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 termiteophiles, are given: Anasynodites striatus
costaericae, Aphanister fungifer, Coelister cavernosus, Convivister
nevermanni, Cyclechus amphibolus, Daptister pilosus, Euryister
carinatus, Euxinister wheeleri, Gallaster hissara, Glyptister cornutus,
Iugulister clarissae, Notocaelis satir, Nymphister simplicissimus,
Opadosister longipes, Paratropinus sculptus, Pulvinister nevermanni,
Reninus salvini, R. puncticollis, Troglosternus dasypus, and T. ecitonis.
Ecton burchelli and Ecton vagans are reported as new ant hosts for C.
nevermanni and G. hissara, respectively.

Key words: Histeridae, Hetaeriinae, distribution, Neotropics, in-
quiline

INTRODUCTION

The subfamily Hetaeriinae consists exclusively of obligate myrmeco-
and termiteophiles. The subfamily comprises 101 described genera and
320 described species representing different degrees of integration into
host colonies (Dégalier 1994, 1998a, b, c, Mazur 1997, Yélas 1997,
Lackner & Yélas 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 19th 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 hetaerine 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 hetaerine 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 hetaerine 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 Hetaerinae.

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, Cuidad Heredia, Costa Rica (INBIO), Louisiana State Arthropod Museum, Louisiana State University, Baton Rouge, LA (LSAM), Museo Nacional de Nicaragua, Managua, Nicaragua (MNN), Pontificia Universidad Catolica 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 (PKW), C.W. Rettenmeyer, Storrs, CT (CWR) and A.K. Tishechkin, Baton Rouge, LA (AKT). All specimens examined included into LSAM specimen database.
SPECIES LIST

*Anasynodites striatus costaericai* Reichensperger, 1935


This species was previously known from its type localities in Limon Province, Costa Rica, and Santa Catarina State, Brazil. All the specimens cited above fit the habitus of *A. s. costaericai*. However, the status of the *A. striatus* subspecies is unclear. The reported range extension suggests that *A. s. costaericai* is more than just a Central American population. However, the nominate subspecies is known from the single female holotype, and determining the taxonomic importance of minor differences in pronotal punctuation between the two subspecies is problematic.

*Aphanister fungifer* Reichensperger, 1933


This species was previously known from the type locality in Limon Province, Costa Rica, and from Mexico (incomplete and imprecise citation of the above Mexican specimen in Helava *et al.* 1985).

*Coelister cavernosus* (Schmidt 1889)

*Material examined.* Brazil: Minas Gerais State, Viçosa, 20°45' S 42°53' W, December 1998, flight intercept trap, F.Z. Vaz-de-Mello, 1 specimen (AKT).

This species was described from Paraguay with no exact locality given and was reported recently from two localities in São Paulo State, Brazil (Dégallier 1998a, b).
Convivister nevermanni Reichensperger, 1936

Material examined. COSTA RICA: Puntarenas Prov., Osa Peninsula, 2.5 mi SW Rincon, 8°42′ N 83°29′ W, 26 February 1967, host: Labidus praedator (F. Smith), C.W. Rettenmeyer, 1 specimen (CWR). PANAMA: Panama Prov., Barro Colorado Island, 9°11′ N 79°51′ W, March 2001, host: Ecton burchelli, S. Powell & C.W. Rettenmeyer, 3 specimens (AKT, CWR); same locality, 18 March 2001, host: E. burchelli, C. & A. Fuller, C.W. Rettenmeyer & F. Yost, 1 specimen (CWR); same locality, 30 May 1956, C.W. Rettenmeyer, 1 specimen (FMNH).

This species was previously known from two localities in Limon and Puntarenas Provinces, Costa Rica (type locality and incomplete and imprecise citation of the above Costa Rican specimen in Helava et al. 1985). In addition to the range extension, these new records add Convivister to a short list of hetaeriine genera known to be associated with more than one host ant genus (Helava et al. 1985).

Cyclechirus amphibolus Reichensperger, 1935


This species was previously known only from the type locality in Limon Province, Costa Rica.

Daptesister pilosus Helava, 1985

Material examined. COSTA RICA: Heredia Prov., LaSelva Biological Station, 17 March 1992, flight intercept trap, W. Bell, 1 specimen (SEC).

This species was previously known only from the type series originating from Barro Colorado Island, Panama, and Monteverde Forest Reserve, Costa Rica. Careful examination of the type series suggests that the only Monteverde paratype might be mislabeled and probably also originated from Barro Colorado Island. It has the same collector, date and field number as one of the numerous Panamanian paratype specimens (Helava et al. 1985: 297).
**Euryisister carinatus** Helava, 1985

*Material examined.* COSTA RICA: Heredia Prov., LaSelva Biological Station, 17 March 1992, flight intercept trap, W. Bell, 2 specimens (SEC).

This species was previously known only from the holotype originating from Bocas del Toro Province, Panama. The host association for the genus and species is still unknown as all known specimens were collected either by forest litter sifting or flight intercept trapping.

**Euxenister wheeleri** Mann, 1925


This species was reported only from its type locality, Barro Colorado Island, Panama, and numerous specimens from this site are represented in several major collections. Above records suggest a broad, at least southern Central American - Amazonian, range and support species' strict host specialization as a guest of *Ecton hamatum*.

**Gallaster hirsuta** Helava, 1985

*Material examined.* COSTA RICA: Heredia Prov., LaSelva Biological Station, 10°26’ N 84°01’ W, 22 June 1998, in *Ecton vagans* Olivier bivouac, A. Tishechkin, 2 specimens (AKT, LSAM); Limon Prov., A.C. Amistad, Amubri, 8-30 March 1994, G. Gallardo, 1 specimen (INBIO).

This species was previously known from two type localities in Panama Province, Panama. *Ecton vagans* is the third known *Ecton* host species for *Gallaster*, along with *E. hamatum* and *E. mexicanum* Roger (Helava et al. 1985).

**Glyptosister cornutus** Helava, 1985


This is the second known locality for the species in addition to Barro Colorado Island, Panama, where the types were collected.
Iugulister clarissae Reichensperger, 1958


This species was previously known only from the type locality in Santa Catarina State, Brazil.

Opadosister longipes Helava, 1985


This species was known only from the holotype collected by sifting forest litter near Cordoba, Veracruz, Mexico. The host species for O. longipes is unknown.

Notocoelis satur Lewis, 1900


This species was described from Paraguay with no exact locality data and was reported from two sites in the Brazilian states Goiás and Paraná (Reichensperger 1936).

Nymphister simplicissimus Reichensperger, 1933

Material examined. COSTA RICA: Heredia Prov., LaSelva Biological Station, 11 March 1992, flight intercept trap, W. Bell, 1 specimen (SEC); same locality, collection method, and collector, but 14 February 1992, 1 specimen (SEC); Heredia Prov., Est. Magsasay, P.N. Braulio Carillo, June 1990, D. Acevedo, 1 specimen (INBIO). San Jose Prov., San Jose, H. Schmidt, 3 specimens (AKT, ZFIMAK); same locality and collector, with Ecton burchelli, 1 specimen (ZFIMAK); same locality and collector, November 1933, with E. burchelli, 1 specimen (ZFIMAK); same locality and collector, with E. vagans, 1 specimen (ZFIMAK); same locality,
collector, and host, August 1934, 1 specimen (ZFIMA); same locality, collector, and host, November 1933, 1 specimen (ZFIMA). NICARAGUA: Granada Prov., Volcan Mombacho, Santa Ana # 3, 2 June 1998, malaise trap, J.-M. Maes, 1 specimen (MNN).

This species was previously known from the type locality in Limon Province, Costa Rica, and was reported from Barro Colorado Island, Panama by Helava et al. (1985). Numerous specimens from Panama preserved in several collections (some of them apparently seen by J. Helava), as well as some South American specimens I have studied, belong to undescribed species.

*Paratropinus sculptus* Reichensperger, 1935


This species was previously known only from the type locality in Limon Province, Costa Rica. Part of the series of Panamanian specimens cited was reported as "*Paratropinus* n. sp. 1" in Helava et al. (1985: 305). Although there is apparent variability in size, upper surface punctuation and lateral metasternal striation between different populations examined, abundant material available has allowed me to identify intermediate forms, revealing continuous variation. Furthermore, the structure of male genitalia is essentially invariable in all specimens studied (15 specimens including the holotype). Therefore, I consider all the specimens to represent a single species.

*Pulvinister nevermanni* Reichensperger, 1933


This species was previously known from the type locality in Limon Province, Costa Rica, and was reported from Barro Colorado Island,
Fig. 1. *Pulvinister nevermanni* from Guatemala, SEM picture reproduced from Kistner (1982) Panama by Helava *et al.* (1985) and from Tikal (incomplete citation of the above Guatemalan specimens by Kistner 1982: 106.)
Rentinus puncticollis Lewis, 1907


This species was previously known from the type localities in Guyana (Bartica) and French Guiana (Cayenne) (Lewis 1907). The latter record was omitted in monographs of both Helava et al. (1985) and Mazur (1997).

Rentinus salvini (Lewis, 1888)

Material examined. BELIZE: Orange Walk Dist., Rio Bravo Conservation Area, Rd. to Archeol. Site, 25-30 April 1996, flight intercept trap, C. Carlton, 1 specimen (LSAM); same district and area, La Milpa Field Station, 15-25 May 1997, flight intercept trap, C. Carlton, 4 specimens (AKT, LSAM).

This species was reported from Mexico (Puebla, Chiapas/Oaxaca border) and, with some doubt, Texas (Helava et al. 1985, Navarrete-Heredia 2001).

Trogloterrus dasypus Bichhardt, 1917

Material examined. PARAGUAY: Horqueta, December 1936, with Labidus, A. Schulze, 3 specimens (AKT, FMNH).

This species was known previously from southern Brazil, Rio Grande do Sul and Santa Catarina States.

Trogloterrus ecitonis Mann, 1925

Material examined. COSTA RICA: Alajuela Prov., Eladios, River Trail, 19 May 1989, flight intercept trap, J. Ashe, R. Leschen & R. Brooks, 1 specimen (SEC). ECUADOR: Napo Prov., Yasuní Research Station, 0°40.5′S 76°24′W, 19 June 1999, Berlese forest litter with old Ecton burchelli refuse deposit, C. Carlton, 1 specimen (LSAM); same locality, 27 July 1999, in E. hamatum bivouac, A. Tishechkin, 1 specimen (LSAM); same locality, 23 June - 25 July 1999, flight intercept trap, C. Carlton & A. Tishechkin, 5 specimens; (AKT, LSAM, PUCE). MEXICO: Chiapas State, 76 km S Palenque, July 1983, flight intercept trap, S. Peck, 1 specimen (BDG); Chiapas State, Pq. Laguna Belgica, 16 km NW Ocozocautla, 9 June 1989, flight intercept trap, H. Howden, 1 specimen (CMN); Veracruz State, 7 km S Huatusco, 22 June – 2 August 1963, flight intercept trap, S. & J. Peck, 1 specimen (CMN); Veracruz State, 33 km NE Catemaco, Los Tuxtlas Biological Station, 22-29 June 1984, flight intercept trap, D.H. Lindeman, 5 specimens (CMN). PANAMA:

This species was known for many years only from the type locality, Barro Colorado Island, and was recently reported from western Costa Rica and Acre State, Brazil (Dégalier 1998c). The known range of *T. ecitonis* including much of Central America and western Amazonia is among the largest known species ranges in the Heteriidae.

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