



## A revision of the genus *Pulaeus* Den Heyer, with descriptions of a new genus and four new Brazilian species (Acari: Prostigmata: Cunaxidae)

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### Abstract

A new genus, *Lupaeus* gen. nov., is created to contain part of the described species in the genus *Pulaeus* Den Heyer. A key to the genera of the tribe Pulaeini, to which these two genera belong, and one auxiliary key to the species of Brazil and South Africa, are provided. Four new species, viz. *Pulaeus myrtaceus* sp. nov., *P. quadrisolenidius* sp. nov., *Lupaeus lectus* sp. nov. and *L. lobidorsalis* sp. nov. are described and figured. *P. martini* Den Heyer, 1981 is designated as type species for the new genus. New nomenclatural combinations are reported.

**Key words:** Bdelloidea, Cunaxoidinae, predatory mite, identification key, taxonomy

### Introduction

Very little is known about the biology of the *Pulaeus* Den Heyer species. Walter & Kaplan (1991) reported them feeding on larvae of rootknot nematodes (*Meloidogyne* spp.). About 26 species of *Pulaeus* Den Heyer are known all over the world. This is the first report of *Pulaeus* in Brazil, where very little is known about its diversity. In this revision a new genus, viz. *Lupaeus* gen. nov., is created to contain part of the described species in the genus *Pulaeus* Den Heyer. Due to lack of described detail the following species, indicated as belonging to *Pulaeus*, are indeterminable, *P. parapatzcuaensis* (Shiba), *P. patzcuaensis* (Baker & Hoffmann), *P. pseudominutus* Shiba, *P. payatopalpus* Corpuz-Raros, *P. subterraneus* and *P. zaherii* El-Bishlawy & Rakha. Tseng (1980) described *Neocunaxoides unguianalis* and mentioned 5 setae on the palpal femurogenum which places it in any one of the two genera under discussion but its true generic position cannot be determined. *Pulaeus trepidus* Kuznetsov & Livshits is regarded as a species of *Scutopalus* Den Heyer (Sergeyenko, 2009, personal communication).

### Material and methods

The specimens considered in this study were collected from two natural ecosystems, viz. Atlantic Forest and "Cerrado", both in the State of São Paulo, Brazil, during the Biota Project (FAPESP 97/7099-0). The sample localities in the Atlantic Forest were: Cananéia, Pariquera-Açu, Piracicaba and São Pedro whereas those in the "Cerrado" were: Luis Antônio, Pirassununga and São Carlos. The mites were mounted in Hoyer's medium. Kethley's (1990) setal notation for the dorsal chaetotaxy, as adapted by Den Heyer & Castro (2008), is followed; for appendages that of Den Heyer (1981a). The abbreviations and symbols used in this paper for the