

SHORT COMMUNICATION

A new species of the genus *Aegidium* Westwood (Coleoptera: Scarabaeidae: Orphninae) from Peru

Luis FIGUEROA^{1,3}, Julián CLAVIJO-BUSTOS², Jhon César NEITA MORENO^{2*} ¹ Universidad Nacional Mayor de San Marcos, Museo de Historia Natural, Departamento de Entomología, Av. Arenales 1256 Jesús María, Lima 14, Peru² Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Colecciones Biológicas, Sección de Entomología, Claustro de San Agustín, Villa de Leyva, Boyacá, Colombia³ Bosque Llaqta, Av. Confraternidad Internacional Este 364, Huaraz, Peru* Corresponding author: jneita@humboldt.org.co;  <https://orcid.org/0000-0003-2998-2063>**ABSTRACT**

A new species of *Aegidium* from Peru is described and illustrated. It can be recognized from its congeners by the shape of the parameres and spiculum gastrale, but also by the punctuation of the pronotum and the elytra. The species occurs in the Andean-Amazonian piedmonts from Peru.

KEYWORDS: Amazon, Neotropical region, scarab beetle, taxonomy

Una nueva especie del género *Aegidium* Westwood (Coleoptera: Scarabaeidae: Orphninae) de Perú

RESUMEN

Una nueva especie de *Aegidium* de Perú es descrita e ilustrada. Ella puede ser reconocida de sus congéneres por la forma de los parámetros y el espiculum grastal, pero también por la puntuación del pronoto y los élitros. La especie ocurre en el piedemonte Andino-Amazónico de Perú.

PALABRAS CLAVE: Amazonia, región Neotropical, escarabajo escarabeídeo, taxonomía

The tribe Aegidiini is exclusively composed by the neotropical members of the subfamily Orphninae (Scarabaeidae), and comprises five genera and 50 species (Colby 2009; Frolov and Vaz-de-Mello 2015; Frolov *et al.* 2015, 2017a, 2017b, 2017c, 2019; Gasca-Álvarez and Deloya 2020; Frolov and Akhmetova 2020, 2021). The genus *Aegidium* Westwood is the largest of the tribe, with 26 species distributed from Mexico to Bolivia and the Lesser Antilles (Frolov *et al.* 2017a; Rojkoff and Frolov 2017; Frolov and Akhmetova 2020, 2021). Currently, only two species have been recorded for Peru: *Aegidium peruanum* Frolov, Akhmetova & Vaz-de-Mello, 2017 and *Aegidium reichei* Preudhomme de Borre, 1886 (Frolov *et al.* 2017a). However, the record of *A. reichei* in Peru may be erroneous due to mislabeling of a single specimen, considering the disjunct distribution of its recent records. The type locality of the species is “Colombie” (Colombia), and various specimens have been recorded recently from a locality in the central Andes of Colombia, as well as a single specimen from a locality in Amazonian Peru (Frolov *et al.* 2017a). More collections are needed to clarify the distribution of *A. reichei*.

Aegidium is a fairly rare genus with little presence in collections, primarily due to the fact that the techniques commonly used to collect other scarabs, such as baited pitfall and light traps seem inefficient for species of *Aegidium*, which are occasionally collected with flight interception and Malaise traps. Here we describe a new species of *Aegidium* from Peru based on a single individual, which was collected using a flight interception trap.

The specimen is deposited in the entomological collection of Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos - MUSM (Lima, Peru). The new species was contrasted against all described species in the genus, using the recent revisions of the genus by Rojkoff and Frolov (2017) and Frolov *et al.* (2017a), and posterior descriptions by Gasca-Álvarez and Deloya (2020) and Frolov and Akhmetova (2020, 2021). The terminology for the description follows Frolov *et al.* (2017a), and Frolov and Akhmetova (2020, 2021). Photographs were taken under a stereomicroscope Olympus SZ30 and the Zerene Stacker v.1.04. The images were cleaned and arranged using Photoshop 21.2.0. The distribution map was made using ArcMap 10.3.

CITE AS: Figueroa, L.; Clavijo-Bustos, J.; Neita Moreno, J.C. 2023. A new species of the genus *Aegidium* Westwood (Coleoptera: Scarabaeidae: Orphninae) from Peru. *Acta Amazonica* 53: 53-55.

Aegidium supai sp. nov. Figuroa, Clavijo-Bustos & Neita Moreno

Zoobank identifier: urn:lsid:zoobank.org:act:A9C98D4B-B3CE-43E7-9529-A38F132C7868

Type material: Holotype: “PERÚ. PA. [Pasco Departament] Pasco, / Oxapampa, Constitución/10°3'46.13”S/ 75°1'49.17”W, 270m, i.2021, I. Medina”; with red label “*Aegidium supai*/ Figuroa, Clavijo-Bustos & Neita-Moreno/ Holotype ♂”. Type deposited in MUSM.

Description. Holotype. Male (Figures 1, 2). Length 13.2 mm; width 6.8 mm at middle of elytra, width of pronotum 6.6 mm. **Coloration:** Upper side of body shiny, color uniform blackish brown. **Head** (Figure 1d): without traces of medial horn or tubercle. Frontoclypeus with anterior margin straight, softly sinuate at the middle, rounded laterally. Head surface with oval to oval transverse coarser, contiguous punctures in the frons, especially near the eyes; otherwise, with smaller round punctures separated by 1 to 1.5 puncture diameter. Eyes relatively small: width about 0.125 distance between eyes in dorsal view. Labrum rounded, small and slightly protruding past clypeus in dorsal view. **Pronotum:** wider than elytra, 1.24 times wider than long. Anterior margin not bordered, posterior angles widely rounded. Base of pronotum not bordered, with a shallow irregular row of round punctures separated by less than 1 puncture diameter. Lateral margins crenulate. Surface of pronotum covered with rounded punctures more or less densely distributed, which are closer and have raised margins (crater-shaped appearance) in the entire anterior third (Figure 1b,d). Pronotal disc medially flattened and excavated, with lateral pronotal processes long, horn-shaped, and with a small horn medially on the anterior margin (Figure 1b,d). **Scutellum:** narrow, subtriangular, and rounded apically. About 0.062 length of elytra. **Elytra:** 1.12 times longer than wide, wider in the basal third and slightly tapering apically in dorsal view; with humeral and apical

umbones. First elytral longitudinal carina feebly indicated basally, almost completely indistinct, second indistinct. Elytra covered with dense rounded to slightly oval elongated punctures, separated by 1 or less than 1 puncture diameter; slightly less dense over the sides. **Posterior wings:** fully developed, macropterous. **Legs:** femora sparsely punctate with rounded punctures. Anterior tibiae with four teeth laterally directed in the external face and distributed over the apical half, the basal one vaguely defined, almost obsolete; also, another tooth anteriorly directed is located in the inner anterior part of the anterior tibiae, over the protarsal and protibial spur insertion. Mesotibiae ventroapically without a tuft of setae (Figure 1e). Inner apical spur of the mesotibia longer than the first mesotarsomere, straight but slightly curved apically. First mesotarsomere as long as the combined length of the 2-4 mesotarsomeres. Mesotarsomere 4 shorter than mesotarsomere 5. Mesotibial claw 1/3 the length of the mesotarsomere 5. **Abdominal sternites:** covered with coarse, irregularly shaped punctures, in some cases, somewhat coalescent forming irregular lines of punctures, especially in the sternites 4-6 (Figure 1f). Sternites 4-7 with a smooth area along the entire posterior edge; in contrast, sternite 8 with small punctures over the anterior edge and coarse punctures over the disc (Figure 1f). Sternite 8 about twice as long as sternites 1-7 along midline. **Pygidium:** triangular, convex, and covered with densely distributed coarse punctures of irregular shape. **Aedeagus:** relatively short, parameres 0.49 times as long as phallobase (Figure 2a). Parameres slightly uneven (probably due to the extraction process), each apically rounded and slightly divergent between each other (Figure 2b). Parameres slightly wider than apical part of phallobase, lacking ventrobasal transverse plate (Figure 2a-c). Cranial part of spiculum gastrale narrow and tapering apically, subsquared in the apex (Figure 2d). **Female.** Unknown.

Variation. Only one specimen was available.

Diagnosis. *Aegidium supai* sp. nov. shares with a few other species the dense punctuation of the elytra (Figure

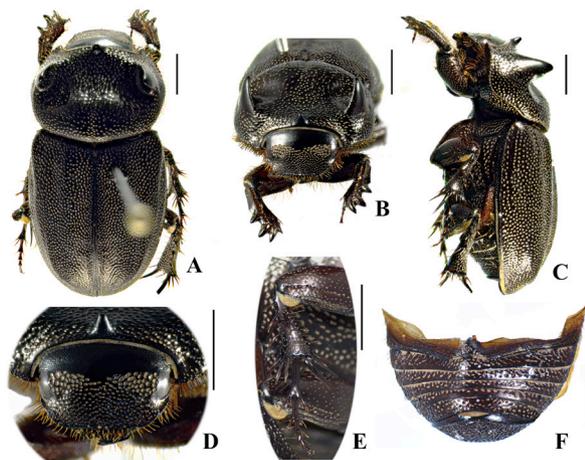


Figure 1. *Aegidium supai* sp. nov. Holotype male. A – dorsal view; B – frontal view; C – lateral view; D – head in dorsal view; E – mesotibia in ventral view; F – abdomen in ventral view. Scale bars: 2 mm. This figure is in color in the electronic version.

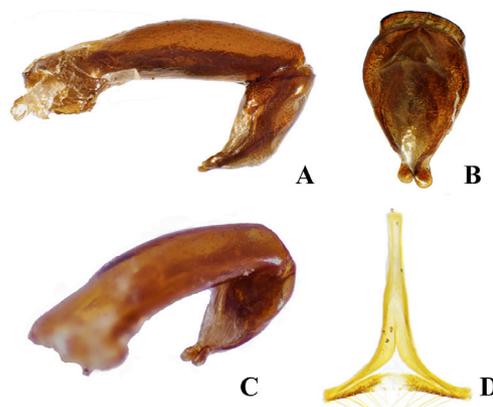


Figure 2. *Aegidium supai* sp. nov. A – aedeagus in lateral view; B – parameres in frontal view; C – parameres in ventral view; D – spiculum gastrale. This figure is in color in the electronic version.

1a) and the absence of a ventroapically tuft of setae at the mesotibiae (Figure 1e), namely *Aegidium bolivianum* Frolov & Akhmetova, 2021, *Aegidium geayi* Paulian, 1984, *Aegidium peresfilhoi* Frolov, Akhmetova & Vaz-de-Mello, 2017, and *Aegidium varians* Frolov, Akhmetova & Vaz-de-Mello, 2017. According to the identification key for American mainland *Aegidium* species (Frolov et al. 2017a), the new species alligns with *A. reichei* and *A. varians*, and also with the recently described *Aegidium bolivianum* Frolov & Akhmetova, 2020 and *Aegidium simplex* Frolov & Akhmetova, 2021. These five species share the absence of a ventroapically tuft of setae at the mesotibiae and the lack of a ventrobasal transverse plate in the parameres. However, *A. supai* can be easily distinguished from *A. reichei*, *A. varians*, *A. bolivianum* and *A. simplex* by the almost completely indistinct elytral longitudinal carinae (Figure 1a,c), the crater-shaped pronotal punctures on the anterior third of the disc (Figure 1b,d), and the shape of the parameres and spiculum gastrale (Figure 2a-d). The combination of these morphological features distinguish *A. supai* from other species in the genus.

Etymology. The Quechua word *supai* means “devil”. The specific name is based on the appearance of the specimen in frontal view as a devil with a pair of horns over its head (in reference to the pronotal horns) (Figure 1b). The specific epithet is a noun in the nominative case, standing in apposition.

Distribution. The specimen is known from a single locality near the city of Constitución, in Pasco Department, Peru, which corresponds to a very humid forest in the Andean-Amazonian piedmont (Figure 3).

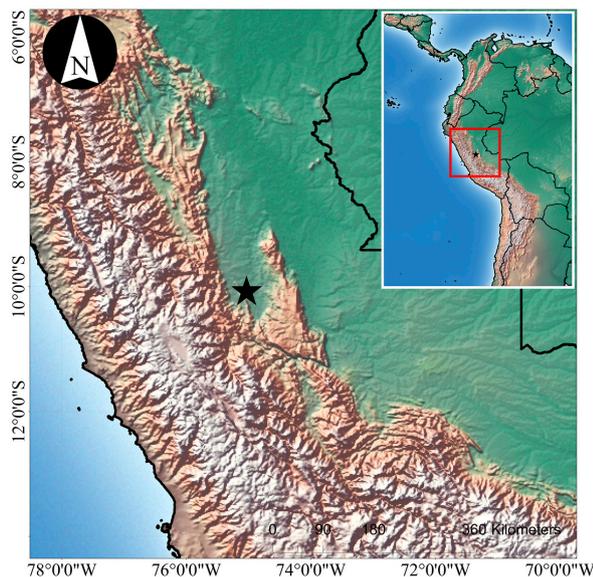


Figure 3. *Aegidium supai* sp. nov. type locality in Constitución, Pasco Department, Peru. This figure is in color in the electronic version.

ACKNOWLEDGMENTS

We thank Ivette Medina, collector of the specimen, the mine company La Poderosa S.A. for providing logistical arrangements, and Ministerio de Agricultura y Riego (Peru) for granting the collection permit RDG # 0019-2015-SERFOR-DGGSPFFS. We also thank two anonymous reviewers for their comments that helped us to improve this article.

REFERENCES

- Colby, J. 2009. Monographic revision of the genus *Aegidinus* Arrow (1904) and generic phylogeny of the world Orphninae (Coleoptera: Scarabaeidae: Orphninae). *Insecta Mundi*, 76: 1-41.
- Frolov, A.V.; Akhmetova, L.A. 2020. A new species of the scarab genus *Aegidium* Westwood (Coleoptera, Scarabaeidae: Orphninae) from Bolivia. *Entomological Review*, 100: 426-429.
- Frolov, A.V.; Akhmetova, L.A. 2021. A new species of *Aegidium* Arrow (Coleoptera: Scarabaeidae: Orphninae) from Colombia. *Zootaxa*, 4927: 583-586.
- Frolov, A.V.; Vaz-de-Mello, F.Z. 2015. A new genus and species of Orphninae (Coleoptera: Scarabaeidae) associated with epiphytes in an Andean cloud forest in Ecuador. *Zootaxa*, 4007: 433-436.
- Frolov, A.V.; Grossi, P.C.; Vaz-de-Mello, F.Z. 2015. A new species of the genus *Aegidium* (Coleoptera, Scarabaeidae) from the Atlantic Forest ecoregion in South America. *Zootaxa*, 4007: 437-439.
- Frolov, A.V.; Akhmetova, L.A.; Vaz-de-Mello, F.Z. 2017a. Revision of the South American genus *Paraegidium* (Coleoptera: Scarabaeidae: Orphninae). *Journal of Natural History*, 51: 995-1014.
- Frolov, A.V.; Akhmetova, L.A.; Vaz-de-Mello, F.Z. 2017b. Revision of the mainland species of the Neotropical genus *Aegidium* Westwood (Coleoptera: Scarabaeidae: Orphninae). *Journal of Natural History*, 51: 1035-1090.
- Frolov, A.V.; Akhmetova, L.A.; Vaz-de-Mello, F.Z. 2017c. Revision of the Neotropical scarab beetle genus *Aegidiellus* Paulian (Coleoptera: Scarabaeidae: Orphninae) with description of two new species. *Journal of Natural History*, 51: 1767-1779.
- Frolov, A.V.; Akhmetova, L.A.; Vaz-de-Mello, F.Z. 2019. Contribution to the knowledge of *Aegidinus* Arrow (Coleoptera: Scarabaeidae: Orphninae): new species and comments on the classification and nomenclature. *Journal of Natural History*, 53: 725-747.
- Gasca-Álvarez, H.J.; Deloya, C. 2020. A new Andean species of *Aegidium* Westwood (Coleoptera: Scarabaeidae: Orphninae: Aegidiini), with a key to the Colombian species of the genus. *Studies on Neotropical Fauna and Environment*, 56: 182-187.
- Rojkoff, S.; Frolov, A.V. 2017. Révision des espèces du genre *Aegidium* Westwood, 1845, des Petites Antilles (Coleoptera: Scarabaeidae, Orphninae, Aegidiini). *Annales de la Société entomologique de France*, 52: 354-368.

RECEIVED: 15/07/2022

ACCEPTED: 20/10/2022

ASSOCIATE EDITOR: Pitágoras C. Bispo



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.