

***MASTOGENIUS GUAYLLABAMBENSIS* MACRAE, A NEW SPECIES FROM  
ECUADOR (COLEOPTERA: BUPRESTIDAE: HAPLOSTETHINI)**

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**Abstract**

*Mastogenius guayllabambensis* MacRae, **new species**, is described from the Andes Mountains of northwestern Ecuador. The species is fully described, and photographs of the holotype and type habitat, a line drawing of the male genitalia, and comparisons to similar species in the genus are presented.

**Resumen**

Se describe *Mastogenius guayllabambensis* MacRae, **nueva especie**, de los Andes del noroeste de Ecuador. La especie se describe completamente, y se presentan fotografías del holotipo y la habitación del tipo, silueta del eedeago, y comparaciones con las especies similares del género.

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Van Dyke (1953) described two species of *Mastogenius* Solier from the Galapagos Islands; however, species from the tribe Haplostethini LeConte, 1861 (= *Mastogeniini* LeConte and Horn, 1883; see Bellamy 2002) were unknown from mainland Ecuador until Manley (1986a, 1986b) described five new species in the genus *Mastogenius* and two new species in the genus *Pseudotriconogya* Manley. All of these species were collected in the dry Pacific Coast forest of southwestern Ecuador. In December 1989, yet another new species of *Mastogenius* was collected in Ecuador, this one from the upper Pacific slopes of the Andes Mountains near the equator in northwestern Ecuador. This brings to eight the total number of known haplostethine species in Ecuador and to 35 the total number in South America (Bellamy 1991; Moore 1994, 1998).

Measurements were made from the center of the frons to the elytral apex (length) and across the humeri (width) using a vernier caliper. Holotype label data (enclosed within “quotation marks”) are cited verbatim, with a forward slash “/” separating data from individual labels and added or expanded information presented in [square brackets] (p = printed). Collection abbreviations follow the widely used four letters coden system (Arnett *et al.* 1993).

*Mastogenius guayllabambensis* MacRae, **new species**  
(Figs. 1–2)

**Diagnosis.** This species is distinguished from its Central and South American congeners by the combination of its small size (2.2–3.1 mm in length), short, compact form (length 2.1–2.4 times humeral width), short pronotum (1.9 times as wide as long) that is widest near the anterolateral angles, distinct frontal sulcus with the median part not as deep as the upper and lower extremes, and black color with aeneous reflection.

**Description, male holotype.** Elongate-subquadrate, convex; surface strongly shining, black with aeneous reflection, sparsely, minutely covered with short, recumbent, white setae. *Head:* frontovertex flat with a distinct sulcus on lower three-fourths extending from clypeus to a deep

circular pit above middle, median part of sulcus not as deep as upper and lower extremes; clypeus narrowly, shallowly, arcuately, emarginate distally; surface finely, uniformly granulose, moderately punctate; eyes moderately large, inner margins feebly convergent towards vertex; antennae extending past pronotal base when laid alongside, moderately clothed with short, erect setae; antennomere 2 fusiform; 3 narrower and subequal in length to 2; 4–10 serrate, slightly longer than wide; 11 oblong. *Pronotum*: strongly convex, 1.9 times wider than long, narrowest at anterolateral angles, widest at anterior one-fourth; posterolateral angles quadrate; lateral margins arcuate from posterolateral angles, then subparallel, slightly diverging to anterior one-fourth, sharply arcuate at anterior one-fourth, and subparallel, strongly converging to anterolateral angles; anterior margin transverse medially; posterior margin feebly bisinuate; prelateral carina broadly arcuate when viewed from side, not reaching anterior margin of pronotum; disc with feebly indicated median sulcus in posterior one-third; surface uniformly, shallowly punctate, appearing more punctate-striate laterally and posteriorly, striae sinuately transverse-irregular, scalloped. *Scutellum*: black, triangular, 1.5 times longer than wide; surface smooth. *Elytra*: narrower than pronotum, widest near apical one-third; lateral margins subparallel in anterior one-half, widening slightly to apical one-third, then narrowing arcuately to separately subtruncate apices, weakly serrate on posterior one-fifth; disc strongly convex, anterior one-fourth weakly elevated, posterior one-half sloping downward to apices, strongly, narrowly, transversely depressed basally, weakly depressed along sutural margin behind scutellum and on posterior one-half to just before apex, with longitudinal depression laterally behind humerus; surface finely, uniformly punctate, more shallowly, irregularly so near apices; intervals smooth, without setae. *Ventral surface*: prosternal process subtruncate distally, sides parallel; hypomeron flat, moderately, slightly irregularly punctate; epimeron narrow, subparallel; posterior margin of metacoxal plate sinuate, concave medially, moderately punctate; abdomen convex, broadly flattened medially, finely punctate except along posterior margin of each sternum; suture between sterna 1 and 2 only feebly indicated; last sternum broadly truncate at apex and clothed with scattered, long, erect setae, more closely punctate laterally. *Legs*: femora fusiform; tibiae feebly sinuate; metatibiae with setal comb on apical one-half of outer margin; tarsomere 1 shorter than 2 and 3 together; 5 longest; 1–3 each with reduced pulvilli; 5 with claws slightly swollen basally; left mesofemur, -tibia, and -tarsus missing. *Genitalia*: as shown in Figures 1–2. *Body size*: 2.7 × 1.2 mm, length 2.25 times width.

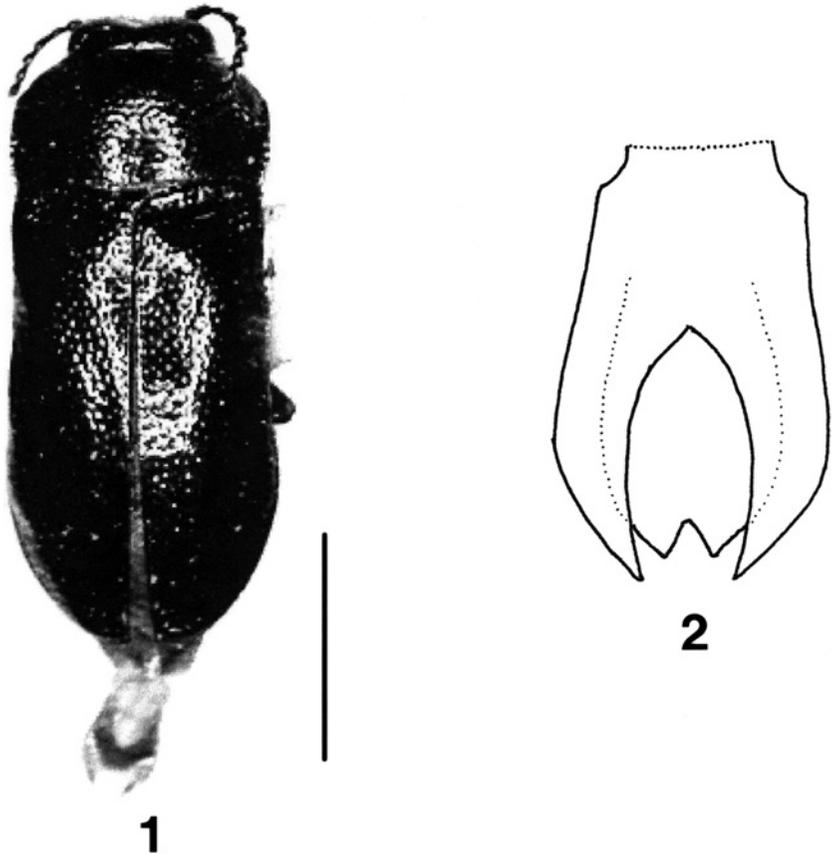
**Female.** Form, size, and color as in male, with no substantial differences noted.

**Variation.** The aeneus reflection varies in intensity, and a few individuals exhibit a more or less distinct bluish reflection on the head, pronotum, and more rarely on the elytra. Males measured 2.5–3.1 × 1.2–1.4 mm ( $\bar{x} = 2.76 \times 1.24$  mm,  $n = 8$ ) and females 2.2–2.9 × 1.0–1.3 mm ( $\bar{x} = 2.73 \times 1.23$  mm,  $n = 12$ ). Male length was 2.08–2.38 times width ( $\bar{x} = 2.24$ ), female length was 2.08–2.42 times width ( $\bar{x} = 2.23$ ).

**Type Series.** Described from 9 males and 13 females. Holotype male: “ECUADOR: Pichincha [Province] 2 km N [of] Calacalí [elev.] 2,500 m near Rio Guayllabamba 20 Dec 1989, TCMacRae [p] / beaten from *Acacia* sp. [p] / HOLOTYPE *Mastogenius guayllabambensis* MacRae [p] [red label]”, deposited: California Academy of Sciences, San Francisco. Paratypes: same data as holotype (7 males, 11 females); 10 km N of Calacalí at Rio Guayllabamba, elev. 1,700 m, beaten from *Prosopis* sp. (1 male, 2 females). Paratypes deposited in the following collections: CLBC, GHNC, QZAX, RLWE, TCMC.

**Type Locality.** The type locality is a dry, thorn woodland 2 km north of Calacalí (equatorial marker) and 8 km south of Rio Guayllabamba at an elevation of 2,500 m (Fig. 3). Small trees in the genus *Acacia* are the dominant woody vegetation in this habitat.

**Hosts.** All adults collected at the type locality were beaten from living branches of *Acacia* sp. (Mimosaceae) (Fig. 3). The number of adults beaten from this plant (19) suggests it may serve as a larval host. Three additional specimens were beaten from living branches of *Prosopis* sp. (Fabaceae) at a nearby locality. The latter plant is a known larval host for *M. guayasensis* Manley from southwestern Ecuador (Manley 1986a).



Figs. 1–2. *Mastogenius guayllabambensis*, holotype male, dorsal views. 1) Habitus (line = 1 mm); 2) genitalia.

**Comparisons.** *Mastogenius guayllabambensis* does not key satisfactorily in Manley (1986a) due to its black color. It most closely resembles *M. changonensis* Manley (1986a:229) from southwestern Ecuador and *M. proximus* Cobos (1981:80), known only from a unique female collected in Venezuela (holotype examined). It differs from both of these species by its relatively shorter pronotum (width 1.9 times length—in *M. changonensis* and *M. proximus* it is 1.5 times length) and black color with aeneous reflection. It differs further from *M. changonensis* by its frontal sulcus with the median part not as deep as the upper and lower extremes and by the male genitalia. From *M. proximus*, it differs further by its larger size and having the elytra widest at the apical one-third rather than the middle.

**Etymology.** The species is named for Rio Guayllabamba, which flows near the type locality down the Pacific slope of the Andes Mountains.

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**Fig. 3.** Type locality of *Mastogenius guayllabambensis* showing habitat and *Acacia* sp. trees from which most of the type series was collected.

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