

Tardigrades of the Seychelles Islands, with the description of three new species

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Abstract

In the context of the project “The Nature Protection Trust of Seychelles”, three species new to science are described (*Macrobiotus creber* sp. n., *Macrobiotus perfidus* sp. n. and *Macrobiotus diguensis* sp. n.) and two species (*Macrobiotus madagassus* and *Minibiotus continuus*) are recorded for the Seychelles for the first time. *Macrobiotus creber* sp. n. belongs to the *furciger* group but it differs from the members of this group in some metric characters of the bucco-pharyngeal apparatus, or of the claws, and in some characters of the eggs. *Macrobiotus perfidus* sp. n. is similar to *M. pseudocoronatus* but it differs from it in having small cuticular tubercles, in lacking an anterior band of teeth and a less developed posterior ring of triangular teeth in the buccal cavity, in having slightly shorter macroplacoids, slightly longer and slender claws and in characters of the eggs. *Macrobiotus diguensis* sp. n. is similar to *M. snaresensis* and *M. erminiae* but it differs from them in metric characters of the bucco-pharyngeal apparatus, in having more slender claws and in some characters of the eggs.

Key words: Tardigrada, *Macrobiotus creber* sp.n., *Macrobiotus perfidus* sp. n., *Macrobiotus diguensis* sp. n., Seychelles

Introduction

Previous studies on tardigrades of the Seychelles (Biserov, 1994; Binda & Pilato, 1995) and the studies carried out in the framework of the project “The Nature Protection Trust of Seychelles” co-ordinated by Justin Gerlach (University Museum of Zoology of Cambridge) (Pilato, Binda & Lisi 2002, 2004, 2006, Pilato & Lisi 2009), have reported 30 species in the archipelago, 16 of which were new to science. Within the context of the above mentioned project, we examined some samples sent by Justin Gerlach collected in various localities of Praslin, North Island, Silhouette, Grande Soeur, Petite Soeur, Bird Island, Round Island (Praslin), Mahé and La Digue.

In this paper 5 species are recorded, 3 of which are new to science: *Macrobiotus creber*, sp. n., *Macrobiotus perfidus* sp. n. and *Macrobiotus diguensis* sp. n. and 2 (*Macrobiotus madagassus* Maucci, 1993 and *Minibiotus continuus* Pilato & Lisi, 2006^b) are recorded for the first time in the Seychelles.

Materials and methods

The specimens were mounted in polyvinyl lactophenol; measurements and photomicrographs were made under oil immersion, using a Leica Phase Contrast Microscope equipped with digital camera by which photomicrographs were taken.

For comparisons, we have examined: holotype and paratypes of *M. arguei* Pilato & Sperlinga, 1975; *M. simulans* Pilato, Binda, Napolitano & Moncada, 2000; *M. patiens* Pilato, Binda, Napolitano & Moncada,