



# Article

urn:lsid:zoobank.org:pub:379F0F55-2F9F-4953-8186-7218E53DC221

## Two new species of *Bolivaridia* (Protura: Berberentulidae) from Mexico

YUN BU<sup>1</sup> & JOSÉ G. PALACIOS-VARGAS<sup>2,3</sup>

<sup>1</sup> Institute of Plant Physiology and Ecology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 200032 China. Email: ybu@sibs.ac.cn

<sup>2</sup> Laboratorio de Ecología y Sistemática de Microartrópodos, Dpto. Biología, Facultad de Ciencias, UNAM, 04510 México, D. F., México. E-mail: troglolaphysa@hotmail.com

<sup>3</sup> Corresponding author

### Abstract

*Bolivaridia revillagigedo* **sp. nov.** and *Bolivaridia chamelana* **sp. nov.** are described from Mexico. *B. revillagigedo* **sp. nov.** is characterized by having sensillum *b* inserted posterior to level *c* and *d*, willow-leaf shaped *t3*, presence of *Ac* seta on tergites I–VI, presence of *A5* seta on tergite I, tergite XI with 4 setae, and six distinct teeth on comb. *B. chamelana* **sp. nov.** is characterized by the long sensilla *a* and *e* on foretarsus, sensillum *b* situated at same level to *c* and *d*, broad-leaf shaped *t3*, presence of *Ac* seta on tergites I–VI, presence of *A5* seta on tergite I, tergite XI with 4 setae, and 11 teeth on comb. A key for the known species of the genus is provided.

**Key words:** Taxonomy, chaetotaxy, key, Socorro Island, Chamela

### Introduction

*Bolivaridia* Bonet, 1942 is a genus of Protura distributed in the pantropical region of the world (Szeptycki 2007). It is characterized by having a single seta on abdominal appendages II and III, anterior central seta on tergites II–VI, claviform sensillum *t1* and sword-shaped sensillum *a'* on foretarsus, and reduced striate band with only short, blind striae extending from the posterior margin (Bonet 1942a, Nosek 1978). Four species have been described: *Bolivaridia perissochaeta* Bonet, 1942 from Mexico, Dominican Republic, Haiti and Cuba; *B. imadatei* Prabhoo, 1975 from India; *B. boneti* Tuxen, 1976 from Colombia; and *B. somalicum* Yin & Dallai, 1985 from Somalia.

Mexican Protura have been studied by Silvestri (1909), Bonet (1942a, 1942b, 1949, 1950) and Tuxen (1956, 1964). One undetermined species of Protentomidae was mentioned from Socorro Island of Mexico (Palacios-Vargas *et al.* 1982) and *Eosentomon mexicanum* Silvestri, 1909 was found in Popocatepetl volcano (Palacios-Vargas 1985). A recent checklist of Mexican Protura has been published by Palacios-Vargas (2000). In addition, six specimens were found in western Mexico during a biodiversity and ecological study of arthropods from Chamela (Palacios-Vargas *et al.* 2007), but their identities were not determined. Presently only 15 valid species of Protura in 2 families and 6 genera have been recorded in Mexico (Szeptycki, 2007). During identification of Protura specimens kept at the collection in the Laboratorio de Ecología y Sistemática de Microartrópodos (LESM), Depto. Ecología y Recursos Naturales, Facultad de Ciencias, Universidad Nacional Autónoma de México (UNAM), two new species of *Bolivaridia* were found and are described in the present paper.

### Material and Methods

The specimens were extracted by means of Berlese-Tullgren funnels, from soil samples of different projects coordinated by the second author. They were mounted on slides in Hoyer's medium and dried in an oven at 45 °C. Specimens were identified and drawn with the aid of a ZEISS phase-contrast microscope.