



Description of a new species of *Paraxenylla* (Collembola, Hypogastruridae) from Brazil, with comments on the genus

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Abstract

The genus *Paraxenylla* Murphy, 1965 is redefined and compared to *Xenylla* Tullberg, 1869 and *Thibaudylla* Najt & Weiner, 1997, its closest relatives. It is characterized by the differentiation of four thickened S-chaetae on the fourth antennal segment, modified mouthparts, the absence of empodial appendage, the presence of 5+5 eyes, the absence of anal spines and the anus in terminal position. *P. sooretamensis* sp. nov. is described, characterized by a reduced labial chaetotaxy, modified mouthparts, 6 axial chaetae on Th II–III and Abd IV, 4+4 chaetae on ventral tube and several other morphological features. Its chaetotaxy is very different from that of other *Paraxenylla* except *P. arenosa* Uchida & Tamura, 1967, resembling that of *Xenylla* or *Thibaudylla*. The new species was collected in forest litter about 40 km inland from the coast line of Espírito Santo, Brazil, while all other species of the genus live in littoral habitats. The three species *Xenylla longicauda* Folsom, 1898, *X. occidentalis* Womersley, 1933 and *X. littoralis* Womersley, 1933, that Palacios and Janssens (2006) considered to probably belong to *Paraxenylla*, do not fit the current definition of this genus (anal spines are present), and are either *Xenylla* or *Thibaudylla*. A key and a table of the 9 species of *Paraxenylla* are given.

Key words: Neotropics, Collembola, *Paraxenylla*, new species, taxonomy, chaetotaxy, identification key

Introduction

The subgenus *Paraxenylla* was established as a subgenus of *Xenylla* Tullberg, 1869 by Murphy (1965) for *X. (P.) mangle*, a marine littoral species. Gama and Deharveng (1984) established the genus *Haloxenylla* for *Xenylla affiniformis* Stach 1930, which was synonymised with *Paraxenylla* by Culik & Deharveng (1986), while *Paraxenylla* was raised to genus level. Four species were subsequently described as *Paraxenylla*, and three were transferred from *Xenylla* to *Paraxenylla* (Palacios-Vargas & Vazquez 1988, Thibaud & Weiner 1997, Palacios-Vargas & Janssens 2006). In this paper, we describe a new species of the genus from Brazil.

Abbreviations. The terminology used in the text, tables and figures is partly derived from that proposed for Neanurinae (Deharveng 1983, Deharveng & Weiner 1984 and Smolis & Deharveng 2006). For labial palp chaetae, we follow Fjellberg (1999).

Abd—abdominal segment, An—anal microchaeta, Ant—antennal segment, Cx—coxa, Fe—femur, PAO—postantennal organ, Scx1—1.subcoxa, Scx2—2.subcoxa, Tita—tibiotarsus, Th—thoracic segment, Tr—trochanter, Ve—ventro-external chaetae on sternites, VT—ventral tube.