



Subfamilial affiliation of *Neoscirula* (Acari: Prostigmata: Cunaxidae) and descriptions of three new species of this genus from Brazil

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Abstract

The original affiliation of the genus *Neoscirula* Den Heyer to the subfamily Coleosirinae Den Heyer, 1979 is maintained. Three new species of this genus are described and illustrated, viz. *N. flechtmanni* sp. nov., *N. oliveirai* sp. nov. and *N. queirozi* sp. nov.. A key to the Brazilian and South African species is provided.

Key words: Bdelloidea, Coleosirinae, Neotropical, Taxonomy, Identification key

Introduction

This is the third paper of a series compiled by the authors during a taxonomical study of the Brazilian cunaxid fauna associated with natural and crop vegetation. In Brazil three species were previously reported, viz., *Cunaxa denmarki* Smiley, *Scutasirius braziliensis* Den Heyer and *Dactylosirius bison* (Berlese) (Castro & Den Heyer, 2008, in press). Faunistic studies of mites in Brazil from natural ecosystems (Arruda Filho & Moraes 2002, Zacarias & Moraes 2002, Castro & Moraes 2007) and from plants of agricultural importance (Ferla & Moraes 1998, Feres 2000, Feres *et al.* 2002, Ferla & Moraes 2002, Barbosa *et al.* 2005) reported the Cunaxidae only at generic level. One of those studies reported a considerable diversity of this predatory group in the “Mata Atlântica” (Atlantic Forest) which is one of the most important natural ecosystems of Brazil (Castro & Moraes 2007). Recent literature on the Cunaxidae mentions references as to the feeding behaviour of these predatory mites (Walter & Kaplan 1991, Corpuz-Rarus 1995, Walter & Procter 1999, Gerson *et al.* 2003).

Material and methods

The specimens considered in this study were collected in the State of São Paulo, in South-Eastern Brazil within the scope of a project to study the diversity of mites in the ecosystem known as “Cerrado” (localities of Luis Antônio and Pirassununga) and “Mata Atlântica” (Pariquera- Açu). They were mounted in Hoyer’s medium. All types are deposited in Museu de Zoologia “Luiz de Queiroz” at Escola Superior de Agricultura “Luiz de Queiroz”, Universidade de São Paulo, Piracicaba-SP, Brasil.

The adapted (by den Heyer & Castro 2008, in press) dorsal setal notation of Kethley (1990) is adopted; for the chaetotaxy of appendages that of Den Heyer (1981). The classification system is that of Den Heyer