Pumiliofossorum: A new genus of Scotobiini (Coleoptera: Tenebrionidae) with two new species from Peru, and a revised key for the genera of the tribe

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Abstract
A new genus, Pumiliofossorum Silvestro & Giraldo gen. nov. (Tenebrioninae: Scotobiini) and two new Peruvian species, Pumiliofossorum moche Silvestro & Flores sp. nov. and P. sechurae Giraldo & Flores sp. nov. are described and illustrated. Distributional data, habitat records, photographs, and SEM images are included. A revised key for the six genera of Scotobiini is provided. Morphology of the newly described genus is discussed in reference to the other genera of Scotobiini. Dome-shaped placoid sensoria are imaged for the first time in Scotobiini.

Key words: taxonomy, Tenebrioninae, Scotobiini, dune adapted, Peruvian species

Introduction
The family Tenebrionidae comprises about 2,300 genera and 20,000 species worldwide (Matthews et al., 2010). Tenebrioninae is one of its most diverse subfamilies with most of the species living in mesic environments such as temperate and subtropical grasslands and forests, but some tribes of Tenebrioninae, including Scotobiini, are abundant in arid and subarid environments (Doyen, 1994). All members of Scotobiini show adaptations to arid and semiarid habitats namely: the absence of the second pair of wings, strong joints between the elytra and the abdominal sternum and develop a subelytral cavity to help prevent water loss (e.g. Silvestro et al., 2012).

Scotobiini was created by Solier in 1838 to include the previously described genera Ammophorus Guérin-Méneville and Scotobius Germar, and three new genera Diastoleus Solier, Gonogenius Solier, and Leptynoderes Solier. Lacordaire (1859) added Emmalodera Blanchard and Psammetichus Latreille to the tribe, synonymized Gonogenius with Scotobius and transferred Ammophorus to Nyctoporni. Later, Kulzer (1955) reviewed the Scotobiini and added a new genus, Pseudoscotobius. Since then Pseudoscotobius was synonymized with Phrynocarenurn Gebien (Marcuzzi, 1976) and Psammetichus transferred to Elenophorini (Doyen & Lawrence, 1979). Recently, Doyen (1994) added newly the genus Ammophorus to the tribe. Prior to this study Scotobiini was comprised of 111 species/subspecies (Silvestro, unpublished data) classified in five genera: Ammophorus, Diastoleus, Emmalodera, Leptynoderes and Scotobius.

Scotobiini is endemic to South America. The representatives of this tribe mainly occur in arid lands of Ecuador, Galapagos Islands, Peru, Bolivia, Chile and Argentina (Matthews et al., 2010). On the other hand, several species also inhabit mesic environments of Eastern Argentina, Uruguay and Southeastern Brazil (Kulzer, 1955). The distribution of this tribe extends to the south, reaching Tierra del Fuego Island.

As a result of several sampling excursions conducted in Northwestern Peru, specimens belonging to two new species of Scotobiini were found. After an examination of characters of these new species, we demonstrate that they deserve recognition as a separate genus, which we name Pumiliofossorum. The objectives of this paper are to describe and illustrate a new genus and two new species of Scotobiini from Peru.