

A NEW SPECIES AND NEW RECORDS FROM COLOMBIA OF THE
WATER BEETLE GENUS *ONYCHELMIS* HINTON
(COLEOPTERA: ELMIDAE: ELMINAE)

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Abstract.—The new species described, *Onychelmis whiteheadi*, and the additional distribution given for *O. longicollis* (Sharp) are the first reports of the genus from Colombia. *Onychelmis whiteheadi*, n. sp., is similar to and compared to *O. longicollis* known previously only from Panamá. The distinctive aedeagi of both species are illustrated and brief notes on the habitat of *O. whiteheadi* are included.

Key Words: Elmidae, *Onychelmis whiteheadi*, new species, water beetle, Colombia

The genus *Onychelmis* was erected by Hinton (1941) for the distinctive, tiny, Panamanian species *Elmis longicollis* described by Sharp (1882). A second species, *O. leleupi* from the Andes of Ecuador, was added to the genus by Delève in 1968. In March 1984, a new species of *Onychelmis* was collected with other macroinvertebrates from streams in Colombia by Maria T. Szauer of Bogotá who sent them to us for identification. The two male specimens of the new species were held with the hope that additional specimens could be obtained. Unfortunately, no additional specimens have been obtained and the species is described below based on the two males. In addition, the Panamanian *O. longicollis* is reported for the first time from Colombia.

***Onychelmis whiteheadi*, NEW SPECIES**

Figs. 1, 2

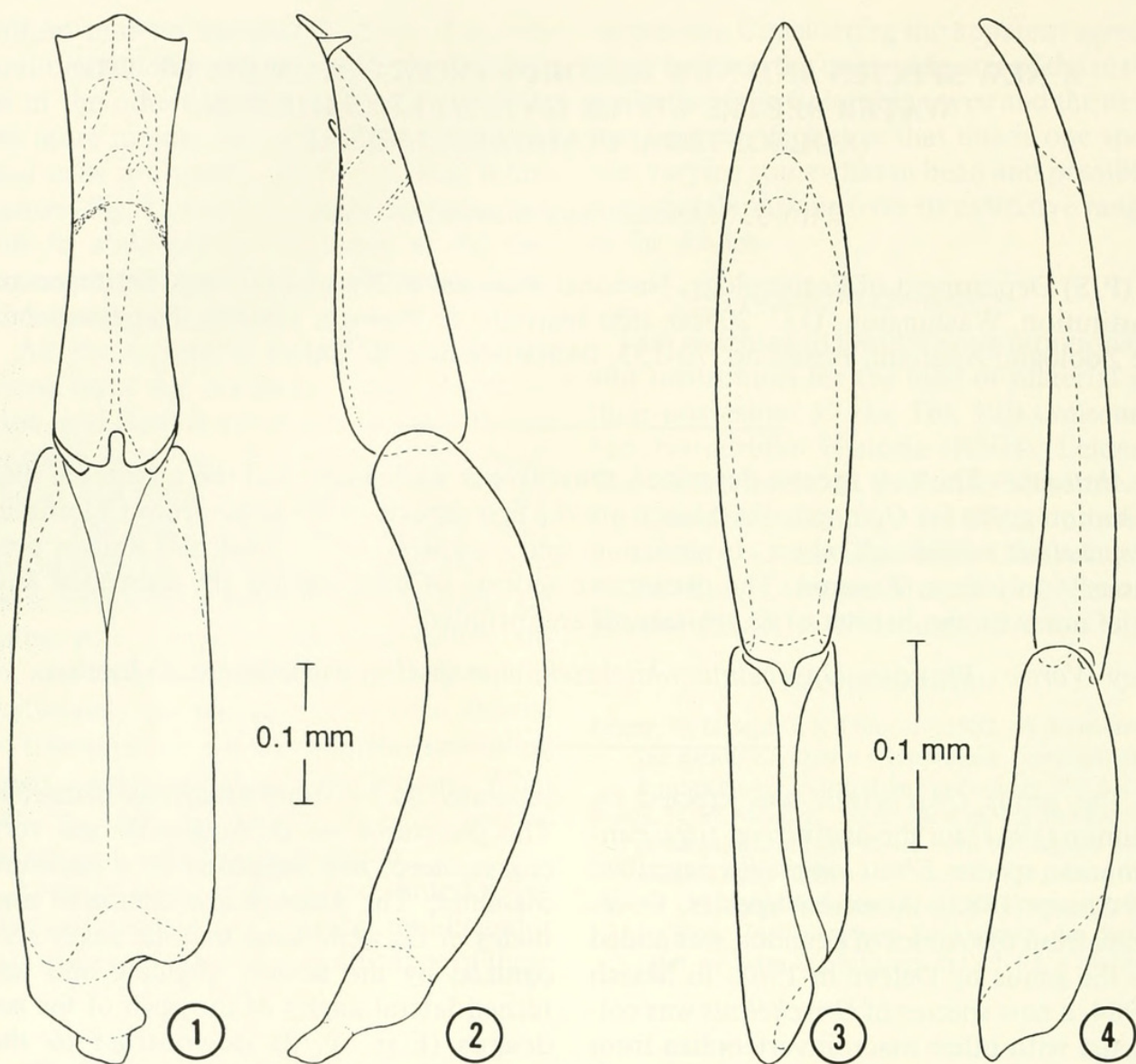
Diagnosis.—This new species is similar to *O. longicollis* Sharp but may be distinguished by the difference in the size of the punctures in the elytral rows. The punctures on *O. whiteheadi* are small, shallow, and

separated by 2–4 times a puncture diameter. The punctures on *O. longicollis* are very coarse, deep, and separated by a puncture diameter. The aedeagi are definitive and males of *O. whiteheadi* may be easily recognized by the acutely angulate and upturned lateral angles of the apex of the aedeagus (Figs. 1, 2) in contrast to the lanceolate aedeagus of *O. longicollis* (Figs. 3, 4). The comparison of the aedeagus of *O. whiteheadi* with the published illustration of the aedeagus of the only other known species in the genus, *O. leleupi* Delève (1968: figs. 9, 10), shows that they are not conspecific.

Holotype male.—*Form and size:* Obovate and moderately convex. Length, 1.82 mm; greatest body width, 0.86 mm. Pronotum narrow, only slightly wider than half the greatest body width.

Plastron: Plastron covers integument of: genae; epipleura; sides of prosternum, mesosternum, metasternum, and abdominal sterna; and diagonal area across bases of femora on medial and lateral surfaces.

Color: Head, pronotum, and elytra black;



Figs. 1, 2. *Onychelmis whiteheadi*, new species, genitalia, male: 1, ventral view; 2, lateral view.
 Figs. 3, 4. *Onychelmis longicollis* Sharp, male: 3, ventral view; 4, lateral view.

cuticle shiny. Venter, including mouthparts, black or black with reddish tinge except antennae and legs mostly reddish brown; apices of femora black with reddish tinge.

Head: Partly retracted into pronotum. Surface finely, densely punctate in front of antennae, punctures separated by puncture diameter; coarsely and densely punctate behind antennae, punctures separated by 2 times puncture diameter. Maxillary palpus, 4 segmented. Labial palpus, 3 segmented; apical segment widest at apical third, slightly wider than width of segment 2. Antenna, 11 segmented; apical segment longest; seg-

ment 2 swollen and next longest. Labrum finely microreticulate laterally, shiny medially; anterior margin very slightly emarginate medially; anterolateral angles broadly arcuate, with short, recumbent, golden hair-like setae. Mentum sparsely punctate. Submentum finely densely punctate.

Thorax: Pronotum with sides subparallel, bisinuate, and smooth; base bisinuate, strongly and broadly so at sides of and very feebly so in front of scutellum; disc punctate, most punctures very fine and shallow and separated by 1 to 3 times puncture diameter; surface between discal punctures

smooth and shiny; with deep transverse impression divided by short longitudinal carina on meson; bottom of impression microreticulate; with short remnant of sublateral carina at base. Scutellum flat, scutate; surface similar to that of elytra. Elytron with 5 rows of sparse, moderately coarse punctures on discal area between elytral suture and carinate interval 6, then with 2 rows of punctures lateral to interval 6; discal punctures separated by 3 to 4 times puncture diameter; surface between punctures faintly microalutaceous; intervals flat; each elytron with a prominent sublateral carina on interval 6; apex feebly produced and rounded. Prosternum microalutaceous, moderately coarsely, sparsely punctate to subrugose apicomediaally; with long carina in front of each procoxa. Prosternal process parallel sided, bordered by distinct rim; with few coarse punctures, especially at apex; apex broadly rounded. Mesosternum with deep and broad medial groove for reception of prosternal process. Metasternum trifoveate between mesocoxae; impunctate except a few coarse setigerous punctures clustered on low gibbosity slightly in front of and mediad of each metacoxa; with a shallow, broad, longitudinal impression on midline extending from base and becoming effaced at apical half; impression finely microreticulate in small oval area near posterior margin; disc rather strongly concave on meson. Profemora and mesofemora finely, moderately densely punctate dorsally; each with diagonal area of plastron setae on basal third medially (anteriorly). Metafemur with diagonal area of plastron only on extreme base medially and laterally. Protibia with 2 cleaning fringes; apicomediaal fringe on apical third; apicolateral fringe on apical fifth. Mesotibia with 2 cleaning fringes; apicomediaal (anterior) fringe on apical fifth; posterior fringe extending on apical third. Metatibia with a posterior cleaning fringe on apical half. Claws with a large subbasal tooth and a smaller basal tooth.

Abdomen: With 5 visible convex sterna.

Sterna 1–5 with band of plastron setae covering lateral fourth; discal area shiny, impunctate. Sternum 5 with tuft of long, golden setae and coarsely punctate apicomediaally.

Male genitalia: As illustrated (Figs. 1, 2).

Female.—Unknown.

Variations.—No variations were noticed between the two available specimens.

Type data.—*Holotype male:* COLOMBIA: [CUNDINAMARCA]: Bogotá [near]; Río Gachetá, 26 February 1984, Maria T. Szauer; deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Paratype: Same data as holotype, 1 male.

Etymology.—This new species is dedicated to the memory of Donald R. Whitehead, who was a friend and colleague. An example of Don's selfless aid to many Coleopterists is the number of years he generously served as editor of the *Coleopterists Bulletin*.

Habitat.—The type specimens were collected in the Río Gachetá at an altitude of 1740 m. At the collection site, the stream was 12 m wide, contained abundant macrophytes, and had a rocky substrate.

Onychelmis longicollis (Sharp)

Figs. 3, 4

Elmis longicollis Sharp, 1882: 138.—Blackwelder, 1944: 271.

Onychelmis longicollis.—Hinton, 1941: 66.—Delève, 1968: 220.

Previously, this species was known only from the type locality in Panamá. The presence of *O. longicollis* in both Central America and South America is similar to the distribution of an increasing number of other elmids genera and species as their distributions are determined.

Diagnosis.—The deep, coarse punctures in rows on the elytra and, in males, the distinctive lanceolate shape of the aedeagus will easily distinguish this species from *O. whiteheadi* and *O. leleupi*.

Specimen examined.—COLOMBIA:

ANTIOQUIA: Medellín (29 km W), on road to San Jerónimo, 23 Feb 1984, C. M. and O. S. Flint, Jr., 1 male.

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