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Description of two new species of *Semiotus* ESCHSCHOLTZ (Coleoptera: Elateridae)

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Abstract

Two new species of the tropical American click beetle genus *Semiotus* ESCHSCHOLTZ (Coleoptera: Elateridae) are described: *S. marciae* from Ecuador and *S. baumanni* from Bolivia. A modified key is provided for both species.

Key words: Coleoptera, Elateridae, Semiotinae, *Semiotus*, taxonomy, new species, Ecuador, Bolivia.

Introduction

The genus *Semiotus* was established by ESCHSCHOLTZ (1829) to distinguish species in the genus *Elater* LINNAEUS (1767) having frontal tubercles or spines, and that bore tarsal pads on tarsomeres 1, 2 and 3 (WELLS 2007). The genus occurs principally in tropical America. Species are known to occur from Mexico to Chile. Individuals range in size from just over 10 mm to just under 50 mm. They can be readily recognized by the striking colors (that are typically red, yellow, black, orange, etc.).

The genus has been recently revised by WELLS (2007). Since publication of this revision, two additional species have been discovered and are herein described.

Materials and Methods

During the course of the senior author's revision of *Semiotus*, material from 32 public and private collections, including over 3,000 specimens were evaluated. This work should be consulted for a full list of institutions and description of color terms. Holotypes from the present study will be placed in the California Academy of Sciences in San Francisco, California (CASC). Paratypes will remain in the authors' collections (BWPC = Bonta / Sam Wells personal collection in Fresno, California; and SRPC = Sergio Riese personal collection in Genova, Italy).

Semiotus marciae sp.n.

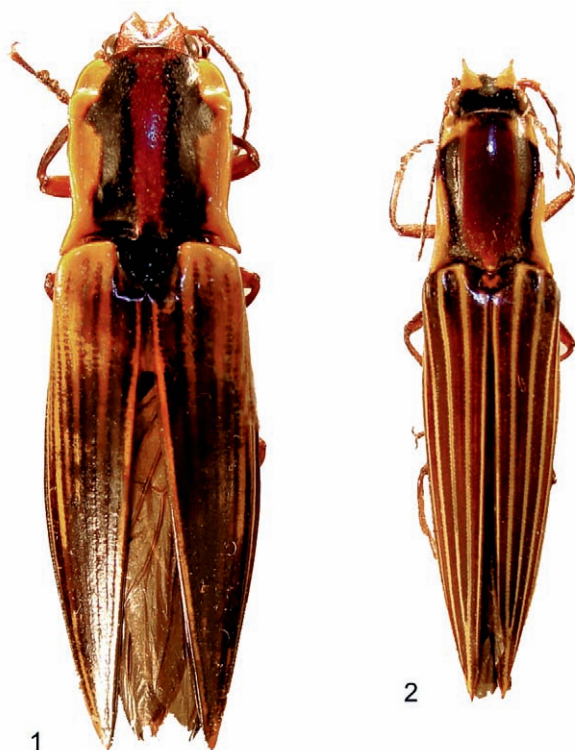
(Fig. 2)

TYPE LOCALITY: Pichincha Tandayapa, Ecuador.

TYPE MATERIAL: **Holotype** ♀: ECUADOR: Prov. "Pichincha Tandayapa III/1984 Legit: G. Onore" (CASC).

Paratype (1): "ECUADOR: Pichincha, Nanegalito, 12 km S. Bellavista Nature Reserve, ca 2200 m, 0°0.54"S, 78°40.56"W, Oct. 28, 1999, Z.H. Falin" (BWPC).

DESCRIPTION: Length 23–24 mm, width 5–8 mm. Head piceus with lateral spines luteus; front with two long spines laterally and one shorter spine medially; texture mostly glabrous with few long setae over eyes and along anterior margin, punctures shallow and sparse. Antennae serrate, one segment short of hind angles (in females); segments 1–2 testaceous, segments 3–11 piceus.



Figs. 1–2: Habitus of 1) *Semiotus baumanni* and 2) *S. marciae*.

Pronotum 6 mm long, 4 mm wide, narrowly sinuate, margin broadly rounded posteriorly, narrowly rounded on anterior half, marginal line present on anterior third; color luteus along posterior half of lateral margin and anterior angles, sanguineous on disc, piceus along narrow canaliculation sublaterally; texture mostly glabrous with scattered fine setae along lateral margin (or possibly along posterior margin), punctation shallow and widely separated. Scutellum trapezoidal; color subluteus to testaceous medially becoming piceus laterally. Prosternum sanguineous medially, piceus laterally with lobe luteus to testaceous; texture of long fine setae medially with thicker decumbent setae on lateral piceus area. Hypomeron piceus medially, luteus along lateral margin with a single ill-defined piceus macula near margin; texture glabrous laterally on luteus area, with decumbent setae medially on piceus area. Mesoventrite sanguineous medially, testaceous to piceus laterally with long decumbent setae throughout. Mesepisternum and metaventrite testaceous to piceus with long decumbent setae. Femora, tibiae and tarsi testaceous with thin piceus line along margin, metacoxa luteus. Elytra narrow, widest on anterior half then narrowing to a single spine posteriorly; color badius with luteus vittae along intervals 1, 3, 5, 7, and 9. Abdomen testaceous, paler along margin; texture nearly glabrous and without punctation medially, with fine decumbent setae and narrowly spaced punctures sublaterally; female with two elliptical foveae on posterior 3/5 of sternite 5.

DIAGNOSIS: *Semiotus marciae* is most closely allied to *S. illigeri* and *S. sommeri*. All three species have three frontal spines, alternating color of interstriae, and the short marginal line of

the pronotum becoming explanate anteriorly. They also have a reddish vitta down the center of the pronotum. In *S. sommeri* this vitta is often brownish red and is very narrow, much narrower than the black or yellowish pronotal vittae. The reddish pronotal pattern in *S. illigeri* is more variable but is usually just as wide as the black or yellow vittae. In some specimens there is no reddish vitta at all. In *S. marciae*, however, the reddish vitta makes up half of the pronotum – virtually the entire discal area. It is over twice the width of the black or yellow vittae. These pronotal color patterns are consistent diagnostic characters in the genus *Semiotus*.

ETYMOLOGY: *Semiotus marciae* is named in honor of Marcia Bonta, author and naturalist.

Key for *Semiotus marciae*
(modified from WELLS 2007)

- 64a(63) Pronotal disc reddish black, separated from yellow margin by black sublateral vittae, reddish area more than twice the width of black or yellow vittae *marciae* n.sp.
- Pronotum either lacking reddish vittae or with reddish vittae narrow, no wider than black or yellow vittae 64
- 64 Pronotum with two black vittae that are each narrow and sinuate, not cruciform *sommeri* CANDÈZE
- Pronotum with one or two black vittae, if two, then vittae appearing cruciform *illigeri* GUÉRIN-MÉNEVILLE

***Semiotus baumanni* sp.n.**
(Fig. 1)

TYPE LOCALITY: Caranaví La Paz, Bolivia.

TYPE MATERIAL: **Holotype** ♀: BOLIVIA: Prov. La Paz, “C. Tello, Caranaví prov. La Paz dp. I-2001” (CASC). **Paratype** ♀, BOLIVIA: Prov. La Paz, “C. Tello, Caranaví prov. La Paz dp. I-2001” (SRPC).

DESCRIPTION: Length 29–39 mm, width 7–10 mm. Head piceus basally testaceous anteriorly, or with basal macula only piceus, depressed medially, front with two mammiform spines; texture glabrous, punctures deep basally, shallow and sparse anteriorly. Antennae strongly serrate, 1–1.5 segments short of hind angles (in females); segments 1 and 2 testaceous, segments 3–11 badius to piceus. Pronotum 7–8 mm long, 6–7 mm wide, campanulate, marginal line thin or absent on anterior half with an irregular elevated tubercle on anterior fourth; color luteus laterally, sanguineous medially with piceus sub-cruciform band between; texture glabrous, punctation scattered and irregular medially, faint or absent laterally. Scutellum trapezoidal, anterior margin partially raised medially; color piceus. Prosternum sanguineous medially, piceus laterally; texture glabrous or with few long widely separated setae, punctation deep, sparse to absent on prosternal process. Hypomeron piceus medially, luteus along lateral margin; texture glabrous throughout. Mesoventricle and metaventricle sanguineous medially, piceus laterally; texture glabrous medially with fine setae laterally. Mesepisternum and metaventricle piceus, texture glabrous with fine setae scattered throughout. Femora, tibiae and tarsi testaceous throughout or with piceus coloring distally. Elytra widest medially then narrowing to a single spine posteriorly; color of alternating luteus and piceus bands laterally becoming clouded medially; interstriae convex. Abdomen sanguineous medially, sub-luteus laterally with piceus band between; texture irregularly punctate and without setae; female without foveae on sternite 5.

DIAGNOSIS: *Semiotus baumanni* is allied to the gibbous species of *Semiotus* having convex interstriae and two frontal spines (*S. gibbosus*, *S. girardi*, *S. fryi*, and *S. punctatostriatus*). Three of these four species have acute frontal spines. Only *S. baumanni* and *S. fryi* have mammiform

frontal spines. The pronota in these two species, however, are distinct. In *S. fryi* it is strongly arcuate with umbilicate punctures anteriorly and lacks a marginal tubercle along the lateral margin. In *S. baumanni* it is much less arched, lacks umbilicate punctures and has a pronounced tubercle along the lateral margin anteriorly. The female of *S. fryi* bears two oval fovea on sternite 5. These are lacking in *S. baumanni*.

ETYMOLOGY: *Semiotus baumanni* is named in honor of Richard Baumann, aquatic entomologist.

Key for *Semiotus baumanni*
(modified from WELLS 2007)

- 71a(69) Pronotal margin campaniform (viewed from above), rounded on anterior half and recurved on posterior half; frontal spines mammiform, not ending in a point *baumanni* n.sp.
- Pronotal margin nearly straight or evenly curving from anterior angles to hind angles; frontal spines acute 71
- 71 Scutellum and legs black (with occasional reddish maculae); dark pronotal vittae irregular, with arm or extension near center projecting laterally or as an outlying macula *catei* WELLS
- Scutellum and legs orange to light brown; dark pronotal vittae straight to slightly sinuate, without lateral extension near center *gibbosus* WELLS

References

- ESCHSCHOLTZ, F. 1829: Elaterites. Eintheilung derselben in Gattungen. – Entomologisches Archiv 2: 31–35.
- LINNAEUS, C.V. 1767: Systema naturae. Vol. 1, pt. 2, 12th edition, 652 pp.
- WELLS, S.A. 2007: Revision of the Neotropical Click Beetle Genus *Semiotus* Eschscholtz (Coleoptera: Elateridae). – Contributions in Science No. 514. Natural History Museum of Los Angeles County, 114 pp. (http://www.nhm.org/site/sites/default/files/pdf/contrib_science/CS514.pdf)

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