

NOTA CORTA

A remarkable Colombian species of Prioninae (Coleoptera: Cerambycidae: Prioninae): description of the male of *Calocomus kreuchelyi* Buquet

Una notable especie colombiana de Prioninae (Coleoptera: Cerambycidae: Prioninae): descripción del macho de *Calocomus kreuchelyi* Buquet

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ABSTRACT

The prionid genus *Calocomus* Audinet-Serville, 1832 is a South American group that is currently composed of five species. Of the known species, only *C. kreuchelyi* Buquet, 1840 is known by females. Herein, the unknown male of *Calocomus kreuchelyi* Buquet, 1840 is described, including its terminalia, and the species is newly recorded for the Casanare department. Additionally, a map of the geographical distribution of *C. kreuchelyi* and an updated key to the species of *Calocomus* are provided. The validity of the spelling “*kreuchelyi*” is discussed.

Keywords: Calocomini, key to species, Terminalia.

RESUMEN

El género *Calocomus* Audinet-Serville, 1832 es un grupo suramericano que actualmente está compuesto de cinco especies. De las especies conocidas, solo *C. kreuchelyi* Buquet, 1840 es conocida solo por uno de los sexos, las hembras. En este trabajo, el macho desconocido de *Calocomus kreuchelyi* Buquet, 1840 es descrito por primera vez, incluyendo su terminalia y la especie es reportada por primera vez para el departamento de Casanare. Además, se proporciona un mapa de la distribución geográfica de *C. kreuchelyi* y una clave actualizada de las especies de *Calocomus*. Se discute la validez de la grafía “*kreuchelyi*”.

Palabras clave: Calocomini, clave de especies, terminalia.

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INTRODUCTION

Calocomus was proposed by Audinet-Serville (1832) for a single species, *Prionus desmarestii* Guérin-Méneville, 1831, from Tucumán (Argentina). The genus is the only one that composes the tribe Calocomini Galileo and Martins, 1993.

Currently, the genus includes five species, with known geographical distribution only in South America: *Calocomus desmarestii* (Guérin-Méneville, 1831); *C. kreuchelyi* Buquet, 1840; *C. morosus* White, 1850; *C. rodingeri* Tippmann, 1951; *C. rugosipennis* Lucas, 1859 (Monné 2023; Tavakilian and Chevillotte 2022). *Calocomus kreuchelyi* is the only species known only to individuals of a single sex.

Calocomus kreuchelyi was described by Buquet (1840a) based on a single specimen, a female from “Santa Fé” (Bogotá, Colombia). In the same work, Buquet described *Calocomus lycius*, also based on a single female from “Santa Fé”. Lameere (1909) considered that the differences between both species proposed by Buquet (1840a) were only variations of coloration and synonymized the latter with the former. Galileo and Martins (1994) revised the tribe and redescribed the species based on the original descriptions and photographs of the holotype of *C. lycius*. Later, Martins and Galileo (1996) expanded its geographical distribution in Colombia to the Meta department. Currently, the species is endemic from Colombia and known only from Cundinamarca and Meta departments and only by females.

Herein, we are describing and illustrating for the first time the male of *C. kreuchelyi*, including the description of its terminalia, expanding its known geographical distribution, and providing an updated key to species of the genus.

MATERIAL AND METHODS

The collection acronyms used in this study are as follows:

ANDES-E - Museo de Historia Natural CJ Marinkelle, Universidad de los Andes, Bogotá, Colombia; IAvH-E - Instituto de Investigaciones de Recursos Biológicos “Alexander von Humboldt”, Villa de Leyva, Colombia; MHN-UPN - Colección Entomológica del Museo de Historia Natural de la Universidad Pedagógica Nacional de Colombia, Bogotá,

Colombia; UNAB - Facultad de Agronomía, Universidad Nacional de Colombia, Bogotá, Colombia.

The references of the species are restricted to the original descriptions and synonyms. For full references, see Monné (2023) and Tavakilian and Chevillotte (2022). In order to document the sexual differences (unknown until now) we are highlighting the differences with the female.

In order to dissect the male terminalia, the abdomen of the specimen was directly extracted and soaked in a hot solution of KOH (10 %) for about five minutes, to decompose tissues and clear its parts. The photographs of the habitus of specimens were taken with a Canon EOS Rebel SL2 camera using a Laowa 3937 f/2.8 2:1 Ultra Macro APO lens, and the photographs of the Terminalia with a Nikon 5300 camera attached to a Nikon SMZ1270 stereomicroscope. The map was designed with the software ArcView GIS 10.5.

RESULTS

CALOCOMINI Galileo and Martins, 1993

Calocomus Audinet-Serville, 1832

Calocomus kreuchelyi Buquet, 1840

Calocomus Kreuckelyi Buquet, 1840a: 142.

Calocomus kreuchelyi Buquet, 1840b: 1.

Calocomus lycius Buquet, 1840a: 142.

Figs. 1–3.

Male. Fig. 1a–d. Integument mostly reddish brown; elytra lighter, more so toward apex; humeri slightly darker; scutellum black on margins. Prothorax, head, scape, pedicel, antennomeres III–V, and most of VI–XI black. Palpomeres, the apex of antennomeres VI–XI, antennomeres XII–XXV, the internal surface of femora, and tarsomere V reddish. Metaventrite darker centrally; apex of femora and tibiae dark brown.

Vertex with deep, wide sulcus between antenna tubercles and upper eye lobes, gradually shallower and narrower toward occiput; pubescence yellowish white, moderately long and abundant near posterior margins of ocular lobes and sparser centrally; punctuation on vertex coarse

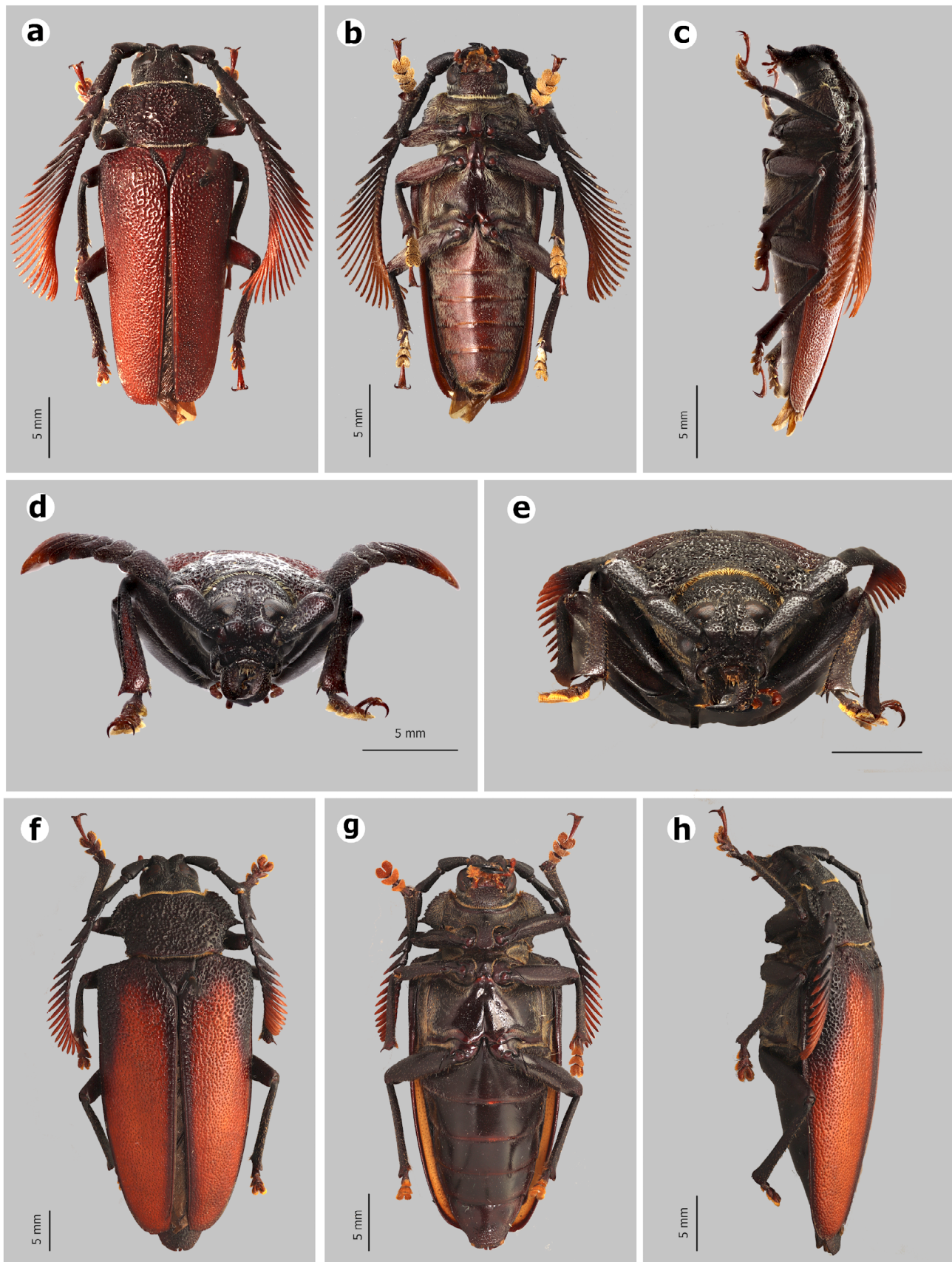


Figure 1. *Calocomus kreuchelyi* Buquet, 1840. **a-d.** Male, **a.** Dorsal view, **b.** Ventral view, **c.** Lateral view, **d.** frontal view. **e-h.** Female, **e.** frontal view, **f.** Dorsal view, **g.** Ventral view, **h.** Lateral view.

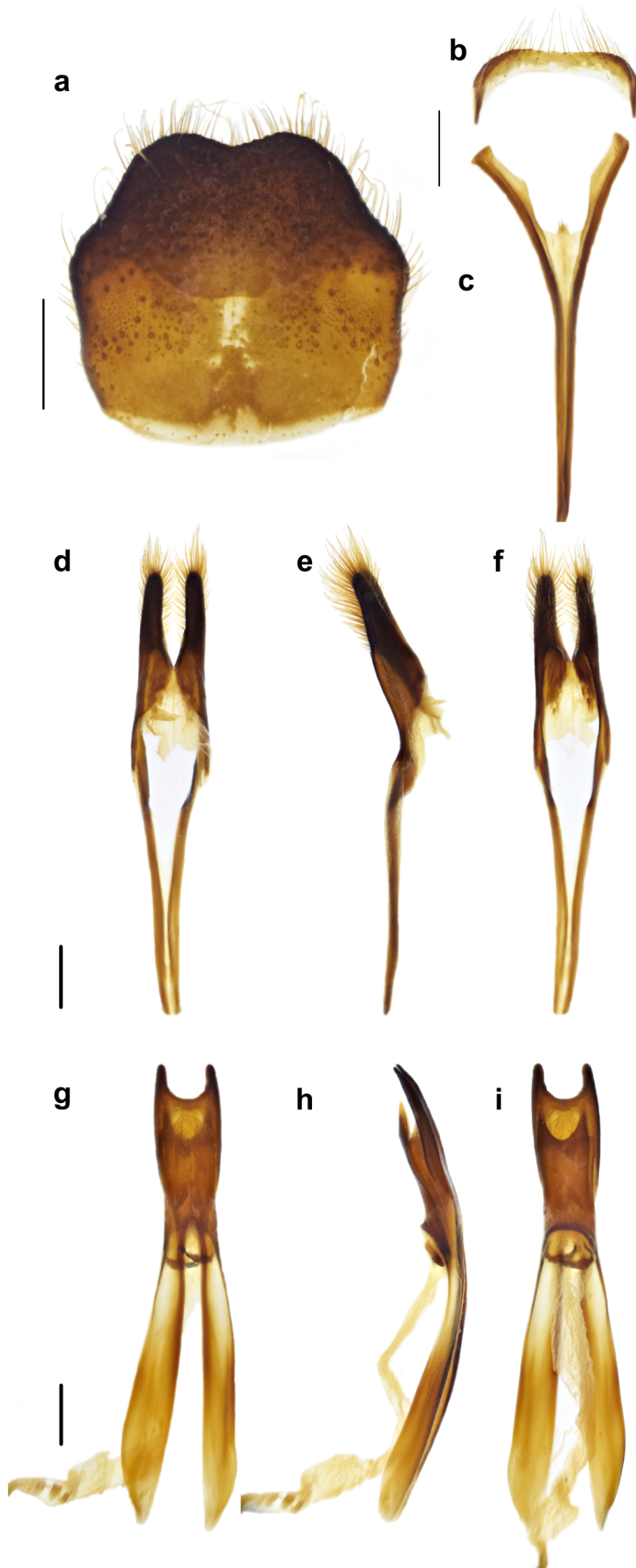


Figure 2. *Calocomus kreuchelyi* Buquet, 1840, male. **a.** Tergite VIII, **b.** Dorsal arc, **c.** ventral arc. **d-f.** Tegmen, **d.** Dorsal view, **e.** Lateral view, **f.** ventral view. **g-i.** Median lobe, **g.** Dorsal view, **h.** Ventral view, **i.** Lateral view. Scale bar = 1 mm.



Figure 3. Geographical distribution of *Calocomus kreuchelyi* Buquet, 1840.

and moderately sparse, finer and sparser centrally; ocular carina low; distance between upper eye lobes 0.30 times length of scape; ventrally, the distance between lower eye lobes equal to the length of scape. The apex of gena rounded. Gulamentum well delimited, coarsely and densely granulated, with long and sparse yellowish-white setae. Mandibles coarsely, deeply, confluent punctate dorsally; punctures finer and denser laterally. Antennae 25-segmented, reaching the apical third of elytra. Antennomeres III–V with ventral carina.

Pronotum coarsely, deeply, and confluent punctate, punctures laterally coarser, sparser on sides of the central region, denser, not confluent centrally; with long and sparse yellowish-white pubescence, pubescence denser laterally. Prosternum with yellowish-white pubescence laterally and yellowish centrally, and long setae, denser laterally. Prosternal process-wide, convex centrally; apex widened, projected as rounded lobe, almost glabrous, just with some short setae. Scutellum 1.2 longer than its basal width, with short and sparse setae; apex narrowly rounded.

Elytra glabrous, narrowed toward apex; apical margin crenulate, lateral apex rounded and sutural angle slightly projected; punctures coarse, dense, finer toward apex, vermiculate-punctate on the inner area of basal half. Metaventrite and metanepisternum with long, decumbent yellowish-white pubescence, the pubescence dense, except on the central area of metaventrite. Lateral surfaces of metatibiae are flat and the dorsal face is very narrow.

Ventrites 1–4 (Fig. 1b) moderately finely punctate, except smooth apex; with abundant yellowish-white pubescence laterally, pubescence sparse centrally, except glabrous apex. Ventrite 5 with punctures coarser and denser, especially toward the apical region, apical margin concave.

Male Terminalia. Tergite VIII (Fig. 2a) with sides divergent from base to almost apical third, then strongly convergent; distal margin deeply emarginate medially and lined with long yellow setae. Sternite VIII has broken during the dissection process. Dorsal arc (Fig. 2b) with distal margin sub truncates, slightly sinuous medially, lined with long yellow setae. Ventral arc (Fig. 2c) is fork-shaped, with apophysis very long, and arms almost straight. Tegmen (Fig. 2d–f) slightly shorter than median lobe; distal region completely divided into parameres; parameres cylindrical-elongate, subparallel, bearing both short and long setae, apex rounded; ring piece elongate, proximal part connec-

ted only by the narrow membrane, without projection. The median lobe (Fig. 2d–f) is curved in lateral view; the dorsal lobe is longer than the ventral, with the apex concave and both angles strongly projected; the ventral lobe with apex as the dorsal lobe; the basal apophysis about twice the length of the apical region.

Female. Figs. 1e–h. Antennae 20-segmented, surpassing the basal third of elytra. Ventrites 1–2 with sparse short setae laterally, and glabrous centrally, ventrites 3–5 almost glabrous. Posterior margin of ventrite 5 rounded.

Taxonomic remarks: *Calocomus kreuchelyi* is a remarkable species and easily differentiated from other species of the genus by the antennae with more than 20 antennomeres. In the other species of the genus, the antennae have less than 20 antennomeres.

Among the species of the genus, only *C. desmarestii* and *C. morosus* have the male genitalia described (Galileo and Martins 1994). The male genitalia of *C. kreuchelyi* can be differentiated from the other by the apical margin of tergite VIII slightly projected laterally, the ring piece of the tegmen very elongated, and the apex of the dorsal and ventral lobe of median lobe concave and with both angles strongly projected. In *C. desmarestii* and *C. morosus* the apical margin of tergite VIII is strongly projected laterally and the ring piece of the tegmen is shorter. In *C. desmarestii* the apex of the dorsal lobe is projected medially and in *C. morosus* the apex of the dorsal lobe is rounded and the ventral lobe is truncated.

Currently, *C. kreuchelyi* is the only species of the genus recorded in Colombia.

Remarks: Buquet (1840a) briefly described *Calocomus kreuckelyi*, indicating that the formal description would be published in the “Magasin de Zoologie” (Buquet 1840b). In Buquet (1840a), there is no etymology for the species name. In the index of the same work, the species name also appears as “kreuckelyi.” Buquet (1840b) redescribed the species as *Calocomus kreuchelyi*, and indicated that the species name was a tribute to his friend “M. de Kreüchely.”

It is evident that “kreuckelyi” was a lapsus calami of the author, and not a copyist’s or printer’s error because the same spelling appears on page 372 (“Table de matières”). Even so, following the rules of de Code (ICZN 1999) the

species group name is accepted as “kreuchelyi” as appeared in Buquet (1840b) because it is in prevailing usage.

Measurements in mm (male/female): Total length (from apex of antennal tubercles to elytral apex), 30/42–41; prothoracic length (central area), 5/ 8–7 prothoracic width (between the apices of lateral tubercles), 10/15–14; humeral width, 11/17–16; elytral length, 20/31–30.

Material examined. COLOMBIA, one female, “Llanos Orientales”, 8.III.1984, Añez and Arevalo leg. (MHN-UPN_2200580); **Casanare**: 1 male, Paz de Ariporo, Vereda Las Hermosas, Finca Nicaragua, 1.XI.2004, H. Londoño leg. (IAvH-E-247447); **Cundinamarca**: one female, San Francisco de Sales, Finca la Galia, 2400 m, XI.2003, no collector date (ANDES-E_18406); **Meta**: one male, Puerto Gaitán, 15.VII.1981, E. Gomez and F. Gonzalez leg. (MHN-UPN_2200581); one female, same locality, 26.V.2005, R. Ávila leg. (UNAB_3123); one female, Hacienda Carimagua, 22.VI.1981, M. Sanmartín leg. (MHN-UPN_2200583); one male, Puerto Lopez, 2.I.2006, Jose H. leg. (MHN-UPN_2200582).

Distribution. Colombia (Casanare, Cundinamarca, and Meta) (Fig. 3).

Key to the species of *Calocomus* adapted from Galileo and Martins (1994) and Santos-Silva et al. (2010)

1. Elytral punctation dense only on the anterior third, finer or absent on the remaining surface. Argentina, Bolivia, Paraguay.....*C. desmarestii*

- Elytra densely and almost uniformly punctate throughout.....2

2(1). Antennae with 20–25 antennomeres. Colombia (Casanare, Cundinamarca, Meta).....*C. kreuchelyi*

- Antennae with less than 20 antennomeres.....3

3(2). Ratio of humeral width/elytral length ca. 1:3; elytral margins subparallel up to apical curvature. Bolivia, Peru.....*C. rodingeri*

- Ratio of humeral width/elytral length ca. 1:2; elytral margins more convergent toward apex.....4

4(3). Dorsal surface of metatibiae is very narrow and the lateral surfaces are flat. Brazil (Goiás, Mato Grosso do Sul, Minas Gerais, São Paulo), Argentina.....*C. rugosipennis*

- Dorsal surface of metatibiae is wide and the lateral surfaces are rounded. Bolivia, Argentina*C. morosus*

AUTHOR'S CONTRIBUTION

AJA and JPB design and writing; AJA, JPB and AS-S reviewed the draft of the paper, made suggestions and corrections and approved the final version.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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