Notas

A contribution of the genus *Oryctophileurus* (Coleoptera: Scarabaeidae: Dynastinae: Phileurini) for Argentina, with description of the parameres of *Oryctophileurus guerrai*

Una contribución del género *Oryctophileurus* (Coleoptera: Scarabaeidae: Dynastinae: Phileurini) para Argentina, con descripción del genital de *Oryctophileurus guerrai*

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Abstract: The first record of *Oryctophileurus guerrai* Perger & Grossi, 2013, from Argentina is presented, which confirms the known distribution of the genus towards the south. The male parameres of the species are described and illustrated for the first time. An updated identification key to the genera of Phileurini in Argentina is also included.
Keywords: Argentina, Distribution, New record, Phileurini.
Resumen: Se presenta el primer registro de *Oryctophileurus guerrai* Perger & Grossi, 2013 para Argentina, lo que confirma la distribución conocida del género hacia el sur. Se describen e ilustran por primera vez los parameros masculinos de la especie. También se incluye una clave de identificación actualizada para los géneros de Phileurini en Argentina.
Palabras clave: Argentina, Distribución, Nuevo registro, Phileurini.

The tribe Phileurini (Coleoptera: Scarabaeidae: Dynastinae) comprises approximately 300 species worldwide, primarily distributed in tropical regions. In the New World, 22 genera and 189 species have been recorded (Endrödi, 1985; Ratcliffe & Cave, 2023; Ratcliffe et al., 2023).

In Argentina, nine genera of Phileurini are currently known: *Actinobolus* Westwood, 1841 (2 species), *Archophileurus*Kolbe, 1910 (11 species), *Argentophileurus*Penco & Zubarán, 2013 (1 species), *Goniophileurus*Kolbe, 1910 (1 species), *Hemiphileurus*Kolbe, 1910 (2 species), *Homophileurus*Kolbe, 1910 (1 species), *Microphileurus* Kolbe, 1910 (1 species), *Phileurus* Latreille, 1807 (7 species) and *Trioplus* Burmeister, 1847 (1 species) (Endrödi, 1985; Penco & Zubarán, 2013; Di Iorio et al., 2017; Ratcliffe & Cave, 2023; Ratcliffe et al., 2023).

The Neotropical genus *Oryctophileurus* was established by Kolbe in 1910 to accommodate the species *Phileurus nasicornis* Burmeister, 1847. Currently, the genus includes four species: *O. nasicornis* (Burmeister, 1847), *O. armicollis* Prell, 1911, *O. varicosus* Prell, 1934 and *O. guerrai* Perger & Grossi, 2013 (Kolbe, 1910; Endrödi, 1977, 1985; Perger & Grossi, 2013). The latter species was originally described from the subhumid forests of the Bolivian Andes and represented the southernmost record of the genus until now.

Photographs of the mounted specimen were taken using an imaging system consisting of a Zeiss Discovery.V12 stereomicroscope and a Canon EOS 6D digital camera. The images were stacked using Helicon Focus v1.04 software. The images were edited and organized with Adobe Photoshop version 12.0. Photographs of parameres were taken using a Nikon D800e digital camera equipped with Nikon AFS VR Micro-NIKKOR 105 mm f/2.8G IF-ED and Raynox DCR-250 lenses; the images were stacked using Helicon Focus 6.7.1 Pro software and digitally edited with Adobe Photoshop CC 2019 software. The distribution map was generated with open-source software available at https://simplemappr.net/

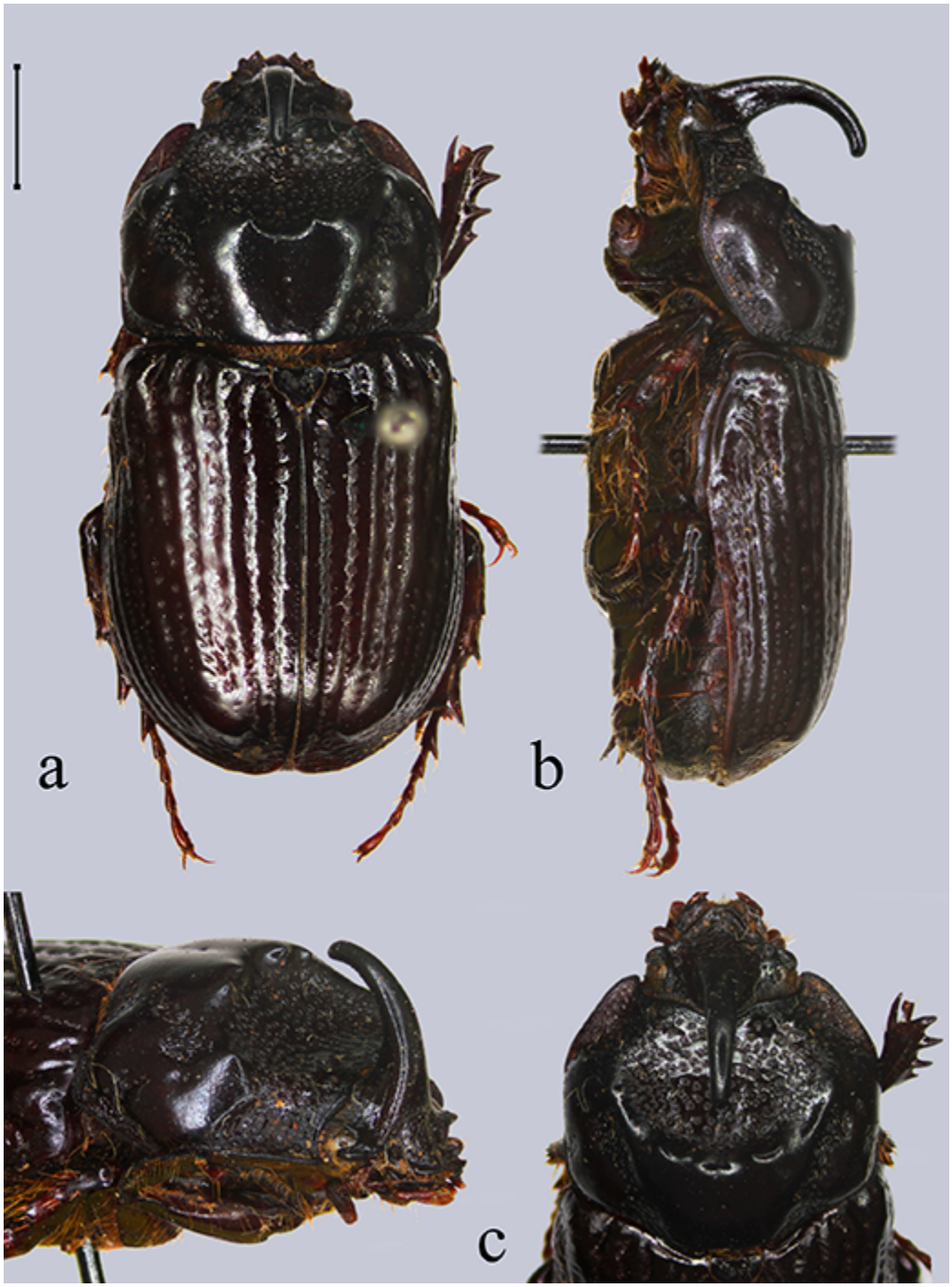

Figure 1.

Adult of *Oryctophileurus guerrai*.

a. Dorsal view. b. Lateral view. c. Fronto-dorsal view, showing detail of dorsal pronotum (scale bar = 3 mm).

Family Scarabaeidae Latreille, 1802
Subfamily Dynastinae MacLeay, 1819
Tribe Phileurini Burmeister, 1847
Genus *Oryctophileurus* Kolbe, 1910
***Oryctophileurusguerrai*Perger & Grossi, 2013**

(Figs. 1-3)

Distribution: BOLIVIA: Tarija, Reserva Nacional Tariquía.

Material examined: ARGENTINA: Jujuy, II-1915, 1 ♂, Bruch, C. col. [MACN_En 42057]. *New Country Record* (Fig. 2).

Description of parameres (Fig. 3): Phallobase 1.5 times longer than parameres; dorsal surface with a rounded constriction on the medial portion, strongly convex on the apex. Parameres symmetrical; basal portion with sides broadly separated and lateral margins sinuous; apical portion gradually narrowed, with convergent and straight sides; apex rounded, slightly dilated. In contrast, the parameres of *O. armicollis* and *O. varicosus* are abruptly narrowed on the apical region and have a strongly inflated apex, facilitating differentiation from *O. guerrai*. In lateral view, the parameres of *O. guerrai* are simply convex, with a slightly deflexed apex.

Figure 2.

Geographical distribution of *Oryctophileurusguerrai*.

Red circle indicates previously known (bibliographic) distribution. Open red circle indicates new record from Argentina (without locality data).

Figure 3.

Adult of *Oryctophileurus guerrai*.

Parameres: a. Frontal view, b. lateral view (scale bar = 1 mm).

Key to the Genera of Phileurini in Argentina

(Modified from Penco & Zubarán, 2013, Di Iorio et al., 2017 and Ratcliffe et al., 2023)

1. Outer side of mandibles simply curved..... 2

1` Outer side of mandibles tridentate..... 3

2. Frons with 1-2 horns or with tubercles..... 4

2` Frons without horns or tubercles..... 5

3. Apex of posterior tibia truncated, with many notches..... 6

3` Apex of posterior tibia poorly proyected, with 3 teeth; frons with 2 small tubercles; anterior tibia tridentate ***Goniophileurus*** **Kolbe**

4. Apex of posterior tibia truncated, lacking teeth..... ***Archophileurus*** **Kolbe**

4` Apex of posterior tibia with 1-3 teeth..... 7

5. Anterior tibia cuatridentate..... ***Actinobolus*** **Westwood**

5` Anterior tibia tridentate..... ***Argentophileurus*** **Penco &Zubarán**

6. Clypeal apex rounded; frons with 2 flattened horns..... ***Trioplus*** **Burmeister**

6` Clypeal apex obtusely acuminated; frons with 2 tubercles ***Microphileurus*** **Kolbe**

7. Frons with 1 horn..... ***Oryctophileurus*** **Kolbe**

7` Frons with 2 horns or tubercles..... 8

8. Apex of posterior tibia with 3 large teeth..... ***Homophileurus*****Kolbe**

8` Apex of posterior tibia with 1-2 large teeth..... 9

9. Tubercles or horns located near center of head..... ***Hemiphileurus*Kolbe**

9` Tubercles or horns located near lateral margins of head.. ***Phileurus* Latreille**

Oryctophileurus guerrai was originally described from Reserva Nacional Tariquía in the department of Tarija, southern Bolivian Andes (Perger & Grossi, 2013). The specimen reported here represents the first record for Argentina, collected in the province of Jujuy in 1915, with no precise locality. Perger and Grossi (2013) suggested that this species is probably endemic to the Tucumán-Bolivian montane forest, and the discovery of this specimen confirms the authors' assumption.

The ecoregion spans approximately 56,000 km^2 from southern Bolivia into northwestern Argentina, where it is known as Province of the Yungas (Cabrera, 1971; Cabrera & Willink, 1973; Arana et al., 2021). The Yungas are characterized by piedmont and cloud forests with various layered vegetation, abundant epiphytes, lianas and high-altitude tree species (Arana et al., 2021). They play a crucial role in regional biodiversity and harbor a high number of endemics (Morrone, 2014; Arana et al., 2021).

With this new record, five of the ten genera of Phileurini found in Argentina now have species documented in the Yungas: *Archophileurus* (5 species), *Goniophileurus*, *Microphileurus*, *Oryctophileurus* (1 species each) and *Phileurus* (6 species). Some of these taxa are restricted to Salta and Jujuy provinces, while others have a wider distribution across the country (Ratcliffe et al., 2023). Considering the scarcity of *Oryctophileurus* specimens deposited in scientific collections and the vulnerability of the Yungas to anthropogenic impacts, comprehensive studies of the region's entomofauna are essential for understanding and conserving its unique biodiversity.

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Notes

AUTHORS CONTRIBUTIONS

Conceptualization: GEZ, TAFD; Methodology: GEZ, TAFD; Writing – original draft preparation: GEZ.

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