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Redescription of the genus *Cavernicola* and the tribe Cavernicolini (Hemiptera: Reduviidae: Triatominae), with morphological and morphometric parameters

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Abstract

The genus *Cavernicola* Barber 1937 and the tribe Cavernicolini Usinger 1944 were originally described from a single species, *C. pilosa* Barber 1937. The description of *C. lenti* Barrett & Arias 1985 rendered inadequate certain diagnostic characteristics chosen for these taxa. These taxa and *C. pilosa* are redescribed here based on morphological and morphometric studies of the two species.

Key words: Systematics, Cavernicolini, Neotropical Region

Introduction

Of the 139 species in 18 genera and 6 tribes of the reduviid subfamily Triatominae, 126 species in 17 genera and 5 tribes occur in North, South, and Central America, between latitudes 42°N and 46°S (Schofield 1994, Galvão *et al*. 2003, Forero *et al*. 2004, Galvão & Angulo 2006, Costa et al. 2006, Costa & Felix 2007, Sandoval *et al.* 2007). Several triatomine species colonize human dwellings or live near them, in crevices in the walls and roofs of houses, both in rural areas and the peripheries of large cities. Man and domestic animals acting as sources of blood meals in these situations can become infected with the flagellate protozoan *Trypanosoma cruzi* (Chagas, 1909), agent of Chagas disease (WHO 2005). Together with many other species of wild mammals they thus act as reservoirs, there being gene flow between intradomiciliary and peridomiciliary triatomines, as well as between peridomiciliary and sylvatic populations (Borges *et al*. 2005).

The triatomine species *Cavernicola pilosa* (Fig. 1) was described from seven adult specimens and five nymphs collected in caves occupied by large numbers of bats in Panama. This species is considered to be a triatomine despite being very different from the other members of its subfamily (Barber 1937). Usinger (1944) discussed the phylogenetic and taxonomic position of the genus, then monotypic, and created the tribe Cavernicolini, separating the typical Triatomini from the Bolboderini and Cavernicolini based on the size of the ocelli and their position in relation to the post-ocular suture. This species has always been found closely associated with bats, in caves or hollow trunks of trees in tropical humid or dry regions in Panama and South America (Brazil, Colombia, Ecuador, Peru, and Venezuela), at elevations of 140-1160 meters (Barber 1937, Dias *et al*. 1942, Marinkelle 1966, Pipkin 1968, D'Alessandro *et al*. 1971, Carcavallo *et al*. 1976, Lent & Wygodzinsky 1979). There are rare findings of *C. pilosa* in houses, inhabited or not (Gomes & Pereira 1977, Barbosa *et al*. 2005). One author considers it to be only an occasional visitor to human dwellings, based on two adults in the same number of intradomiciliary samples from rural Panama (Pipkin 1968) (Fig. 2).

Infection of *C. pilosa* with trypanosomes was first studied by Emmanuel Dias (Dias *et al*. 1942), who incriminated it as the vector to bats of several species of *Schizotrypanum*, including the one now known as *Trypanosoma (Schizotrypanum) cruzi marinkellei* (Baker *et al*. 1978).

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