



## Three new ground living pholcid species (Araneae: Pholcidae) from Parque Estadual da Cantareira, São Paulo, São Paulo, Brazil

ÉWERTON O. MACHADO<sup>1,2</sup>, FLÁVIO U. YAMAMOTO<sup>1,2</sup>, ANTONIO D. BRESCOVIT<sup>1</sup>, & BERNHARD A. HUBER<sup>3</sup>

<sup>1</sup>Laboratório de Artrópodes, Instituto Butantan, Av. Vital Brazil, 1500, 05503-900, São Paulo, SP, Brazil

<sup>2</sup>Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, São Paulo, SP, Brazil

<sup>3</sup>Alexander Koenig Zoological Research Museum, Adenauerallee 160, 53113 Bonn, Germany

E-mails: eomachado@gmail.com; f\_u\_y@yahoo.com.br; adbresc@terra.com.br; b.huber.zfmk@uni-bonn.de

### Abstract

Three pholcid species (Araneae: Pholcidae) from Parque Estadual da Cantareira, city of São Paulo, Brazil are newly described: *Mesabolivar cantharus* n. sp., *Mesabolivar camussi* n. sp., and *Tupigea cantareira* n. sp. Collection data suggest a preference of the species for ground level habitats. Preliminary data on *Tupigea cantareira* n. sp. suggest a continuous occurrence of adult individuals throughout the year, with a peak in the rainy season. It also seems that *T. cantareira* n. sp. prefers the natural (“Mata”) environment over the reforested *Pinus* area.

**Key words:** Pholcidae, *Mesabolivar*, *Tupigea*, Neotropical region, taxonomy

### Introduction

The Atlantic Forest in eastern Brazil is highly fragmented, with only 2% of the original forest remaining, dispersed as small patches surrounded by open fields (Ranta *et al.* 1998; Silva & Tabarelli 2000). In addition to causing immediate local extinctions, fragmentation may have long-term effects on populations through changes in ecological processes (Ranta *et al.* 1998), representing a great threat to biodiversity. Different animal groups experience different degrees of threat, and very little is known in this respect for spiders. The first step in developing this kind of study is a better knowledge of the existing biodiversity, requiring more basic taxonomic work. Further important aspects are the distribution, sensitivity to habit changes and responses to fragmentation. Several spider groups show a high but poorly known diversity in the Neotropics. Even the Atlantic Forest fragments near big cities remain largely unexplored, still including many undescribed species (B. A. Huber, unpubl. data; Machado *et al.* 2007). The species described herein apparently have relatively restricted distributions, which emphasizes the importance for conservation politics to consider even small and apparently disturbed fragments.

Very little research has been done on Brazilian pholcid spiders since the promising start by Moenkhaus (1898) and Keyserling (1891) in the late 19<sup>th</sup> century. In the 20<sup>th</sup> century, Mello-Leitão produced some significant increments (references in Huber 2000), but only recently the group has been revised at generic level (Huber, 2000) and recent taxonomic contributions have added further species and biological data (Huber 2005; Huber & Brescovit 2003; Huber, Brescovit & Rheims 2005; Huber, Rheims & Brescovit, 2005a, b; Huber, Pérez & Baptista, 2005; Astrin *et al.* 2006).

The Neotropical genus *Mesabolivar* González-Sponga, 1998 currently includes 39 nominal species