

Revision, reclassification and larval morphology of the genus *Paratassa* (Coleoptera: Buprestidae: Paratassini tribus n.)

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Abstract. The genus *Paratassa* Marseul, 1882 is transferred from Bubastini to Paratassini tribus n. Eight new species are described and illustrated: *P. occidentalis* sp. n. and *P. medioatlassica* sp. n. from Morocco, *P. aurulenta* sp. n. and *P. meridionalis* sp. n. from Algeria, *P. tunesiaca* sp. n. from Tunis, *P. aegyptiaca* sp. n. from Egypt, *P. acuminata* sp. n. from Israel, *P. arabica* sp. n. from Saudi Arabia and *P. orientalis* sp. n. from Iran. Larva of *P. coraebiformis* (Fairmaire, 1875) is described and all species are keyed.

Taxonomy, new species, reclassification, biology, larval morphology, key, Palaearctic region

The present study was initiated by the discovery of two new species of *Paratassa* in Morocco and the larva of *P. coraebiformis* in Algeria. Having studied both male and female genitalia, we have decided to split this previously monotypic genus into ten species. Moreover, after having studied the larval morphology of *P. coraebiformis* and the antennae of *Paratassa* and related genera, we have decided to remove this genus from its traditional placement in the tribe Bubastini and place it in a new tribe, Paratassini, described below.

MATERIAL AND METHODS

The following abbreviations are used in the text: ISNB – Institut Royal des Sciences naturelles, Bruxelles, MCSN – Museo Civico di Storia Naturale, Genoa, MNHN – Muséum national d'Histoire naturelle, Paris, NMPC – National Museum, Prague and ZMAS – Zoological Institute, Academy of Sciences of Russia, St. Petersburg.

All species of *Paratassa* are morphologically very similar each other so only one species (*P. coraebiformis*) is described in detail. The descriptions of new species are shortened in the form of differential diagnoses not to repeat many times the same morphological features.

For the definition of the surface structures of the adults we used the terminology of Harris (1979).

RESULTS

The systematic position of *Paratassa*

The type species of *Paratassa* Marseul, 1882, *P. coraebiformis* (Fairmaire, 1875), from „North Africa“, was originally described in the genus *Sphenoptera* Solier, 1833. Later, Marseul (1882) separated it as a distinct genus, which has remained monotypic. Marseul pointed out that the structure of the clypeus, pronotum and antennal depressions as the basic diagnostic features. Kerremans (1903) positioned *Paratassa* into the group Buprestites of the tribe Buprestini between *Aristosoma* Thomson, 1879 and *Philanthaxia* Deyrolle, 1864. In the generic key from that work, Kerremans placed *Paratassa* adjacent to *Bubastes* Laporte & Gory, 1836 and *Euryspilus* Lacordaire, 1857 because of the similarity in the pronotal shape. Based on characters such as the

shape of body and prothorax, pronotal sculpture, disposition of antennal sensory pits, structure of tarsal claws, elytral apices and scutellum, Obenberger (1920) placed *Paratassa* together with the Australian genera *Bubastes*, *Euryspilus*, *Neraldus* Théry, 1910 (= *Bubastes*) and *Neurybia* Théry, 1910 (= *Euryspilus*) in the new tribe Bubastini. *Paratassa* therewith was contrasted with the Australian genera by having the scutellum triangular and pointed apically, posterior pronotal corners not projecting outward, and the antennae broadened from the 4th antennomere, while the Australian genera have the antennae broadened from either the 5th or 6th antennomeres. Later on additional Australian genera of Bubastini were described: *Strandiola* Obenberger, 1920, *Notobubastes* Carter, 1924 and *Eububastes* Obenberger, 1928. The genus *Castelnaudina* Obenberger, 1924 (= *Castelnaudia* Obenberger, 1924 (= *Castelnaudia* Obenberger, 1923, name praecox., = *Neobubastes* Blackburn, 1892) was originally placed in this group but was later transferred to the Buprestini by Obenberger (1930). Holynski (1988) regarded *Notobubastes* as a subgenus of *Psiloptera* Solier, 1833 (Psilopterini).

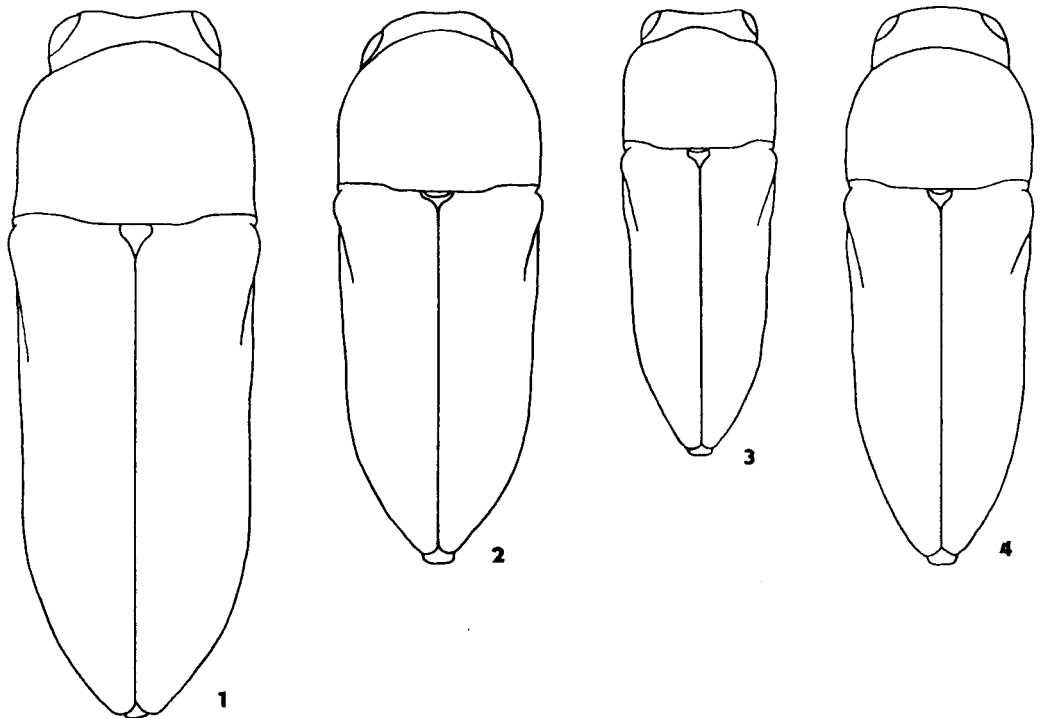
The integration of Australian and Palaearctic genera within Bubastini has been followed by all subsequent authors (e. g. Obenberger 1930, Bellamy 1985). Moreover Holynski (1988) regarded Bubastini as a subtribe of Anthaxiini, and then (Holynski 1993) combined it with the tribe (subtribe according to Holynski) Thomassetiini Bellamy, 1987 (= Philanthaxiina Holynski, 1988), and even attributing Nearctic genus *Chrysophana* LeConte, 1860 (Polycestini, Polycestinae) to its composition which does not correspond with our results.

Scanning electron microscope study of buprestid antennae has cast some doubts upon the monophyly of Bubastini. The examination of the larvae of Australian genera *Neocuris* Fairmaire, 1877 (Volkovitsh & Hawkeswood 1987), *Anilara* Thomson, 1879 (Volkovitsh & Hawkeswood 1993) and *Melobasis* Laporte & Gory, 1837 (Volkovitsh & Hawkeswood 1995), which have been traditionally attributed to Anthaxiini and Melanophilini, has shown that these genera, at least regarding to larval characters, were not closely related to Holarctic, Ethiopian and Oriental representatives of indicated tribes. From our viewpoint the external resemblance of adult beetles of Australian and non Australian genera resulted from parallel evolution and convergence of autochthonous Australian groups (in much the same way as it occurs in the mammals), although there are other than autochthonous taxa in Australian fauna – as a rule they belong to wide distributed genera (*Strigoptera* Dejean 1837, *Chrysodema* Laporte & Gory, 1835, *Chrysobothris* Eschscholtz, 1829, *Agrilus* Curtis, 1825, etc.) with mainly Oriental relations. The autochthonous origin of the majority of Australian genera is confirmed with palaeogeographic and palaeoclimatic data which point out to the fact of the long-term isolation of Australian biota.

Unfortunately, the larvae of Australian Bubastini remain unknown up to date, so our opinion on the polyphyly of this tribe is based mainly on the results of comparative morphological study of antennal sensory formations. Apart from *Paratassa* the antennae of *Neobubastes australasiae* (Obenberger, 1922), *Eububastes nickerli* Obenberger, 1928, *Euryspilus* sp., *Bubastes iridescens* Théry, 1910, *Bubastes* sp. (? *inconsistans* Blackburn, 1888), as well as of many other Buprestinae and Chalcophorinae genera were studied and compared. It was found that each of these subfamilies is characterized by its own evolutionary trend in specialization of antennal sensory formations, which we called buprestinoid and chalcophorinoid ones correspondingly. Some separate conditions of morphoclines might be partly coincided in both taxa. Chalcophorinoid type is characterized by dispersion of peg-like coeloconic sensillae, arising one by one or by groups from small cuticular depressions, over both antennomere's surfaces (Figs 46–51). The further specialization leads to the fusion of separate elements (oligomerization) into either large apical depression, which is usually shifted to internal surface (Fig. 53) (Sphenopterini, *Chalco-*

phorella Kerremans, 1903 and some others), or into numerous small depressions dispersed over both internal and external surfaces. In many cases both types of depressions are presented together. Buprestinoid type is characterized by the presence of singular large apical or subapical depression and field of peg-like basiconic or styloconic sensillae, arising from surface or the tops of cuticular tubercles, on the internal antennomere's surface only. Sometimes the additional large depressions arise in place of sensillar fields. Coeloconic sensilla are rather rare in occurrence (Fig. 52) (no coeloconic sensillae were found among other Bubastini studied). Further specialization of buprestinoid type of antennae leads to forming of regular in shape subapical (some Buprestini, Stigmoderini, Dicercini, etc.) or apical fossae (Kisanthobiini, Anthaxiini, *Anilara* Thomson, 1879 *Neocuris* Fairmaire, 1877, etc.) and cavities (Melanophilini, *Melobasis* Laporte & Gory, 1837, *Merimna* Thomson, 1878, *Chrysobothris*, etc.).

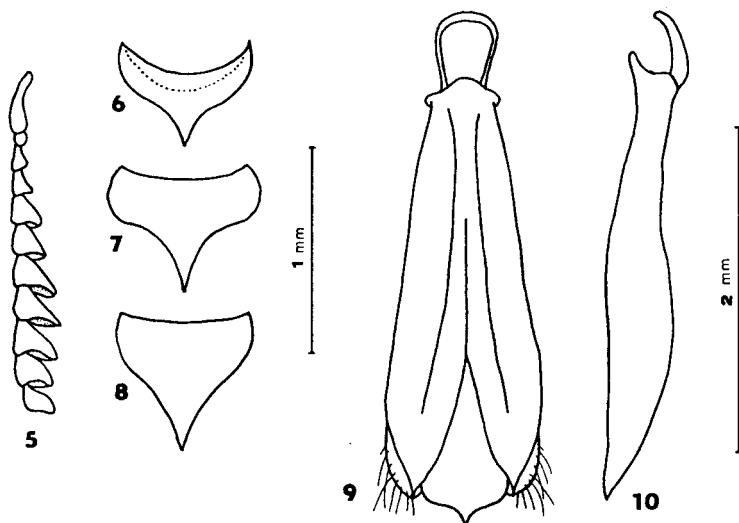
Comparative morphological analysis has shown that the antennae of *Paratassa* (Figs 46, 47) belong to chalcophorinoid type while antennal structure of *Bubastes* (Fig. 52) and other members of Bubastini correspond to buprestinoid one. There is obvious resemblance between sensory formations of Bubastini and those of some other Australian Buprestini, among them *Microcastalia* Heller, 1891 and *Buprestina* Obenberger, 1923. *Paratassa* is also characterized by the sex-associated variation of antennae, which is manifested itself as a size and form of antennomeres (Figs 46, 47). Otherwise the antennae of *Paratassa* are markedly similar to these of *Nanularia*



Figs 1-4. Body shape of *Paratassa* spp. 1-*P. occidentalis* sp. n., holotype, 8.9 mm. 2-*P. tunesiaca* sp. n., holotype, 7.3 mm. 3-*P. acuminata* sp. n., holotype, 5.5 mm. 4-*P. orientalis* sp. n., holotype, 6.4 mm.

Casey (Figs 48, 49), *Ampheremus* Fall, 1917 (Figs 50, 51), Sphenopterini (Fig. 53), *Chalcoplia* Thomson, 1881 and some other genera of Catoxanthini and Chalcophorini. Among Sphenopterini the change may be observed from undifferentiated, irregular subapical fossae (*S. (Sphenopterella* Volkovitsh & Kalashian, 1994), *Genestia* Théry, 1923) to well differentiated, regularly round fossae (Fig. 53) (*S. (Sphenoptera)*, *Evagora* Kerremans, 1893, *Armenosoma* Waterhouse, 1887). The antennal sensory formations of above-mentioned genera correspond to mostly generalized, primitive condition of chalcophorinoid type, which is characterized by antennomeres transversely broadened, mainly singular sensillae more or less evenly dispersed over surface, and poorly differentiated, irregular subapical fossa. By this means the similarity of antennal structure of these genera based on a symplesiomorphy.

In regard to larval structures, *Paratassa* is characterized by the set of autapomorphies, which correspond to most primitive conditions of some characters among Chalcophorinae and Buprestinae. They are as follows: the absence of developed apical cavity on the top of 2nd segment of antennae (Fig. 35) (this condition is characteristic of agriloid taxa), palatinae sclerites of labrum (Fig. 36) with poorly developed lateral branches (Fig. 36, lb) and, on the other hand, well developed median branches (Fig. 36, mb) (among the known larvae the similar condition was found in *Kisanthobia* only), poorly developed armature of external surfaces of labrum and labium, consisting only of microsetae along the anterior margin (Figs 36, 38) (similar condition is characteristic of some Polycestinae while Acmaeoderini and Anthaxiini have labrum and labium completely glabrous externally). The presence of long bristles on the postmentum (Fig. 38, ps) (the same was found in Australian *Prospheres* Thomson, 1878, *Neocuris* Fairmaire, 1877 and *Melobasis* Laporte & Gory – these bristles are strongly reduced or absent in all the other known representatives of buprestoid complex). Spiracles without inner trabeculae (Figs 39, 40) correspond to intermediate condition from uni- and multicamerate spiracles of many Acmaeoderini, as well as *Ptosima* Solier, 1833 and *Thrincopyge* LeConte, 1837 to ones of general buprestoid type, which are characterized by slot-like peritreme (Fig. 39) and strongly branching, abundant inner



Figs 5–10. 5 – male antenna of *P. aurulenta* sp. n. 6 – scutellum of *P. aurulenta* sp. n. 7 – the same, *P. coraebiformis* (Fairmaire). 8 – the same, *P. occidentalis* sp. n. 9 – aedeagus of *P. aurulenta* sp. n., dorsal view. 10 – the same, lateral view.

trabeculae. Prothoracic plates have no sclerotized tubercles or asperities and they are incompletely covered only with homogenous microteeth together with vast glabrous areas (Figs 41–43) (similarly to *Thrincopyge* and *Prospheres*).

As for the possible relationship of *Paratassa* to other buprestoid taxa besides the resemblance in antennal structure, the following characters should be noted: only vaguely resemblance in the structure of pronotal grooves with *Nanularia*, Sphenopterini and some other Chalcophorinae, obvious similarity in the shape of labrum and labium with *Nanularia* (but the latter clearly differs by microspinulated external surfaces of both labrum and labium, and palantine sclerite of labrum with normally developed lateral branches). *Nanularia* also differs by absence of projections on the anterior margin of epistome and disposition of epistomal sensillae, prothoracic plates evenly covered with microteeth, and some other features.

In conclusion it may be said that by the antennal structure and larval features *Paratassa* is characterized by the set of autapomorphies and occupy the isolated position at the base of the chalcophorinoid lineage of buprestoid complex, having some vague resemblance to *Nanularia*, though their close relationship is rather doubtful. From our viewpoint *Paratassa* should be separated as a distinct tribe Paratassini tribe nov. of the same status as Sphenopterini.

Paratassa Marseul, 1882

Paratassa Marseul, 1882: 167.

TYPE SPECIES. *Sphenoptera caroli* Marseul, 1882: 168.

DESCRIPTION. Medium-sized, cylindrical, very convex species with metallic colouration (Figs 1–4): golden green, blue-green, coppery-bronze or reddish-bronze. Ventral side usually covered with more or less developed white tomentum. Frons and lateral pronotal margins with short, pronotal disc and elytra with very short, white and sparse pubescence. Ventral side with sparse but long and semierrected, white pubescence.

Head rather large, frons shallowly depressed, flat or slightly convex, vertex convex. Epistome very wide with broadly and shallowly incurved anterior margin. Eyes small, elliptical, not projecting beyond outline of head. Antennae long, reaching posterior pronotal angles in male, distinctly shorter in female. First antennal segment very long, bent or nearly straight, sometimes slightly claviform. Segments 4–10 very enlarged in male, moderately enlarged in female, always wider than long (Fig. 5). Sculpture of head consisting of rounded, deep and dense cup-like punctures (densely foveolate according to Harris 1979).

Pronotum 1.20–1.35 times as wide as long, very convex, sometimes nearly ball-shaped. Anterior pronotal margin regularly arched or distinctly lobate, posterior margin straight with two lateral incurvations at posterior angles (Figs. 1–4). Lateral pronotal margins regularly rounded in anterior half, straight or slightly incurved in posterior half, sometimes pronotum a little bell-shaped. Very rarely there are two small, rounded and shallow depressions on the disc. Pronotal sculpture consisting of rounded or transversely slightly enlarged, deep punctures (densely foveolate: Harris 1979) of the same type as those on head. These punctures form rather often transverse wrinkles on basal half of pronotum (striate: Harris 1979). Pronotum bordered by fine, sharp keel reaching from posterior angles as far as to anterior angles. Scutellum subcordiform with long and sharp posterior apex. Anterior margin of scutellum nearly straight or more or less incurved (Figs 6–8).

Elytra 1.7–2.0 times as long as wide at humeral part with well-developed humeral swellings, subparallel or distinctly wedge-shaped (Figs 1–4). Each elytron rounded separately, sometimes elytra with traces of longitudinal grooves. Subhumeral lobe large, reaching the level of hind

coxae, epipleuras missing. Elytral sculpture (foveolate: Harris 1979) consisting of deep and large, cup-like punctures, sometimes with slight transverse wrinkles on humeral part. Lateral margins of elytra very feebly serrate at apical third.

Ventral side of prothorax roughly, abdominal sternites finely punctured. Prosternum margined anteriorly, prosternal process wide and convex. Anal sternite widely rounded in both sexes. White tomentum covering ventral side of the most species is well-visible only in fresh and well-preserved specimens (except *P. aurulenta* sp.n. where the tomentum is very thick and stabil). Legs rather short and slender, tarsi very long, usually as long as tibiae, only posterior tarsi distinctly shorter than tibiae. Anterior tibiae straight or slightly arched on outer margin in male, with large and sharp grains or small spines (Figs 28–30).

Aedeagus (Figs 9–19) flattened, somewhat spatulate, very often Y-shaped or V-shaped, ones or twice dorsolaterally bent (lateral view). Ovipositor (Figs 20–27) short and rather sclerotized with well-developed outer pubescence and terminal setae.

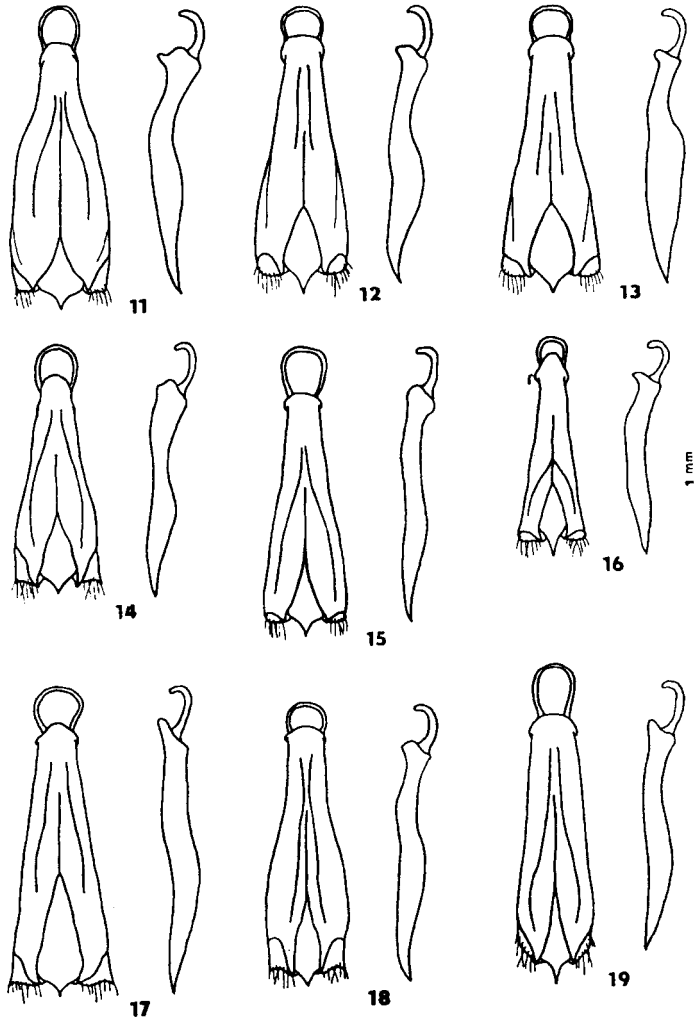
BIONOMY. All species of the genus seem to be associated with desert and semidesert Brassicaceae (genera *Oudneia*, *Diploaxis*, *Launaea*, *Moricandia*, *Crambe*, *Lepidium* etc.). Larvae take their development in roots of these plants, flying holes are usually situated at the level of soil surface. The general form of ovipositor indicates ovipositing at the base of plant through the layer of sand or soil. Adults are not good flyers, flying usually only on short distance during the warmest hours of the day.

DISTRIBUTION (Fig.31). The genus is distributed from Morocco to south Iran, inhabiting desert and semidesert regions usually in lower elevations (except *P. occidentalis* sp. n. and *P. mediotatassica* sp. n. occurring on mountain steppes of the High and Middle Atlas).

Key to species of *Paratassa*

- 1 (2) Pronotum finely granulated in posterior half, grains are somewhat transverse on prescutellar region. Anterior margin of scutellum deeply incurved (Fig. 6). Anterior male tibiae distinctly bent and shorter than tarsi (Fig. 28). Golden-bronze or red-bronze species. Aedeagus Figs 9, 10, ovipositor Fig. 20. 8.5–12.0 mm, Algeria (El Golca, Ghardaia). *P. aurulenta* sp. n.
- 2 (1) Pronotum with rather deep, rounded or oval punctures which are sometimes changed into transverse wrinkles on prescutellar region. Anterior margin of scutellum straight or feebly in curved (Figs 7, 8). Anterior tibiae almost straight (Figs 29, 30), as long as tarsi or slightly longer. Golden green, blue-green, rarely bronze-green species.
- 3 (8) Body stout, short and robust, clytra only 1.7–1.8 times as long as wide at humeral part (Figs 2, 3), pronotum very convex.
- 4 (5) More acumined species, frons with shallow and wide depression (Fig. 3). Elytra with slight traces of longitudinal grooves. Bronze-green or blue-green, lustrous species. Aedeagus Fig. 15, ovipositor Fig. 22. Israel, Sinai 5.0–7.0 mm. *P. acuminata* sp. n.
- 5 (4) Shorter, subparallel and more robust species, frons flat or very slightly depressed (Fig. 2). Elytra without any traces of longitudinal grooves.
- 6 (7) Smaller species, lateral pronotal margins straight in posterior half (Fig. 2). Sculpture of basal half of pronotum consisting of regular, slightly transversely enlarged punctures. Blue-green, rather dark and matt species. Aedeagus Fig. 18, ovipositor Fig. 26. 6.0–7.0 mm. Tunisia. *P. tunesiaca* sp. n.
- 7 (6) Larger species, lateral pronotal margins slightly incurved before posterior angles. Basal part of pronotum with transverse wrinkles between prescutellar part and posterior angles. Matt, bronze-green species. Aedeagus Fig. 17, ovipositor Fig. 27. 7.3–8.0 mm. Egypt. *P. aegyptiaca* sp. n.
- 8 (3) Body more slender and less robust, clytra 1.9–2.0 times as long as wide at humeral part (Figs 1, 4). Pronotum less convex, rarely with two, small, indistinct and rounded depressions on anterior half.
- 9 (14) Frons flat or slightly convex, clytra more tapering posteriorly (Fig. 4). Golden-green, rarely blue-green species with golden lustre.
- 10 (11) Frons flat, the widest part of pronotum at base, pronotum very slightly bell-shaped. Male protibiae straight on outer margin (Fig. 20). Aedeagus Fig. 11, ovipositor Fig. 25. 6.5–10.0 mm. Algeria, Tunis. *P. coraebiformis* (Fairmaire)

- 11 (10) Frons slightly convex (Fig. 4), lateral pronotal margins subparallel or nearly subparallel, male protibiae more convex on outer margin (Fig. 29).
- 12 (13) Lateral pronotal margins nearly subparallel in posterior half and less rounded in anterior half (Fig. 4). Sculpture of posterior half of pronotum consisting of regular, rounded or slightly transverse punctures. Blue-green, rather matt species with indistinct golden lustre. Acceagus Fig. 14, ovipositor Fig. 24. 6.5–8.2 mm. SW Iran. *P. orientalis* sp. n.
- 13 (12) Lateral pronotal margins parallel in posterior half, posterior angles somewhat prominent. Anterior half of pronotal margins strongly rounded. Punctures on posterior part of pronotum transversely fused, forming short wrinkles. Golden green, more lustrous species. Acceagus Fig. 19, ovipositor Fig. 23. 6.5–8.0 mm. S Algeria (Tassili Mts.). *P. meridionalis* sp. n.



Figs 11–19. Acceagi of *Paratassa* spp. (dorsal view – left, lateral view – right). 11– *P. coraebiformis* (Fairmaire). 12– *P. occidentalis* sp. n. 13– *P. medioatlassica* sp. n. 14– *P. orientalis* sp. n. 15– *P. acuminata* sp. n. 16– *P. arabica* sp. n. 17– *P. aegyptiaca* sp. n. 18– *P. tunesiaca* sp. n. 19– *P. meridionalis* sp. n.

- 14 (9) Frons distinctly depressed, elytra less tapering posteriorly (Fig. 1). Blue-green species sometimes with slight golden lustre which is more distinct on elytra than on the pronotum.
- 15 (16) Elytra with distinct traces of longitudinal grooves. Larger and somewhat more robust species (Fig. 1). Acceagus Fig. 12, ovipositor Fig. 21. 7.0–10.0 mm. Morocco (High Atlas). *P. occidentalis* sp. n.
- 16 (15) Elytra without any traces of grooves, smaller and more slender species.
- 17 (18) Slender, subcylindrical species with nearly parallel elytra. Lateral pronotal margins subparallel, ventral side without tomentum, only with long, white hairs. Acceagus Fig. 13, female unknown. 5.0–6.4 mm. Morocco (Middle Atlas). *P. medioatlassica* sp. n.
- 18 (17) More robust species, elytra more tapering posteriorly. Pronotum slightly bell-shaped, the widest part of pronotum at base. Ventral side, besides of long, white hairs, also with white tomentum. Sculpture of dorsal side more rough. Acceagus Fig. 16, female unknown. 6.5 mm. Saudi Arabia. *P. arabica* sp. n.

***Paratassa coraebiformis* (Fairmaire, 1875)**
(Figs 7, 11, 25, 30)

Sphenoptera coraebiformis Fairmaire, 1875: 511.
Sphenoptera caroli Marscul, 1882: 168.

Medium-sized, subcylindrical and lustrous species, dorsal side blue-green, golden green sometimes with golden tinge. Ventral side golden green, less lustrous. Head and lateral pronotal margins with short, white pubescence, disc of pronotum and elytra with very short, white pubescence. Ventral side and legs with rather long and sparse, white pubescence, whole ventral side usually covered with white tomentum.

Head rather large, frons flat or shallowly, triangularly depressed between eyes. Clypeus very broad, its anterior margin widely and shallowly incurved. Eyes very small, widely elliptical, not projecting beyond outline of head. Antennae long, reaching posterior pronotal angles in male, slightly shorter in female. First antennal segment very long and slightly bent, somewhat claviform, second segment very short, almost spherical, third segment twice as long as wide, slightly triangular. Segments 4–10 enlarged, 1.5 times as wide as long, somewhat shovel-shaped in male, last segment pear-shaped in both sexes. Sculpture of head consisting of small, deep, rounded and very dense cup-like punctures.

Pronotum strongly convex, slightly bell-shaped, 1.3 times as wide as long with broadly arched anterior margin. Posterior margin nearly straight in middle and widely incurved near posterior angles. Lateral pronotal margins rounded in anterior half, nearly straight in posterior half and slightly incurved before posterior angles. The widest part of pronotum at the base. Pronotal sculpture consisting of punctures which are similar to those on head but not so dense, punctures on posterior half of pronotum somewhat transversely enlarged forming sometimes short wrinkles. Scutellum subcordiform (Fig. 7), slightly incurved anteriorly, prolonged and sharply pointed apically.

Elytra very convex, subcylindrical, 1.9–2.0 times as long as wide at humeral part, humeral swellings small but well-developed. Each elytron separately rounded apically and very finely serrate in posterior third. Elytra deeply, irregularly punctured, punctures became finer and smaller towards elytral apex. The widest part of elytra at humeri, then elytra slightly tapering posteriorly to the apical two thirds. Posterior third of elytra nearly straightly tapering to their tips, elytra with slight traces of longitudinal grooves.

Ventral side deeply and densely punctured, last abdominal sternite widely rounded in both sexes. Legs long and slender, all tibiae of both sexes sharply granulated, nearly serrate on outer margin (Fig. 29). Tarsi very long, anterior and middle tarsi as long as tibiae, posterior tarsi slightly shorter.

Aedeagus (Fig. 11) enlarged, spatulate, basal part of parameres conspicuously bent (lateral view). Ovipositor Fig. 25.

Length: 6.5–10.0 mm, width: 1.6–3.0 mm.

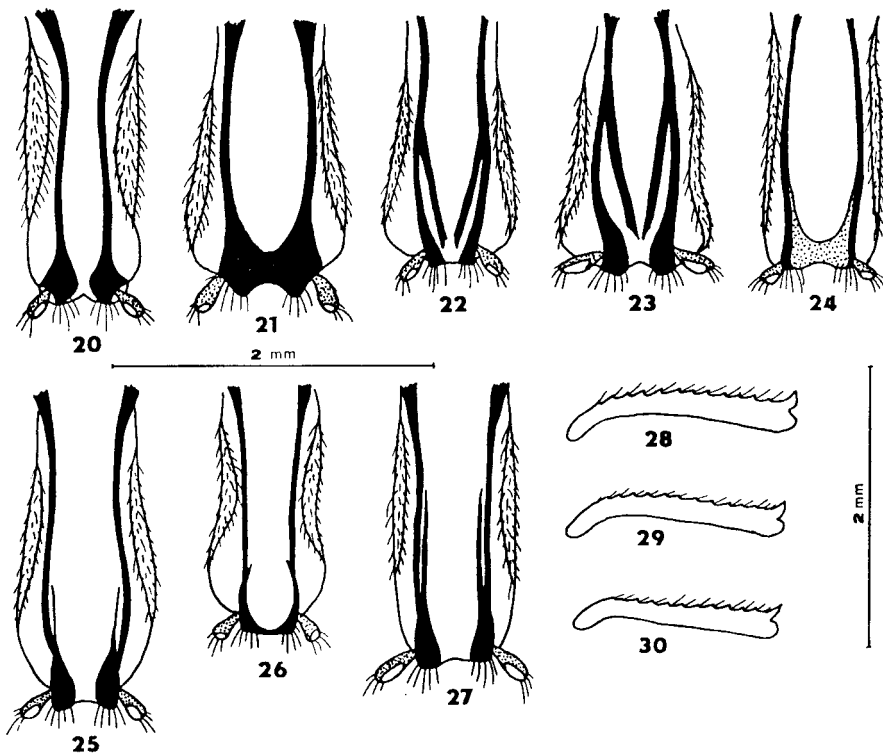
SEXUAL DIMORPHISM. Female differs from male only by shorter and less enlarged antennae and usually by larger size.

BIONOMY. Larva develops in roots of *Launaea arborescens*, according to Théry (1930) also in *Moricandia arvensis* (Brassicaceae).

DISTRIBUTION (Fig. 31). Northern Algeria, Tunis.

NOTE. Théry (1930) studied the type specimen of *Paratassa coraebiformis* (MCSN) and compared it with the type of *P. caroli* (MNHN) and he did not find any differences and supposed them to be conspecific. We have studied the type in MNHN and also according to the Marseul's description (Marseul, 1882) there is no doubt about the conspecificity of both species.

MATERIAL EXAMINED. Algeria: Bou Saada, 3. v. 1987, S. Bilý and V. Kubáň leg. (23 spec.), Ghardaia, 2. v. 1987, S. Bilý leg. (2 spec.), El Golca, 3. v. 1987 (5 spec.), Oumache, Dr. Martin leg. (1 spec.), Biskra, Dr. Martin leg. (7 spec.), Ain Scfra, Théry leg. (2 spec.) Biskra, v. 1885, L. Bleusc leg. (3 spec.), Ain Scfra, Bir-Senia, 30. vi. 1986 (11 spec.), Béchar, Mcrires, 8. vi. 1986 (1 spec.), Batna, El Kantara, 29. v. 1986 (6 spec.), Algeria (without more detailed data) 22 spec. Tunis: Tama-gzza, A. Kerim leg. (1 spec.), Tunis (without more detailed data) 3 spec.



Figs 20–30. 20–27: ovipositors of *Paratassa* spp. 20–*P. aurulenta* sp. n. 21–*P. occidentalis* sp. n. 22–*P. acuminata* sp. n. 23–*P. meridionalis* sp. n. 24–*P. orientalis* sp. n. 25–*P. coraebiformis* (Fairmaire). 26–*P. tunesiaca* sp. n. 27–*P. aegyptiaca* sp. n. 28–30: male protibiae. 28–*P. aurulenta* sp. n. 29–*P. orientalis* sp. n. 30–*P. coraebiformis* (Fairmaire).

Description of larva

MATERIAL EXAMINED. 2 larvae and 1 prepupa: Algeria, Ghardaia, 2. v. 1987, ex *Launaea arborescens*, S. Bílý leg. (2 larvae). Algeria, Ghardaia, 2. v. 1987, ex *Launaea* sp., V. Kubáň leg. Specimens deposited in ZMAS and NMPC.

Length of different instar larvae 10.9 – 16.9 mm. Larva (Fig. 41) is of the usual buprestid type with moderately enlarged prothorax, corresponding to the 2nd morpho-ecological type of *Acmaeoderella* larva (Volkovitsh 1979). Body of preserved larvae whitish to dirty-cream with brownish mouth- parts and spiracles. Segments of prepupa are distinctly transverse while larval segments are longitudinal.

HEAD AND MOUTHPARTS. Epistome (Fig. 32) about 4.5 times as wide as long, anterior margin slightly angularly emarginated between the mandibular condyles which are large, bearing strong antero-lateral projections (Fig. 32, ep) and deep emarginations between these projections and mandibular condyles. Posterior margin deeply bisinuate, latero-posterior corners blunt, weakly obtuse-angled, nearly rectangular and projecting. Lateral margins with deep, oblique antennal incisure, epistome bearing 2 groups of 3 epistomal sensillae (Fig. 32, es) arranged in shape of trapeze divided by sclerotized strip in the middle. Each group consists of 2 short trichoid and 1 campaniform sensillae, the latest disposed slightly above and middleward anterior pair of trichoid sensillae. Clypeus (Fig. 36) narrow, membranous, glabrous, with anterior margin nearly straight.

Labrum (Fig. 36) slightly transverse, its anterior margin slightly convex between angularly rounded antero-lateral margins, without lateral lobes and with slightly curved, nearly parallel sides. Palantine sclerites large, well marked, transverse, with strong sclerotized median branches (Fig. 36, mb) (terminology follows Volkovitsh & Hawkeswood 1995) and hardly developed, weakly sclerotized lateral ones (Fig. 36, lb) which are not jointed each other. Each of median branches bearing dorsally 3 median sensillae of labrum (Fig. 36, msl): 1 long apical seta which far extending the anterior margin of labrum and 2 campaniform sensillae situated below apical seta posteriorly of middle line of labrum almost on the same level. The distance between apical seta and both campaniform sensillae almost equal. Antero-lateral sensillae (Fig. 36, als) includes 3 sharp setae and 1 campaniform sensilla externally and 3 blunt setae near the antero-lateral margin and 1 campaniform sensilla on each side internally. External sensillae arranged as follows on either side: one seta and campaniform sensilla situated next each other just above the apices of median branches of palantine sclerite, 1 sharp seta near the antero-lateral corners of labrum and 1 sharp seta on the lateral branches near their apices. The position of antero-lateral sensillae is as follows:

$$\frac{(1t,2c)+3t+4}{1t+2t+3t-4c}$$

$$1t+2t+3t-4c$$

with external sensillae designations in the numerator and internal ones in the denominator (+,2,3,... – the ordinal number of sensilla from most median to lateral ones, which may be not homologous in different taxa /t– trichoid, c– campaniform sensillae, “()” – with fused bases, “+” – with closed bases, „–“ – with distant bases: see Volkovitsh & Hawkeswood 1995). External surface of labrum also with narrow transverse band of microsetae along the middle of anterior margin, with almost straight posterior margin which is situated about 1/4 the distance from the anterior margin of the labrum to the bases of apical median sensilla, remained surface glabrous. Labrum ventrally (epipharynx) with narrow, almost subparallel bands of microspinulae extending from the anterior margin to the base of the labrum and surrounding the pharynx.

Antennae (Fig. 35): two-segmented, situated in the deep postero-lateral incisure of epistome. Articulae membrane glabrous, not forming a cover around 1st segment which is only hardly

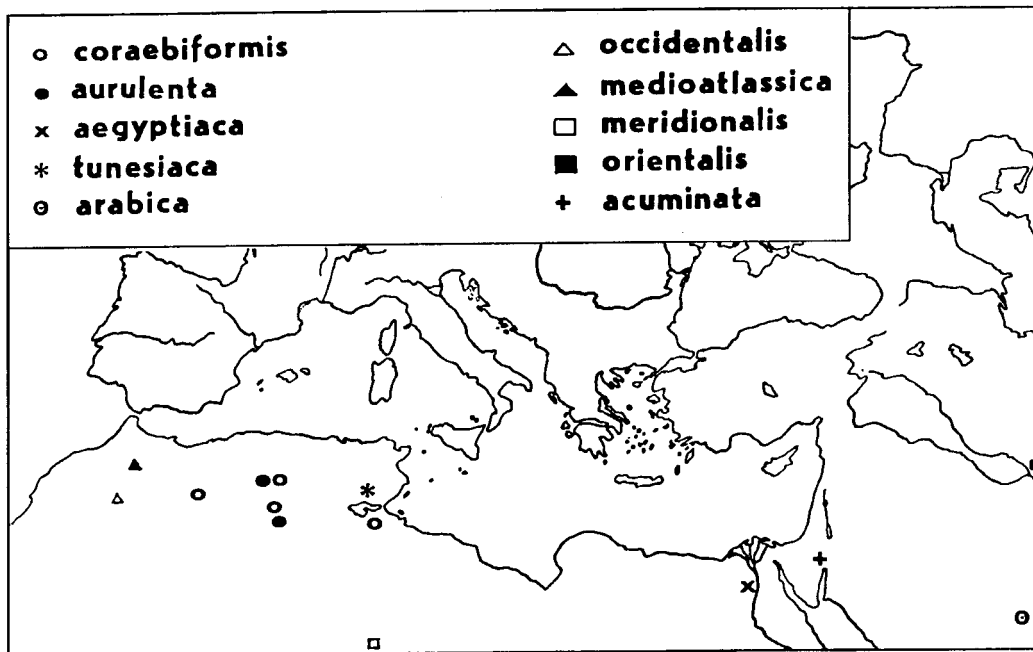


Fig.31. Geographical distribution of the genus *Paratassa* Marscul.

envaginated to membrane with its basis. First segment broadly cylindrical, slightly broadened toward the apex, hardly longer than segment 2, about as long as wide, strongly sclerotized. First segment with a narrow fringe of rather dense microspinulae along the anterior margin surrounding the basis of the 2nd segment, with a campaniform sensilla externally approximately in the middle and another one internally near the apex and external margin. Second segment cylindrical, slightly longer than wide with glabrous anterior margin, with very long sharp trichosensilla which is approximately 2 times longer than the length of 2nd segment and with practically undeveloped apical cavity. The apex of 2nd segment partly covered with membrana anteriorly, bearing a sensory appendage (Fig. 35, sa) (often regarded as 3rd antennal segment) extending outside the membrana, and basiconic sensilla (Fig. 35, bs) at its basis – both structures are situated on the apex of tubercle. There are also 2 small palmate sensillae next to the basis of tubercle.

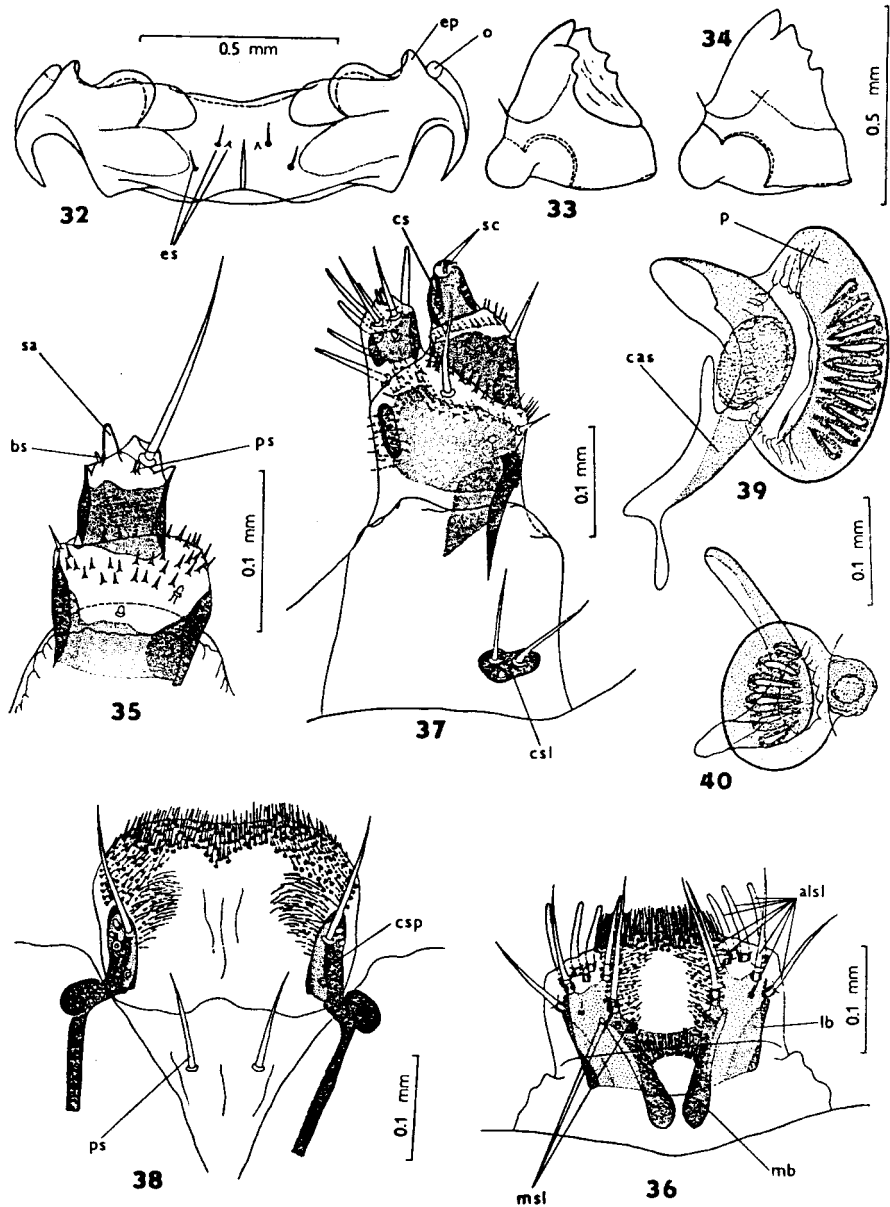
Mandibles (Figs 33, 34): almost black at anterior half, lighter at the basis, strongly sclerotized, broadened at the basis, triangular and nearly as long as wide. Cutting edge with 6 markedly developed teeth, apical tooth is the biggest, sharpened at its apex. Ventral edge bearing 2 teeth situated on the common basis, dorsal edge with 2 teeth situated on the common basis and with a little additional tooth below them.

Hypostome. Slightly sclerotized except for condylar recesses to attaching of mandibles, bearing singular trichoid and campaniform sensillae situated on the different levels. Pleurostome bearing weakly sclerotized structures which are supposedly the ocelli (Fig. 32, o).

Labiomaxillary complex (Figs 37, 38). Maxillae (Fig. 37). Maxillary cardo membranous, glabrous, with 2 long, sharp setae and one campaniform sensilla situated on a distinct, isolated, rather large and well-sclerotized sclerite (Fig. 37, isl) in the postero-lateral corners near the cardo basis. Stipes with a strongly sclerotized internal sclerite bearing one campaniform sensilla closer to external margin, one very short sharp seta near the latero-external margin above the anterior margin of internal sclerite and one long sharp seta near the anterior margin below the basis of maxillary palpus, extending to about a half of 2nd segment. Anterior margin externally with a fringe of rather long, sharp microspinulae arising from membranous tubercles, denser on the external corners. Stipes internally with short and sparse microspinulae along internal and anterior margins, extending to the mala. Maxillary palpus two-segmented. Basal segment strongly sclerotized, nearly triangular bearing a long, sharp seta arising from near the antero-lateral corner, not extending the apex of segment 2, and a campaniform sensilla situated closer to the middle of external margin. Anterior margin with sparse, rather short microspinulae arising from the membranous tubercles. Second segment elongate, about 1.5 times longer than wide, markedly sclerotized, with one long modified and curved sensilla (Fig. 37, cs) internally, one campaniform sensilla externally, and about 7 small conical sensory structures (Fig. 37, sc) at its apex. Mala markedly sclerotized with a broad internal sclerite, almost rectangular and parallel-sided, about 1.3 times as long as wide. Mala externally with one campaniform sensilla at the middle, 2 long sharp setae near the apex and 2 closed and short, peg-like sensillae at the apex. Internally mala bears 6 long, thick spinae situated along the anterior and internal margins and very sparse microspinulae.

Labium (Fig. 38) slightly transverse, prementum about 1.4 times as wide as long with markedly emarginated anterior margin, broadly rounded antero-lateral corners and feebly emarginate lateral sides. External surface of prementum glabrous except for narrow zone of dense microsetae along its anterior margin. Internal surface with the same microsetae at the antero-lateral corners and sparse microspinulae along the lateral sides. Corner sclerites of prementum (Fig. 38, csp) each bearing one long, sharp, anteriorly directed setae extending the anterior margin and 5 small, campaniform sensillae. Postmentum with 2 long, sharp setae (Fig. 38, ps) extending the posterior 1/3 of corner sclerites of prementum.

THORAX (Figs 41–43). Pronotal and prosternal plates poorly developed, irregularly covered with dense homogenous and feebly sclerotized microteeth, arising from the membranous tubercles (Figs 41 e, 42, 43, mz) and sparse, short bristles (Fig. 41, f) which are most dense on prosternal plate. Pronotum with glabrous areas surrounding the anterior part and the apices of branches of pronotal grooves (Fig. 42, gz). Prosternum with a vast glabrous area around the anterior part of prosternal groove and two oblique, variable, glabrous zones beginning from vast area and nearly reaching the basis of prosternal plate (Fig. 43, gz). Sides of prothorax with transverse microspined zone anteriorly (Fig. 41, d), remaining parts glabrous with sparse bristles (Fig. 41, c). Anterior prothoracic membrane irregularly covered with microspinulae forming the transverse zone and sparse bristles (Fig. 41, b) along the anterior margin. Microspinulae poorly developed at the middle (Fig. 41, a). Sides of prothorax, posteriorly of microspinulate zone, glabrous with sparse bristles (Fig. 41, c). Prothoracic grooves (Figs 42, 43) brownish, markedly sclerotized. Pronotal groove (Fig. 42) inverted Y-shaped forming a sharp angle, moderately or strongly sclerotized with strongly umbrella-like broadened, yellowish or brownish apical part divided into 2 slightly curved, closely situated branches in anterior 1/3. Prosternal groove (Fig. 43) narrow, uniramous, irregularly sclerotized, yellowish or brownish, strongly umbrella-like broadened at the apical part and angularly broadened at the basis, divided there into two hardly sclerotized transverse branches.



Figs 32–40. Larva of *Paratassa coraeiformis* (Fairmaire), mouth parts and spiracles. 32– epistome (ep– epistomal sensillae, o– ? ocellus). 33– right mandible. 34– left mandible. 35– right antenna (bs– basiconic sensilla, ps– palmate sensilla, sa– sensory appendage). 36– labrum (alsl– antero-lateral sensillae of labrum, lb– lateral branch of palantinae sclerite, mb– median branch of palantinae sclerite, msl– median sensillae of labrum). 37– right maxilla (cs– curved sensilla, isc– isolated sclerite of cardo, sc– sensory cones). 38– labium (csp– corner sclerite of prementum, ps– postmental seta). 39– right thoracic spiracle (cas– closing apparatus, p– peritreme). 40– right abdominal spiracle.

Mesothorax without distinct ambulatory pads on both surfaces, nearly completely covered with microspinulae except for areas around the spiracles and transverse strip at the base.

Metathorax with poorly marked glabrous ambulatory pads on the both surfaces, remaining surface microspinuled. Thoracic segments without rudiments of legs, with sparse, short bristles (Fig. 10, c) which are denser and longer on the lateral margins.

ABDOMEN (Figs 41, 44). Abdominal segments longer than wide, flattened with longitudinal, depressed zones laterally.

The first segment with distinct ambulatory pads ventrally, divided into three small tubercles (Fig. 44) with triangular membrane covered with poorly developed microtubercles between them. Segments 2–9 without ambulatory pads, irregularly covered with poorly developed microspinulae and sparse, short bristles which are denser on the lateral margins than in the middle.

Spiracles (Figs 39, 40). Thoracic spiracles (Fig. 39) nearly lenticulate or irregularly ovoid, about 1.7 times as long as wide, with markedly developed and weakly sclerotized peritreme and without any trace of inner trabeculae. Peritreme (Fig. 39, p) bearing a few chinked slots arranged nearly parallelly to each other and bordered with narrow, strongly sclerotized zones. The closing apparatus of spiracle (Fig. 39, cas) only weakly sclerotized.

Abdominal spiracles (Fig. 40) very variable, circular, oval or irregular in shape, about 1.4 times as long as wide. They differ from the thoracic spiracles only in their shape and size.

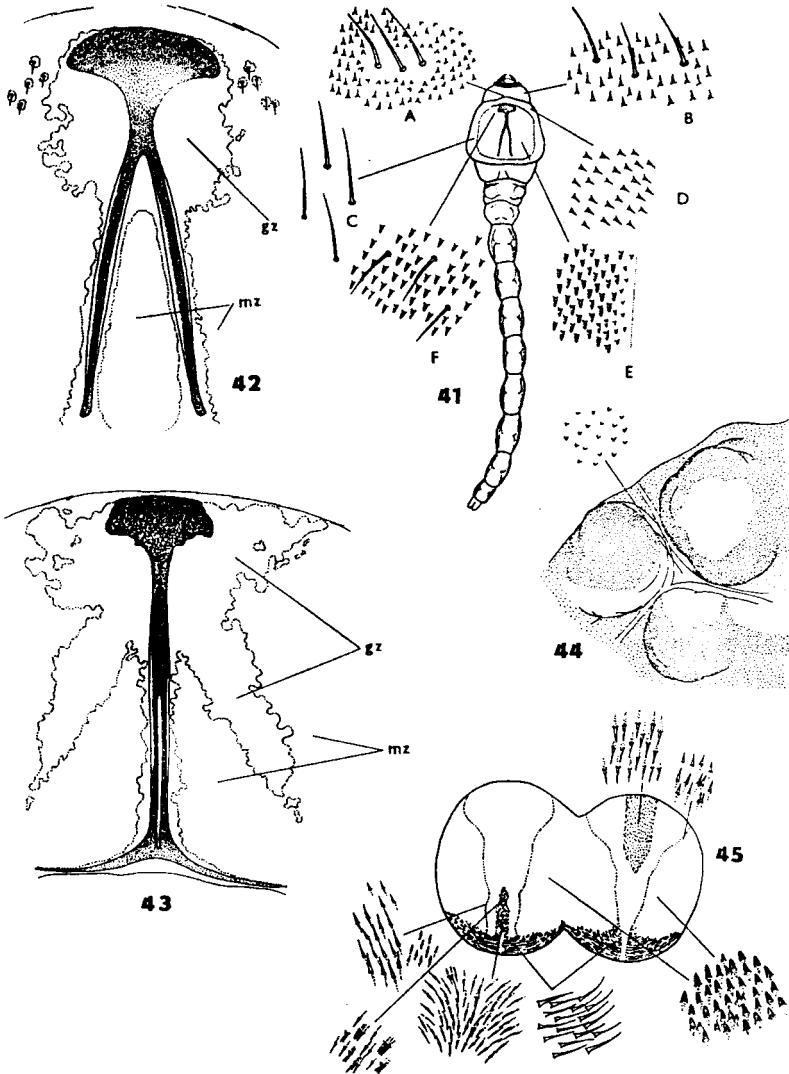
PROVENTRICULUS (Fig. 45). The morphology of the inner fields and their armature are rather ordinary. The armature includes microspinulae, microsetae and well-developed, sclerotized microteeth situated mainly one by one on the apices of scale-shaped tubercles with sclerotized bases. The groups of microspinulae, microsetae and microteeth form a complicate pattern. Glabrous areas are rather broad, additional fields poorly developed.

The main diagnostic characters of *Paratassa*-larvae allowing clearly distinguish them from any other known buprestid-larvae are as follows: epistome (Fig. 32) bearing strong antero-lateral projections (Fig. 32, ep) and deep emarginations between these projections and mandibular condyles as well as epistomal sensillae arranged in shape of trapeze (Fig. 32, es); palantinae sclerites of labrum (Fig. 36) with well-developed, strong sclerotized median branches bearing the posterior projections (Fig. 36, mb) and hardly developed, weakly sclerotized lateral branches (Fig. 36, lb), medial and lateral branches not jointed each other (the similar situation is found in *Kisanthobia* only – in other buprestoid taxa the lateral branches are developed much better than medial ones, jointed to them and bearing posterior projections; the medial branches usually weakly sclerotized and without posterior projections); 2nd segment of antennae with practically undeveloped apical cavity (Fig. 35) bearing sensillar organs (Figs 35, bs, ps, sa) on its apex which is anteriorly only partly covered with membrana (this condition is characteristic of agriloid taxa); spiracles without any trace of inner branched trabeculae, with peritreme bearing a few chinked slots arranged nearly parallelly to each other (Figs 39, 40) (by their structure the spiracles of *Paratassa* bear a superficial resemblance to the spiracles of *Ptosima* (Bilý 1972) and *Thrincopyge* (Bilý 1986) occupying the intermediate position between those and spiracles of general buprestoid type which is characterized by cancellate peritreme and strongly branched inner trabeculae); prothoracic plates incompletely covered with homogenous microteeth (Figs 41–43) which remains glabrous areas surrounding the grooves and two oblique, variable and glabrous areas on prosternal plate (Fig. 43).

Additional diagnostic characters are as follows: mandibles with 6 strongly developed teeth on the cutting edge (Figs 33, 34), the external surface of labrum and labium which are mostly glabrous (Figs 36, 38) except from narrow strips of microsetae along the anterior margin, the presence of long bristles on the postmentum (Fig. 38, ps) and the armature of proventriculus (Fig. 45).

Paratassa occidentalis sp. n.
(Figs 1, 8, 12, 21)

DIAGNOSIS. One of the largest species of the genus. Blue-green species with golden tinge which is more distinct on elytra than that on pronotum. It differs from other species of the genus by large, nearly parallel body, widely depressed frons (Fig. 1) and first of all by the shape of aedeagus (Fig. 12). Anterior margin of scutellum is nearly straight or very slightly incurved, elytra 1.9



Figs 41–45. Larva of *Paratassa coraebiformis*. 41– larva, dorsal view (16.9 mm). 42– pronotal groove (gz– glabrous zones, mz– microtched zones). 43– prosternal groove (gz– glabrous zones, mz– microtched zones). 44– left ambulatory pad of 1st abdominal segment, ventral view. 45– section of proventriculus showing different types of its inner armature.

times as long as wide with fine but distinct, longitudinal grooves which are hardly visible or missing in other species. Ventral side with sparse, white tomentum only on meso- and metasternum, abdomen without tomentum only with long, sparse, white pubescence.

Aedeagus Fig. 12, ovipositor Fig. 21.

For the differential diagnosis see the key.

Length: 7.0–10.0 mm (holotype 8.6 mm), width: 2.2–3.0 mm (holotype 2.9 mm).

MATERIAL EXAMINED. Holotype (male). Morocco, High Atlas, Tizi-n-Test, 4.–6. v. 1995, J. Rolčík leg. Allotype (female). The same data. Paratypes (21 males, 16 females). The same data (different collectors: J. Rolčík, J. Fyman, S. Pokorný). Maroc, Haut Atlas, Tizi n' Test, 1900m, versante sud, 24. vi. 1991, G. Magnani leg.

Holotype and allotype deposited in NMPC, paratypes in NMPC, coll. Rolčík, Fyman and Pokorný (Prague), Nichuis (Albersweiler) and Mühle (Munich).

BIONOMY. All specimens were collected by sweeping of *Crambe filiformis* (Brassicaceae) in the elevation about 2500 m, larva takes its development in the carrot-like roots of this plant.

NAME DERIVATION. The specific name indicates the most western distribution of the genus.

Paratassa medioatlassica sp. n.

(Fig. 13)

DIAGNOSIS. Small and very slender species, very similar to *P. occidentalis* sp. n. from which it differs, besides smaller and more slender body, by less depressed frons and by somewhat longer elytra (2.0 times as long as wide) without any traces of longitudinal grooves. Ventral side quite without white tomentum.

Aedeagus (Fig. 13) with nearly Y-shaped parameres with straight outer margins (x laterally convex parameres in *P. occidentalis* sp. n.). Female unknown.

For the differential diagnosis see the key.

Length: 5.0–6.4 mm (holotype 5.0 mm), width: 1.7–2.1 mm (holotype 1.7 mm).

MATERIAL EXAMINED. Holotype (male). Morocco, Middle Atlas, Azrou, 7. vi. 1995, S. Pokorný leg. Paratypes (3 males). The same data (J. Romsauer leg.).

Holotype and allotype deposited in NMPC, paratypes in coll. J. Romsauer (Štúrovo, Slovakia).

BIONOMY. Also type specimens of this species were collected by sweeping of *Crambe filiformis* (Brassicaceae) which is the host plant of this species.

NAME DERIVATION. The specific name is derived from the locality: the Middle Atlas.

Paratassa meridionalis sp. n.

(Figs 19, 23)

DIAGNOSIS. Rather large, golden green species with moderately acumined elytra which are 1.95–2.0 times as long as wide. Frons convex, scutellum only very slightly incurved anteriorly. Lateral pronotal margins nearly parallel in posterior half, posterior pronotal angles slightly prominent. Ventral side completely covered with white tomentum.

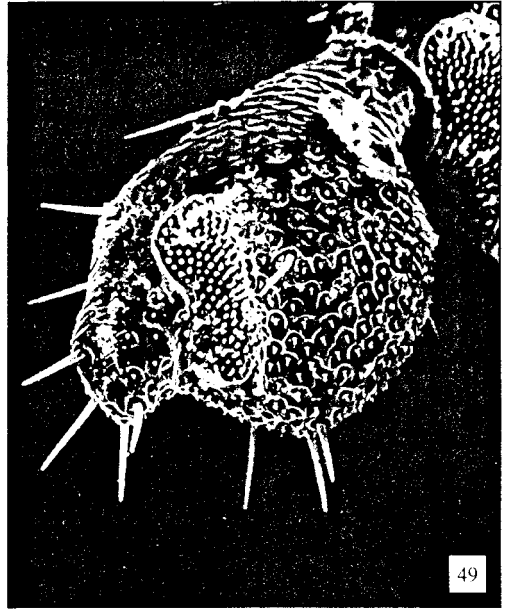
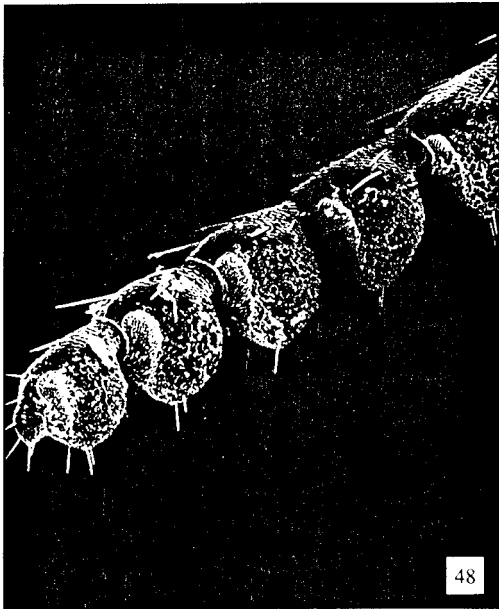
Aedeagus (Fig. 19) with nearly subparallel parameres, rather differing from other species of the genus. Ovipositor Fig. 23.

For the differential diagnosis see the key.

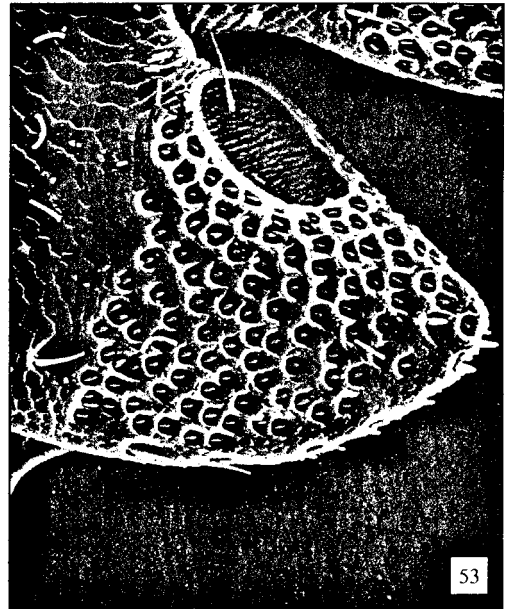
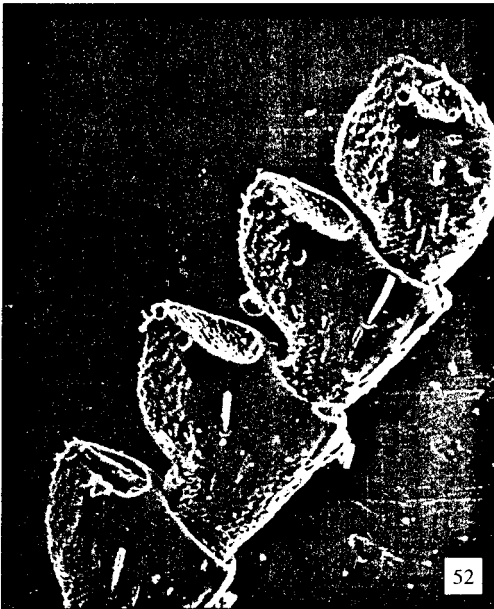
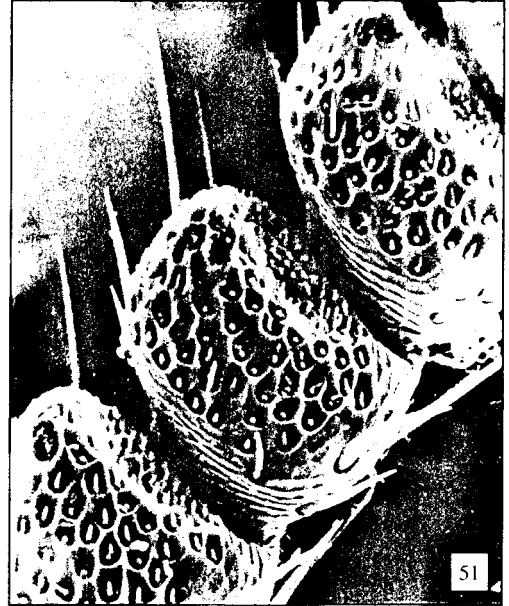
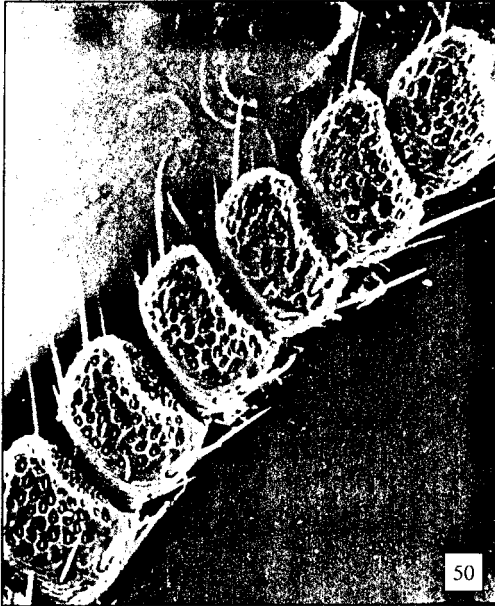
Length: 6.5–8.1 mm (holotype 6.5 mm), width: 2.1–3.1 mm (holotype 2.1 mm).

MATERIAL EXAMINED. Holotype (male). Tassili orient., Amguit, 27 avril 1928, Farssetia. Allotype (female). Tassili n' Ajjer, Tamrit, 1700 m, 6.–8. v. 1987, M. Škorpík leg., on *Launaea* sp. Paratype (male). The same data as allotype (F. Navrátil leg.).

Holotype deposited in NMPC, allotype in coll. M. Škorpík (Znojmo), paratype in coll. F. Navrátil (Brno).



Figs 46–49. Antennal structures. 46–*Paratassa coraebiformis* (Fairmaire), 8–11th segments of male, internal view, $\times 170$. 47– the same, female, $\times 200$. 48–*Nanularia brunneata* Knull, 7–11th segments of male, internal view, $\times 100$. 49– the same, $\times 3000$.



Figs 50–53. Antennal structures. 50–*Ampheremus cylindricollis* Fall, 6–11th segments, internal view, $\times 250$. 51– the same, 6–8th segments, $\times 500$. 52– *Bubastes* (? *inconstans*), 8–11th segments, internal view, $\times 170$. 53– *Sphenoptera* (s. str.) *glabrata* Ménériés, 7th segment, internal view, $\times 400$.

BIONOMY. Unknown.

NAME DERIVATION. The specific name indicates the most southern distribution of the genus.

Paratassa aurulenta sp. n.

(Figs 5, 6, 9, 10, 20, 28)

Kerremans (1903) mentioned under *P. coraebiformis* also „var. *aurulenta* Théry“ without any comment. Théry (1930) published „var. *aurulenta* Chobaut“ and mentioned that his authorship in Kerremans (1903) is wrong. In the collection of MNHN there is a specimen labelled „*aurulenta* Chobaut“ but Chobaut had never described any variety or species in the genus *Paratassa*. Neither Kerremans (1903) nor Théry (1930) described this variety (Théry only indicates the locality: Ghardaia) so we suppose it to be a nomen nudum. Because we suppose this form to be a distinct species and we have found in various collections several specimens determined as „var. *aurulenta*“ with Chobaut, Kerremans or Théry as authors, we preserve the name „*aurulenta*“ for this new species to avoid any confusion in the future.

DIAGNOSIS. The largest and most robust species of the genus. Due to its size, bright red-coppery colouration and pronotal sculpture there is very easy to recognize this species. Posterior half of pronotum with fine, grainy sculpture which is somewhat transverse on prescutellar region. Anterior male tibiae convex on outer margin (Fig. 28) and shorter than tarsi. Ventral side completely covered with dense, white tomentum.

Aedeagus Figs 9, 10, ovipositor Fig. 20.

For the differential diagnosis see the key.

Length: 8.5–12.0 mm (holotype 8.5 mm), width: 2.9–3.5 mm (holotype 2.9 mm).

MATERIAL EXAMINED. Holotype (male). Algeria, Sahara, El Golca, 29.–30. iv. 1987, M. Škorpiš leg. Allotype (female). Algeria, Reitter. Paratypes (2 males, 8 females). The same data as holotype (1 male). Algeria, Reitter (1 male, 4 females). Ghardaia, v. 1897, A. Chobaut (2 females). Ghardaia (1 female). Algeria, El Golca, 15 km Nord, G. Sama leg., morte in celletta su *Oudneia africana*, iii. 1989 (3 further very destroyed females not included among paratypes).

Holotype and allotype deposited in NMPC, paratypes in NMPC, ZMAS, MNHN, coll. M. Škorpiš (Znojmo) and G. Magnani (Cescna).

BIONOMY. Holotype and one paratype were reared from the roots of *Launaea arborescens*, one paratype from *Oudneia africana* (both Brassicaceae).

NAME DERIVATION. The specific name is derived from the Latin adjective *aurulentus* = golden.

Paratassa tunesiaca sp. n.

(Figs 2, 18, 26)

DIAGNOSIS. Short, robust and cylindrical species (Fig. 2). Whole body dark blue-green, rather matt. Pro-, meso-, and metasternum with sparse, white tomentum, abdomen only with small, irregular patches of tomentum. Frons flat or slightly convex, elytra 1.7 times as long as wide, slightly tapering posteriorly without any traces of longitudinal grooves. Pronotum very convex, 1.2 as wide as long, lateral pronotal margins parallel in posterior half (Fig. 2). Sculpture of posterior half of pronotum consisting of regular, transversely enlarged, deep punctures.

Aedeagus (Fig. 18) with laterally convex parameres, ovipositor Fig. 26.

For the differential diagnosis see the key.

Length: 6.0–7.0 mm (holotype 6.7 mm), width: 2.3–2.7 mm (holotype 2.4 mm).

MATERIAL EXAMINED. Holotype (male). Tunisia, Tataouine, 25. v. 1993, R. Neger leg. Allotype (female). Tunisia, v. 1869. Paratypes (2 males, 2 females). Tunisia, Gafsa (2 males). S Tunisia, 3 km sw Matmata (Dahargbirge, Ksour-Berge), Schmid-Egger leg., 19. vi. 1994, Tu-Mat (female). Tunisia, Sfax, vi. 1949, El Djem (female).

Holotype and allotype deposited in NMPC, paratypes in NMPC, coll. Nichuis (Albersweiler) and Magnani (Cescna).

BIONOMY. Unknown.

NAME DERIVATION. The specific name is derived from the country of the origin (Tunisia).

Paratassa acuminata sp. n.

(Figs 3, 15, 22)

DIAGNOSIS. The smallest species of the genus with bronze-green (male) or blue-green (female) body. Frons broadly and shallowly depressed, pronotum parallel-sided in posterior half, its anterior margin widely lobate in the middle (Fig. 3). Pronotum regularly, deeply punctured, 1.35 times as wide as long. Elytra 1.9 times as long as wide, slightly wedge-shaped (Fig. 3) with nearly indistinct traces of longitudinal grooves. Ventral side with white tomentum which is rather sparse on abdominal sternites.

Aedeagus (Fig. 15) nearly Y-shaped, parameres with nearly straight outer margins, ovipositor Fig. 22.

For the differential diagnosis see the key.

Length: 5.0–7.0 mm (holotype 5.7 mm), width: 1.8–2.9 mm (holotype 1.9 mm).

MATERIAL EXAMINED. Holotype (male). Sinai, St. Kathleen monastery, 22. iv. 1964. Allotype (female). Israel, loc. no. 26, Dead Sea, N Arugot, 22.–23. iv. 1994, Volkovitch et Dolgovskaja leg. Paratypes (2 males, 3 females). The same locality as holotype (male). Israel, Sinai, Sct. Katarina, 29. vi. 1976, O. Mehl leg. (female). Israel, S Negev, loc. no. 6, Har Quctura, 4 km SE Shizzafou, 4. vii. 1996, Volkovitch & Dolgovskaya leg. (male and female). Jordan, 21. vi. 1994, Ma an Govem, Ras an Naqab (female).

Holotype deposited in NMPC, allotype in ZMAS, paratypes in NMPC, ZMAS, coll. H. Mühle (Munich) and M. Nichuis (Albersweiler).

BIONOMY. Unknown.

NAME DERIVATION. The specific name is derived from the latin adjective acuminatus = tapering and indicates the shape of elytra.

Paratassa aegyptiaca sp. n.

(Figs 17, 27)

DIAGNOSIS. Large and robust, dark golden green and matt species. Ventral side with large patches of white tomentum which is well-developed mainly on prosternum. Frons slightly convex, pronotum very convex, nearly ball-shaped, its lateral margins slightly incurved before posterior angles. Pronotal sculpture consisting of deep, transversely enlarged punctures which form distinct transverse wrinkles between prescutellar region and posterior angles. Elytra short, only 1.7 times as long as wide, gradually tapering from humeri to apex without any traces of longitudinal grooves.

Aedeagus (Fig. 17) V-shaped, parameres with straight outer margins, ovipositor Fig. 27.

For the differential diagnosis see the key.

Length: 7.3–9.0 mm (holotype 7.3 mm), width: 2.6–3.5 mm (holotype 2.6 mm).

MATERIAL EXAMINED. Holotype (male). Aegypt v., Heluan, H. Rollé Berlin W. leg. Allotype (female). Aegypt, Cairo. Paratypes (1 male, 1 female). Egypt, coll. Alfieri, Jebel Asfar, 27. v. 1937 (female). Aegypt, Kairo (male).

Holotype and allotype deposited in NMPC, paratypes in NMPC and ZMAS.

BIONOMY. Unknown.

NAME DERIVATION. The specific name is derived from the country of the origin (Egypt).

***Paratassa arabica* sp. n.**

(Fig. 16)

DIAGNOSIS. Medium-sized, blue-green and lustrous species, resembling by its body-shape *P. acuminata* sp.n. from which it differs by slightly bell-shaped pronotum which bears short, transverse wrinkles on prescutellar part and by the form of male genitalia. Ventral side completely covered by sparse, homogenous, white tomentum.

Aedeagus (Fig. 16) V-shaped, resembling that of *P. aegyptiaca* sp. n.

For the differential diagnosis see the key.

Length: 6.5 mm, width: 2.4 mm.

MATERIAL EXAMINED. Holotype (male). El Hauta (Saudi Arabia).

Holotype deposited in NMPC.

BIONOMY. Unknown.

FEMALE. Unknown.

NAME DERIVATION. The specific name is derived from the country of origin (Arabia).

***Paratassa orientalis* sp. n.**

(Figs 4, 14, 24, 29)

DIAGNOSIS. Medium-sized, subparallel, matt and blue-green species with golden lustre (Fig.4). Ventral side completely covered with white, rather sparse tomentum. By its body-shape and colouration it resembles *P. medioatlassica* sp. n. from which it differs by flat frons, anteriorly less rounded pronotum with posteriorly slightly diverging lateral margins, simple pronotal punctation and by different form of male genitalia.

Aedeagus (Fig.14) short, nearly Y-shaped, parameres with convex outer margins, ovipositor Fig.24.

For the differential diagnosis see the key.

Length: 6.5-8.2 mm (holotype 7.2 mm), width: 1.9-2.8 mm (holotype 2.3 mm).

Holotype (male). SW Iran, Mollasani, 45 km NW Ahwaz, 13.-14. vi. 1977, loc. no. 288, Exp. Nat. Mus. Praha. Allotype (female). the same data. Paratypes (3 males, 1 female). the same data (3 males). Iran, Ahwaz/Ramshir, 100 m, 11. iv. 1978, Reissinger leg (female).

Holotype and allotype deposited in NMPC, paratypes in NMPC and coll. H. Mühle (Munich).

BIONOMY. All specimens collected by the expedition of the National Museum Praha were taken from *Diploptaxis hara*.

NAME DERIVATION. The specific name indicates the most eastern distribution of the genus.

NOTE. This species was erroneously treated as *P. coraebiformis* (Fairmaire) by Bílý (1983).

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