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Description of a new species of *Rhynchoneus* SHARP, 1895 from French Guiana (Coleoptera: Brentidae)

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Abstract

Rhynchoneus giuglarisi n.sp. (Coleoptera: Brentidae) is described from French Guiana. It is the second known species of this peculiar genus. Males of *Rhynchoneus* exhibit unusual ventral appendages beneath head and prothorax.

The new species, together with *Estenorhinus flaccus* (MEYER), is unique within Brentidae due to the long and downwards pointing postocular expansions in the males. The biology of the new species is still unknown.

Key words: Coleoptera, Brentidae, *Rhynchoneus*, taxonomy, new species, French Guiana.

Introduction

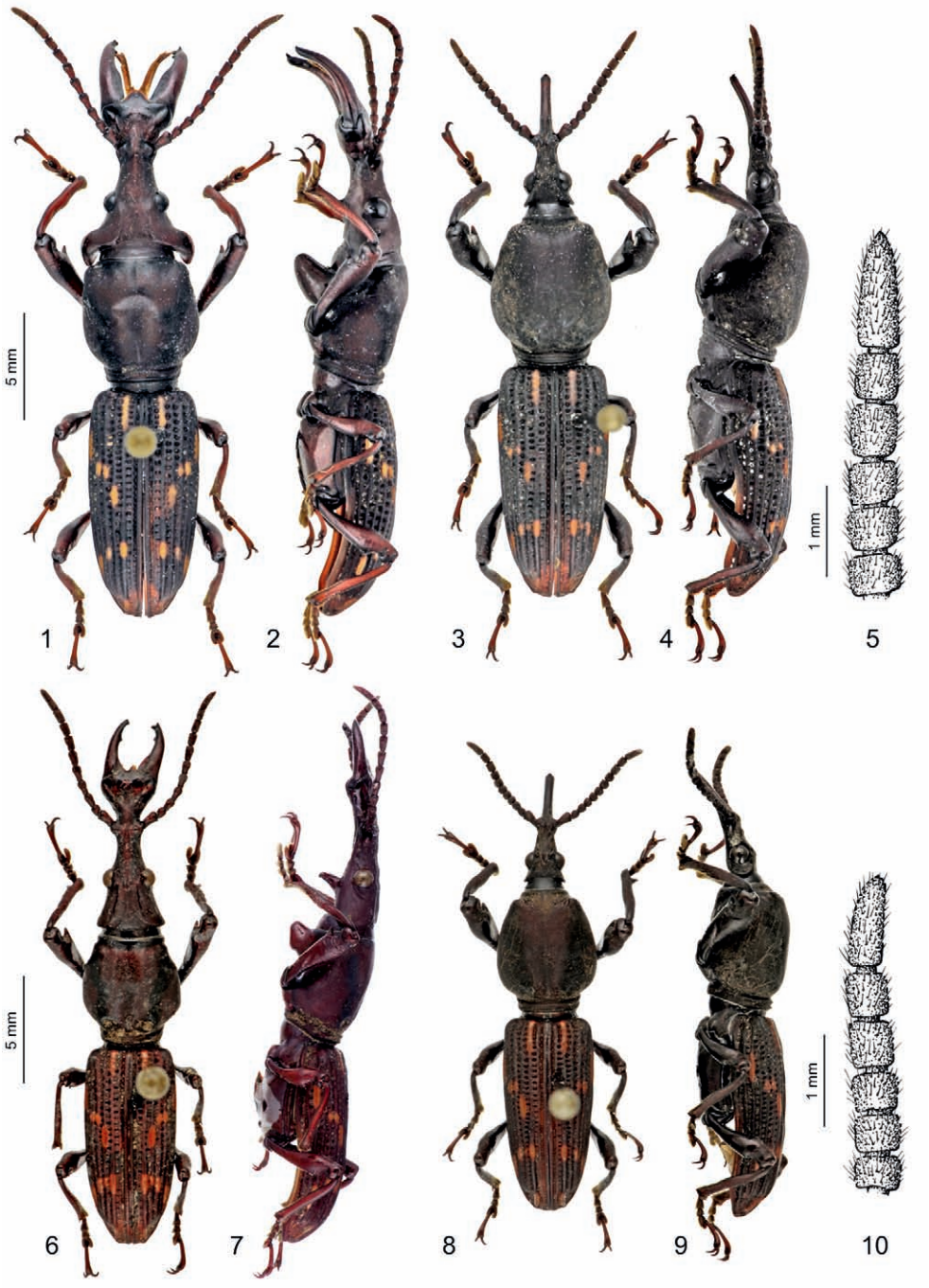
The genus *Rhynchoneus* was established by SHARP (1895) for the single species *R. belti* SHARP, 1895 from Chontales (Nicaragua). SHARP (1895) described and illustrated the species based on a series of four syntypes, all females. Two years later, SENNA (1897) described a single male under the name *Arrhenodes vampyrus*, a remarkable new species whose males had peculiar appendages under the head and prosternum; the type locality was given as "Amérique méridionale" and the female was unknown to Senna. For a long period the two species were considered to be distinct (KLEINE 1927, 1938, BLACKWELDER 1947, 1982), until SOARES (1966) ascertainted the synonymy of the two taxa. *Rhynchoneus belti* is known from Nicaragua, Brazil, Paraguay and Venezuela (MAES & O'BRIEN 1999, SFORZI & BARTOLOZZI 2004).

Thanks to the kindness of Gérard Moraguès (Marseille, France) and Jacques Goossens (Institut Royal des Sciences Naturelles de Belgique, Brussels) we have been able to study five specimens (three males and two females) of *Rhynchoneus* collected in French Guiana. We have verified that they belong to a new species, described below.

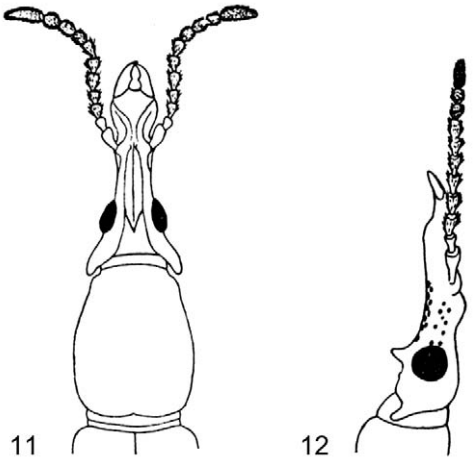
Material

Collection Acronyms:

CGM collection Gérard Moraguès, Marseille, France
IRSNB Institut Royal des Sciences Naturelles, Brussels, Belgium
MZUF Museo di Storia Naturale, Sezione di Zoologia "La Specola", Università di Firenze, Florence, Italy
NHM The Natural History Museum, London, United Kingdom



Figs. 1–5: *Rhynchoneus giuglarisi*, 1–2) ♂ holotype; 3–4) ♀ paratype; 5) ♀ paratype, antennomeres 6–11.
Figs. 6–10: *Rhynchoneus belti*, 6–7) ♂ from Brasil, Amazon (NHM); 8–9) ♀ lectotype from Nicaragua, Chontales (NHM); 10) ♀ lectotype, antennomeres 6–11.



Figs. 11–12: *Estenorhinus flaccus*, 11) head and pronotum; 12) head and anterior part of prothorax in lateral view (from MEYER 1959, modified).

***Rhynchoneus giuglarisi* sp.n.**
(Figs. 1–5)

TYPE LOCALITY: French Guiana.

TYPE MATERIAL: **Holotype** ♂: "20/07/2008, PL [= light trap], Rt. Apatou, PK 20, J. L. Giuglaris" (MZUF, collection number 14843). **Paratypes**: 1 ♂, "Guyane Française, PK 15/15, Piste de Belizon, Angkor Tom, 13-14.X.2004, S. Rojkoff leg." (IRSNB); 1 ♂, 1 ♀, "Route de Kaw, PK 40, 2 Janvier 1984, piégeage lumineux, G. Tavakilian leg." (CGM); 1 ♀, "Route de Kaw, PK 46, 30.III.1987, piégeage lumineux, S. Doumain leg." (MZUF, collection number 14844).

DESCRIPTION: Habitus: Figs. 1–2 (male), Figs. 3–4 (female).

Body elongate, strong, convex, reddish brown with yellow-orange marks on the elytra, and black marks on pronotum.

Length of body (including rostrum): 21–27 mm in the male, 20–25 mm in the female; width between humeral calli: 3.8–5.3 mm in the male, 4.8–5.8 mm in the female.

Male: Head, including rostrum and mandibles, about as long as the elytra. Rostrum about as long as 2.0–2.5 times the length of the head, subtrapezoidal in transverse section; mandibles about as long or slightly shorter than rostrum, curved downwards, their sides almost straight, the inner side with a flat basal lamina more or less developed according to the size of the specimen, a small tooth present before the apical fork, which is small and more developed on the right mandible than on the left one. Prorostrum strongly enlarged anteriorly, restricted posteriorly, anterior margin projecting forwards between mandibles; this projection slightly bilobed in large specimens, convex in small ones; short mesorostrum, only slightly enlarged compared to the basal section of prorostrum; metarostrum about as long as the prorostrum, enlarging slightly from the end of mesorostrum to the anterior margin of eyes, slightly carinate. Labial palps very long, two-thirds of length of mandibles. Long postocular appendages present and directed

downwards. Lower side of metarostrum with two rows of sensorial pores. Deep fovea present on the gular suture at the base of the head. Lower side of the head with bifid appendage below the eyes, in the middle of head. Antennae not reaching base of prothorax. First antennomere pyriform, 2nd shorter than 3rd; antennomeres 3–7 subequal in length, pyriform; 8–11 cylindrical, 9 slightly longer than 8 and 10, 11 pointed and slightly longer than 9 and 10 together.

Pronotum subsquared, sides of antennomeres slightly curved. Frontal part of disc of antennomeres slightly elevated, disc depressed in middle of antennomeres. Prosternum with a very large protuberance directed forward. Elytra strongly reticulate, as long as 2.3–2.5 × the width between the humeral calli; interstriae slightly elevated on apical declivity. Interstria 2 with a yellow-orange mark at the base, a smaller mark after the middle and a longer one at declivity; interstria 3 with a small mark around middle; interstria 4 with one antemedian mark and another one before declivity; interstria 5 with a small antemedian mark; interstria 6 with a mark before apical declivity; interstria 7 with a post-humeral mark. Apex almost straight.

Legs fairly long and slender, all femora spined. Fore tibiae slighty inflated medially on inner side.

Sternites III–IV depressed in middle; sternites V–VI with short setae on sides; sternite VII with very fine punctures and very short setae.

Female: Differs from male in the following characteristics: rostrum very slender, filiform, with very small mandibles and two tiny bumps near base on upper side; lateral sides of metarostrum with few sensorial pores; underside of head and metarostrum with two rows of sensorial pores; head trapezoidal, lacking postocular appendages; underside of head flat and unarmed; antennae shorter, articles 2–8 not longer than width, last article longer than 9 and 10 together; pronotum very convex, not depressed on disc; no ventral appendage; legs less slender, especially the forelegs; sternites III–IV convex.

DIFFERENTIAL DIAGNOSIS: The two species belonging to the genus *Rhynchoneus* can be separated using the following key:

1 Male with postocular appendages directed downwards (Figs. 1–2); female (Figs. 3–4) with antennomere 11 longer than the combined length of 9 and 10 (Fig. 5) ..... *giuglarisi*

– Male with postocular appendages not directed downwards (Figs. 6–7); female (Figs. 8–9) with antennomere 11 shorter than the combined length of 9 and 10 (Fig. 10) ..... *belti*

DISTRIBUTION: French Guiana.

ETYMOLOGY: We are pleased to dedicate this most interesting new species to its collector, Mr. Jean-Louis Giuglaris.

REMARKS: Having examined the lectotype (Figs. 7–8) and paralectotype of *Rhynchoneus belti* in the NHM and the holotype of *Arrhenodes vampyrus* in the IRSNB, we can confirm the synonymy of the two taxa, as already stated by SOARES (1966).

MEYER (1959) described *Vianodes flaccus* (now placed in *Estenorhinus*) on a single male from Brasil and illustrated the new taxon (see Figs. 11–12). This species shares with *R. giuglarisi* the peculiar ear-like postocular appendages and the presence of a gular process, but the strong lobe under the prosternum is totally absent, and the prothorax has not the peculiar *Rhynchoneus* shape. The taxonomic position of this species remains uncertain, sharing characters between *Rhynchoneus* and *Estenorhinus*.

A similar gular appendage is also present in *Estenorhinus faldermanni* (GYLLENHAL, 1840) but for the rest this species has the typical morphological characters of *Estenorhinus*.

Nothing is known about biology, ecology and ethology of the new species. The peculiar appendages on the underside of head and prothorax of the males may be used during courtship,

male fights or mating, but without observations of the behaviour of living specimens, their meaning remains mysterious. All the known specimens of the new species were collected with light traps, in forest, in January, March and July.

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References

BLACKWELDER, R.E. 1947: Brentidae, pp. 771–777. – In Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. Part 5. – Bulletin of the United States National Museum 185: 1–1492.

BLACKWELDER, R.E. 1982: Brentidae, pp. 771–777. – In Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. Part 5. – Bulletin of the United States National Museum 185: 1–1492 [reprint of the preceding paper].

KLEINE, R. 1927: Coleopterorum Catalogus. Pars 89: Brenthidae, Editio secunda. – Berlin: W. Junk, 94 pp.

KLEINE, R. 1938: Coleoptera. Fam. Brenthidae (Revision). – Genera Insectorum 207: 1–197.

MAES, J.-M. & O'BRIEN, C.W. 1999: Familia Brentidae, pp. 1047–1052. – In Maes, J.-M. (ed.): Insectos de Nicaragua. Vol. II. – Coleoptera. Secretaría Técnica BOSAWAS, Marena, Nicaragua, pp. 487–1169.

MEYER, C.R. 1959: Contribuição ao estudo dos Brêntidas do Brasil (Col. Brentidae). – Revista Brasileira de Biologia 19 (2): 125–131.

SENNA, A. 1897: Quelques espèces nouvelles de Brenthides du Musée Royal de Belgique et de ma collection et notes diverses. – Annales de la Société entomologique de Belgique 41: 227–236.

SFORZI, A. & BARTOLOZZI, L. 2004: Brentidae of the world (Coleoptera, Curculionoidea). – Monografie del Museo regionale di Scienze naturali, Torino 39, 976 pp.

SHARP, D. 1895: Class Insecta. Order Coleoptera. Tribe Rhynchophora. Fam. Brenthidae, pp. 1–80. – In Sharp, D., Blandford, F.Z.S. & Jordan, K. (1895–1907). – Biologia Centrali-Americana 4 (6): VI+396 pp.

SOARES, B.A.M. 1966: Notas sôbre Brêntidas. I (Col. Brentidae). – Pesquisa agropecuaria brasileira 1: 269–277.

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