NEW SPECIES OF CHILOCORINI (COLEOPTERA: COCCINELLIDAE)*

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In the course of a study of the genera of this tribe a few undescribed species were found and are herein named. It was found desirable to elevate Zagreus Mulsant from subgeneric to generic rank because of certain structural differences that exist between that group and Exochomus Redtenbacher. It seems likely that Zagreus, with eight-segmented antennae, has replaced Exochomus, whose antennae are ten-segmented, in the New World south of Panamá.

Zagreus costalimai n. sp. (Fig. 2)

Length: 3.2-3.5 mm. Similar to Z. jordani (Mulsant) (Fig. 1) but slightly larger and with two additional subapical sutural spots common to the two elytra. Head pale yellow (male) or piceous black (female), finely and sparsely punctulate, sparsely set with fine short pubescence, the surface between the punctures alutaceous. Pronotum yellowish with a large blackish spot which extends over five-sixths of the basal margin and which fails narrowly to reach the anterior margin. The surface sculpture similar to that of the head but without pubescence. Scutellum small, triangular, black. Elytra vellowish with three common sutural spots and each with two others; the first and largest of the sutural spots lies in the basal half of the conjoined elytra, is almost quadrate and in length along suture is two-sevenths of the total length of the beetle. It is flanked on either side by large subtriangular spots, each slightly smaller than the sutural spot. In the apical half of the elytra there are the second and third sutural spots, each smaller than the preceding. On either side of the second sutural spot is an almost oval spot which is about two-thirds as large as the sutural spot. Both lateral spots are separated from the lateral margin by a distance equal to the separation between the lateral and sutural spots. The apical sutural spot is about half as long and half as broad as the second sutural. Under parts pale vellow, except for the blackish metasternum and first and second abdominal sternites. Metacoxal arcs complete. epipleura not foveolate. Legs pale except that the femora (posterior in male, all in female) are partially dark.

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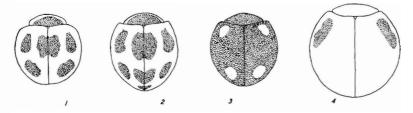
Type: a male, U. S. N. M. No. 67801, from Brazil, Rio de Janeiro Province, Campo Grande, July 31, 1957, P. A. Berry. Two female paratypes with same data as type.

I name this species in honor of the late Dr. A. da Costa Lima, in recognition of his many contributions to our knowledge of South American entomology.

Zagreus tetraspilus n. sp.

(Fig. 3)

Length: 3.0-3.2 mm., superficially resembling Exochomus bisbinotatus Gorham but larger, black with bluish reflections and with all spots smaller and the basal spots smaller than the apical spots. Head pale yellow (male) or black except for the clypeal margin and genal extensions which are brown (female), surface finely alutaceous and very finely and rather sparsely punctulate, pronotum twice as wide



Figures 1-4.

1. Zagreus jordani (Mulsant). 2. Zagreus costalimai n.sp.
3. Zagreus tetraspilus n.sp. 4. Phaenochilus renipunctus n.sp.

as length on median line, black except for the very narrow brown anterior and lateral margins, surface as described for head but with stronger and slightly denser punctulation. Scutellum black, polished. Elytra black with two yellow spots on each. The one on humeral callus is oval and reaches from the basal margin backward and outward a distance equal to the length of the pronotum at the point adjacent to the spot. The apical spot is more nearly circular, is slightly larger than the basal spot and fails to reach either lateral or sutural margins. Surface as described for head but with much stronger punctation. Inner half of epipleura yellow. Thoracic sternites and most of the first two abdominal sternites of female piceous black, rest of abdomen and legs brownish-yellow, the legs slightly darker; sternites of pro- and mesothorax and side pieces of metathorax, sides of first two abdominal sternites and rest of abdomen and legs brownish yellow in male.

Type: a male, U. S. N. M. No. 67802, from Colombia, Int.

Chocó, Istmina, Aug. 21, 1940. L. M. Murillo No. 5335. Two female paratypes from type locality, same data as type.

Exochomus bisbinotatus Gorh. from Mexico to Guatemala is a smaller species (2 mm.) with proportionately larger spots and with the lateral margins of the elytra yellow.

Exchomus bisbinotatus Gorham is not known to me in nature but only from the original description and figure in the Biologia Centrali-Americana. Therefore I am not sure that the species does belong to Exochomus. However I have not yet seen a species of Zagreus from a mainland locality north of Panamá. Since E. bisbinotatus is recorded from Mexico, British Honduras, and Guatemala it is probably not a Zagreus. The most northerly species of Zagreus is Z. ritchiei (Sicard) from the island of Jamaica. Exochomus jamaicensis Sicard, also from Jamaica, is correctly placed as to genus.

Curinus colombianus n. sp.

Length: 4.3-4.8 mm. Similar in dorsal coloration to C. coeruleus Mulsant but with the under parts and legs entirely pale reddish yellow. Head steel-blue above, piceous beneath and around mouthparts, surface finely alutaceous, finely, moderately, and evenly punctulate. Pronotum slightly more than twice as wide as length on median line (male) or twice as wide as long (female), median third steelblue with lateral thirds reddish-yellow. Surface sculpture same as that of head except that the sides become more densely punctulate toward lateral margins. Scutellum small, black and polished. Elytra uniformly steel-blue above, the epipleura piceous. Surface sculpture same as that of median area of pronotum except toward apices where the punctulation becomes so minute as to be almost invisible under high magnification. Under parts pale reddish-yellow, shining and very sparsely punctulate, the punctures slightly coarser toward sides and apex of abdomen. Metacoxal arcs as in C. coeruleus Muls. Fifth sternite of male broadly and shallowly emarginate, the sixth with a V-shaped notch at apex; that of female evenly rounded at apex.

Type: a male, U. S. N. M. No. 67803, from Colombia, Dept. Valle del Cauca, Palmira, taken May 18, 1939, by L. M. Murillo (5020). Paratypes (54) from type locality: same data as type (22); Oct. 29, 1943, F. R. Fosberg (25); April 1942, B. Losada (1); April 1943, B. losada (3); August 1943, B. Losada (1); Feb. 1944. B. Losada (2).

Other specimens seen: Colombia. Valle del Cauca. Cali, 1939, B. Losada; Cauca Valley, 1937, F. L. Gallego; Buga, Feb. 3-7, 1941, Murillo (14, 32, 5409). Antioquia. Valle Medellín, May-

Nov., 1943, 1944, 1945, Gallego; Venecia, July 1942, 1943, Gallego; Segovia, Sept. 1944. Gallego; El Picacho, May 1942, Gallego; Sopetrán, July 1943, Gallego. *Cundinamarca*. Gachetá, Aug. 27, 1941, Murillo (5220). *Boyacá*. Guayatá, Oct. 18, 1940, Murillo (5297). *Santander*. San Vicenti de Chucurí, June 8, 1935, Murillo (83).

While Curinus coeruleus Mulsant does occur in Colombia, it seems to be quite rare and it is generally replaced by C. colombianus, which has a wide distribution in the country. Large specimens of C. colombianus can be immediately distinguished from small specimens of C. coeruleus by the uniform reddish-yellow color of the underside. In addition to the Colombian material listed above, one specimen believed to have come from Costa Rica, and one specimen from British Honduras, Belize, Sept. 1959, N. L. H. Krauss have been seen.

Phaenochilus renipunctus n. sp. (Fig. 4)

Length: 3.7 mm. Upper surface pale yellowish-brown, each elytron with a piceous black, oblique, reniform spot just behind the humeral callus. Under surface and legs pale vellowish brown except for the metasternum which is somewhat darker. Front of head slightly concave between the large eyes, finely and sparsely punctulate near eyes, impunctate medially. Pronotum polished, very finely and shallowly punctulate, basal angles obsolete, lateral margins near obtuse frontal angles finely reflexed. Scutellum very small, triangular. Elytra with lateral margins broadly reflexed, surface polished, finely, shallowly and sparsely punctulate, the punctures near sutural and lateral margins deeper and more evident than those on disc. The reniform spot is two and a half times longer than its width at midpoint; it commences two-thirds its least width behind the basal margin and extends backward and outward toward but not reaching the reflexed portion of the elytron. Elytral epipleura shallowly but distinctly foveolate for reception of femoral apices of second and third legs. Abdomen with five visible sternites (female), metacoxal arcs strong, running backward and outward nearly to margin of sternite, then following sternite margin toward lateral margin of abdomen. Fifth sternite (female) evenly rounded. Tibiae each with a sinuate denticle much as in Chilocorus. Tarsal claw with elongate. triangular basal tooth which is two-thirds as long as the apical half of claw.

Type: a female, M. C. Z. No. 31143, from Morotai I., Indonesia, Sept., 1944, P. J. Darlington.