



NOTA

A new sympatric record of two species of the genus *Parapsammadius* (Coleoptera: Scarabaeidae) in Colombia

Un nuevo registro simpátrico de dos especies del género *Parapsammadius* (Coleoptera: Scarabaeidae) en Colombia

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ABSTRACT

The genus *Parapsammadius* Verdú, Stebnicka & Galante, 2006 consists of four species distributed in the Americas and the West Indies. Only two of them are present in northern South America: *Parapsammadius integer* (Bates, 1887) and *Parapsammadius pseudointeger* Verdú, Stebnicka & Galante, 2006 that have been recorded in sympatry in Ecuador, and only the former have been formally reported from Colombia. During a recent expedition in the Amazonic department of Putumayo, Colombia, these two species were captured in sympatry using an ultraviolet (UV) light trap; the objective of this paper is to report the first sympatric record of *P. integer* and *P. pseudointeger* from Colombia, which also represent the first record of this latter species for the country. The specimens of *P. integer* and *P. pseudointeger* studied by us and previously reported in literature, were mostly captured by light-attraction methods in forest or near so.

Keywords: Aphodiinae, Eupariini, Psammodiini, *Parapsammadius integer*, *Parapsammadius pseudointeger*.

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RESUMEN

El género *Parapsammодиус* Verdú, Stebnicka & Galante, 2006 consiste de cuatro especies distribuidas en las Américas y las Indias Occidentales. Únicamente dos de ellas están presentes en el norte de Suramérica: *Parapsammодиус integer* (Bates, 1887) y *Parapsammодиус pseudointeger* Verdú, Stebnicka & Galante, 2006, las cuales han sido registradas en simpatria en Ecuador, y únicamente la primera ha sido formalmente reportada para Colombia. Durante una reciente expedición en el departamento Amazónico de Putumayo, Colombia, estas especies fueron capturadas en simpatria usando una trampa de luz ultravioleta (UV); el objetivo de este trabajo es reportar por primera vez el registro simpátrico de *P. integer* y *P. pseudointeger* en Colombia, y, por lo tanto, el primer registro de esta última para el país. Tanto los especímenes estudiados por nosotros como los reportados en literatura, fueron principalmente capturados por métodos asociados a la atracción a la luz en bosques o cerca de ellos.

Palabras clave: Aphodiinae, Eupariini, Psammодиini, *Parapsammодиус integer*, *Parapsammодиус pseudointeger*.

Verdú, Stebnicka, Galante (2006) described the genus *Parapsammодиус* placing four species distributed from USA to Colombia, Ecuador and Puerto Rico (the West Indies). Only two of these species have been recorded from northern South America: *Parapsammодиус integer* (Bates, 1887) and *Parapsammодиус pseudointeger* Verdú, Stebnicka and Galante, 2006. Both species have been collected in sympatry in Ecuador (Verdú et al., 2006; Schoolmeester, 2024). Regarding the genus *Parapsammодиус* in Colombia, there were only two records of *P. integer* from the department of Magdalena (Verdú et al., 2006; Pardo-Locarno and Schoolmeester, 2019).

Species of the genus *Parapsammодиус* have a mixed morphology between members of the tribes Eupariini and Psammодиini, but can be recognized by: the head with fine to coarse granules; clypeus with two teeth, one on each side of the median emargination; margin of gena without groove in front of eyes; vertex without swellings; pronotum evenly convex, with minute to fine punctures; elytral striae finely impressed; pygidium convex, not eroded; and metatibia with a longitudinal row of granules (Verdú et al., 2006).

During July of 2019, an UV light trap was installed in a flooded paddock near a secondary forest in Puerto Asís, Putumayo, Colombia. Two specimens of the genus *Parapsammодиус* were collected: a *P. integer* female and a *P. pseudointeger* male. This paper aims to report the first sympatric record of these two species from Colombia, as well as the first country record of *P. pseudointeger*.

Species were identified using the *Parapsammodius* species key of Verdú et al. (2006). The studied specimens were deposited in the Sección de Entomología, Colecciones Biológicas del Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Villa de Leyva, Boyacá, Colombia (IAvH-E). The adult photographs were taken with a Leica MC190 HD camera attached to a Leica S8-APO stereomicroscope, while the male genitalia and epipharynx were photographed with a Leica ICC 50W camera attached to a Leica DM750 microscope.

SPECIES ACCOUNT

Parapsammodius integer (Bates, 1887)
(Fig. 1A–C)

Diagnostic characters (partially based on Verdú et al., 2006).— Length 2.8–3.4 mm; head with fine granules; pronotum with shallow fine punctures equally spaced everywhere; elytra parallel; elytral striae relatively deep; elytral intervals convex, impunctate; abdominal ventrites punctate, distinctly fluted along sutures; metatibia with a longitudinal row of small granules.

Material examined.— One specimen from Colombia, Putumayo, Puerto Asís, Vereda La Lea, Platanillo, Potreros inundables cerca a Bosque secundario, 00°28'36.32"N 76°17'30.07"W, 246 m, Trampa de luz UV, 10–21. vii.2019, J. Aguilar-Cano (1♀ IAvH-E-215796).

Distribution.— Mexico, Colombia and Ecuador (Verdú et al., 2006).

Parapsammodius pseudointeger Verdú, Stebnicka & Galante, 2006
(Fig. 1D–H)

Diagnostic characters (partially based on Verdú et al., 2006).— length 3.5–3.9 mm; head with coarse granules; pronotum with shallow minute punctures equally spaced everywhere, punctures sometimes vanishing; elytra parallel; elytral striae relatively shallow; elytral intervals flat, impunctate; abdominal ventrites impunctate and smooth, indistinctly fluted along sutures; metatibia with a longitudinal row of small granules.

Material examined.— one specimen from Colombia, Putumayo, Puerto Asís, Vereda La Lea, Platanillo, Potreros inundables cerca a Bosque secundario, 00°28'36.32"N 76°17'30.07"W, 246 m, Trampa de luz UV, 10–21. vii.2019, J. Aguilar-Cano (1♂ IAvH-E-213576).

Distribution.— Colombia (new country record) and Ecuador (Verdú et al., 2006).



Figure 1. *Parapsammadius* species from Colombia. *Parapsammadius integer* (Bates, 1887): **A.** Dorsal view. **B.** Ventral view. **C.** Head and pronotum in dorsal view. *Parapsammadius pseudointeger* Verdú, Stebnicka & Galante, 2006: **D.** Dorsal view. **E.** Ventral view. **F.** Head and pronotum in dorsal view. **G.** Epipharynx in ventral view. **H.** Aedeagus in dorsal and lateral views.

Figura 1. Especies de *Parapsammadius* de Colombia. *Parapsammadius integer* (Bates, 1887): **A.** Vista dorsal. **B.** Vista ventral. **C.** Cabeza y pronoto en vista dorsal. *Parapsammadius pseudointeger* Verdú, Stebnicka & Galante, 2006: **D.** Vista dorsal. **E.** Vista ventral. **F.** Cabeza y pronoto en vista dorsal. **G.** Epifaringe en vista ventral. **H.** Edeago en vistas dorsal y lateral.

COMMENTS

Parapsammadius integer and *P. pseudointeger* have been collected in sympatry in the Amazonic province of Napo, Ecuador (Verdú et al., 2006), so the record of both species also in sympatry from the Colombian Amazonic department of Putumayo, is not surprising and agrees with the expected distribution of both species. In both countries, they were collected using blacklight traps or attracted to domestic lights in rainforest or near so. This new record of *P. pseudointeger* in Colombia extends the latitudinal distribution range of this species in South America.

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