



## Studies of Bolivian Ptiliidae (Coleoptera) 1: The genus *Cissidium* Motschulsky with six new species

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### Abstract

This is the first report on a collection of Ptiliidae from Bolivian forest leaf litter made by Dr Petr Baňář of the Brno Museum (Czech Republic). Six new species in the genus *Cissidium* Motschulsky, are described and figured: *C. amboroensis*, sp. n., *C. globosum*, sp. n., *C. elongatum*, sp. n., *C. lisae* sp. n., *C. petri* sp. n. and *C. tigrum*, sp. n.. The relationship of *Cissidium* to *Dacrysoma* Grebennikov and its position in the tribe Discheramocephalini is discussed, and the generic description revised so as to encompass all valid species.

**Key words:** Coleoptera, Ptiliidae, *Dacrysoma*, *Cissidium*, new species, Bolivia, key to species

### Introduction

The ptiliid fauna of Bolivia remains virtually unknown. With the exception of *Xenopteryx setosus* Dybas, described from termite nests in the far north of the country (El Beni Province) (Dybas, 1961) and *Discheramocephalus stewarti* Grebennikov from forest litter near Villa Tunari (Cochabamba Province) (Grebennikov, 2008), I am not aware of any other published species. This report is based on a collection of 2,786 Ptiliidae made in central Bolivia (Cochabamba and Santa Cruz Provinces) by Dr Petr Baňář of the Moravian Museum (Brno, Czech Republic) in November 2013. Collecting focussed on the National Parks situated in the eastern foothills of the Cordillera Real, between the high Andes to the west and the Amazonian forests to the east, which are particularly well known for the richness of their flora and fauna.

### Material and methods

The rationale for the species descriptions follows the format set out in my papers on Madagascan Ptiliidae (Darby 2013). Many writers have commented that the existence of large numbers of undescribed species prevents much needed basic research into classification within the family. Riedel *et al* (2013) encountered a similar problem in dealing with certain groups of weevils as did Butcher *et al* (2012) with parasitic wasps, and both suggested solutions to overcome this ‘taxonomic impediment’. Their systems, described by the first as a species discovery and description pipeline, and by the second as ‘turbo-taxonomy’, offer a potential solution to the ptiliid problem but rely in large measure on DNA sequencing which has not yet been carried out in the family. Until such time as this work is undertaken, and believing that simplification offers a valid short term solution, many of the species’ descriptions in this and subsequent articles involve a greater reliance on pictorial depictions and on traditional morphometric analysis of the major features enabling species separation, than on literal descriptions.

All the specimens were collected by Winkler extraction from siftings of forest leaf litter and subsequently stored in alcohol. Sorting was carried out under a Leica M165C stereo microscope, and more detailed studies under an Olympus BH2 compound microscope and a Phenom scanning electron microscope. Images and measurements were made using the inbuilt software and cameras of the Phenom, a Leica DFC450 digital camera and associated software attached to the stereo microscope, and a Canon EOS 1100D digital camera with associated software

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