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**NEW SPECIES OF *CYCLOCEPHALA* FROM HONDURAS AND EL SALVADOR
(COLEOPTERA: SCARABAEIDAE: DYNASTINAE: CYCLOCEPHALINI)**

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Abstract

Two **new species** of *Cyclocephala* from Central America are described and diagnosed: *C. abrelata* Ratcliffe and Cave from northern Honduras and *C. melolonthida* Ratcliffe and Cave from southern El Salvador.

Resúmen

Se describen y diagnostican dos **especies nuevas** de *Cyclocephala* en América Central: *C. abrelata* Ratcliffe y Cave del norte de Honduras, y *C. melolonthida* Ratcliffe y Cave del sur de El Salvador.

Regional projects that intensely inventory the insect fauna of selected ecosystems often discover species that enhance our knowledge of the breadth of a fauna as well as spacial and temporal distributions. Such is the nature of our biotic survey of the Dynastinae of Honduras, Nicaragua, and El Salvador. Local collectors who are continually “on-site” may often find undescribed species that are highly localized in both space and time. Such “ephemeral” species may be missed by visiting researchers who are able to make only brief trips to an area. This appears to be the case for two species of *Cyclocephala* that we describe herein.

The genus *Cyclocephala* Dejean 1821 contains approximately 300 species, but we know there are more yet to be discovered and described. Specimens of one of the species we describe here were collected by an avid insect collector, Mr. Victor Hellebuyck, who was former director of the Museo de Historia Natural de El Salvador. He deposited many insect specimens from his country in that museum’s collection before having to depart his homeland due to political strife in the 1980s. Specimens of the second species were collected by a parataxonomist who lives in an isolated area in northern Honduras. He is employed to collect specimens as part of a project to inventory the insects of Pico Bonito National Park.

Cyclocephala melolonthida Ratcliffe and Cave, **new species**

Figs. 1–2, 5–6, 8

Type Material. Holotype labeled “EL SALVADOR, Dpto. La Paz, Costa del Sol, XI-28–1976, V. Hellebuyck.” Allotype and 9 male and 8 female paratypes with same data.

Holotype, allotype, and two paratypes deposited at the University of Nebraska State Museum (UNSM). Remaining paratypes placed in the collections of the Museo de Historia Natural de El Salvador (MHNE) (San Salvador), Escuela Agrícola Panamericana (EAPZ) (Zamorano, Honduras), U. S. National Museum (USNM) (Washington, D.C., currently at University of Nebraska), Leonardo Delgado collection (Xalapa, Mexico), Ronald D. Cave collection (RDCC) (Bakersfield, CA), and Brett C. Ratcliffe collection (BCRC) (Lincoln, NE).

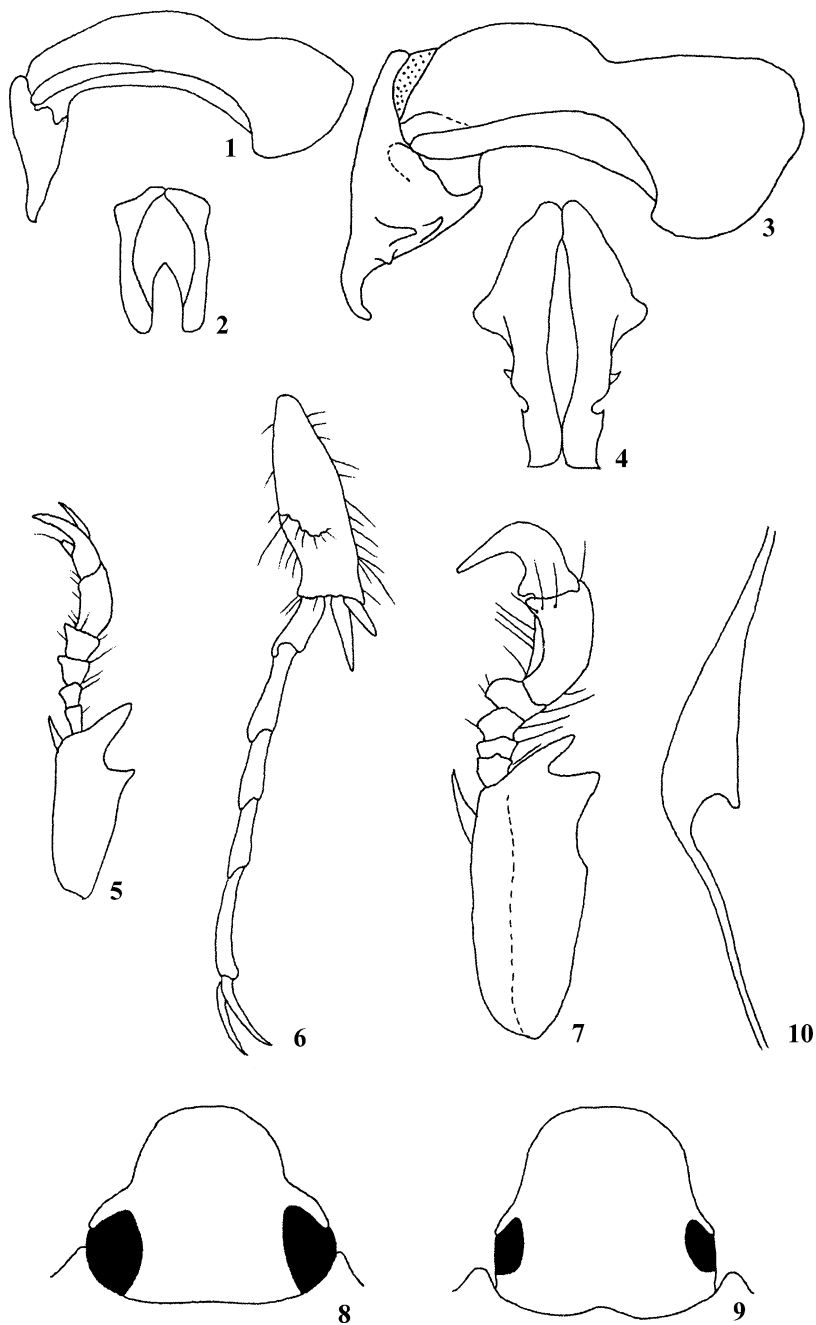
Holotype. Male. Length 10.2 mm; width 4.6 mm. Color completely testaceous. *Head:* Surface punctate, punctures moderate in density and size. Frontoclypeal suture weakly impressed. Clypeus (Fig. 8) with apex parabolic, with marginal bead, weakly reflexed; surface with punctures slightly denser than on frons, vaguely rugopunctate, setigerous; setae short, tawny, moderate in density. Interocular width equals 2.0 transverse eye diameters. Antenna with 10 segments, club subequal in length to segments 2–7. *Pronotum:* Surface finely alutaceous, moderately densely punctate; punctures moderately large, setigerous in anterior angles and on sides; setae short, tawny, sparse. Base with complete marginal bead. *Elytra:* Surface finely alutaceous, punctate; punctures moderately large, shallow, most in discrete lines, some with setae (mostly on posterior half of elytra); setae short, tawny, sparse. *Pygidium:* Surface finely scabrous, setigerous; setae long, tawny, moderate in density. In lateral view, surface regularly convex. *Legs:* Foretibia (Fig. 5) tridentate, basal tooth reduced to an angulation, basal tooth slightly closer to middle tooth than middle tooth is to apical tooth. Foretarsus (Fig. 5) weakly enlarged: tarsomeres 2–4 each slightly larger than preceding and with small, ventral tooth at apex; 5th weakly curved, about 5 times longer than 4th, ventral lobe or teeth absent; median claw enlarged (about twice thickness of lateral claw), apex finely cleft, base with large, rounded lobe. Posterior tarsus (Fig. 6) twice as long as posterior tibia. Posterior tibia short, stout. Claws on meso- and metatarsi long, slender, about 3/4 length of tarsomere 5. *Venter:* Prosternal process very short, narrowly conical, with long, dense setae. *Parameres:* Figs. 1–2.

Allotype. Female. Length 8.3 mm; width 4.0 mm. As holotype except in the following respects: *Head:* Clypeus a little shorter, apex semicircular. *Pygidium:* In lateral view, surface nearly flat. *Legs:* Foretibia with basal tooth distinctly closer to middle tooth than middle tooth is to apical tooth; apical 2 teeth longer, more slender. Foretarsus simple, not enlarged. Posterior tarsus only a little longer than posterior tibia. Claws of meso- and metatarsi slightly shorter than those in male.

Variation. Males (9 paratypes). Length 7.9–9.4 mm; width 3.5–5.0 mm. The male paratypes do not differ significantly from the holotype.

Females (8 paratypes). Length 7.7–9.1 mm; width 3.5–5.0 mm. The female paratypes do not differ appreciably from the allotype except that the setae on the pygidium are abraded away in two specimens.

Diagnosis. *Cyclocephala melolonthida* appears superficially melolonthine-like because of its slender legs and long tarsomeres (Figs. 5–6) combined with an elongate body form. This species is recognized by the presence of a mar-



Figs. 1–2. Parameres of *C. melolonthida* Ratcliffe and Cave, n. sp. **Figs. 3–4.** Parameres of *C. abrelata* Ratcliffe and Cave, n. sp. **Figs. 5–6.** Right foreleg (dorsal view)

ginal line at the base of the pronotum, small antennal club, parabolic to semi-circular clypeus, presence of dorsal setae (especially on the clypeus, anterior angles of the pronotum, elytra, and pygidium), slender and elongate claws of the meso- and metatarsi, small prosternal process, lack of any dorsal pattern, simple epipleuron in the female, and form of the parameres in the male.

In Endrödi's (1985) key to *Cyclocephala* species, *C. melolonthida* will go only so far as either couplets 143 or 151, depending on how you characterize the elytral setae (absent or sparse versus abundantly present).

Remarks. The habitat where *C. melolonthida* was collected is a mixture of sandy beaches dominated by sea grape (*Coccoloba uvifera* (L.) Jacquin; Polygonaceae) and coconuts and small estuaries bordered by mangroves. The specimens were collected at the end of the rainy season.

Etymology. The body form and long, slender legs of this species are similar to those of many Melolonthinae, hence the specific epithet *melolonthida*.

Cyclocephala abrelata Ratcliffe and Cave, **new species**

Figs. 3–4, 7, 9–10

Type Material. Holotype labeled "HONDURAS: Yoro, Parq Nac Pico Bonito, El Portillo 640 m, N15°26'27" W87°08'09", 24 April 2001, R. Reyes, 62.755 EAPZ." Allotype labeled same as holotype except 62.750 EAPZ. Seven paratypes (5 males, 2 females) with following data: as holotype except 62.763 EAPZ, 62.753 EAPZ, 62.748 EAPZ, 62.749 EAPZ, 62.754 EAPZ, 62.751 EAPZ, 62.752 EAPZ, respectively; as holotype except 25 April 2001, 62.762 EAPZ (1 male). Holotype and allotype deposited at the University of Nebraska State Museum (UNSM). Paratypes placed at the University of Nebraska State Museum (UNSM) (Lincoln, NE), U. S. National Museum (USNM) (Washington, D.C., currently at the University of Nebraska), Escuela Agrícola Panamericana (EAPZ) (Zamorano, Honduras), Ronald D. Cave collection (RDCC) (Bakersfield, CA), and Brett C. Ratcliffe collection (BCRC) (Lincoln, NE).

Holotype. Male. Length 16.0 mm; width 7.4 mm. Color dark reddish brown with frons, anterior margin of pronotum behind head, humeri and elytra adjacent to scutellum black. *Head:* Frons with surface moderately punctate, punctures small. Clypeus (Fig. 9) with apex truncate, margined, narrowly reflexed; surface densely punctate, punctures small, surface becoming finely rugose at apex. Frontoclypeal suture finely impressed. Interocular width equals 4.5 transverse eye diameters. Antenna with 10 segments, club subequal in length to segments 2–7. *Pronotum:* Surface sparsely punctate on disc, punctures small; punctures becoming slightly larger and denser on sides. Base with marginal line. *Elytra:* Surface finely alutaceous, moderately punctate; punctures shallow, subequal in size to those on frons and pronotal disc, double rows weak. Lateral and apical margins with short, tawny setae. *Pygidium:* Surface scabrous, setigerous; setae long, dense, testaceous. In lateral view, surface regularly convex.

←

and right rear leg (ventral view), respectively, of *C. melolonthida* Ratcliffe and Cave, n. sp. **Fig. 7.** Right foreleg (dorsal view) of *C. abrelata* Ratcliffe and Cave, n. sp. **Figs. 8–9.** Shape of clypeus of *C. melolonthida* Ratcliffe and Cave, n. sp. and *C. abrelata* Ratcliffe and Cave, n. sp. **Fig. 10.** Expanded right epipleuron (ventral view) of allotype of *C. abrelata* Ratcliffe and Cave, n. sp.

Legs: Foretibia (Fig. 7) tridentate, basal tooth small, strongly removed from other teeth. Foretarsus (Fig. 7) enlarged: tarsomeres 2–4 each slightly larger than preceding and with large, ventral lobe; tarsomere 5 weakly curved, ventral lobe or teeth absent; median claw enlarged (about 4 times thickness of lateral claw), apex finely cleft, base with large, rounded lobe. Posterior tarsus slightly longer than posterior tibia. Meso- and metatibiae with numerous, long, stout setae. *Venter*: Prosternal process long, columnar, apex flattened into nearly round disc with anterior half elevated into a raised “button”. *Parameres*: Figs. 3–4.

Allotype. Female. Length 15.9 mm; width 7.8 mm. As holotype except in the following respects. *Head*: Color entirely black. *Pronotum*: Color piceous. *Elytra*: Center of elytron opposite expansion of lateral margin with oblique, black band extending posteriorly to suture. Epipleuron strongly, abruptly expanded at level of sternites 1–2, inner margin of expansion with strong tooth (Fig. 10). *Pygidium*: Surface punctate; punctures moderate in density, shallow, a few with small setae near base. In lateral view, surface nearly flat. *Legs*: Color darker, almost black. Foretibia distinctly tridentate. Foretarsus simple, not enlarged.

Variation. Males (6 paratypes). Length 15.7–17.7 mm; width 7.4–8.4 mm. Scutellum piceous in 5 specimens. Elytra with oblique black band broken in two or reduced to a spot in 4 specimens.

Females (2 paratypes). Length 15.4–16.7 mm; width 7.8–8.4 mm. Elytra darkly obscured, medial oblique band on elytra reaching lateral margins.

Diagnosis. This species has a robust body form similar to that of *C. amazona* (L.) or *C. multiplex* Casey. It can be distinguished by the truncate clypeal apex, short antennal club, presence of a marginal bead on the base of the pronotum, pattern of elytral markings, tridentate foretibia (with the basal tooth removed from the other teeth), strongly expanded epipleuron in the female, and form of the parameres in the male. The parameres are unusually distinctive with two teeth and a semicircular emargination on each side (Figs. 3–4).

In Endrödi’s (1985) key, *C. abrelata* will go only so far as couplet 155 where the character states no longer match.

Remarks. The habitat where *C. abrelata* was taken is a mid-elevation, mixed broadleaf tropical forest, including oaks and liquidambar, with scattered pines. The area receives rainfall year-round, and so does not suffer a severe dry season as does the more interior parts of Honduras. The specimens were collected by a parataxonomist (Reynaldo Reyes), possibly on the flowers of aroids or palms but not at lights.

Etymology. This species is named after the Spanish word, *abrelatas*, meaning can opener, here used in loose reference to the form of the male parameres, which resemble a can opener.

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