. The epipleural keel bent upward, it appears as a blunt angle of the humeral bosse.

Striae of elytrae distinctly notched and punctate. Intervals distinctly arched and granulated; the tenth interval not shortened.

Sides of the metasternum flat and chagreened, rugosely punctate and pilose. Metasternal plate flattened with single strong points. Anterior borders of sternites with small longitudinal keels, the last one impressed and longitudinally grooved. All sternites bear single pilose points.

Fore and middle femora thick, rounded, the hind femora extremely short and thick, almost as broad as long, vesicular; all femora with single hair-points. Outer edge of fore tibiae smooth in front of the three outer teeth. Middle tibiae normal, hind tibiae triangularly broadened and thickened; upper edge concave, lower one convex. Upper apical spine very short, shorter than the metatarsus, lower one vestigial. Metatarsus only slightly longer than the 2nd tarsal joint, all joints except the last one more or less triangular; claw very thin but not setose.

Holotype: Ethiopia: Obok in coll. mea.

P. somalicus can neither be compared nor mistaken for any other Psammobius species because of its extremely thickened hind legs and the extremely short apical spines of its posterior tibiae.

Psammobius mesopotamicus nov. spec.

Body highly arched, narrow, somewhat broadened posteriorly; shiny, upper and under-side reddish-brown, head and pronotum somewhat darker.

Clypeus distinctly excised, lateral with slightly blunted teeth, sides slightly rounded. Cheeks forming a slightly protruding tooth; the oblique interocular keels almost indistinguishable, rugose. Disc smooth, rather densely covered with tubercles; smaller tubercles confined to a narrow posterior zone; punctation absent.

Lateral sides of pronotum notched, longely and finely pilose, arched toward base; anterior corners indistinctly impressed; the first transversal ridge narrow, consisting completely of tubercles: the second almost twice as broad in the middle, completely tuberculate, the three following ones narrow again, their surface uneven, indistinctly tuberculate, fourth and fifth ridge as usual interrupted by shallow longitudinal furrow. All furrows narrower than ridges, bearing indistinct rows of granules. The small triangular scutellum chagreened.

Shoulders of elytrae with a very small humeral spine; base sharply edged. Punctation on the ten narrow striae very indistinct; intervals arched, tuberculate along their whole length; tenth interval not shortened.

Lateral sides of the metasternum bearing a few small pilose tubercles, otherwise smooth. Metasternal plate medially strongly impressed, without punctation. Sternites smooth, only with a few lateral wart-like points, anterior borders finely crenulate. Last segment, as usually, longitudinally reefed with broad transverse impression.

Hind femora strongly broadened, one half broader than the mid femora, both pairs unbordered and with a few setae toward the tip. Front tibiae smooth in front of the three stout outer teeth; middle and hind tibiae well developed, posterior apical spines broadened toward tip, rounded, the upper one elongate, spoon-shaped, slightly shorter than the first two tarsal joints; all tarsal joints triangularly broadened. Length 3.8 mm.

Holotype: Iraq: Kirkuk leg. W. Schors in coll. mea.

The sculpture of the new species is remarkably similar to the North African form of Rhyssalus orientalis which, however, is not identical with the typical R. orientalis Muls. from Beirut (this question, however, needs further investigation). Its form, the very broad posterior femora, the form of the apical spines and the tarsi of hind legs refer P. mesopotamicus clearly into the genus Psammobius. It is however dissimilar to P. laevipennis Costa. P. mesopotamicus can be compared only with P. plicatulus Fairm. and P. transcaspicus Petr.. The first species is smaller and stouter; clypeus without up-bent lateral teeth, the notch in the cheeks placed more anteriorly, making the cheeks look bigger. Furrows and lateral bosses of pronotum almost without sculpture; intervals on the elytrae almost flat, tubercles less distinct. Apical spines of hind tibiae not as broad but shorter, also metatarsus decidedly shorter. P. transcaspicus is also smaller and more stout; cheeks protruding forward, separated by a sharp incision from the lateral edge. Sculpture of pronotum completely different, especially the 3rd transverse ridge which is keel-formed, and the longitudinal furrow, which is strikingly broadened at its base. Apical spines of the hind tibiae much shorter; posterior tarsal joints, especially the 2nd to 4th almost globular (as in type).

Coloration and pilosity in Amphicoma (Eulasia) hyrax Truqui.

Amphicoma (Eulasia) hyrax, a species distributed through Asia minor, Syria, Lebanon and Israel, occurs in different forms concerning coloration and pilosity. I was able to study an extensive material from Turkey and Israel, partially collected by myself. Too little material is so far known from other regions to give a final picture. The forms so far known are revised in the following table. A. hyrax occurs in two subspecies: hyrax s. str., which belongs to the fauna of Syria-Palestine and only isolate specimens come from the Asiatic part of Turkey. A. hyrax ssp. nitidicollis Reiche is distributed in S.E. Turkey with extensions toward the West (Vilayet Mersin: Silifke); an isolated population occurs around Ankara (Golbaci) where a warmer enclave could be located. The Southern border of its distribution may be in Central Israel (Judean mountains), however in Northern Israel up to the Lebanese border only A. hyrax s. str. has been found (By.S. pers. comm.). Because of its rare occurrence it cannot be stated with certainty whether the different forms of colour and pilosity are of geographical significance, but so far it seems that these different forms all occur within the area of the subspecies.

- 1 (8) Elytrae with uniform black fundamental pilosity..... (hyrax hyrax)
- 2 (7) Anterior part of body dark blue to bluish black, often black, sometimes with light bluish shine.....3
- 3 (6) Anterior part of body long black pilose; abdomen light or blackish pilose.....4

- 4 (5) Sides of abdomen and pygidium yellowish pilose. Syria, Lebanon, Israelssp. hyrax Truqui s.str.
- 5 (4) Sides of abdomen and pygidium black; Turkey: Vilayet Bingöl....
..... f. atripilis nov.
- 6 (3) Upper and underside of body light (mixed with grey) pilose. Syria, Lebanon, Israel..... (ab.) truqui Reitt.
- 7 (2) Anterior part of body bright light blue; pilosity everywhere black. Southern slope of Cilician Taurusf. splendidula nov.
- 8 (1) Elytrae with fundamental pilosity light and black arranged in longitudinal stripes(ssp. nitidicollis Reiche)
- 9 (12) Anterior part of body brilliant green, sometimes with bluish or brassy shine.....10
- 10 (11) Elytrae with light sutural and lateral stripe and also two light dorsal stripes; the inner ones fused with the sutural stripe and recognizable only anterior of the middle of elytrae.....
..... ssp. nitidicollis Reiche
- 11 (10) Dorsal stripes and usually also sutural stripe fused into a brown light band; sometimes also the whole of the elytrae uniformly light pubescent. S.E. Turkey: Vilayets Marash and Mardin
..... f. simplicipennis Petr.
- 12 (9) Anterior part of body blue or black.....13
- 13 (14) Anterior part of body blue; pilosity light mixed with dark hairs. Vilayets: Mersin, Bingöl and Dyabekir..... f. coerulea nov.
- 14 (13) Anterior part of body black15
- 15 (16) Pilosity hoary above and below. Vilayet Bingöl and N. Syria.....
..... (ab.) sublineata Reitt.
- 16 (15) Whole body black pilose, except abdomen, which is light pilose and sides of pygidium, which is orange pilose. Vilayet Much
..... f. nigripillis nov.

Hellaseric a elongata Reitt.

During their trip to Greece (May 1969) Mssrs. Ernst Hüttinger and Hubert Rausch collected a number of specimens of this apparently rare species (because of its devious occurrence), which were beaten from conifers. A number of new color forms are found among the series:

- Anterior part of body incl. scutellum, underside and legs black, elytrae brown nominate form
- Whole body including legs black f. nigra nov.
- Head and spot on the anterior border of pronotum black, rest of pronotum, elytrae and legs reddish-brown f. brunnea nov.

The specimens were collected in the environment of the monastery of Megas-pilaion, 1600 m. and Lewidhi 1200 m. They were kindly presented to me by their collectors.

Maladera (Aserica) baluchestanica spec. nov.

Habitus, like in all other Mediterranean Aserica species: strongly broadened backward; shiny light red brown; upperside not pilose.

Male: The sides of the clypeus converge anteriorly, front edge roundly excavate, anterior edge strongly, but sides only slightly elevate; frontal suture bent backward and also slightly elevate. Disc in front of the suture with large dense points, slightly rugose, the front shallowly rugose without distinct punctation.

Anterior and lateral sides of pronotum bordered, the basal edge in front of the scutellum sharply bordered and slightly elevate toward the hind borders. Ciliation of the sides extends somewhat around the corner toward the anterior border. Whole pronotum covered with equally large, medium sized umbilical points; interspaces about equal to their own diameter; no microsculpture observable. Scutellum acute triangular, somewhat narrower than long, covered with small umbilical points.

Elytral striae arranged in 10 irregular rows, consisting of irregular umbilical points, often in juxtaposition; the points are situated in more or less deepened furrows, but no distinctly engraved striae discernible. Punctuation of the arched intervals dense as in the striae, only in their distal part more disperse. Epipleural edges sharply keeled almost up to the tips, the cuticular hem short and narrow.

Pygidium arched, punctation as on pronotum. Metasternum and hind coxae coarsely punctate; metasternal plate with longitudinal depression, surrounded by hairs of equal length, which are inserted on small tubercles on the sternites.

Legs without distinctive characters; metatarsus of hind legs slightly longer than the upper apical spine, equal to 2nd tarsal joint. Outer side with longitudinal furrow and as the other tarsal joints without fringe of bristles (Subgen. Aserica Lewis). Forceps similar to other Aserica species (Fig. 4). Length 7.7 mm. Female unknown.

Holotype: Male, Iran, Baluchestan Sangun 1650 m. East of Kuh i Taften in coll. mea.

It is impossible to determine this new species with the help of my key for the determination of Maladera (Ann. Naturhistor. Museum Wien 73 1969 pp. 397 ff.) as the penis sheath has no small spine or tubercle on its upper end and the parameres are bifurcate. One can get only as far as point 7 (2) which comprises only the black M. apfelbecki Petr. from the Balcans. Also the parameres are different from all other know species.

Tanyproctus (s. str.) cariensis sp. nov.

Elongate, oviform, slightly arched, shiny, only the elytrae matt, finely chagreened. Upper - and underside black, only legs pitch brown. Upper side not pilose, light yellow; ciliation occurring on head, pronotum and elytrae only.

Male: Clypeus, in dorsal view, rounded and slightly flattened in front; in hind view, the upturned apical edge broad but slightly excised, its sides excavate in front of the clypeal-frontal corners (above the insertion of the antennae). Punctuation coarse but not very dense. Frontal ridge bent backward and laterally deepened. Frons with dense large pits, vertex with more diffuse punctuation.

The strongly rounded sides of the pronotum converge anteriorly, the anterior corners acute, the posterior ones rounded. Edges not ciliate; middle of the disc with a slightly impressed longitudinal furrow, which reaches neither the anterior nor the posterior edges. Punctuation finer than on head, rather uniform and inequally distributed on disc. Points not entirely round but aciculate toward back. Intervals between points as large or larger than one point-diameter. Scutellum semicircular, slightly arched, covered with a few points.

Sutural intervals on elytrae arched, posteriorly enlarged to double their breadth; two dorsal ribs indicated by very shallow double furrows. Intervals covered with simple, shallow, rather dense points. Epipleural keel sharp to the tip.

Pygidium at base with fine rough, at tip with simple punctuation; from each point a small succumbent hair originates. Lamellae of antennae as long as the peduncle seen from above.

Anterior tibiae tridentate, somewhat broadened in front of the apical tooth; the movable spur inserted between the first and second outer tooth, somewhat nearer to the basal one. Middle and hind tibiae not particularly differentiated. Front- and middle tarsi slightly broadened, tarsal joints 1-4 completely soled (in the mid tarsus, joint one soled only at tip. Fifth (claw) joint with dense hairy fringe along its whole length. Metatarsus of hind legs somewhat shorter than the 2nd tarsal joint. Length 10.6 mm. Female unknown.

Holotype: Turkey, Anatolia, 30 km South of Aydin in the Vilayet of same name. 27.IV.1969 leg. Wewalka in coll. mea, kindly given to me by its collector.

T. cariensis is rather similar to T. opacipennis Petr. from Osmaniye, East Anatolia regarding size, coloration and the matt elytrae. But the latter species is stronger arched, clypeus more rounded and even less excised, but more deeply excavate above the insertion of the antennae; the clypeo-frontal corners longer, covering the cheeks almost completely. Head strongly pilose. Pronotum ciliate all around, also the median longitudinal furrow shows some bristles on its anterior edge. Scutellum concave, impunctate; elytrae with finer and more regular punctuation, pruinose. Pilosity of fore and hind legs also different.

Tanyproctus (Tanyproctocera) crinitus spec. nov.

A small species, oviform, only slightly broadened toward rear. Head and scutellum, lower side and legs shiny, black, elytrae pale reddish-brown, dull; the shining pygidium either black (Holotype) or light red brown

with blackened sides and tip. Antennae in both specimens reddish-brown. Underside with long, elytrae with short light pilosity.

Male: Clypeus rounded (as typical for the Tanyproctocera species), laterally obtusely excised above the insertion of the antennae; strongly elevated all around, especially in front, and imperceptibly excised there. Frontal suture strongly deepened laterally. Clypeus very densely and coarsely rasped-punctate in front of the suture, behind with also very dense but finer, almost simple, punctation. Whole disc covered with very long dense oblique hairs.

Pronotal edge bordered and ciliate all around, sides and hind corners rounded, densely covered with unequally distributed rasp-shaped points which are as large as those on the occiput, but less dense than there; a long oblique hair is inserted in each point. Scutellum laterally with rather dense, small points and pilose.

The sutural intervals of the elytrae slightly arched and separated by furrows covered with points; they broaden only slightly toward the tip, but become more flat. Dorsal ribs marked by double rows, which are not higher than the intervals; these covered by a medium dense and medium large punctation. Lateral keels sharply prolonged, almost up to the bluntly rounded tips.

Pygidium ciliate all around, but not pilose, covered with diffuse small points. Pilosity of under side long and moderately dense. Lamellae of antenna slightly bent outward, longer than the stalk. Terminal joint of maxillary palpi slender, without dorsal impression. Anterior tibiae with three equidistant teeth, basal tooth small, the movable spine opposite the second tooth. First joint of fore tarsi soled only at tip, the three following ones strongly broadened (about as broad as long), completely soled, middle legs only slightly more narrow, brushes on soles as in anterior tarsi. Hind metatarsus as long as the following tarsal joint. Length 8.8-10 mm. Female unknown,

Holotype: male Israel Tel Aviv 5.1. leg. and coll. By.S.; Paratype same locality and date in coll. mea.

The only species which may be compared with T. crinitus is T. sinaiticus Heyd., which, however, has completely bare (not pilose) elytrae. The difference in coloration may be insignificant, as T. sinaiticus occurs in bicolored as well as unicolored black or brown specimens.

Tanyproctus (Tanyproctocera) israeliticus spec. nov.

Oviform, broadened toward rear. Surface dull shiny, owing to a fine chagreen. Head, pronotum, scutellum and underside black, elytrae reddish-brown. Antennae and legs dark brown, in one male (paratype) abdomen and pygidium lighter red brown; on the upperside only the head pilose.

Male: Clypeus circular, its front slightly excised, edges steeply and broadly elevate; its border bluntly notched above the insertion of the

antennae. Clypeo-frontal corner protrudes in form of a blunt lobe. Frontal suture almost straight. Frontal disc rather flat, enclosed by upturned edges. In front of the suture a coarse, rasp-like punctation occurs, which turns into a medium strong, dense punctation with long oblique pilosity behind it.

Pronotum broad oval, not strongly arched, bordered all around with dense and long ciliation, except in front where it is scanty. Median longitudinal furrow indicated, not reaching the anterior and posterior borders of the disc. Whole disc rather uniformly covered with points of medium size, distance between points always larger than their diameter. Scutellum diffusely punctate, sides rounded, tip hardly discernible.

Sutural intervals on the elytrae sharply bordered, only slightly broadened backward. Four dorsal ribs marked by double stripes, only slightly elevated above the intervals. Intervals with rather dense and large uneven punctation. Epipleural keel sharp, extending toward the rounded tip, where it fuses with the sutural interval.

Pygidium diffusely covered with medium sized shallow points. Metasutural plate with three furrows converging toward the anterior end and arranged in form of an arrow head. Underside long villose. Tip of antennal lamellae slightly bent outward, longer than the visible part of the stalk. The movable spine opposite the median tooth of the tridentate foretibiae; basal tooth small and very blunt. Tips of median and hind tibiae trumpet-shaped. The three intermediate joints of the fore tarsi strongly broadened, as broad as long, and completely soled, the first soled only at tip. Midtarsi only slightly broadened, also soled. Hind metatarsus shorter than 2nd tarsal joint. Length 9.9-10.9 mm. Female unknown.

Holotype: Israel, Jerusalem 10.XII.1944 leg. Costa in coll. By.S.; Paratype same locality in coll. mea.

T. israelicus can also be compared with T. sinaiticus Heyd. in size and form. But T. sinaiticus differs from the new species by its adjacent clypeo-frontal lobe and densely punctate and pilose pronotum. Besides, in T. sinaiticus the midtarsi are considerably more broadened than in T. israelicus.

Tanyproctus (Tanyproctocera) sinaiticus Heyden

Prof. Bytinski-Salz collected the hitherto unknown female of this species as well as two males.

As in all Tanyproctus species, this female is also much plumper than the male; the body form is characterized by the small head and by the elytrae, which are very much broadened toward their tip.

Upperside, especially elytrae, light red brown, vertex, pronotum, scutellum, under side, antennae and legs dark brown; pilosity as in the male.

Male: The five-lamellate antennal club shorter than its stalk, the joints of which are not elongate. Middle and hind tibiae not broadened toward tip; all legs short, the tarsal joints neither broadened nor soled.

Claws simple, neither incised nor toothed (Vide: Arb. Mus. Frey 19 1968 p. 246) Length 10:6 mm.

Allotype: female Israel: Kvutzat Schiller 25.I.55. leg. and coll. By.S. Also two males Kibbuz Nezer-Sereni 25.I.55 and Zikhron Yaaqov 10.III. in coll. By.S. and coll. mea.

Tanyproctoides gen. nov. (Pachydemini).

The new genus stands near Tanyproctus Fald. and avvicinates the subgenus Phalangonyx Reitt. in the form of its clypeus. It differs from all other genera of the Pachydemini by its hexafoliate antennal club.

Clypeus conically prolonged, bent upward in front and deeply excised; clypeo-frontal suture distinctly deepened. Eyes strongly protruding. Head long pilose.

Pronotum bordered and ciliate all around. Scutellum semicircular; sides of elytrae with short and delicate cilia. Tips of elytrae completely rounded, slightly separate only at the suture. Tip of pygidium bent anteriorly, therefore the sternites strongly telescoped into each other.

Clypeus symmetrical with semilunar excision. Antennal club six-lamellate, much longer than the antennal stalk; 2nd and 3rd antennal joints somewhat longer than broad, 4th much elongate and flattened adjacent to the lamellar joint. Distal joint of maxillary palpi long and thin without dorsal impression. Anterior tibiae with three outer teeth and one movable spine. The middle and hind tooth each bear one incomplete transverse ridge which are covered with long bristles. Tarsi elongate and thin; the anterior and middle tarsi soled; claws bifid.

Genotype: Tanyproctoides arabicus Petr. spec. nov.

Tanyproctoides arabicus spec. nov.

Form elongate, rather slender, the maximum width in the first quarter of elytrae; these distinctly narrowed toward apex. Anterior part of body shiny, elytrae dull. Body colour light reddish brown, edge of clypeus blackened. Upperside bare except for pilosity on the head.

Male: Clypeus as long as broad, conical toward apex; apical edge deeply excised and strongly bent upward; lateral corners indicated by two elevate blunt teeth. Clypeo-frontal suture bisinuate and distinctly cut in; clypeo-frontal lobe small, does not cover the ocular lobe. Clypeus covered with large points, front with smaller ones, punctation on both dense and rough, covered with oblique hairs.

Sides of pronotum rounded, slightly converging, more in front than in back. Anterior and posterior angles rounded; base covering the scutellum. Punctation irregularly distributed, consisting of medium-sized aciculate points of equal size. Scutellum with a few small disperse points.

Elytrae three times as long as broad, sides finely keeled and distinctly bent, tip completely rounded. Humeral callus distinct. Sutural intervals and dorsal ribs little evident, bordered by slightly impressed rows of points; disc of elytrae chagreened, with discreet dense, medium punctation.

Underside and femora not densely covered with long and light hair. Basal tooth of anterior tibiae small, apical tooth long, narrow, pointing obliquely forward. The movable spine inserted opposite the middle tooth or somewhat in front of it. Anterior tarsi slightly broadened, the mid tarsi even less, the first anterior tarsal joint soled only on tip, the three middle ones completely soled; on mid legs the first soled at tip, the 2nd and 3rd completely soled, the 4th and 5th bare. Tarsi of hind legs laterally compressed, metatarsus almost as long as the 2nd tarsal joint. Length 11.5-11.8 mm. Female unknown.

Holotype: Saudi Arabia: Abqaiq 30.III.57, leg. Talhouk in coll. Zoologische Sammlung des Bayerischen Staates, Munich; Paratype same locality 25.III.57. in coll. mea.

Haplidia leuthneri spec. nov.

Red brown (?always) somewhat shiny, not pruinose.

Male: Clypeus distinctly excised but excision not reaching base; clypeus and front densely covered with great cicatriced points, vertex finer, granulate. Front densely, clypeus and vertex sparingly, covered with long upright hair.

Pronotum twice as broad as long; sides rounded behind the middle and notched in long intervals, the notches becoming nearer to each other toward the hind corners. Disc covered not very densely with middle-sized points, sides with smaller points; distance between points subequal to their diameter. The whole anterior edge and the middle of the base densely covered with long erect hair; disc with slightly shorter oblique pilosity; short adherent pilosity lacking.

Points on elytrae slightly larger than on pronotum, umbilicate and not transversely rugose; an oblique hair inserted in each point, these hairs slightly longer than the distance between points.

Pygidium finely chagreened with discreetly dense and fine punctation, pilosity short and upright. Sternum with scarce pilosity, abdomen not pruinose.

Antennal fan conspicuously long, almost as long as the visible part of the stalk. Anterior tibiae rather strongly bent inward. Forceps as in

Fig. 5. Length 13-15 mm.

Female: similar to male, differs by its secondary sexual characters; 16.5 mm.

Holotype: male, Syria, Saida 1885 leg. F. Leuthner in coll. mea.
Allotype: female, Israel (Upper Galilea) Dafna 7.VI.45 leg. et coll. By.S.
Paratypes: males, Israel Dafna 7.VI.45; Dafna-Oaks 13.V.40, 11.V.46; Rosh Pina 10.V.40. leg. et coll. By.S.

According to the form of the forceps and the locality, H. leuthneri must be compared with H. fissa Burm. In this species however the punctation on the pronotum is more dense (distance between points distinctly smaller than their diameter); pilosity of disc shorter, and tip of parameres straight (Fig. 6).

Haplidia transversa Fab. ssp. cretica ssp. nov.

H. transversa s. str.	H. transversa ssp. cretica Petr
Clypeus medially distinctly excised.	Clypeus almost not excised
Surface of vertex plane, covered with points which are distinctly smaller than on clypeus.	Surface of vertex uneven, points as large as on clypeus.
Pronotum twice as broad as long. Sides of pronotum rounded in an obtuse angle behind the middle.	Pronotum 2.5 times broad as long. Sides of pronotum uniformly rounded.
The whole disc of pronotum uniformly and finely punctate.	Disc of pronotum with larger points, between them small impunctate islets unequally distributed.
Parameres as in Fig. 7.	Parameres as in Fig. 8.
Distribution: Southern Europe to Asia minor	Distribution: Crete <u>Holotype</u> : male, <u>Allotype</u> : female and <u>Paratypes</u> : Crete, Assites 450 m 6.VII.1962 in coll. mea. Other specimens known to me: Knossos 25.III.1963.

Haplidia transversa Fab. ssp. peloponnisica ssp. nov.

A large and compact form; pitch brown with slightly shiny head and pronotum, elytrae in the male matt, pruinose, in the female shining.

Male: Clypeus distinctly excised, but incision not completely penetrating the upbent anterior edge. Clypeus and front with large umbilicate punctation, vertex with dense, rough and finer punctation. Clypeus and frons with odd short pilosity, vertex bald.

Pronotum more than twice as broad as long, sides with rounded protruding corners behind the middle, deeply crenulate in front, almost imperceptibly behind. Disc with rather large, irregular punctation, distance between points equals about one point-diameter, in between occur small, slightly elevate, impunctate islets. Anterior border with a row of short bristles, base not ciliate, disc covered with short adhering hairs, which are inserted in the points.

Scutellum and elytrae with umbilicate punctation, this slightly larger than on the scutellum, points sometimes slightly rugosely connected; each point with an adhaescent small hair, which is shorter than the distance between the points.

Pygidium finely rugose, chagreened, finely punctate. Sternum covered with fur-like light pilosity. Antennal fan short, only half as long as the stalk as visible from above. Form of parameres as in Fig. 9. Length 15.2-15.5 mm.

Female: Antennal fan only slightly shorter than in the male, length 17.0-17.8 mm.

Holotype: male, Allotype: female and Paratypes: Greece, Peloponnesus: Gythion V.1955 Teg. and in coll. Petrovitz.

H. transversa peleponnisica differs from the nominate subspecies by the stronger punctation of the upper side; the punctation of the pronotum being more irregular and diffuse, interrupted by slightly elevated impunctate islets, (lacking in H. transversa s.str.); furthermore by the pilosity. Tip of parameres differs from the nominate form.

Anoxioides gen. nov. (Melolonthini)

Clypeus with strongly rounded anterior corners. Pronotum without mirror-spots. Triangular spots on sides of abdomen indistinct. Tip of pygidium slightly excised. The antennal fan (male) consists of 5 lamellae of equal length; the 3rd antennal joint strongly elongate, the 4th and 5th disc shaped. Anterior tibiae with 3 teeth but without movable spine. Claws at base with one tooth each, of different length on both claws. Upperside covered with scales, underside pilose.

The new genus is related to Anoxia Cast. but differs by its short oval form, which is reminiscent of the similarly oviformed Microphylla Kraatz and Oligophylla Rtt. It differs from Anoxia also by the lack of mirror-spots on the pronotum, the indistinct lateral maculae on the abdomen and the form of the anterior tibiae, in which the 2nd tooth only slightly avvicinates the apical one.

Genotype: Anoxioides bytinski-salzi Petr. nov. spec.

Anoxioides bytinski-salzi spec. nov.

Form short oviform, arched; anterior part of body, underside and legs dark brown; elytrae either light or also dark brown, antennae and tarsi red brown.

Male: Clypeus amply twice as broad as long, anterior border slightly, corners strongly, rounded, sides parallel, slightly diverging toward front, all edges upturned. Frontal suture almost straight, only in the middle obtuse-angled (Fig. 10). The whole head disc densely covered with large scarred points; from each point arises an oblique white spine-like scale; between them a sparse pale pilosity occurs on clypeus, which becomes denser and twice as long on front.

Pronotum about twice as broad as long, arched in both directions. Anterior angles obtusely rounded, posterior angles bluntly rounded, sides rounded, base slightly curved; sides in the anterior two-thirds notched and diffusely covered with light bristles; anterior border lacks cuticular hem. The whole disc densely covered with large but shallow points and white adherent spiny scales. On a narrow zone behind the anterior border, occur longer, more or less erect pale hairs. Scutellum rounded, densely covered with fine points and adherent spiny scales. A median longitudinal line and the pronotal borders remain bare.

Elytrae with very indistinct sutural and dorsal ribs; the whole surface densely covered with more or less transverse rugosities and covered regularly with finer, almost bristle-like spines; pilosity not arranged in stripes or spots.

The apical border of the propygidium has structure and pilosity similar to that of the scutellum, the pygidium itself shows structure and pilosity similar to that on the elytrae. All sterna with dense light yellow pelt-like pilosity. Sternites, tergites and pygidium covered with scales and upright tactile hairs. Abdominal scales more dense laterally, so that the scales cover the whole surface, without however forming lateral triangles.

Anterior tibiae strong, slightly bent, with three rather sharp outer teeth; the median one slightly adjacent to the apical tooth; the movable spine is lacking (Fig. 11) Middle tibiae thin, slightly bent with two small blunt teeth on the outer edge, which are also found on the hind tibiae. Hind metatarsus twice as long as the second tarsal joint.

The five lamellae of the antennae are slightly longer than the visible part of the shaft. Forceps as in Fig. 12. Length 17.3-18.8 mm. Female unknown.

Holotype: Israel: Herzliya V.1963 leg. and coll. By.S. Paratype Tel Aviv 3.V. leg. By.S. in coll. mea.

Cyphonoxia praestabilis Reitter.

On our excursion to Iran 1970 we collected, besides a number of males, also two females, which are worthwhile a detailed description, as their appearance is very dissimilar to that of the males.

Their plump built, coloration and apparently bare upper side give them a likeness to a Cyphonotus species.

Head and pronotum blackish-brown, sides slightly lighter; scutellum, elytrae, under side and legs lighter red brown, external teeth of fore tibiae blackened. All parts strongly shining pilosity and distribution of scales sparse.

Female: Clypeus similar to male, but clypeo-frontal corners more strongly lobate and upbent above the insertion of the antennae (Fig. 13, 14). Frontal suture strongly angled backward. Whole disc densely covered with large round points; a small light spiny scale is inserted on each point, as

long as the distance between points. Squamosity sparse, not covering the surface anywhere. Additional longer light red hairs behind the frontal suture, especially concentrated on the vertex.

Pronotum conspicuously broad in relation to head, arched in both directions with distinct median furrow, deeper in the anterior part of the disc. Sides narrowly bent upward, bluntly angular in the middle, anterior edge indistinctly bordered in the middle, base finely and sharply bordered over all its length. Anterior angles more blunt than in the male, posterior ones rounded. Sides with small slightly depressed mirror spots. Punctuation in front smaller and denser, toward the rear points larger, as large as on the clypeus, indistinctly umbilicate and more disperse, but distance between points still less than their diameter. Spiny scales almost everywhere, shorter than on the head, slightly longer ones only at its base. On the anterior border and angles occur sparingly oblique reddish hair, which may be also called ciliation of the anterior border. Lateral borders narrowly elevate with a ciliate hair here and there. Scutellum covered with spiny scales except in the bare midline.

Elytrae with indistinctly bordered sutural intervals, slightly arched in front, becoming narrower toward the rectangular tip. Dorsal ribs indistinct, only the lateral rib above the lateral keel more distinct. Contrary to my observations on the Melolonthinae, the elytrae are covered with peculiar thin twisted rootlike furrows, which despite their irregularities tend to run from the middle obliquely backward (similar to the design of a river tributary system on a geographical map). As this structure is found in both specimens, it may be assumed that it is not an individual variation. Besides this structure, the elytrae are covered with unequal irregular medium-sized points; an adherent hair is inserted in each point.

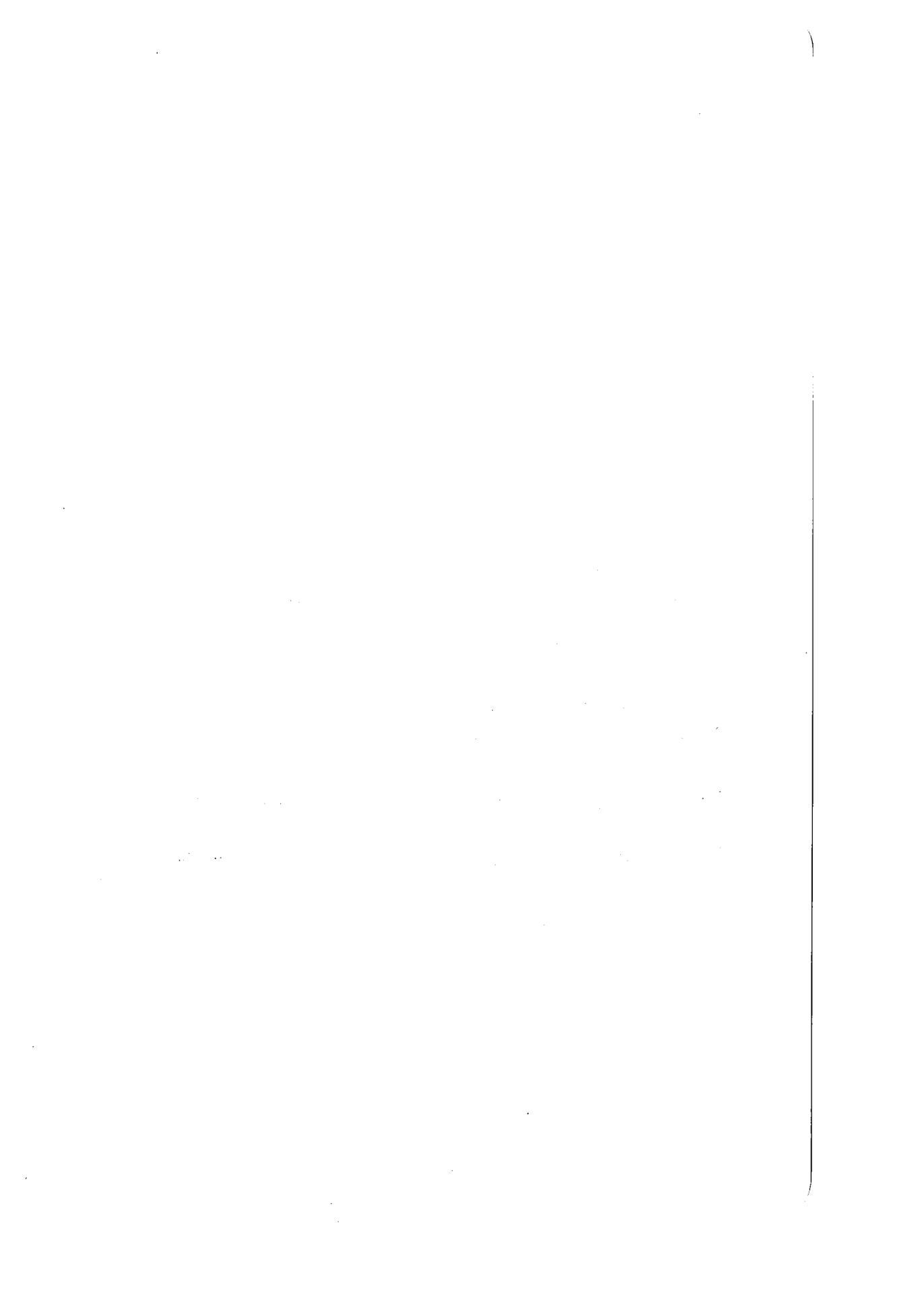
Pygidium with dense, small, rasped punctuation and covered with fine spiny scales; the propygidium is completely and densely covered with scales. Sterna densely and longely pilose. Abdomen sparsely covered with scale hairs, between which arise longer tactile hairs.

Apical joint of maxillary palpus very small, much smaller than in the male, but also slightly impressed on its upper side. Antennal club small, ovate with four leaves; the last joint of the stalk, which adheres to the club, slightly elongate in front (Allotype) or more acute and elongate in the other specimen; it covers the first lamella of the club for about two third of its length and it is therefore difficult to decide whether the fan is 4- or 5 lamellate. In the female of *C. brenskei* Reitt. this process reaches up to the middle of the leaf and in *C. harloovi* Petr. it is short and disc shaped.

The outer teeth of the fore tibiae are, contrary to the male, almost equidistant; outer movable spur absent. Middle and hind tibiae with two spines on their upper edges; claws with a small tooth on underside of each half, both teeth equal. Length 20-22 mm.

Allotype and another specimen: Iran, Bandar Abass, 10.-14.V.1970 leg. R. and E. Petrovitz in coll. mea.

It may be noted, that the range of distribution of this species extends to Israel (one male in coll. Bytinski-Salz).



EXPLANATION OF PLATE I.

- Fig. 1. Onthophagus bedeli ssp. conterminus nov. Tip of left paramere.
- Fig. 2. Onthophagus bedeli bedeli Reit.. Tip of left paramere.
- Fig. 3. Onthophagus d'orbignyi d'Ols. Tip of left paramere.
- Fig. 4. Maladera baluchestanica nov. Forceps a. right side; b. left side.
- Fig. 5. Haplidia leuthneri nov. Forceps left side view.
- Fig. 6. Haplidia fissa Burm. Forceps left side view.
- Fig. 7. Haplidia transversa Fabr. Tip of left paramere.
- Fig. 8. Haplidia transversa ssp. cretica nov. Tip of left paramere.
- Fig. 9. Haplidia transversa ssp. peloponnisica nov. Tip of left paramere.
- Fig.10. Anoxoides bytinski-salzi nov. Head from above.
- Fig.11. Anoxoides bytinski-salzi nov. Left anterior tibia.
- Fig.12. Anoxoides bytinski-salzi nov. Forceps a. from left side; b. from
above.
- Fig.13. Cyphonoxia praestabilis Reitt. Male. a. Head from above; b. Clypeus
left side view.
- Fig.14. Cyphonoxia praestabilis Reitt. Female. a. Head from above; b. Clypeus
side view.

