

A New Species of the Genus *Neacratus* Alonso-Zarazaga, Lyal, Bartolozzi, and Sforzi (Coleoptera: Brentidae: Acratini) from Central America

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**A NEW SPECIES OF THE GENUS *NEACRATUS* ALONSO-ZARAZAGA, LYAL,
BARTOLOZZI, AND SFORZI (COLEOPTERA: BRENTIDAE: ACRATINI)
FROM CENTRAL AMERICA**

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ABSTRACT

Neacratius antennatus Mantilleri, Lanuza-Garay, and Bartolozzi, **new species**, a straight-snout weevil from Central America, is described and illustrated. Although the new taxon shows very peculiar antennal and elytral apices, it is provisionally included in the genus *Neacratius* Alonso-Zarazaga, Lyal, Bartolozzi, and Sforzi, 1999. The new species is compared with other *Neacratius* species, particularly to *Neacratius glabratus* (Lund, 1800), the type species of the genus.

Key Words: straight-snout weevil, taxonomy, Neotropical region, Panama, Costa Rica.

Acratini Alonso-Zarazaga, Lyal, Bartolozzi and Sforzi, 1999 is a tribe of Neotropical Brentidae comprising 11 genera [Sforzi and Bartolozzi (2004) list 12 genera, but the genus *Nemocephalus* Guérin-Méneville, 1827 was moved to *Trachelizini* by Mantilleri (2014b)] and more than 100 species. The entire tribe is in great need of revision at both the generic and specific levels, and examination of material from many localities of the Neotropical region already revealed numerous undescribed taxa.

Several specimens of a brentid with very strange external morphology were discovered by the second author in the collections of the Programa Centroamericano de Maestría en Entomología, Universidad de Panamá; three additional specimens were also present in the collections of the Canadian Museum of Nature. In the key given by Kleine (1938) for *Nemocephalini* (now *Acratini*), the specimens fall within *Nemocephalus sensu*

Lacordaire (1865) (not Guérin-Méneville, 1827), now *Neacratius* Alonso-Zarazaga, Lyal, Bartolozzi, and Sforzi, 1999. After examination of almost all the types for taxa described in *Acratini*, it was impossible to assign this beetle to any of the species described in the genus *Neacratius* or in the rest of the tribe. Until a complete revision of *Acratini* has been carried out, which will allow the determination of the precise relationships of the different taxa, the new species is provisionally described in the genus *Neacratius*.

Specimens are deposited in the following collections: CMNC, Canadian Museum of Nature, Ottawa, Canada; MIUP, Museo de Invertebrados Graham Bell Fairchild, Universidad de Panamá; MNHN, Muséum national d'Histoire naturelle, Paris, France; MZUF, Museo di Storia Naturale, Sezione di Zoologia “La Specola”, Università di Firenze, Italy; PCMENT, Programa Centroamericano de Maestría en Entomología, Universidad de Panamá.

***Neacratus antennatus* Mantilleri, Lanuza-Garay,
and Bartolozzi, new species**

Holotype. ♂, Panama, Isla Barro Colorado, light trap, 22-28.IV.1987 (MIUP).

Paratypes. 1 ♂, *idem* holotype (PCMENT); 1 ♀, *idem*, 25.II-3.III.1987 (MIUP); 2 ♀, *idem*, 13-19.V.1987 (MNHN EC4548, MZUF 17335); 1 ♂, Panama, dist. Chepo, Altos de Maje, 17.V.1975, at lights, Stockwell & Engleman (MNHN EC4549); 1 ♀, Panama: Canal Zone, Barro Colorado Island, 22.V.1973, at light, H. Wolda (CMNC); 1 ♀, Costa Rica, Estación Maritza, 600 m, W side Volcan Orosi, Guanacaste P., 18.II.1988, D. H. Janzen & W. Hallwachs (CMNC).

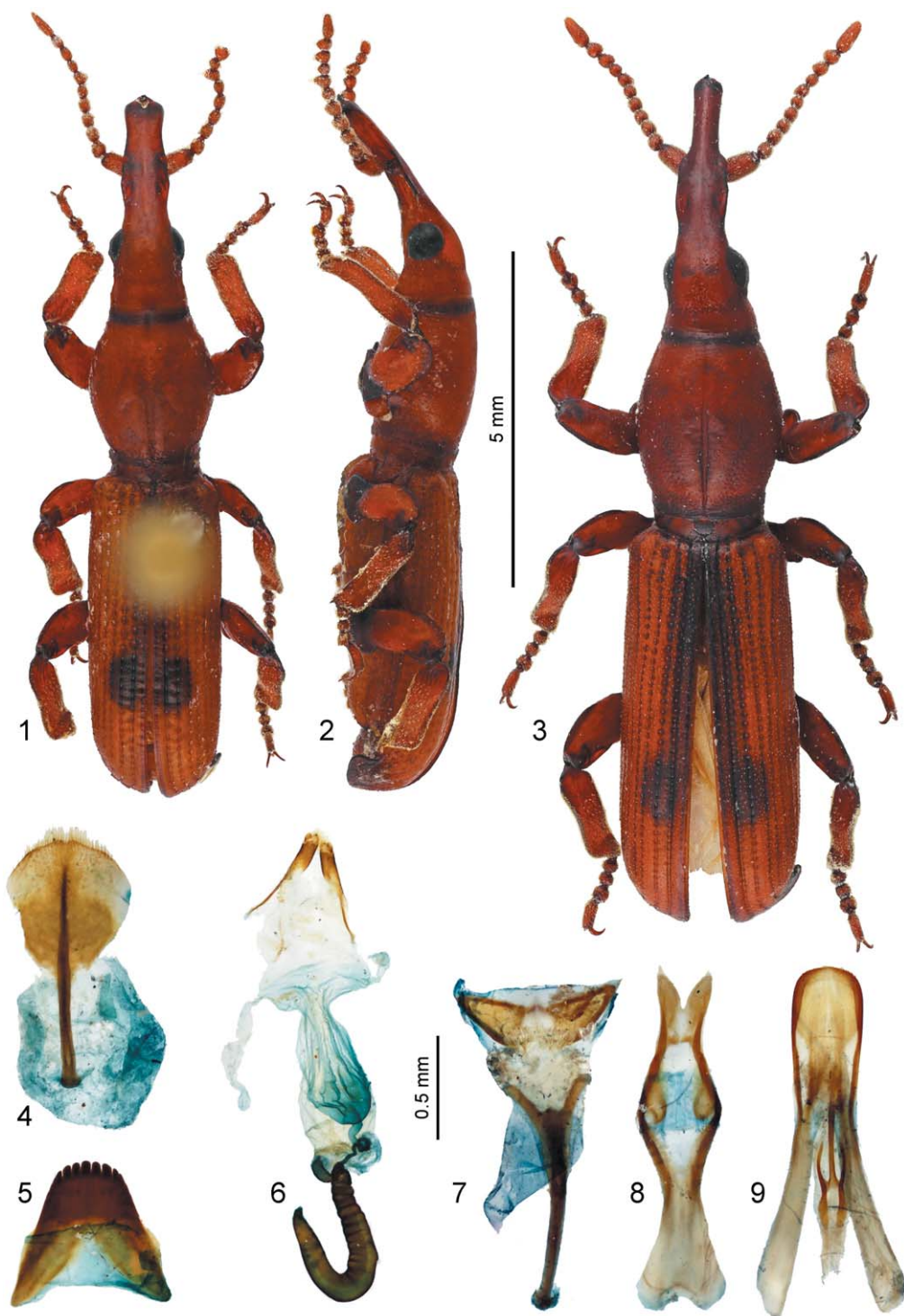
Description. Length from tip of rostrum to apex of elytra: 10.5–13.7 mm; width across humeral calli: 1.8–2.4 mm. Body ferruginous, elytra with dark post-median blotch. Habitus: Figs. 1–3. **Male. Head:** Short (Figs. 10–11), glabrous, not grooved, with quite large, shallow punctures on the posterior part; eyes longer than temples, hardly prominent, collar constriction weak; no interocular fovea. Metarostrum smooth, broad, very short, mesorostrum extremely developed and flattened, forming kind of blade above antennae. Mesorostrum and metarostrum with thin, weak median groove. Prorostrum glabrous, as large as metarostrum, strongly notched at apex in middle. Mandibles small. Side of head with quite large but shallow punctures behind eyes; rostrum not punctate. Venter of head glabrous, smooth, with distinct post-ocular median fovea; venter of meta- and mesorostrum with 2 elevated carinae converging on mesorostrum. Venter of prorostrum smooth, glabrous. Antennae (Figs. 13–14) 11-segmented, with very large scape more than 5X longer than segment 2 and almost 2X wider. Antennomeres 1–8 covered with very small, hook-like setae and a few longer, straight setae; 9–11 with less dense but longer setae; from above, segments 2–10 globular; in side view, segment 5 and especially segment 7 extending downwards, with longer setae at apex of extension; 9–10 similar to 5; 11 more than 2X longer than 10, acuminate, laterally compressed. **Thorax:** Pronotum slightly longer than broad, longitudinally grooved, covered with large, shallow punctures. Scutellum not foveate, rounded at apex, not inserted between elytra. Base of elytra well distinct, without any hole or depression in area of insertion on mesonotum. Elytral striae 1–2 distinct from base to apex, punctate; striae 3–8 strongly punctate; 9 not distinct at base, then punctate, and finally distinct in last two-thirds; 10 punctate and quite distinct at base, vanishing after first third. Apex of elytra (Fig. 16) with striae 2–3

connected, forming loop; apex largely expanded downwards, border of expansion consisting of interstria 9 (expansion reduced to small protuberance directed downward at apex of interstria 9 in one specimen, and not smallest one). Prosternellum distinct. Mesanepisternum and mesepimeron punctate; metanepisternum with line of distinct punctures. Metathorax punctate at sides, longitudinally grooved. All legs (Fig. 15) with femur and tibia strongly flattened laterally, blade-like; all femora glabrous, with large expansion below at base; tibiae covered on almost their entire surface by short, thin setae; apex of tibiae with 2 small spurs. Tarsi of all legs very similar, segments 1–3 globular, covered with same hook-like setae as on antennae; 5 much longer. **Abdomen:** Short (Fig. 17), sternites III and IV much broader than long, punctate mostly at sides; sternites III–IV not depressed, sometimes with weak longitudinal groove; suture between sternites III and IV distinct; apex of sternite IV abrupt. Sternites V–VII densely shallowly punctate. Sternite VII almost glabrous. Tergite VIII (Fig. 18) truncate at apex, with short hairs. Sternite VIII (Fig. 7) hairy at apex; sternite IX (Fig. 7) with accessory gland; no small sclerite between sternites VIII and IX. Tegmen (Fig. 8) with very large basal apodeme; parameroid lobes short, acuminate, with a few hairs only at apex. Median lobe (Fig. 9) rounded at apex, with quite long basal apodemes; frena missing; sclerite of internal sac well-developed, with posterior rod and, at base of this rod, 2 lateral paramedian expansions; no spicules in internal sac.

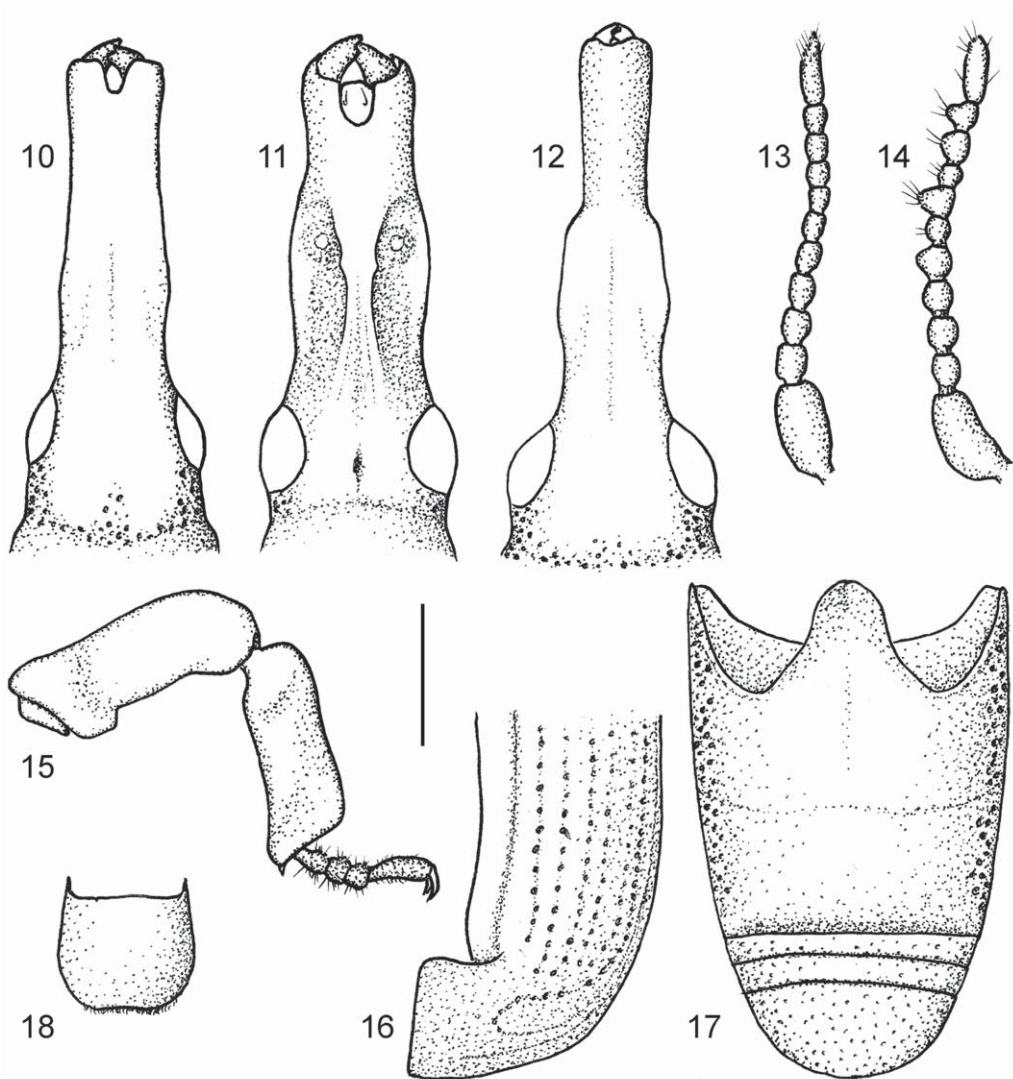
Female. Similar to male except prorostrum not enlarged (Fig. 12) but cylindrical and hardly notched at apex, and sternites III–IV of abdomen not grooved. Shares with male same peculiar structure of antennae and legs and same elytral expansions. Tergite VIII (Fig. 5) with blunt teeth at apex. **Genitalia:** Epipleurite VIII (Fig. 4) with short apodeme and large accessory gland; spermatheca (Fig. 6) large, with several basal constrictions, spermathecal duct short; 2 accessory glands. Dissection of the female genital tract of one of the individuals revealed the presence of three large ovoid eggs (1.0 mm long, 0.6 mm broad).

Etymology. The specific epithet derives from the very special shape of the antennae.

Remarks. The type species of the genus *Neacratus*, *N. glabratus* (Lund, 1800), was recently reviewed by Mantilleri (2014a). Externally, *N. antennatus* is very different, especially in the shape of the antennae, the flattened rostrum, and the elytral apex. However, it shares with *N. glabratus* the smooth metarostrum, without median carina or groove, the head not



Figs. 1–9. *Neocratus antennatus*. 1) Male, dorsal view; 2) Male, lateral view; 3) Female, dorsal view; 4) Female, epipleurite VIII; 5) Female, tergite VIII; 6) Female, genital tract and spermatheca; 7) Male, sternites VIII-IX; 8) Tegmen; 9) Median lobe.



Figs. 10–18. *Neacratus antennatus*. **10**) Male, head, dorsal view; **11**) Male, head, ventral view; **12**) Female, head, dorsal view; **13**) Antenna, dorsal view; **14**) Antenna, lateral view; **15**) Left posterior leg, lateral view (hairs covering the legs not figured); **16**) Apex of left elytron, lateral view; **17**) Male, abdomen, venter; **18**) Male, tergite VIII.

well-separated from the neck, the femora short and flattened at base, without tooth. The male genitalia also have similarities: median lobe rounded at the apex, apodemes well-developed and frena reduced (but not missing in *N. glabratus*). The shape of the sclerite of the internal sac is, on the contrary, very different, while some other species of *Neacratus*, such as *N. brevicostatus* Kleine, 1922, and *N. famulus* Boheman, 1840, are very similar with regard to this character, the shape of the tegmen, and the lack of frena. So, despite the unusual habitus, we think it

is better for the moment to assign this species to *Neacratus*.

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REFERENCES CITED

- Guérin-Méneville, F. É. 1827.** Némocéphale [506].
In: Dictionnaire Classique d'histoire naturelle

- 11: MO-NSO (J.-B. Bory de Saint-Vincent, editor). Rey et Gravier & Baudouin frères, Paris, France.
- Kleine, R. 1938.** Coleoptera. Fam. Brentidae (revision). Genera Insectorum 207: 1–197.
- Lacordaire, J. T. 1865.** Histoire naturelle des Insectes. Genera des Coléoptères 7. Curculionides (suite), Scolytides, Brentides, Anthribides et Bruchides. Librairie Roret, Paris, France.
- Mantillieri, A. 2014a.** Le genre *Neacratus*: étude de l'espèce-type et descriptions de deux nouvelles espèces (Coleoptera, Brentidae). Bulletin de la Société entomologique de France 119(3): 349–361.
- Mantillieri, A. 2014b.** Révision et phylogénie du genre *Nemocephalus* Guérin-Méneville 1827 (Coleoptera: Curculionoidea: Brentidae). Annales de la Société entomologique de France (N. S.) 50(1): 111–128.
- Sforzi, A., and L. Bartolozzi. 2004.** Brentidae of the World (Coleoptera, Curculionoidea). Monografie del Museo Regionale di Scienze Naturali 39, Torino, Italy.

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