A NEW SPECIES OF *PARATASSA* FROM LIBYA (Coleoptera, Buprestidae)

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INTRODUCTION

The genus *Paratassa* Marseul, 1882, previously held as monotypic by the earlier workers, was split into ten species ranging from Morocco to Iran by Bílý & Volkovitsh (1996), who gave a detailed key to the species and a description of the larva of P. coraebiformis (Farmaire, 1875). In the same paper, the new tribe Paratassini was erected to receive this genus. All the species seem to be eremic or suberemic, with the highest taxonomical diversity throughout the Maghreb. Larval host plants so far known belong mainly to the Brassicaceae, but also to the Asteraceae (cfr. Bílý & Volkovitsh 1996: 330). No species of the genus Paratassa were ever recorded from Libya (Gridelli 1930; Théry 1930; Peyerimhoff 1931; Descarpentries 1953; Bílý & Volkovitsh 1996). Our colleague and friend Jean-Claude Ringenbach recently collected specimens of this genus in two different Libyan localities: a single specimen collected in Tripolitania (Kiklah, Jabal Nefusah, 11.VI.2004) belongs to P. coraebiformis, while several others collected in Fezzan proved to belong to a new species here described. While discussing the affinities of the new species, we suggest a group of species sharing similar shape of parameres (including P. coraebiformis, P. aegyptiaca Bílý & Volkovitsh, 1996, P. tunesiaca Bílý & Volkovitsh, 1996, P. orientalis Bílý & Volkovitsh, 1996), but this group is based only upon phenetic resemblance of the above mentioned character.

Type material preserved in four collections, acronyms as follows: coll. of A. Liberto, Rome, Italy (ALR); coll. of J. C. Ringenbach, Brest, France (JRB); coll. of M. Gigli, Rome, Italy (MGR); National Museum, Prague, Czech Republic (NMPC).

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Paratassa ringenbachi n. sp.

DIAGNOSIS. A new species of *Paratassa* recognized by the following set of characters: rather small species (male body length mm 5.0 - 6.4; width mm 1.6 - 2.2; female body length mm 4.9 - 6.5; width mm 1.7 - 2.2); body from entirely bright green to golden green or coppery green; frons slightly depressed when seen from above; third antennal joint 1.5 - 1.6 times longer than second, poorly expanded apically and very transversely truncate; elytra nearly two times longer than wide; scutellum with basal margin deeply emarginate, concave; puncturation of pronotum made of small foveae throughout; these are roundish and isodiametric on the disc, while are transversely flowing in the basal half and mostly so on the sides; pubescence of pronotum and elytra very short, white, made of straight setae directed forward on the pronotum and backward on the elytra; male fore tibiae straight; aedeagus Y-shaped, with apex of outer margins of the parameres triangularly produced (fig. 3).

Type series: Libya, Fezzan, Edeyen Murzuq, 24° 53' 53" N / 12° 14' 12" E, 800 m, 9.IV.2003, J.C. Ringenbach legit, 1 \circlearrowleft : holotype (NMPC); same data and collector, 2 \circlearrowleft \circlearrowleft , 5 \hookrightarrow (ALR), (JRB), (MGR). All specimens collected on foliage of bushes of *Eremobium longisiliquum* (Cosson) Boissier, 1888 (Brassicaceae).

DESCRIPTION OF HOLOTYPE. Length: 6.4 mm, width: 2.2 mm. Habitus as in fig. 1. Subcylindrical, lustrous body, golden greenish, turning to coppery green on head and pronotum. Ventral side darker green. Head and pronotum clothed with white pubescence, made of short straight setae directed forward, a little longer on pronotal margins and frons, where pubescence is divergent toward eyes. Ventral side set with longer white pubescence, moreover covered with white tomentum. Legs with rather slender and whitish pubescence, namely on tarsal upper surface.

Head densely covered with small, rounded, deep punctures with a narrow furrow running along the vertex. Frons 2.6 times wider than a single eye when seen in frontal view, elliptically depressed between eyes. Clypeus broad, with shallow and wide emargination. Eyes subelliptical, very poorly jutting. Antennae reaching basal angles of pronotum, 3.2 times shorter than whole body length, with first three joints dark green and shiny, joints 4-11 looking matt and blackish First antennal joint somewhat claviform, bent inward; second one

very short, subglobular; third one 1.5 - 1.6 times longer than second, feebly expanded apically and transversely truncate, two times longer than wide. Joints 4-10 expanded, about 1.5 times wider than long, shovel shaped starting from the 5^{lh} one. Last joint pear-shaped, narrow in the proximal part, broad apex slightly emarginate, bearing a tiny tooth-like production.

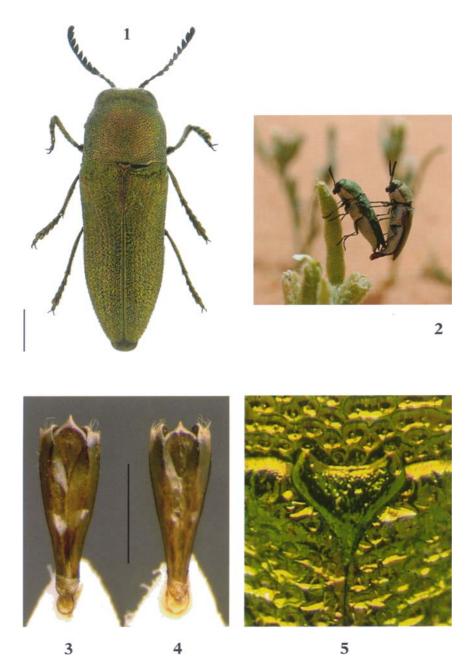
Pronotum very convex, bell-shaped, about 1.4 times wider than long, widest at the base. Anterior margin slightly bisinuate, with a narrow, smooth rim; median lobe slightly projecting forward. Sides very feebly sinuate, with right posterior angles. Basal margin nearly straight in the middle, strongly sinuate before posterior angles. Pronotum densely covered with small foveae; these are roundish, isodiametric or slightly transverse on the disk, while are flowing and suggest transverse wrinkles in the basal half.

Scutellum about as long as wide, heart-shaped, sharply pointed apically, with smooth and bright surface. Anterior margin deeply emarginate sloping forward, anterior angles projecting forward and little exceeding the basal margin of the pronotum (fig. 5).

Elytra evenly convex, 2.0 times longer than wide, widest at the base, slightly narrowed until 2/3 of their length, then sinuate and finally converging toward the apex, showing a transverse depression just beyond the base, among humeral swellings. Each elytron rounded at apex, the latter minutely serrate. Elytra covered with roundish, deep punctures, looking rough, coarse all over the disk and suggesting short transversal wrinkles. Punctures are about of the same size throughout on the elytra.

Ventral side with superficial punctures, very shallow on the sternites, densely clothed with slender setae, very long on hypomera of metasternum. Last sternite widely truncated distally, with a distinct smooth ledge all around the apex. Tibiae with an uneven row of sharp tubercles on outer margin; foretibiae with a comb-like fringe of short yellowish setae on inner margin. Foretibiae straight, apex of outer margin produced as a brief tooth-like production. Middle and hind tibiae with inner margin sinuate. Protarsi rather expanded, about of the same length of foretibiae, while middle and hind tarsi are shorter than respective tibiae. Middle tarsi slightly expanded.

Aedeagus in dorsal view very stout, exactly three times longer than wide, with parameres Y-shaped. Parameres with outer apical margins flattened, feebly sclerotized and bearing a tooth-like production (fig.



Figs 1-5 - Habitus of *Paratassa ringenbachi* n. sp. paratype \circlearrowleft (1); two specimens of *P. ringenbachi* n. sp. on *Eremobium longisiliquum* (Cosson) Boissier, 1888 (2); aedeagus of *P. ringenbachi* n. sp. (3); aedeagus of *P. coraebiformis* (Fairmaire, 1875) (4); scutellum of *P. ringenbachi* n. sp. holotype \circlearrowleft (5). Scale bars =1.0 mm.

3) nearly directed forward. Median lobe (penis) broadened apically, with the very middle apical part abruptly pointed and slightly bent downward.

VARIABILITY. Size variation of both sexes already given in the "diagnosis" chapter. When compared with males, all females samples show completely bright golden green body, little shorter antennae, and less expanded pro and middle tarsi.

BIONOMY. Unknown, but according to field remarks of the collector, all specimens of *P. ringenbachi* n. sp. were found on *Eremobium longisiliquum* (Cosson) Boissier, 1888 (Brassicaceae) growing on huge sand dunes; on the foliage of these small bushes adults were also copulating (see fig. 2), so that very likely this plant is the host of the new species. In the present chapter and in the Type series list, we reported the name of this plant following the original printed labels of the collector, but *E. longisiliquum* is now detained as a younger synonym of *Eremobium aegyptiacum* (Sprengel) Boissier, 1888 (Ph. D. Ihsan A. Al-Shehbaz, in litteris).

ETIMOLOGY. The new species is dedicated to our friend and colleague Jean-Claude Ringenbach (Brest, France), who collected all the known specimens and took pictures of the new species in its habitat.

TAXONOMIC REMARKS. The shape of the scutellum in the new species is similar to that of *P. aurulenta* Bílý & Volkovitsh, 1996 but the latter, among other characters, has very different shape of aedeagus with apex of outer margin of the parameres regularly rounded and not dentate. The new species, unlike, belongs to a group of species sharing similar shape of the parameres, whose subapical part of outer margin is triangularly produced, more or less sharply dentate: *P. coraebiformis*, *P. aegyptiaca*, *P. tunesiaca*, and *P. orientalis*. From aegyptiaca and tunesiaca, both characterized by the stout body and the elytra 1.7 - 1.8 times longer than wide, the new species can be recognized by the slender body with the elytra nearly 2 times longer than wide. The new species has sculpture of the basal half of the pronotum made of flowing transverse foveae, while in *P. orientalis* it is made of rounded or slightly transverse foveae, not transversely flowing.

Moreover the frons seen from above is convex in *P. orientalis* whereas it is depressed in the new species. The new species has habitus closely resembling P. coraebiformis (Farmaire, 1875), from which it can be easily differentiated by the shape of the scutellum, that in the latter has basal margin very slightly emarginate, not deeply emarginate and concave, by the pubescence of pronotum and elytra made of straight setae, not bent as in P. coraebiformis, by the third antennal joint that in the new species is slender, 1.5 - 1.6 times longer than the second and very obliquely truncate at apex, whereas in P. coraebiformis it is 1.3 times longer than second; sculpture of pronotum made of separate roundish foveae throughout in P. coraebiformis, sometimes slightly transverse in the basal half, while in the new species the foveae of the basal half of pronotum are transversely flowing, with intervals clearly forming transverse wrinkles. The shape of aedeagus is similar both in P. coraebiformis and in the new species (figs 3-4), but the latter has parameres with subapical part of outer margin bearing a sharper triangular production directed forward, tooth-shaped when seen from above. When seen in lateral view, the aedeagus of the new species is less sinuate and has basal half somewhat more thickened than in P. coraebiformis.

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SUMMARY

Paratassa ringenbachi n. sp. from Fezzan, Libya, is described and illustrated. Comparative remarks are made with all known species of the genus. The new species is related to *P. coraebiformis* (Farmaire, 1875), *P. aegyptiaca* Bílý & Volkovitsh, 1-996, *P. tunesiaca* Bílý & Volkovitsh, 1996 and *P. orientalis* Bílý & Volkovitsh, 1996 following the shape of male genitalia, despite closely resembling in habitus *P. coraebiformis*. The latter is recorded from Libya for the first time.

RIASSUNTO

Una nuova Paratassa di Libia (Coleoptera, Buprestidae).

Viene descritta ed illustrata *Paratassa ringenbachi* n. sp. della Libia (Fezzan), affine a *P. coraebiformis* (Farmaire, 1875), *P. aegyptiaca* Bílý & Volkovitsh, 1996, *P.*

tunesiaca Bílý & Volkovitsh, 1996 e *P. orientalis* Bílý & Volkovitsh, 1996 per la forma dei parameri, che sono più o meno acutamente dentati nella porzione subapicale esterna; l'habitus della nuova specie è molto simile a quello di *P. coraebiformis*. Sono inoltre fornite note diagnostiche e comparative che permettono di separare la nuova specie da tutte le congeneri. Viene inoltre segnalata per la prima volta *P. coraebiformis* per la Libia.

REFERENCES

- ALI, S. I. & S. M. H. JAFRI. 1977. Flora of Libya. Al Faateh University, Faculty of Sciences, Department of Botany, Tripoli, 23:1-206.
- Bílý, S. & M. G. VOLKOVITSH. 1996. Revision, reclassification and larval morphology of the genus *Paratassa* (Coleoptera: Buprestidae: Paratassini tribus n.). Acta Societatis Zoologicae Bohemicae, 60:325-346.
- DESCARPENTRIES, A. 1953. Coléoptères Buprestides de la mission F. Bernard au Tassili des Azzer. Travaux de l'Institut de Recherches Sahariennes (Alger), 251-259.
- GRIDELLI, E. 1930. Risultati zoologici della missione inviata dalla R. Società Geografica Italiana per l'esplorazione dell'Oasi di Giarabub (1926-1927). Coleotteri. Annali Museo civico di Storia naturale di Genova, 54: 1-485.
- PEYERIMHOFF, P. DE. 1931. Coléoptères. Mission Scientifique du Hoggar envoyée de Février à Mai 1928 par M. Pierre Bordes Mémoires de la Société d'Histoire Naturelle de l'Afrique du Nord, 2, 172 pp., 3 plates.
- THERY, A. 1930. Études sur les Buprestides de l'Afrique du Nord. Mémoires de la Société des Sciences Naturelles du Maroc, 19: 1-586.