



A review of *Hippeutister* Reichensperger with new species from California and Costa Rica (Coleoptera: Histeridae: Hetaeriinae)

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Abstract

The myrmecophilous genus *Hippeutister* Reichensperger, 1935, contains six species, known from scattered localities in North, Central and South America. Two of these, *H. californicus* n. sp. and *H. solisi* n. sp. are newly described herein. The other four are *H. manicatus* (Lewis) (= *H. solenopsidis* Reichensperger, syn. nov.), *H. plaumanni* Reichensperger, *H. castaneus* (Lewis), and *H. amabilis* (Wenzel). The genus is likely monophyletic, and is easily recognized by the presence of a very broad prosternal keel, which is deeply triangularly incised at the base. Species of *Hippeutister* are unusual among hetaeriine Histeridae in their occurrence in the nests of fire ants (*Solenopsis* spp.)

Key words: fire ants, myrmecophily, inquiline, Coleoptera, Histeridae

Introduction

Reichensperger (1935) described the hetaeriine genus *Hippeutister* to accommodate a new species from the nests of *Solenopsis* Westwood ants in Costa Rica, *H. solenopsidis*. He characterized this genus as 'a more dorsally convex and narrower *Nymphister* Reichensperger, ... but possessing completely different sternal and leg structure alongside with other specializations ... so being relatively isolated within the Hetaeriomorphini' (translation from German by the junior author). He added a second species the following year, *H. plaumanni* (Reichensperger, 1936), erroneously considered originally to be males of *H. solenopsidis* (Reichensperger, 1935). Wenzel (1938) described the genus *Solenopsister* for the new species *S. amabilis*, and this genus was synonymized with *Hippeutister* by Blackwelder (1944), with no explanation. Fifty years later, Mazur (1997) moved two species of *Paratropus* Gerstaecker (now *Exosternini*) to *Hippeutister*, *H. manicatus* (Lewis) and *H. castaneus* (Lewis), similarly without explanation (aside from the obvious fact that *Paratropus* was no longer considered a member of the subfamily Hetaeriinae). *Hippeutister* presently comprises five valid species, distributed through the Neotropics, from Brazil to Mexico. The discovery of an undescribed species in southern California, through the senior author's California Beetle Project, prompted a reassessment of the scope of the genus and a brief review of the recognition characters and distributions of the species included.

In their review of the classification and relationships of Hetaeriinae, Helava *et al.* (1985) placed *Hippeutister* in their group 'E1', with close relationships to *Plagioscelis* Bickhard and *Hemicolonides* Lewis (listed originally as *Ponerolister* Bruch and *Oquadimosister* Helava, see discussion in Dégallier 1998 a, b). The main diagnostic characters listed for the genus were the presence of interrupted epistomal carinae, with the lateral margins of the head longitudinally depressed, a broad flat prosternal keel, which is deeply emarginate posteri-