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**Western Hemisphere Lasiochilinae (Hemiptera: Heteroptera: Anthocoridae)
with comments on some extralimital species and some considerations on
suprageneric relationships**

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Abstract

Seven Western Hemisphere genera (six known and one new), and 39 species (27 known and 12 new) of Lasiochilinae are redefined based on known and new characters. These new characters are briefly discussed. Plochiocorini, a new tribe, is erected in the basis of two genera: *Plochiocoris* Champion and *Dolichiella* Reuter. *Anaelia*, a new genus of Lasiochilini, is also erected based on the species *Lasiochilus mirificus* Drake & Harris. Ten new species are described as follows: *Dilasia carvalhoi*, *D. cuscoensis*, *D. crassicornis*, *D. gracilicornis*, *D. neotropicalis*, *D. similis*, *Eusolenophora divisoides*, *E. testaceoides*, *Lasiochilus colpoides*, *L. duckei*, *Lasiocolpus vivianai* and *L. maesi*. Taxonomic position of most of the Old World species is discussed. A table with measurements and ratios is included, and distributional maps are provided. In addition, a key to the tribes and genera of world Lasiochilinae is given, and relationships between cimicoid families is briefly revised.

Key words: Lasiochilinae, Anthocoridae, new taxa, key to tribes and genera, distribution maps, taxonomic position

Introduction

The seminal work of Carayon (1972a) and Štys (1975) on Anthocoridae resulted in a number of works that questioned the relationships between its component genera and species. The systematic position of Lasiochilinae and Lyctocorini and the relationships between Anthocoridae and other cimicoid families were reformulated, largely as a result of the cladistic analysis of the Cimicomorpha undertaken in Ford's (1979) thesis and the subsequent studies of Schuh & Štys (1991) and, most recently, Schuh *et al.* (2009). These works recommended a "total-evidence analysis" of the Heteroptera that incorporated the use of traditional morphological characters and DNA sequences in classification. Ying *et al.* (2008) and Min *et al.* (2012) followed this criteria but they did not use the "Lasiochilidae" for their molecular analysis. However, the new clades and taxonomic groupings proposed therein are still based on the morphological characters used by Carayon (1972a).

The implementation of this new methodology was a valuable contribution to a better understanding of the relationships within this group. Nevertheless, the classification proposed in the aforementioned publications does not adequately account for some of the groupings (Froeschner, 1981; Péricart, 1996) and highlights the fact that there are still insufficient data available to allow clear recognition of and insight into relationships at the suprageneric level. Accordingly, in 1996, the author set out to investigate the efficacy of new tools such as microscopic preparations and electron microscopy in the taxonomy of this group. If successful, these may be used to complement the information derived from traditional studies based on morphology and bionomics in all Anthocoridae.

This is one of the series of works (Carpintero *et al.*, 1997; Carpintero, 2002; Carpintero & Dellapé, 2006, 2008) in which the author reviews this family (*sensu lato*). There is special emphasis on the species of neotropical fauna, but it is hoped that these results will be applicable to the representatives of this subfamily from all around the World.

The present revision was motivated by the lack of thorough taxonomic treatment of the Lasiochilinae, and is an attempt to provide more clear generic and specific definitions by means of new characters.

Material and methods

Slide-mounted specimens were cleared with 10 % potassium hydroxide and mounted in Canada balsam. If the mounting method is not mentioned, the specimen may be regarded as being pinned.

Almeidini
Scolopini
Blaptostethini
Anthocorini
Oriini

Lyctocoridae
Cimicidae
Polycetenidae

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