

Remarks on some Echiniscidae (Heterotardigrada) from New Zealand with the description of two new species

GIOVANNI PILATO, MARIA GRAZIA BINDA & OSCAR LISI

Dipartimento di Biologia Animale dell'Università, Via Androne 81, 95124 Catania, Italy; pilato@unict.it

Abstract

Some specifications are provided about nine species of Echiniscidae from New Zealand including descriptions of two new species: *Echiniscus arthuri* **sp. nov.** and *Echiniscus elaeinae* **sp. nov.** *Echiniscus arthuri* **sp. nov.** has plate sculpture of the *merokensis* type but is different in some details from the sculpture of this species. Also present are lateral filaments A, spines C and D, and filaments E and dorsal filaments C^d and spines D^d. *Echiniscus elaeinae* **sp. nov.** has uniform plate sculpture consisting of circular dimples; lateral filaments A, long lateral spines C, D, E and dorsal spines C^d and D^d are present. It differs from *E. jamesi* Claxton, 1996 in having a simple, not double, plate sculpture, in the presence of dorsal spines C^d and D^d and in the lateral appendages appearing as spines (in *E. jamesi* they are filaments up to 100 µm long).

Key words: Tardigrada, Echiniscidae, New Zealand, *Echiniscus arthuri* sp. nov., *Echiniscus elaeinae* sp. nov.

Introduction

Our studies of African, Antarctic and Australian tardigrades induced us to also examine tardigrades from New Zealand. We had on loan from the National Museum of Wellington specimens of species described, or cited, by Horning *et al.* (1978). This study gave the opportunity to make some remarks on seven species, as well as some additions or correction to the descriptions, and the opportunity to describe two new species of *Echiniscus*.

Material and methods

All studied specimens are mounted in Hoyers preparation containing small amounts of iodine and potassium iodide solution (Horning *et al.* 1978). We examined them using a phase contrast microscope.