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Two new species of *Charidotis* BOHEMAN from Ecuador and Brazil (Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Charidotis tuberculata* from Ecuador and *Charidotis diabolica* from Brazil, new to the science, are described.

Key words: entomology, taxonomy, new species, *Coleoptera*, *Chrysomelidae*, *Cassidinae*, *Charidotis*, Brazil, Ecuador.

Highly speciose and heterogenous genus *Charidotis* BOHEMAN, 1854 comprises 158 species distributed in whole Neotropical Region from Mexico to N Argentina. They were perfectly keyed by SPAETH (1936), only three species have been described later. In the material studied recently we found two new species. They are distinct, with no close relatives among the hitherto described species. Their descriptions are given below.

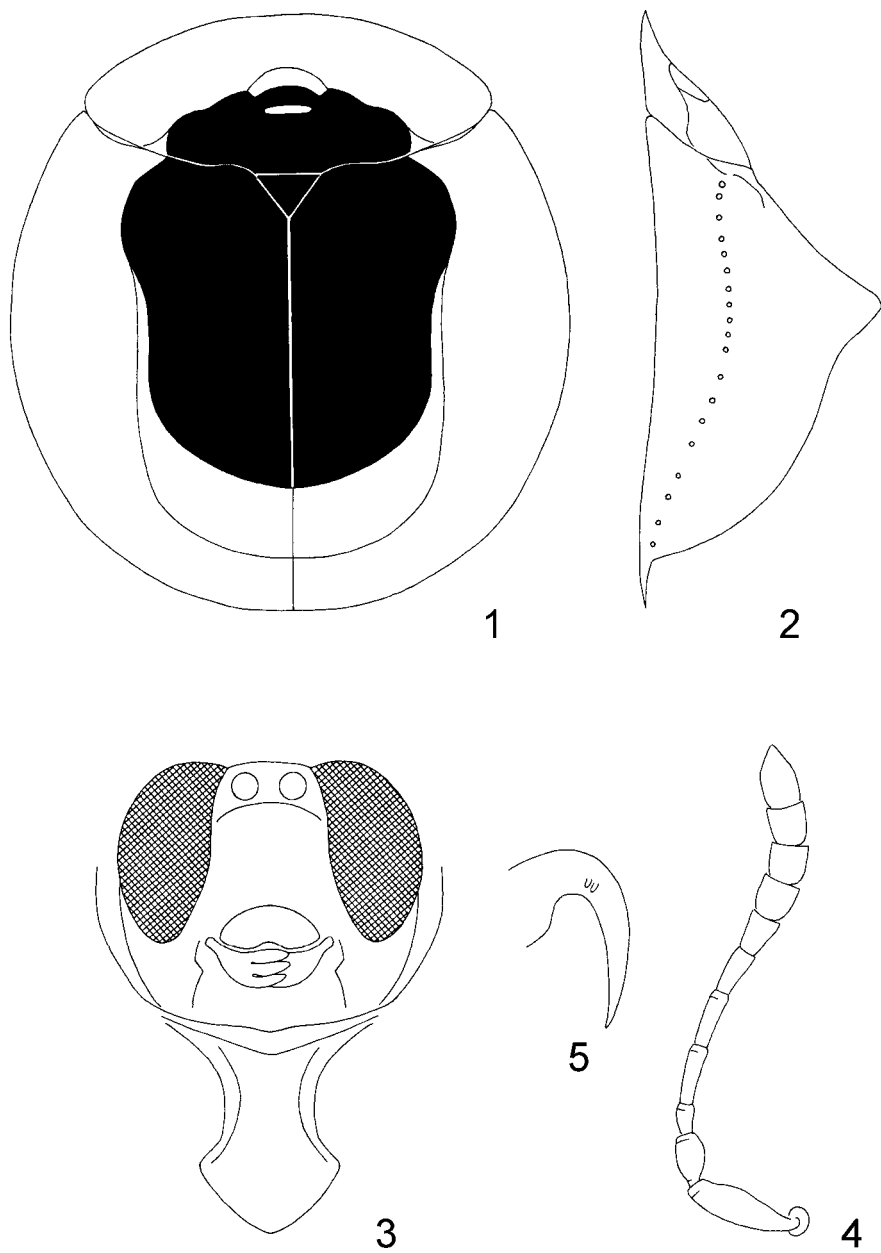
***Charidotis tuberculata* n. sp.**

ETYMOLOGY

The name alludes to a distinct postscutellar tubercle, a unique character within the genus *Charidotis*.

DIAGNOSIS

It is a unique species, the only member of the genus *Charidotis* with a distinct conical postscutellar tubercle. *Charidotis candens* (BOH.) has also tuberculate elytra but in this species the whole disc is conical, with profile behind the top of



1-5. *Charidotis tuberculata*: 1 - body in dorsal view, 2 - body in lateral view, 3 - head and prothorax, 4 - antenna, 5 - tarsal claw

tubercle straight, while in *C. tuberculata* only postscutellar area is tuberculate with profile behind the top of tubercle distinctly concave. Both species differ also in elytral colouration, *C. candens* has elytral disc uniformly yellow or with red pattern while in *C. tuberculata* disc is mostly dark brown. Species of *C. miniata* and *C. rubropicta* groups have also elytral disc unevenly convex but never with conical tubercle, at most with obtuse elevation in postscutellar area. Using SPAETH's key the new species runs to couple 157, to group of species characterized by clypeus without deep sulci (54), body outline not wider than long (58), surface of clypeus smooth and glabrous (74), antennae slim (78), clypeus wider than long (90), elytra with puncturation arranged in regular rows (96), clypeus yellow (118), explanate margin of elytra uniformly yellow (152), second interval not convex (156) and elytra distinctly tuberculate. The group comprises only *C. candens* (the name *C. sanguinolenta* (SWEDERUS) used in the key by SPAETH for the species is unavailable because it is a junior homonym). It differs from *C. tuberculata* in characters given above.

DESCRIPTION

Length: 7.3 mm, width: 6.9 mm, length of pronotum: 2.5 mm, width of pronotum: 4.9 mm, length/width ratio: 1.06, width/length ratio of pronotum: 1.96. Body almost circular in outline (fig. 1).

Pronotal disc mostly dark brown to brown, the brown spot with margins gradually paler outwards. Explanate margin yellow. Scutellum dark brown. Elytral disc mostly dark brown, only slope yellow, borders of the brown spot gradually paler outwards. Punctures of submarginal row dark marked, punctures of marginal row in posterior half of the row with small brown plate on upper margin. Explanate margin of elytra uniformly yellow. Clypeus, ventrites and legs uniformly yellow. Antennae mostly yellow, upperside of last three segments brownish-black, also upperside of segment 8 partly infusate.

Pronotum elliptical, with maximum width before middle, sides narrowly rounded. Disc moderately convex, indistinctly bordered from margin, its surface mostly smooth and glabrous, sides of disc with several, mixed moderately coarse and fine punctures. Explanate margin broad, almost horizontal, its surface smooth and glabrous, impunctate, transparent.

Scutellum triangular, without punctures or sulci. Base of elytra as wide as pronotum, humeri moderately protruding anterad, angulate. Disc convex, with large, conical postscutellar tubercle, profile behind top of tubercle distinctly concave (fig. 2). Puncturation of disc regular, mostly fine, only punctures on sides of disc below tubercle slightly coarser. Punctures of marginal row distinctly coarser than those on sides of disc, in posterior half of marginal row each puncture on upper margin with small plate and on anterior margin with short seta. Intervals flat, on sides twice, in sutural half of disc up to five times wider than rows. Surface of intervals smooth and glabrous. Explanate margin very broad, in the widest part as wide as 3/4 width of elytron, almost horizontal, its surface smooth and glabrous. Apex of elytral epipleura with sparse, erect hairs.

Head broad, eyes large, gena very short. Clypeus c. 1.3 times wider than long, flat, smooth and glabrous, without distinct sulci. Labrum shallowly emarginate. Prosternal process moderately expanded apically, with a few shallow punctures (fig. 3). Claws large, micropecten hardly visible (fig. 5). Antennae slim, length ratio of antennal segments: 100:45:27:55:52:43:36:36:36:84 (fig. 4). Six basal segments glabrous and sparsely pubescent, segment 7 intermediate, segments 8-11 dull and densely pubescent.

TYPE

Holotype: "ECUADOR: Esmeraldas, Bilsa Biological Station 500 m, 0.20.24N 79.42.36W, 10 May-4 Jun 1996, P. HIBBS, ECU2H96 001A; ex: Malaise trap" "stripe code SMO170913 KUNHM-ENT" (preserved at the Snow Entomological Museum, Kansas University, Lawrence, Kansas).

Charidotis diabolica n. sp.

ETYMOLOGY

The name alludes to the black dorsal side.

DIAGNOSIS

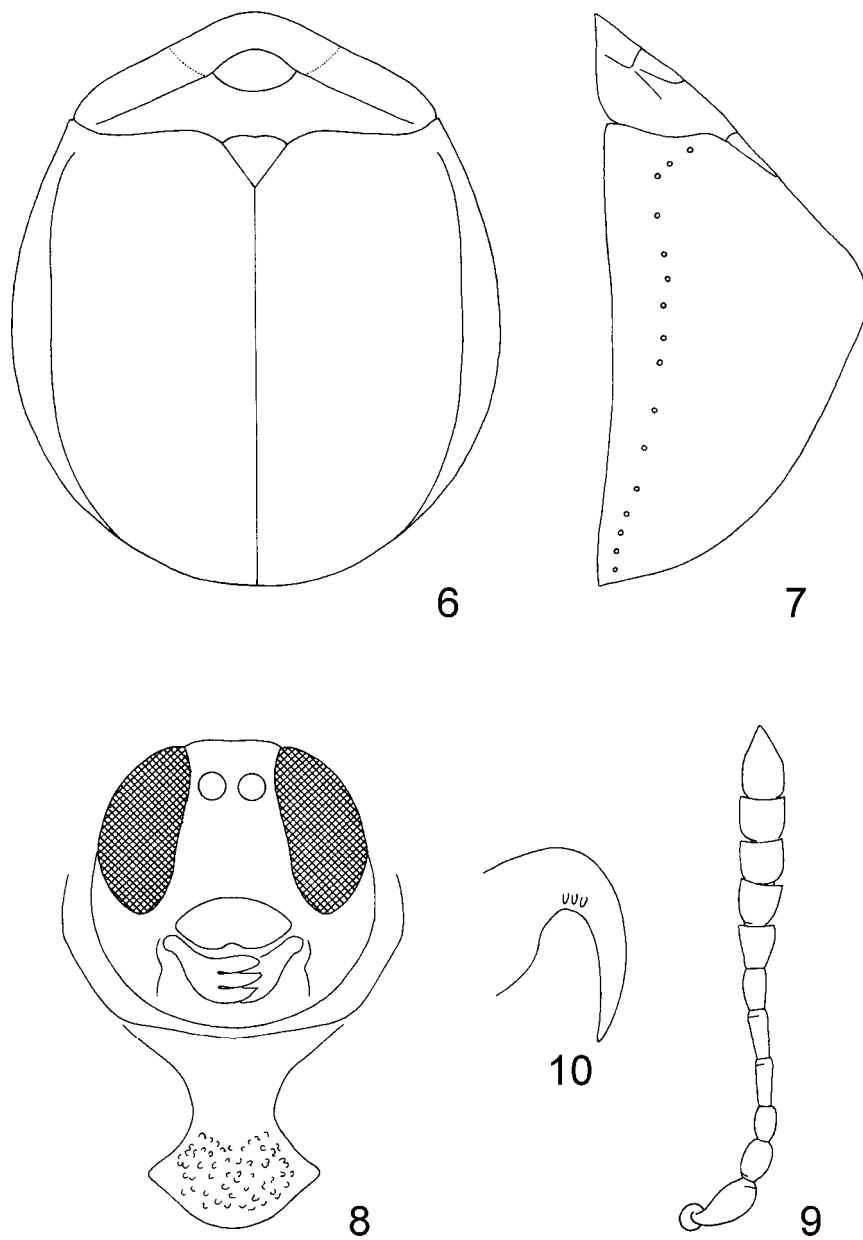
It is a unique species, the only one within the genus *Charidotis* with uniformly dull black elytra and mostly dull black pronotum. Several species have elytra mostly or uniformly black, especially those of *C. furva* group, but they have elytral surface glabrous, if dull than at least explanate margin partly yellow. No species has puncturation of elytra as fine as *C. diabolica*. Using SPAETH's key the new species runs to couple 59 to the group of species characterized by clypeus without deep sulci (54), body outline not wider than long (58), and surface of clypeus black, dull and punctate. The group comprises eight species, all differ in at least partly yellow elytra or glabrous dorsum, only *C. bimarginata* BOH. has dull dorsum but differs in pronotum and elytra mostly yellow with black pattern.

DESCRIPTION

Length: 5.5 mm, width: 4.5 mm, length of pronotum: 2.00 mm, width of pronotum: 3.55 mm, length/width ratio: 1.22, width/length ratio of pronotum: 1.78. Body almost circular in outline (fig. 6).

Pronotum mostly dull black, only area above head and extreme margin transparent yellow. Scutellum and elytra, including margins, dull black. Clypeus dull black. Pro- and mesosternum black. Metasternum, abdomen and legs reddish, only coxae partly infusate. Antennae reddish, dorsal part of segment 9 partly, and segments 10 and 11 completely infusate.

Pronotum elliptical, with maximum width slightly before middle, sides rounded. Disc feebly convex, indistinctly bordered from explanate margin, its



6-10. *Charidotis diabolica*: 6 - body in dorsal view, 7 - body in lateral view, 8 - head and prosternum, 9 - antenna, 10 - tarsal claw

surface dull, with fine and sparse puncturation, especially on sides. Explanate margin broad, its surface on black parts dull with fine and sparse puncturation, on yellow parts smooth and glabrous.

Scutellum subpentagonal, its surface dull, impunctate, without grooves. Base of elytra as wide as pronotum, humeri moderately protruding anterad, angulate. Disc strongly convex, gibbous, with top of convexity in postscutellar point (fig. 7). Puncturation of disc very fine, looks like pricks, mostly regular but very sparse, with distance between punctures many times wider than puncture diameter, thus puncturation on sides appears slightly confused. Marginal row distinct, with punctures many times coarser than those on disc. Intervals flat, from four to six times wider than rows, their surface dull. Explanate margin narrow, c. as wide as marginal interval, strongly declivous, its surface dull, impunctate.

Head moderately broad, eyes large, gena very short. Clypeus narrow, c. 1.2 times wider than long, its surface dull with several coarse punctures. Labrum very shallowly emarginate. Prosternal process moderately expanded apically, impressed in middle, its surface with irregular wrinkles, apical margin with row of coarse punctures (fig. 8). Claws large, micropecten hardly visible (fig. 10). Antennae stout, length ratio of antennal segments: 100:66:58:83:83:67:68:67:66:66:125 (fig. 9). Six basal segments glabrous and sparsely pubescent, segment 7 intermediate, segments 8-11 dull and densely pubescent.

TYPE

Holotype: "BRAZIL, Santa Catarina, Nova Teutonia nr. Concordia, 27.11S 52.23W, 14 X 1889, F. NEUMANN" (preserved at the Department of Systematic Zoology and Zoogeography, Wrocław University, Wrocław, Poland).

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