



New records of eutardigrades (Tardigrada) from Faial and Pico Islands, the Azores, with the description of two new species

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Abstract

Five eutardigrade species from the Azores are reported in this study. Three of them are new records for the Azores, and another two, *Macrobiotus almadai* **sp. nov.** and *Doryphoribius picoensis* **sp. nov.**, are new to science. *Macrobiotus almadai* **sp. nov.** belongs to the *hufelandi* group but it differs from the other species of the group in some characters of bucco-pharyngeal apparatus (narrow buccal tube, buccal armature without bands of teeth) and eggs (the terminal disc of processes may appear smooth, but in some orientations it shows very small teeth). *Doryphoribius picoensis* **sp. nov.** has cuticle with undulations and some small gibbositities and pharyngeal bulb with two macroplacoids and neither microplacoid nor septulum. It differs from *D. macrodon* Binda, Pilato & Dastych, 1980, in having no color, indistinct gibbositities, different buccal armature and claws of hind legs shorter than those of the other legs. It differs from *D. maranguensis* Binda & Pilato, 1995 by: absence of small cuticular tubercles, claws of the hind legs shorter than those of the other legs, small lunules present.

Key words: Tardigrada, Eutardigrada, *Macrobiotus almadai* **sp. nov.**, *Doryphoribius picoensis* **sp. nov.**, Faial and Pico Islands, the Azores

Introduction

Until now only twelve tardigrade species from the Archipelago of the Azores were known (Fontoura, 1985; Pilato *et al.*, 2007; Fontoura & Pilato, 2007, Fontoura *et al.*, 2008). In this paper five species (from three genera) of limno-terrestrial eutardigrades from Faial and Pico Islands are recorded. This is the first record of the genera *Minibiotus* and *Doryphoribius* from the Azores. *Macrobiotus persimilis* Binda & Pilato, 1972 and *Minibiotus gumersindoi* Guil & Guidetti, 2005 are new records for the archipelago, and *Macrobiotus almadai* **sp. nov.** and *Doryphoribius picoensis* **sp. nov.** are new to science.

Material and methods

Tardigrades were extracted from dried moss samples collected on Faial Island (Parque Florestal; Túnel da Caldeira and Miradouro da Praia Norte) in August 2005 and on Pico Island (Lages do Pico and Terras do Pico) in November 2005. Most of the specimens were mounted in Hoyer's medium with a small amount of potassium iodide solution (Horning *et al.*, 1978) and only a few specimens were mounted in polyvinyl lactophenol.