



***Diphascon (Diphascon) faialense* sp. nov. a new species of Tardigrada (Eutardigrada, Hypsibiidae) from the Azores and a key to the species of the *D. pingue* group**

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Abstract

A new tardigrade, *Diphascon (Diphascon) faialense* sp. nov., is described from a moss sample collected on Faial Island, the Azores. This species belongs to the *Diphascon pingue* group. It differs from all other species of the group mainly by quantitative characteristics of the bucco-pharyngeal apparatus and of the claws.

Key words: *Diphascon (D.) faialense* sp. nov.; *Diphascon pingue* group, Tardigrada, Faial Island, Azores Archipelago

Introduction

Very little is known about the tardigrades from the Azores. Until now tardigrades have been surveyed in two (Pico and Santa Maria) of the nine islands that constitute the archipelago and only five species are known (Fontoura, 1985; Pilato *et al.*, 2007): *Macrobotus hufelandi* Schultzze, 1833, *Pseudechiniscus suillus* (Ehrenberg, 1853), *Echiniscus quadrispinosus cribrosus* J. Murray, 1907, *Echiniscus canadensis* J. Murray, 1910 and *Echiniscus viridianus* Pilato *et al.*, 2007.

In a moss sample collected on a third island, Faial, we found four specimens. One of them has been identified as *Isohypsibius sattleri* (Richters, 1902). The other three specimens belong to a new species, *Diphascon (D.) faialense* sp. nov., described in this paper.

Material and methods

Three specimens of *Diphascon (D.) faialense* sp. nov. were found in a moss sample collected in August 2005 in Miradouro do Piolho, Cedros, Faial Island, Archipelago of Azores. They were mounted on microscopic slides in Hoyer's medium.

For the description of the new species the following measurements were used (Table 1): body length excluding the hind legs; bucco-pharyngeal tube length, buccal tube length and level of the stylet support insertion; internal and external buccal tube width measured at the level of the stylet support insertion; placoid row length (including macroplacoids, microplacoid and septulum); macroplacoid row length; macroplacoid and septulum lengths and claw length including the accessory points. The index *ptd* was also assessed. All measurements were made according to Pilato (1981) and Pilato and Binda (1997/98; 1999) in the description of quantitative characteristics of the subgenus *Diphascon*.