



## Two new species of *Parisotoma* (Collembola: Isotomidae) from the Western Cape, South Africa

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### Abstract

Two new species, *Parisotoma sexsetosa* **sp. nov.** and *P. obscuroides* **sp. nov.**, are described from the Western Cape Province in South Africa. The former is characterized with 2+2 ocelli and 4 sensilla in the p-row on each side of three first abdominal segments, the latter with 5+5 or more ocelli and 3+3 chaetae on the postlabial area. Both species have only 6 posterior chaetae on dens. A comparison of South African and Asiatic *Parisotoma* species is given. Sensillar chaetotaxy of the third and fourth abdominal segments is critical in the separation of these geographically distinct groups.

**Key words:** disjunct distribution, diversity, fynbos, sensilla

### Introduction

To date, only one species of the genus *Parisotoma* Bagnall, 1940 has been recorded from South Africa, namely *P. notabilis* (Schäffer) (Paclt 1959, 1967). Among Isotomidae described from this country, none belongs to this genus (see Barra 1995, 1997, 2001). However, during recent investigation of the soil fauna in the fynbos of South Africa, it appeared clearly that species of *Parisotoma* tend to dominate in soil arthropod communities, both in number and in diversity. Here, we describe two remarkable new species of this fauna, one from the Table Mountain National Park, and another from the Betty's Bay area.

Abbreviations: Abd.I–VI—abdominal segments; accp-sensillum—p-row accessorial tergal sensillum; Ant.I–IV—antennal segments; AO III—antennal organ of antennal segment III; ms—microsensillum; PAO—postantennal organ; s—sensillum; Th.I–III—thoracic segments.

Material deposit: MNHN—Museum national d'Histoire naturelle of Paris; MSPU—Moscow State Pedagogical University; Iziko Museum, Cape Town (South Africa).

### General remarks on *Parisotoma* of South Africa

The genus *Parisotoma* is distributed all over the world, partly due to the cosmopolitan species *P. notabilis* and the Holarctic species *P. ekmani* (Fjellberg). Most other species have more restricted ranges. In the Northern Hemisphere, the largest diversity has been recorded in Northern Asia, with at least 12 species. In contrast, the tropics are practically devoid of *Parisotoma*. Similar number of species have been recorded in both hemispheres illustrating a remarkable disjunct distribution of the genus. However, many of the "southern" species call for re-description, and their generic position is uncertain. That is particularly true for several New Zealand forms. The real diversity of *Parisotoma* will only be fully understood with further studies. This is particularly obvious with the discovery of the rich fauna of South Africa.