



Article

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Current knowledge on Turkish tardigrades with a description of *Milnesium beasleyi* sp. nov. (Eutardigrada: Apochela: Milnesiidae, the *granulatum* group)

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Abstract

In two moss samples collected from Turkey four tardigrade species, including a species new for science and a new record for the country, were found. The new species, *Milnesium beasleyi* sp. nov., differs from other known species of the *granulatum* group by having sparsely distributed cuticular depressions (pseudopores) that do not form an apparent reticulum. In addition to the unique cuticular sculpturing, the new species differs from other congeners also by some morphometric characters. *Macrobiotus reinhardti* Michalczyk & Kaczmarek, 2003 is a new record for Turkey and it is also the first record of this species outside its type locality on Cyprus. The new records raise the number of known Turkish water bear species to 50. In this paper, we provide a full list of the known Turkish tardigrade species with their localities. Moreover, we present some zoogeographical and taxonomic issues concerning Turkish tardigrades.

Key words: Tardigrada, Turkey, fauna, taxonomy, new species

Introduction

There have been only a few studies on Turkish water bears and as a consequence the Tardigrada fauna of this country is very poorly known. The most extensive research by Maucci (1972; 1974; 1978), although wide ranging throughout Turkey, only dealt with Tardigrada from mosses. In our study we explored new sites and different habitats, though only moss samples provided records of tardigrades, including a new species of the *Milnesium granulatum* group. In this paper, in addition to the new species description, we also provide a full list of tardigrade species currently known from Turkey together with some zoogeographical and taxonomical remarks on species reported from this region.

Material and methods

Six moss and soil samples were collected by the second author from Antalya and Konya provinces, in the European part of Turkey. Tardigrades and their eggs were found only in the two following moss samples:

37°14'52"N, 31°55'42"E, 1480 m asl: Konya Province, the Tinaztepe Mağarasi cave, near the road D695, 25 km to the south from the city Seydişehir, moss from stone, 20.09.2011, 78 specimens + 26 eggs;

36°33'27"N, 33°04'31"E, 30 m asl: Antalya Province, Oba, moss from stone in a garden, 23.09.2011, 8 specimens + 6 eggs.

All specimens were extracted according to Dastych (1988) and mounted on microscopic slides in Hoyer's medium. Observations, measurements and photomicrographs were taken using Phase Contrast Microscopy (PCM) (Olympus BX41 with digital camera ARTCAM-300Mi). All measurements (performed with QuickPhoto Camera