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A new *Tropocyclops* (Copepoda, Cyclopidae) from Lake Matano, Indonesia

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Abstract

A new species of *Tropocyclops*, from the subfamily Eucyclopinae (Cyclopoida, Cyclopidae) is described on the basis of specimens recently collected from the deep waters of the ancient Lake Matano, Indonesia. *Tropocyclops matanoensis* n. sp., is distinguished from other species in the genus by the armature of P5 (with one seta and one spine) and the absence of lateral hairs on the somite bearing it, the antenna with only one seta on the antero-distal corner, the special shape of the seminal receptacle in female, and several other characters detailed in this study. A discussion of the genus *Tropocyclops* and the morphological characteristics of its representatives is given.

Key words: Copepoda, Cyclopoida, Sulawesi, taxonomy, new species, *Tropocyclops*

Introduction

Lake Matano is located in South-Central Sulawesi (Indonesia). It has a surface area of 164 km^2, and occurs at an elevation of 396 m. This ancient lake, of tectonic origin, is considered to be 1–4 million years old (i.e., formed in the late Pliocene) (Haffner *et al*. 2001). It is characterized by its depth, reaching 590 m, its oligotrophic waters and its high level of endemism, which is particularly apparent in the diatom, gastropod and fish faunas (in Sabo 2006). From 1990, limnological investigations have been conducted to assess the status of the large lakes of Indonesia (and particularly of the Malili Lakes of Sulawesi), to provide data for future environmental and development programs. However, few studies have been focused on the zooplankton of Lake Matano. The first report of a copepod from these Indonesian lakes was by Brehm (1933a), who described the only copepod he collected from Lake Matano, the diaptomid *Eodiaptomus wolterecki* var. *matanensis* (Calanoida). In samples collected by Dr G. D. Haffner in 2002, and sent to me for examination, two species were present: a diaptomid, *Eodiaptomus wolterecki* Brehm, 1933a and a new species of cyclopid. This new species, belonging to the genus *Tropocyclops*, is described herein as *Tropocyclops matanoensis* n. sp.; this represents the first record of the genus in Sulawesi.

Material and methods

The specimens were collected using a vertical closing net (mesh size = 64 µm), at a depth of 90–100m. Cyclopoids were exclusively found at this depth and in all seasons sampled; they have not been found in the upper waters of Lake Matano (Lis Sabo, pers. com.).

The specimens were dissected and mounted in glycerol. Some were mounted in lactic acid and/or stained with chlorazol black. Measurements and dissections were made in glycerol. The observations were done with a compound microscope (Leica DMLB) and drawings were made using a camera lucida. Permanent prepara-

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