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A review of *Glyptolopus* Erichson (Coleoptera, Cerylonidae) with descriptions of new species

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The world species of Glyptolopus Er. are reviewed and a generic description is provided. Three new species are described: *G. amazonicus* (Peru); *G. convexus* (Brazil) and *G. peruanus* (Peru), and a key for the identification of all known species is provided.

DESCRIPTION OF GENUS

Glyptolopus Erichson[3]

Glyptolopus Erichson, 1845: 292. Type species: *Glyptolopus histeroides* Pascoe, 1860, by subsequent designation.

Diagnosis

Glyptolopus is separated from other known genera of the Cerylonini by the 11-segmented antennae with 3-segmented club, the costate elytra, the pronotum with two pairs of carinae, the prosternum which is strongly convex anteromedially and which lacks clearly defined antennal grooves, the tarsal formula 4-4-4 and the basal tarsomere which is toothed in males. The costate elytra and the stout body form are as in *Axiocerylon* Grouv., whose members have 6–10-segmented antennae with a 1-segmented club, deep antennal grooves on hypomera and stronger separated mesocoxae.

Description

Body stout, elongate to oval, convex dorsally in cross section. Surface moderately shiny, colour brown to black. Pilosity consisting of minute yellowish setae in most punctures, only scarcely visible under 60 × magnification. Raised parts of pronotum and elytral intervals similarly but denser setose. Pronotal sides and elytral costae with long (about 4 times longer than setae described above), sparse and erect setae.

Head including eyes almost as long as wide, densely punctured; transverse occipital line barely visible; antenna (figs. 9 – 11) 11-segmented with large 3-seg-

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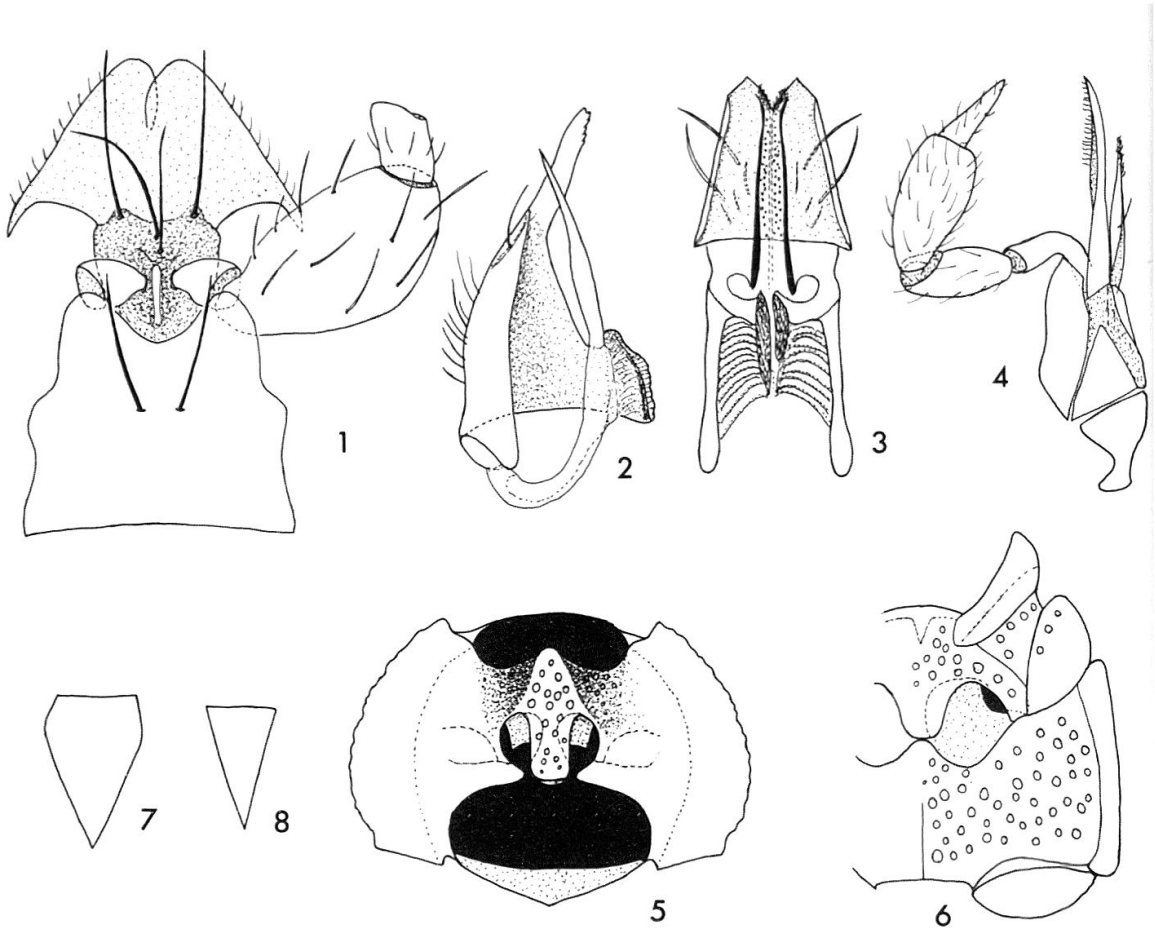
BMNH: British Museum (Natural History) London, (R. J. W. Aldridge, R. D. Pope);
MHNG: Muséum d'histoire naturelle, Genève, Switzerland;
MNHN: Muséum national d'histoire naturelle, Paris, France (N. Berti);
IZPAN: Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland;
TMB: Termeszettudomanyi Muzeum, Budapest, Hungary (Z. Kaszab);
ZMB: Zoologisches Museum Berlin, German Democratic Republic, (M. Uhlig).



Figs. 1 – 7. *Glyptolopus convexus* sp. n. 1: Labium, ventral view; 2: mandible, dorsal view; 3: labrum, epipharynx, ventral view; 4: right maxilla, ventral view; 5: prothorax, ventral view; 6: pterothorax, ventral view; 7: outline of scutellum. 8: *G. peruanus* sp. n., outline of scutellum.

mented club; apical segment often conical, with transverse depression giving the impression to be 2-segmented; scape large, sculptured as head, usually darker than pedicel. Labrum (fig. 3) elongate, emarginate apically with narrow, complete labral rods and median arms of tormae projecting medially. Mandible (fig. 2) moderately elongate, crenulate apically with narrow, acute prostheca and poorly developed mola. Maxilla (fig. 4) with galea and lacinia moderately elongate, shorter than palpus; mentum subquadrate to slightly trapezoidal, deeply emarginate apically; labium with ligula expanded apically and notched medially (fig. 1); praementum with four long setae arranged as in fig. 1; apical palpomere short and obtusely rounded or truncate apically. Pregular impression absent. Gular sutures indistinct. Corpotentorium with short median process.

Prothorax transverse, about 0.6 times as long as wide. Pronotum convex medially with explanate sides, the edges crenulate and slightly upturned. Disk with two median and two sublateral carinae (fig. 20); median carinae complete in anterior 3/4 of pronotum, separated from basal tubercles; the sublateral carinae often subdivided in three parts each. Prosternum (fig. 5) strongly convex medially. forming a rounded carina with concave sides not delimited externally. Procoxal cavities narrowly open posteriorly and partly closed internally; intercoxal process stout, parallel-sided, rounded or slightly acuminate apically. Sternopleural sutures barely visible.

Pterothorax (fig. 6). Mesosternum transversely concave with mesosternal process about 0.5 times as wide as coxa. Meso and metasternum separated by a straight line. Metasternum with short median groove at base, without femoral lines. Wing as in fig. 12.

Elytra about twice as long as pronotum, convex, each with 9 rows of strial punctures and 4 costae on intervals 3, 5, 7 and 9. Costa III always shorter and not reaching apical margin. Epipleura wide from base to a level of mesocoxa, abruptly narrowing apically, not dentate.

Scutellum well developed triangular to pentagonal.

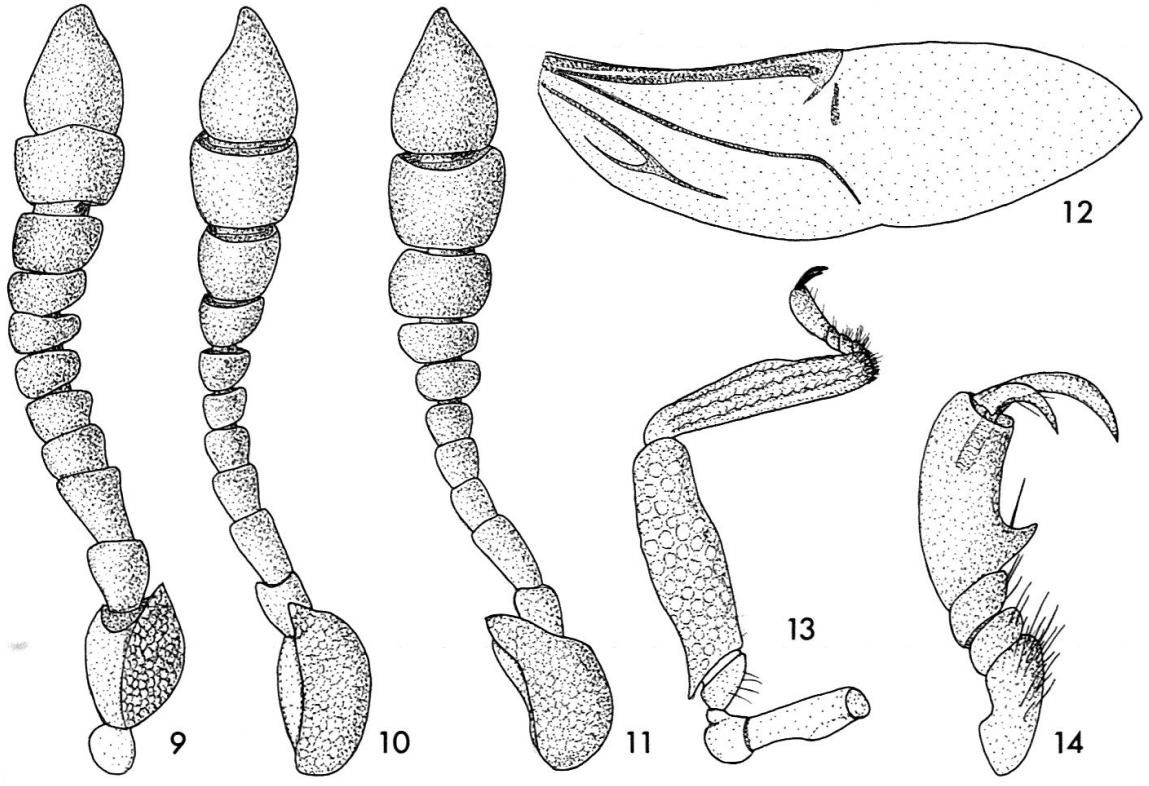
Abdomen with ventrite I almost as long as four remaining ventrits together, without femoral lines, each ventrite with 2 – 3 transverse rows of punctures. Aedeagus with well developed tegmen (figs. 18, 19) and fused parameres; median lobe heavily sclerotized without internal ornamentation (figs. 15 – 17).

Trochanto-femoral attachment approaching heteromeroid type (fig. 13); tibiae rounded apically, each with 3 – 4 longitudinal, fine carinae on either side. Tarsi 4-4-4 in both sexes; male with dentate 1st tarsomere (fig. 14); claws simple, bisetose empodium present.

Biology and immature stages unknown.

Distribution

This is a neotropical genus (6 species) confined to forests of the Amazon region.



Figs. 9 – 14. 9: *Glyptolopus histeroides* Pascoe, lectotype ♀, antenna. 10: *G. dentatus* Dajoz, holotype ♂, idem. 11: *G. quadricostatus* Heinze, holotype ♀, idem. 12: *G. convexus* sp. n., wing. 13: idem, foreleg. 14: idem, protarsus ♂.

Key to species of *Glyptolopus*

1. Antenna short and stout with segment III 1.1 – 1.2 times as long as wide apically (fig. 9). Elytra almost parallel-sided, 1.3 times as long as wide with costae little strongly developed, even intervals convex (fig. 20). Brazil ..... *histeroides* PASCOE
– Antenna longer and more slender with segment III about 1.7 – 2 times as long as wide apically (figs. 10, 11). Elytra oval-shaped, about 1.1 – 1.2 times as long as wide, costae strongly developed, even intervals flat ..... 2.
2. Pronotum with completely developed sublateral carina (fig. 28) Peru ..... *dentatus* DAJOZ
– Pronotum with sublateral carina interrupted in three parts ..... 3.
3. Elytra 1.25 times as long as wide. Pronotal punctures deep and large, sparse, intervals larger than punctures (fig. 21). Pronotal sides angulate medially. Peru ..... *amazonicus* sp. n.
– Elytra less then 1.2 times as long as wide. Pronotal punctures variable in size, almost contiguous. Pronotal sides rounded (fig. 24) ..... 4.
4. Elytra 1.17 – 1.18 times as long as wide. Pronotal edge almost smooth, distinctly upturned; median groove of pronotum deep, almost parallel-sided; median carinae almost fused with subbasal tubercles (fig. 24). Clypeus smooth anteriorly. Pronotal punctures very dense, smaller than those on elytra. Length 3.9 – 4.3 mm. Brazil ..... *quadricostatus* HEINZE
– Elytra 1.0 – 1.13 times as long as wide. Pronotal edge crenulate, flat; median pronotal groove shallow, indistinct, widening towards base, median carinae distinctly separated from subbasal tubercles (fig. 29). Clypeus entirely punctate. Pronotal punctures coarse, larger than those on elytra. Length 4.1 – 4.5 mm ..... 5.
5. Scutellum narrowly triangular (fig. 8). Pronotum with subbasal tubercles weakly developed, weakly separated anteriorly from carinae. Antennal segment IV 1.2 times as long as V. Peru ..... *peruanus* sp. n.
– Scutellum wide, pentagonal (fig. 7). Pronotum with subbasal tubercles well developed and well separated anteriorly. Antennal segments IV and V subequal. Brazil ..... *convexus* sp. n.

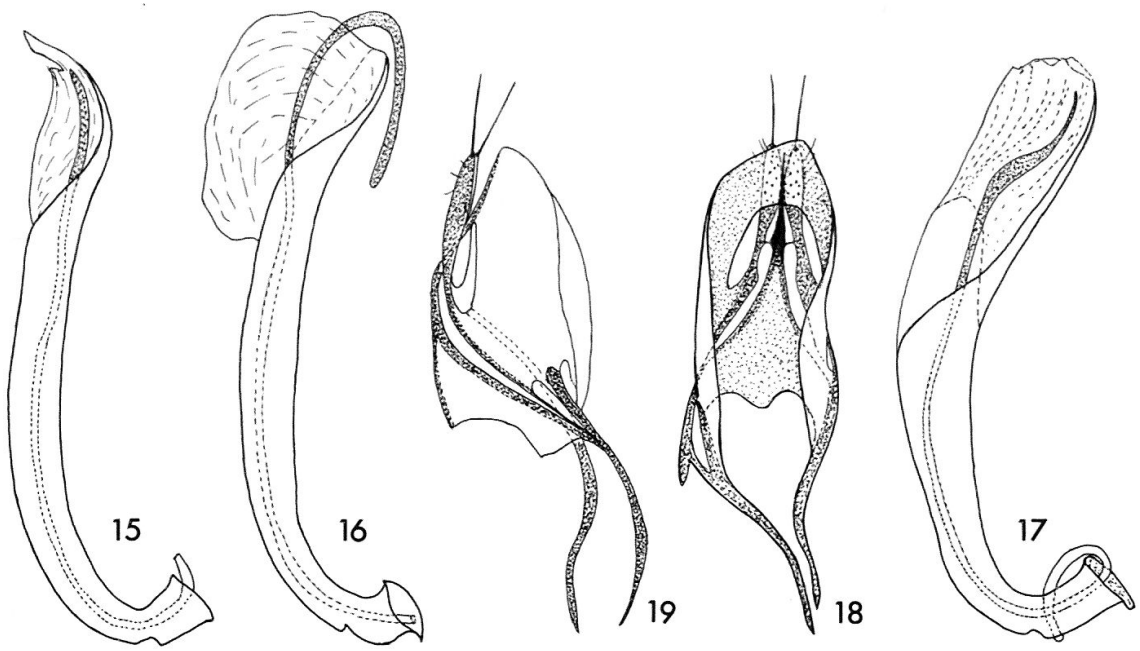
DESCRIPTION OF SPECIES

Glyptolopus histeroides PASCOE

Glyptolopus histeroides PASCOE, 1860: 116, pls. VIII, f. 2. Type-locality "Brazil, Rio". Lectotype ♀ designated by Cl. BESUCHET, 1978, BMNH, examined – DAJOZ, 1979: 185.

Fig. 20. The species is well characterized by its short and stout antennae (fig. 9) with segment III only slightly longer than wide at its apex. Elytra are relatively long, about 1.3 times as long as wide with weakly developed costae and slightly convex even intervals. Median carinae of pronotum weakly developed and almost fused with fine subbasal tubercles; sublateral carinae subdivided in three parts each. Pronotal sides somewhat explanate and upturned, the edges almost smooth. Scutellum pentagonal. Tibiae are rather stout. Length 4.6 mm.

Material examined. Brazil: "Rio Jan.", "FRY Coll. 1905–100", "*Glyptolopus histeroides* Type PASCOE", "Lectotype det. Cl. BESUCHET, IX. 1978" (BMNH).



Figs. 15 – 19. 15: *Glyptolopus convexus* sp. n., median lobe, ventral view. 16: *G. amazonicus* sp. n., holotype, idem. 17: *G. quadricostatus* HEINZE, Brazil, idem. 18: *G. convexus* sp. n., tegmen, inner side. 19: idem, ventral view.

Remarks. We have seen only a brown, probably teneral female of this species. DAJOZ (1979) reported it from Brazil (Nova Friburgo and Spirito Santa) and French Guiana (Cayenne); we were unable to revise these specimens as we could not find them in the MNHN.

Glyptolopus quadricostatus HEINZE

Glyptolopus quadricostatus HEINZE, 1944: 14. Type-locality "Brazil, Petropolis". Holotype ♀ TMB, examined.

The species is characterized by minute, very dense pronotal punctuation (fig. 24), smooth lateral edges of pronotum which are distinctly upturned, deep and almost parallel-sided pronotal median groove, median carinae which are usually fused with subbasal tubercles, clypeus impunctate anteriorly and the broad, pentagonal scutellum (fig. 27). It resembles *amazonicus* from which it differs in the much smaller and almost contiguous pronotal punctures, the shorter elytra, the almost rounded and not angulate pronotal sides and the anteriorly fused subbasal tubercles. Both *peruanus* and *convexus* differ from *quadricostatus* in the more oval, convex body form, in the coarser pronotal punctures and in the crenulate pronotal edges; *peruanus* has in addition a narrow, triangular scutellum, *convexus* on the other hand has the subbasal tubercles on pronotum well separated anteriorly from carinae. Antennae as in fig. 11; adeagus as in fig. 17. Length 3.9 – 4.3 mm.

Material examined. Brazil: Petrolopis (1, TMB, holotype ♀); Nova Teutonia (2, coll. F. PLAUMANN); Brazil, without further data (1, BMNH); Rio. Jan. ex. FRY Coll. (1, BMNH); Santa Catharina, ex. FRY Coll. (1, BMNH); Brazil, without further data ex coll. ERICHSON (2 ♂, ZMB); Spirito Santo, coll.

GROUVELLE (1 ♀, MNHN); Minas Geraez near Goyaz, DE CASTELNAU, 1847 (1 ♀, MNHN); Nova Friburgo, State Rio de Janeiro, F. GOUNELLE, 2–3.IV.1903, coll. GROUVELLE (1 ♀, IZPAN); Saõ Paulo, coll. F. KESSEL (2 ♂, IZPAN).

The material assigned here to *quadricostatus* varies in the convexity of pronotum (figs. 25, 26), the shape of median carinae, the shape and prominence of basal tubercles and the shape of scutellum and antennal segments VI – VIII. Among the 13 specimens examined there are only 5 males, none of which had the antennal segments as transverse as the female holotype. Also in some females the antennomeres were much narrower than in the holotype. The scutellum varies from relatively narrow (in the holotype) to fairly wide and short. We consider this as intraspecific variation, rather than of specific significance, as *convexus* shows a similar variation in the antennae; in females they are stouter and with shorter segments VI – VIII than in males.

Glyptolopus convexus sp. n.

Body stout, convex; surface moderately shiny, almost black or dark-brown, legs and antennae brown. Clypeus scarcely emarginate medially, entirely punctured; frons and vertex coarsely punctured, frontal punctures about twice, vertical ones about 3 – 4 times as large as facets of eyes, subcontiguous, intervals weakly reticulate; frons with fairly deep impressions behind eyes. Antenna with segment III about twice as long as wide apically, segments IV and V subequal, slightly longer than wide. Pronotum about 0.6 – 0.7 times as long as wide, widest

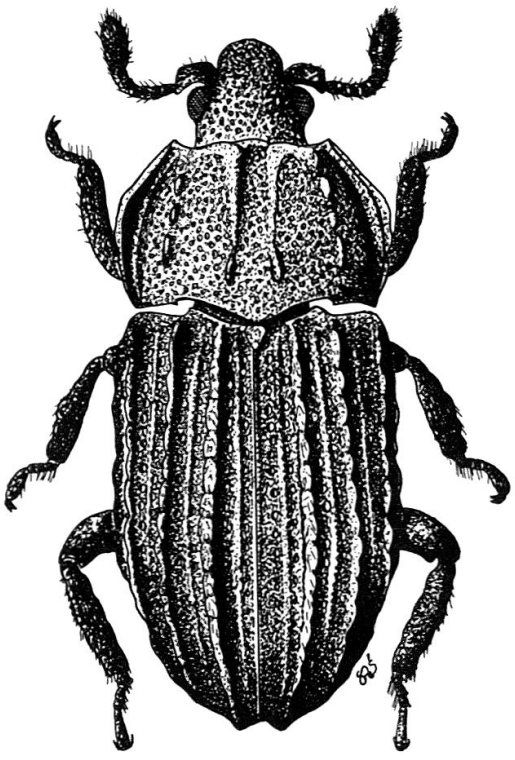
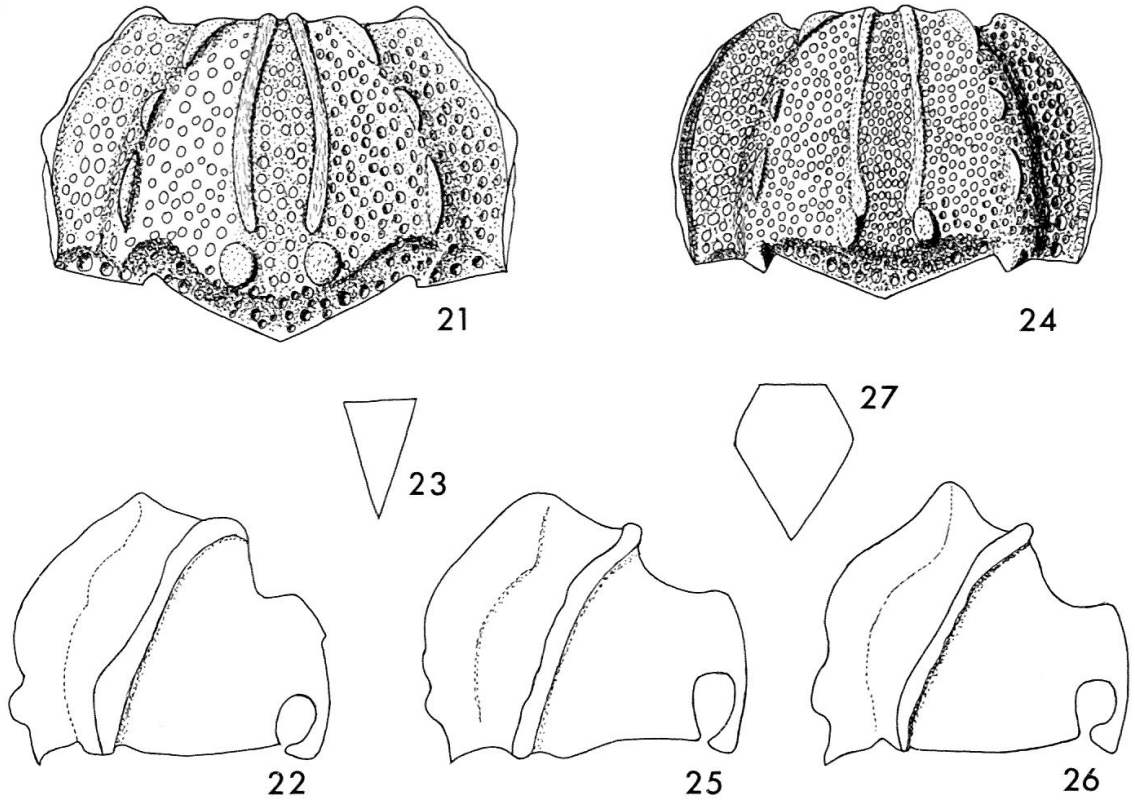


Fig. 20: *Glyptolopus histeroides* PASCOE, lectotype ♀. Del. S. A. SLIPINSKI.



Figs. 21 – 27. 21: *Glyptolopus amazonicus* sp. n., holotype ♂, pronotum, dorsal view. 22: idem, prothorax, lateral silhouette. 23: idem, outline of scutellum. 24: *G. quadricostatus* HEINZE, holotype, pronotum, dorsal view. 25: idem, prothorax, lateral silhouette. 26: idem, maximum variation of pronotal silhouette. 27: idem, outline of scutellum.

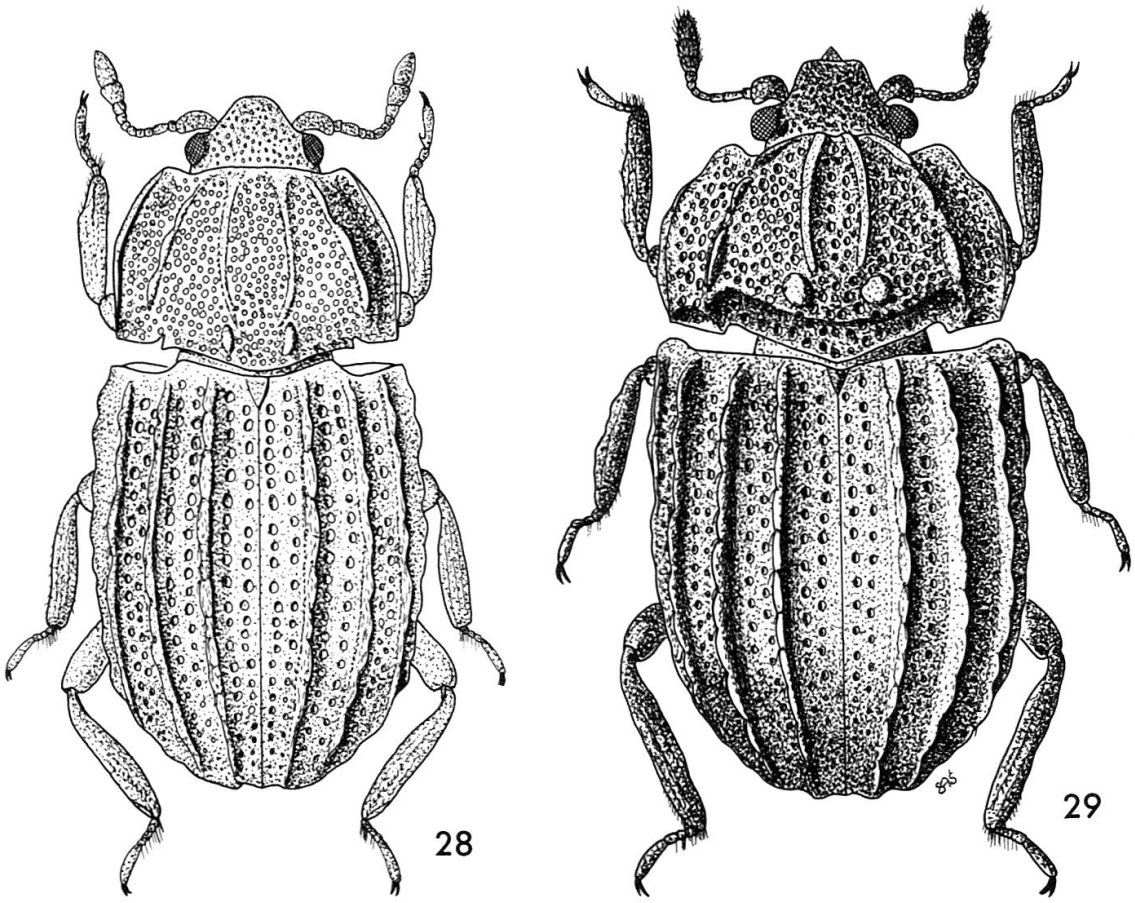
at basal third stronger narrowing anteriorly than basaly; sides explanate, not upturned with crenulate edges. Anterior angles obtusely acute, posterior ones almost rectangular. Sublateral carina consisting of three parts; anterior part reaching anterior margin, median part almost as long as anterior one, both separated by a distance equal to their length, posterior part markedly longer than anterior one. Median carinae weakly developed, separated from subbasal tubercles by the distance equal to the diameter of tubercle. Median groove very shallow. Pronotal punctures as large as or slightly larger than those on vertex, subcontiguous. Scutellum as in fig. 7. Elytra 1.14 times as long as wide and 2.0 – 2.1 times as long as pronotum. Costae sharply carinate and crenulate; 12 – 16 tubercules on costa I; even intervals flat; strial punctures almost as large as pronotal ones, separated longitudinally by a distance of 0.5 – 0.8 times the puncture diameter. Aedeagus as in figs. 15, 18, 19. Length 4.0 – 4.5 mm.

Material examined. Holotype ♂: Brazil, Amazonas, Manaus, 20 km S of City. Soil Zool. Exp. No. 359, 13.XI.1966, leg. BALOGH, MAHUNKA, ZCISI (TMB). Paratypes 3 ♂, 5 ♀ with same data as holotype (TMB, MHNG, IZPAN).

The species is closest related to *peruanus* and *dentatus*. *G. peruanus* has a narrower triangular scutellum, the subbasal tubercles of pronotum little separated anteriorly, and antennomere IV slightly longer than V. *G. dentatus* has complete sublateral carinae on the pronotum and a narrower scutellum.

Glyptolopus amazonicus sp. n.

Body elongate-oval, convex; colour black with brown antennae, legs and mouth-parts. Anterior clypeal margin emarginate medially, surface entirely punctured. Eyes comparatively small and less convex than in *convexus* or *peruanus*. Frons and vertex densely punctured, vertical punctures about twice as large as frontal ones and 2 – 3 times as large as facets of eyes. Impressions behind eyes well visible. Antenna slender with relative length of segments III – V as 8 : 4 : 4; segment VII slightly wider than preceding one, subquadrate, VIII transverse, markedly narrower than IX. Pronotum 0.65 times as long as wide, with shape and ornamentation as in figs. 21, 22. Sublateral carina consisting of three parts whose relative length, from apex to base, are as 2 : 2.1 : 4. Median carinae weakly costulate, slightly converging anteriorly and posteriorly, median groove shallow, carinae well separated from subbasal tubercles. Pronotal punctures large, sparse, variable in size and spacing, between median carinae separated from each other in a distance of 0.5 – 0.8 times their diameter; punctures becoming larger and denser toward base and sides. Scutellum triangular (fig. 23). Elytra 1.25 times longer than wide, twice as long as pronotum; costae sharply carinate and crenulate; strial punctures comparatively small, about the size of pronotal ones between median carinae. Aedeagus with median lobe as in fig. 16. Length 4.5 mm.



Figs. 28 – 29. 28: *Glyptolopus dentatus* DAJOZ, holotype ♂. 29: *G. peruanus* sp. n., holotype ♀. Del. S. A. SLIPINSKI.

Material examined. Holotype ♂: Peru, Loreto: "Amazones: Iquitos, M. DE MATHAN", ex coll. R. OBERTHÜR (MNHN).

The species is distinguished from other *Glyptolopus* spp. by the angulate pronotal sides and the sparse puncturation.

Glyptolopus dentatus Dajoz

Glyptolopus dentatus DAJOZ, 1979: 186, fig. 3. Type-locality "Peru, Chambireacu". Holotype ♂ MNHN, examined.

Fig. 28. The species differs from other *Glyptolopus* spp. in the completely developed sublateral carinae of pronotum. The pronotum is more elongate than that of *peruanus,* which also differs in the crenulate pronotal edges, without upturned sides, and in the comparatively smaller eyes. *G. amazonicus* has angulate pronotal sides, sparse pronotal puncturation and a narrower scutellum. Antennae as in fig. 10. Length 4.4 mm.

Material examined. Peru, Loreto: Chambireacu near Yurimaguas, M. DE MATHAN (MNHN).

Remark. The reddish-brown coloration of the male holotype suggests that the specimen is teneral. DAJOZ considered the dentate tarsomere as the most distinctive character of this species which is, however, only a sexual character common to all *Glyptolopus.*

Glyptolopus peruanus sp. n.

Fig. 29. Body short-oval, convex, moderately shiny; colour black. Anterior clypeal margin scarcely emarginate, almost straight. Frontal and vertical punctures subequal, about 1.55 – 2 times as large as facets. Impression behind eyes weak, but present. Antennal segments III – V with following relative length 7 : 4 : 4; segment IV about 1.2 times as long as V, segment VII slightly wider than preceding one, VIII transverse, narrower than IX. Pronotum about 0.6 times as long as wide (fig. 29). Sides moderately explanate, not upturned with crenulate edges; sublateral carina consisting of 3 variable-parts; median carinae weakly developed, slightly converging basally, separated anteriorly; median groove shallow; subbasal tubercles well separated from carinae; pronotal punctures about 1.5 times as large as vertical ones, subcontiguous. Scutellum (fig. 8) triangular, very narrow in holotype, slightly wider in one paratype. Elytra 1.13 times as long as wide and 1.94 times as long as pronotum; costae sharply carinate, stronger crenulate and less prominent than in *convexus.* Strial punctures about as large as those on pronotum, longitudinally with intervals of about 0.5 times their diameter. Length 4.6 mm.

Material examined. Holotype ♀: Peru, Amazonie : Samiria near Zapote, leg. C. VAUCHER (MHNG). Paratypes ♀♀ with same data as holotype (1, MHNG; 1, IZPAN).

REFERENCES

DAJOZ, R. 1979. Coléoptères Cerylonidae nouveaux ou peu connus. *Revue fr. Ent., (N. S.), 1:* 183 – 186.

ERICHSON, W. F. 1845. Naturgeschichte der Insekten Deutschlands. Coleoptera, (1) *3*: 1 – 320.

HEINZE, E. 1944. Neue und wenig bekannte Colydiidae (Coleopt.) aus dem Ungarischen National-Museum. *Annls Hist. nat. Mus. natn. Hung. Zool., 37*: 1 – 23.

PASCOE, F. P. 1860. Notices of new or little-known Genera and Species of Coleoptera. Part II. *Journ. Ent., 1*: 98 – 132, pls. V – VIII.

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