

## New Distribution Records of Neotropical Hetaeriinae (Coleoptera: Histeridae)

by

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### ABSTRACT

New distribution records for the following species of Hetaeriinae (Coleoptera: Histeridae), the subfamily which consists exclusively of obligate myrmeco- and termitophiles, are given: *Anasynodites striatus costaericae*, *Aphanister fungifer*, *Coelister cavernosus*, *Convivister nevermanni*, *Cyclechinus amphibolus*, *Daptesisister pilosus*, *Eurysister carinatus*, *Euxenister wheeleri*, *Gallaster hisrsuta*, *Glyptosister cornutus*, *Iugulister clarissae*, *Notocoelis satur*, *Nymphister simplicissimus*, *Opadosister longipes*, *Paratropinus scalptus*, *Pulvinister nevermanni*, *Reninus salvini*, *R. puncticollis*, *Troglosternus dasypus*, and *T. ecitonis*. *Eciton burchelli* and *Eciton vagans* are reported as new ant hosts for *C. nevermanni* and *G. hisrsuta*, respectively.

Key words: Histeridae, Hetaeriinae, distribution, Neotropics, inquilines

### INTRODUCTION

The subfamily Hetaeriinae consists exclusively of obligate myrmeco- and termitophiles. The subfamily comprises 101 described genera and 320 described species representing different degrees of integration into host colonies (Dégallier 1994, 1998a, b, c, Mazur 1997, Yélamos 1997, Lackner & Yélamos 2001). They are distributed in the Holarctic and Neotropical Regions, reaching extreme diversification in the latter where they account for approximately two thirds of all described histerid genera. Their specialized life histories make hetaeriines difficult to collect. As a result, hetaeriines are rare in collections and their diversity has been documented only relatively recently. Few hetaeriines were described in the 19<sup>th</sup> century, and the "golden age" of hetaeriine studies was during the 1920-30s, when host nest collections of a few devoted local collectors in the Neotropics (e.g., F. Nevermann, F. Plaumann, H. Schmidt, P. Schwarzmaier, F. Zikan) allowed two specialists, C. Bruch in Argentina and A. Reichensperger in Germany, to describe about 80% of all known species (Mazur 1987). The next landmark in hetaeriine

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systematics was the generic revision of Helava *et al.* (1985), who summarized substantial amounts of available information, redescribed many genera, and provided the first hypothesis of phylogenetic relationships for the subfamily. However, their coverage was far from complete, because they dealt with only about half of the genera, so most of hetaeriine taxa remain poorly known, an unfortunate situation given their diversity and fascinating life styles.

Following the publication of Helava *et al.* (1985), the author, along with N. Dégallier (Dégallier 1998a, b, c), began work on hetaeriine systematics with an ultimate goal to revise the entire subfamily. My current project (revision of the genus *Mesynodites* Reichardt and related genera), has provided an opportunity to identify a substantial number of undetermined hetaeriine specimens. These identifications revealed numerous range extensions and some new host information, and make up the content of this paper, the first in a series dealing with the taxonomy and distribution of the Hetaeriinae.

#### MATERIALS AND METHODS

The study is based on the material borrowed from the personal and institutional collections listed below and collected myself between 1995 and 2001. Identifications were carried out by comparison with type specimens, specimens identified by the species' describers, and specimens previously compared with types. Genera in the list are arranged alphabetically. Specimen deposition is indicated by the following codens that are also used later in the text: Canadian Museum of Nature, Ottawa, Canada (CMN), Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Canada (CNC), Field Museum of Natural History, Chicago, IL (FMNH), Instituto Nacional de Biodiversidad, Ciudad Heredia, Costa Rica (INBIO), Louisiana State Arthropod Museum, Louisiana State University, Baton Rouge, LA (LSAM), Museo Nacional de Nicaragua, Managua, Nicaragua (MNN), Pontificia Universidad Católica del Ecuador, Quito, Ecuador (PUCE), Snow Entomological Collections, University of Kansas, Lawrence, KS (SEC), Insect Collection, Department of Entomology, Texas A&M University, College Station, TX (TAMU), Zoologische Forschungsinstitut und Museum Alexander König, Bonn, Germany (ZFIMAK), personal collections of B.D. Gill, Ottawa, Canada (BDG), P.W. Kovarik, Columbus, OH (PWK), C.W. Rettenmeyer, Storrs, CT (CWR) and A.K. Tishechkin, Baton Rouge, LA (AKT). All specimens examined included into LSAM specimen database.

