

Five new species and a new subgenus of *Cyrtosoma* Perty from the West Indies (Coleoptera, Tenebrionidae)

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Abstract – The following new taxa of *Cyrtosoma* PERTY are described from the West Indies: *Pachycyrtosoma* subgen. n. from the Dominican Republic (Hispaniola), *Cyrtosoma (Pachycyrtosoma) merkli* sp. n. from the Dominican Republic, *Cyrtosoma (Pachycyrtosoma) hispaniolae* sp. n. from the Dominican Republic, *Cyrtosoma martiniquensis* sp. n. from Martinique (Lesser Antilles), *Cyrtosoma grenadensis* sp. n. from Grenada (Lesser Antilles) and *Cyrtosoma arimensis* sp. n. from Trinidad (North Range). With 6 figures.

The only *Cyrtosoma* PERTY, 1830 species known so far from the West Indies are *C. lherminieri* CHEVROLAT, 1844 (from Guadeloupe to St. Vincent and Grenada), *C. picea* LAPORTE DE CASTELNAU et BRULLÉ, 1831 (from Guadeloupe), *C. trinitatis* MARCUZZI, 1976 (from Trinidad), *C. freyi* MARCUZZI, 1976 (from Trinidad) and three species of subgenus *Nesocyrtosoma* MARCUZZI, 1991, namely *gebieni* MARCUZZI, 1991, *inflatum* MARCUZZI, 1991 and *tunefactum* MARCUZZI, 1991 from Cuba (MARCUIZZI 1991, see also MARCUZZI 1976 and MARCUZZI & d'AGUILAR 1971). The present paper is devoted to the description of a new subgenus and five new species of *Cyrtosoma* from the West Indies. The majority of the material studied is preserved in the Hungarian Natural History Museum (HNHM), Budapest, while a few paratypes are deposited in the author's collection (CM).

***Pachycyrtosoma* subgen. n.**

Description. Apterous, short, broad, completely glabrous (with exception for under surface of tarsi); black, subnitid, dorsal surface perfectly smooth or with minute punctation on pronotum and sparsely scattered stria punctures on basal half of elytra. Pronotum scarcely narrower than elytrae; basis of pronotum as wide as that of elytrae. Frontoclypeal suture distinct; epistoma well separated from forehead, continuous with genae, a little raised and continuous to eyes. Postgenae well visible, somewhat sunken towards the pronotum. Ventral surface shining, perfectly smooth, with very few punctures on prosternum.

Distribution. Known only from Hispaniola (Dominican Republic).

Type species. *Cyrtosoma (Pachycyrtosoma) merkli* sp. n, herewith designated.

Remarks. The new subgenus differs from all known *Cyrtosoma* in having the tendency of pronotum and elytra to join, so that the basis of pronotum corresponds exactly to the basis of the elytra. This does not occur in any other species of the genus. In some cases the humeri are concealed by the hind angles of the pronotum. The dorsal surface is largely smooth; only in one species (*C. merkli*), basal part of the elytra is furnished with extremely shallow striae of minute punctures. The ventral surface is completely smooth.

***Cyrtosoma (Pachycyrtosoma) merkli* sp. n.**

(Figs 1–2)

Description. Length 6.5–8 mm. Habitus: Fig. 1. Black, with antennae and tarsi ferrugineous. Surface subnitid, pronotum distinctly separated from elytrae, narrower than the latter. Head continuous with pronotum in lateral view, feebly convex. Pronotum (Fig. 2) transverse, basis slightly wider than apex, sides rounded, slightly sinuate before the basis, sinuate before anterior angles; more convex transversely than longitudinally. Basis slightly bisinuate, apex strongly and regularly sinuate, anterior angles prominent, acute, hind angles distinct, rectangular. Sides and lateral parts of both basis and apex distinctly margined. Upper surface of head and pronotum largely smooth, but pronotum showing extremely small punctation in central hind part. Scutellum minute, space between it and the trace of a first elytral stria swollen in a very peculiar way, never observed in other *Cyrtosoma*. Elytra short, ovate; sides gently rounded from basis to hind extremity; little convex in transversely, convex longitudinally, convexity more evident in distal 2/3, steeply declivous towards apex as in other *Cyrtosoma*, recalling some Palearctic tentyriine tenebrionids. Basal 2/3 of elytra with regular, extremely shallow striae, furnished with minute, elongate, widely separated punctures. In some specimens these features (striae and punctures) are practically obsolete. Humeri pronounced, though in some specimens can be hidden by the hind angles of pronotum. Maximum width at the half of elytra. Sides of elytra margined from humerus to apex, margin dilated as a sort of flat surface a little before apex. This feature seems to be asymmetrical, being more developed on left elytron. Legs completely smooth and shining; tarsi rather thin, covered with long, not very thick, yellow pubescence on ventral surface, with exception for the glabrous last article. Ventral surface, including epipleurae, smooth and shining. Prosternum with intercoxal process well developed, rectangular, slightly lanceolate, a little raised at sides, abruptly truncate posteriorly. Abdominal sternites with scarce, irregular punctation, especially on very wide intercoxal process of the visible sternite 1 and on sides of the first 2–3 visible sternites. The punctures are visible only with a particular incidence of light. Sex not studied.

Distribution. Dominican Republic.

Type material. Holotype (HNHM) and 8 paratypes (7, HNHM, 1 CM), labelled as follows: "DOM. REP., La Vega, 53 Km SE Constanza, August 9, 1979, L. B. O'Brien".

Remarks. *C. (Pachycyrtosoma) merkli* sp. n. differs from *C. (P.) hispaniolae* sp. n. in having greater size, shape less ovate, less convex, pronotum well separated from elytra in lateral view (in *hispaniolae* practically continuous). The hind angles of the pronotum is much more evident. Shallow striae are present on basal half of elytra (absent in *hispaniolae*).

Cyrtosoma (Pachycyrtosoma) hispaniolae sp. n.

(Fig. 3)

Description. – Length 4–5 mm. Black, with antennae and tarsi ferrugineous. Surface almost dull, shape ovate, very short, plump, convex both transversely and longitudinally. Pronotum (Fig. 3) scarcely narrower than elytrae, both rounded at sides, so that pronotum, unlike all other species of the genus, is almost continuous with elytra. Basis of pronotum scarcely wider than apex and scarcely narrower than basis of elytra. Sides of pronotum strongly rounded, narrowing towards apex, so that anterior angles strongly prominent and acute, with apex strongly. Hind angles slightly obtuse, not prominent. Sides of pronotum narrowly margined. Elytra very short, almost globose, with sides gently rounded, more narrowing posteriorly than anteriorly. No trace of striae or punctation. Legs smooth, rather short, tibiae gently bent. Pubescence on under surface of tarsi short and much less evident than in *C. (P.) merkli*. Ventral surface smooth, subnitid, intercoxal process of prosternum narrow, slightly raised at sides, truncate posteriorly. Meso- and metasternum very short. Abdominal sternites smooth, intercoxal process of visible sternite 1 very broad, arcuate at its tip. Sex not studied.

Distribution. Dominican Republic.

Type material. Holotype (HNHM) and 2 paratypes (1, HNHM, 1 CM), labelled as follows: "DOM. REP., La Altag, 9 Km SW of Campo Nuevo, Aug. 1, 1979, C. W. O'Brien". One paratype (HNHM) is labelled as follows: "DOM. REP., La Altag, 18 Km NW of Boca de Yuma, Aug. 1, 1979, C. W. O'Brien".

Remarks. *C. (Pachycyrtosoma) hispaniolae* sp. n. differs from *C. (P.) merkli* sp. n. on account of smaller size, ovate, short, plump and convex form of the body, perfectly smooth elytra, and pubescence on under surface of tarsi which is short and less evident than in *merkli*, possibly in relation to a different habit of the animal.

Cyrtosoma (s. str.) martiniquensis sp. n.

(Fig. 4)

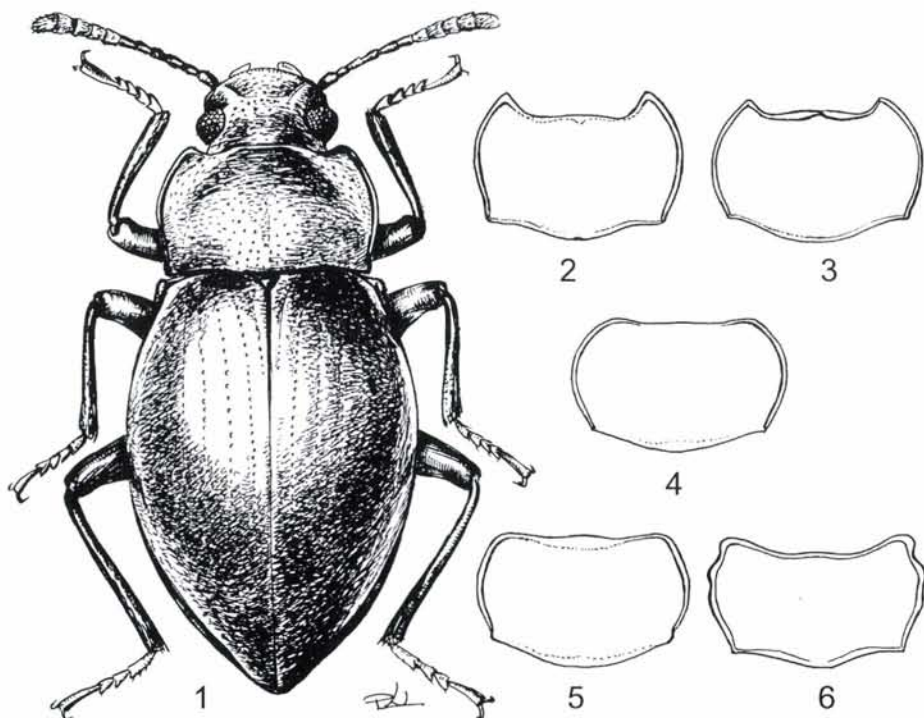
Description. – Length 8.5 mm. Surface black, smooth, subnitid. Mouthparts, antennae and tarsi ferrugineous, last segments of antennae somewhat darker; last 5 segments of antennae forming a club. Oval, little convex (recalling to some Palearctic Helopini of genus *Nalassus*, such as *N. dermestoides* (ILLIGER, 1798), when examined in lateral view). Head transverse, almost rectangular, clypeus very narrow (more than in most *Cyrtosoma*), flat, scarcely separated from the forehead by an extremely fine epistomal suture; anterior margin of clypeus separated from labium by pale ferrugineous, shining articular membrane. Interocular part of head slightly impressed, eyes very small, round, not protruding from lateral outline of head. Genae gently narrowed towards the eyes, postgenae well visible beyond the latter. Pronotum (Fig. 4) slightly convex, distinctly transverse, with perfectly rounded sides; apex scarcely wider than base, truncate, anterior angles rounded, base feebly arcuate towards elytra, almost truncate. Hind angles obtuse, scarcely pronounced. Base as wide as that of elytrae; a narrow margin is present only at sides. Upper surface of pronotum smooth. Elytra ovate, with sides gently rounded regularly from base to apex, widest a little beyond half of the length, then gradually narrowed toward apex. Convexity almost continuous from pronotum to elytral apex, very slight (comparable with that of *C. pillerii* MARCUZZI, 1991). Striae regular, continuous from base to apex, shallow, a little deeper toward sides; before the apex they tend to be confluent. Interstriae completely smooth, flat, feebly convex only towards the margin. Ventral surface nitid, smooth, but abdominal sternites showing a very minute punctation, visible with a par-

ticular incidence of light, more abundant on middle of sternites. Intercostal process of prosternum small, triangular, acute, slightly raised at the sides, abruptly truncate posteriorly. Meso- and metasternum reduced. Intercostal process of visible abdominal sternite wide, lanceolate, rounded at the tip. Legs rather short, especially if compared to *C. lherminieri* (see MARCUZZI & d'AGUILAR 1971: 93, fig. 17), tarsi broad (especially anterior tarsi), furnished on under surface with thick golden pad-like pubescence, what perhaps points to an arboricolous habit of the new species.

Distribution. Martinique.

Type material. Holotype (HNHM), labelled as follows: "MARTINIQUE, 2 km E. St. Esprit, May 17, 1985, C. W. & L. B. O'Brien".

Remarks. It differs from other *Cyrtosoma* species on account of the feebly convex body, somewhat resembling *C. pillerii* MARCUZZI, 1991, which also has very narrow clypeus, short legs, broad tarsi with evident golden pubescence. It can be distinguished from *pillerii* on account of ovate form of the body, small eyes, regularly rounded sides of pronotum with rounded anterior angles, obtuse hind angles, and smooth upper surface of pronotum. The new species can be inserted in the key to *Cyrtosoma* (MARCUIZZI 1991) between *trinitatis* MARCUZZI, 1976 and *lherminieri* CHEVROLAT, 1844.



Figs 1–6. Fig. 1. Habitus of *Cyrtosoma merkli* sp. n. – Figs 2–6. Pronotum of *Cyrtosoma* species: 2 = *C. merkli* sp. n., 3 = *C. hispaniolae* sp. n., 4 = *C. martiniquensis* sp. n., 5 = *C. grenadensis* sp. n., 6 = *C. arimensis* sp. n.

Cyrtosoma (s. str.) grenadensis sp. n.

(Fig. 5)

Description. Length 8 mm. Black, with labium, antennae and tarsi dark ferruginous. Surface shining, shape short, extremely convex (especially elytra). Elytra much wider than the pronotum, posteriorly acuminate. Head prominent, with a long distinct neck, strongly transverse, with truncate clypeus separated from forehead by a groove-like frontoclypeal suture. Labium prominent, shining; genae short, gently dilated towards the eyes, the latter slightly raised, large, ovoid, prominent relative to genae. Postgenae narrowed toward neck. Upper surface of head smooth, antennae with last 5 segments forming a distinct club. Pronotum (Fig. 5) transverse, somewhat flattened, with rounded sides, apex a little wider than basis. Anterior angles rounded, hind angles obtuse though a little prominent. Upper surface of pronotum smooth. Apex truncate, basis feebly arcuate toward elytrae. Elytral basis wider than that of pronotum, with no humeri. Elytra oval, widest exactly in the middle, with sides gently arcuate from base to apex, which is only a little prominent. Striae very distinct from base to apex, furnished with almost contiguous, minute punctation visible only in oblique view, what means it is not implanted in the middle of the striae (a rather rare if not unique case in *Cyrtosoma*). Punctation visible from above only at sides, where interstriae are convex. Interstriae smooth, shining, almost flat on the disc, becoming gradually convex toward sides. Elytra feebly convex transversely, almost flat on disc, strongly convex longitudinally. Ventral surface, including epipleura, smooth, shining. Intercostal process of prosternum small, short, lanceolate-pointed, abruptly truncate posteriorly. Meso- and metasternum very short, intercoxal process of visible abdominal sternite 1 wide, flattened, rounded anteriorly. Legs smooth, shining; tarsi covered on ventral surface with very long, thick, golden, pad-like pubescence, which refers perhaps to a climbing habit. Sex not studied.

Distribution. Grenada.

Type material. Holotype (HNHM), labelled as follows: "GRENADA, Grand Etang N.P. Beausejour View, Tr., 1970", IX-4-1991, C. W. & L.B. O'Brien".

Remarks. It differs from *C. kulzeri* MARCUZZI, 1976 on account of the lack of any aeneous lustre on elytra, distinctly rounded sides of pronotum (only slightly rounded in *kulzeri*), apex of pronotum wider than basis, and particularly presence of evident striae on the elytra. The pronotum with apex wider than basis is rather unusual in *Cyrtosoma* (in *C. pasticum* GEBIEN 1928, which is black, shining, convex and globose, with well incised elytrae striae, the pronotum is as wide at the apex as at the base). *C. grenadensis* sp. n. may be inserted in the key to *Cyrtosoma* (MARCUIZZI 1991) between couplet 49 and 50, near *kulzeri* MARCUZZI, 1976, but anterior angles of pronotum rounded (not obtuse), hind angles obtuse though a little prominent. It is geographically situated very far from the territory of *C. kulzeri* (South Brasil).

Cyrtosoma (s. str.) arimensis sp. n.

(Fig. 6)

Description. Length 9 mm. Black, mouthparts, basal segments of antennae and legs (with exception for anterior tibiae) reddish (recalling *C. pillerii* MARCUZZI, 1991 of Amazons). Shape elongate, surface shining. Head transverse, rectangular, frontoclypeal suture scarcely distinct, clypeus continuous with genae, and separated from labium by a distinct articular membrane. Labium short, furnished with some golden hairs. Genae scarcely dilated to reach eyes. Eyes large, rounded, well pronounced relative to genae. Postgenae short, neck scarcely visible. Upper (Fig. 6) surface with scattered irregular. Antennae short, ending in a distinct club. Pronotum distinctly transverse,

rectangular, with prominent anterior angles. Apex feebly sinuate, as wide as basis; sides with a small tooth little behind anterior angles, then gently but irregularly rounded toward hind angles and slightly sinuate before them. Basis slightly bisinuate. Hind angles rectangular but not prominent. Dorsal surface weakly convex longitudinally, a little more convex transversely, furnished with scattered, minute punctation. A narrow margin is present all around the pronotum. Elytra nearly as wide as that of pronotum at the basis, then dilated towards the sides, with no humeri, sides almost straight and parallel (as in *C. caicarae* MARCUZZI, 1986 or *C. maculipennis* GEBIEN, 1928), then gradually converging toward apex, which is not pointed. Elytra regularly convex, more than in *caicarae*, less so transversely, much more longitudinally, especially toward apex. Striae regular from base to apex, with no trace of punctation, more incised towards the sides. Interstriae smooth, shining, almost flattened on disc, a little more convex toward apex and especially toward sides, where they are almost rib-like. Ventral surface shining, smooth, with some very scattered and minute punctation on the first three visible abdominal sternites, visible only with a particular incidence of light. Punctures tend to form a kind of striolation (also visible only with a particular incidence of light). Last two visible sternites completely smooth. Legs normal, smooth and shining, glabrous. Tibiae a little bent. Ventral surface of tarsi covered with extremely thick, short, golden pubescence forming a sort of pad. Sex not studied.

Type material. Holotype (HNHM), labelled as follows: "TRINIDAD, N. Range, Arima-Blanch. Rd. mi 4, Simla, at night, V-8-1985, C. W. & L. B. O'Brien".

Remarks. This new species may be inserted in the key to *Cyrtosoma* (MARCUIZZI 1991) in the couplet 53, near *williamsi* MARCUZZI, 1991, from Panama. It can be distinguished from *williamsi* on account of the less convex form, large eyes, rectangular pronotum, presence of a small tooth just behind the anterior angles (in *williamsi* the tooth is situated in the middle of the sides), punctured pronotum, elytral interstriae much more flattened also on the disc. The pubescence of ventral surface of tarsi is golden, forming a sort of pad, whereas in *williamsi* the pubescence is blackish, brush-like as in most species of the genus. *C. williamsi* was found near the sea (Bocas Sam-Sam), while *arimensis* on mountains of the northern part of Trinidad (North Range).

Distribution. Trinidad.

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