



Revision of *Biserovus xiae* Li, Su & Yu, 2004 (Tardigrada: Macrobiotidae)

XIAOCHEN LI

College of Life Sciences, Shaanxi Normal University, Xian 710062, P. R. China. E-mail: xiaochen@snnu.edu.cn

Abstract

Biserovus xiae Li, Su & Yu is re-described and assigned to the genus *Insuetifurca*. *I. xiae* **comb. nov.** (Li, Su & Yu, 2004) differs from *I. arrowsmithi* (Kathman & Nelson, 1989) by having a much lower *pt* of the pharyngeal tube and by the presence of a crescent-shaped cuticular bar behind the double claws on the first three pairs of legs; *I. xiae* differs from *I. fujinense* (Ito, 1997) by having macroplacoids equal in length or the second is the shortest instead of the macroplacoids increasing in length from the first to the third and by the presence of a crescent-shaped cuticular bar behind the double claws on the first three pairs of legs.

Key words: Taxonomy, Tardigrada, revision, *Biserovus xiae*, *Insuetifurca xiae* **comb. nov.**, China

Introduction

Insuetifurca xiae **comb. nov.** was originally described as a species of the genus *Biserovus* Guidetti & Pilato, 2003 from Zhejiang Province based on a single specimen (Li, Su & Yu, 2004). This species was subsequently found from Hainan Island, China (Li *et al.*, 2008). The original description was inadequate due to the poor quality of the microscope used at that time. In April 2007, some mosses were collected from Hainan Province, China. In those mosses, three specimens of *I. xiae* **comb. nov.** were found. These specimens have allowed the author to provide further observation and measurement. This species is re-described and assigned to the genus *Insuetifurca* Guidetti & Pilato, 2003 in this paper.

Materials and methods

Tardigrades were extracted from moss and were mounted in Hoyer's medium. All measurements are given in micrometers (μm). Structures were measured only if they were appropriately oriented. Body length was measured from the anterior end to the posterior end of the body, excluding hind legs. Buccal tube length and level of the stylet support insertion point were measured according to Pilato (1981). The buccal tube width was measured as the internal diameter of the buccal tube near the level of the stylet support insertion point. The *pt* is the percent ratio of the length of a given structure to the length of the buccal tube measured from the medio-dorsal transverse ridge of the oral cavity armature to the base of the pharyngeal apophyses (Pilato, 1981). Observations and measurements were made using phase contrast microscopy (PCM) (Nikon 80i) and an eyepiece micrometer. Photomicrographs were made using PCM associated with a digital camera (Nikon DS-Fi1).