ZooKeys 1001

2020 RECOGNITION AND REVISION OF THE PHELISTER BLAIRI GROUP (HISTERIDAE, HISTERINAE, EXOSTERNINI) by Michael S. Caterino, Alexey K. Tishechkin

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The genus *Phelister* represents one of the largest radiations of histerid beetles in the neotropics, yet its taxonomy has received little attention. While comprising only about 200 described species, hundreds more are known and await description. Identification of the species has been very difficult. And where to draw the boundary between Phelister and other neotropical genera of Exosternini has also been contentious.

Yet these predatory beetles are abundant, and may offer valuable data to efforts to track fauna shifts in the face of climate and land-use changes. They are often found in association with decaying animal carcasses, and have been promoted as important tools in forensic investigations. And other species have been used to help control flies that breed in cattle dung, where these beetles may be abundant. Beyond potentially practical uses, these beetles also show an array of symbiotic relationships with social insects, and probably have an interesting evolutionary story to tell. So, a well-resolved taxonomic system offers many benefits.

In this study we hypothesize the existence of a novel clade of *Phelister*, which we informally refer to as the Phelister blairi group. Only 8 of the 49 species we assign to this group have been previously described. Here we describe 41 additional new species, providing a key for their identification. Descriptions are augmented with high-resolution photographs and handdrawn diagnostic images of various characters. We also update previous analyses of the phylogeny of *Phelister* to test this group's monophyly and to try and determine its relationships within the broader exosternine radiation.

# **RECOGNITION AND REVISION OF** THE PHELISTER BLAIRI GROUP (HISTERIDAE, HISTERINAE, **EXOSTERNINI**)

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Phelister fraternus Caterino & Tishechkin, sp. nov

ZooKeys 1001 ♦ 2020 **Special Issue** 

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