Thulinius saltursus comb. nov.: a new systematic position for Isohypsibius saltursus Schuster, Toftner & Grigarick, 1978 (Eutardigrada: Hypsibiidae) and a key for the genus Thulinius

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Abstract

Based on the type material Thulinius saltursus comb. nov., is redescribed. T. saltursus is very similar to other members of the genus Thulinius, but it differs from the most similar species mainly by morphometric characters of the buccal tube, claws and the presence of lunules only on the external claws. In this paper we also provide a key for all Thulinius species known to date and make some remarks on their distribution.

Key words: Thulinius saltursus, Isohypsibius saltursus, redescription, taxonomy, Tardigrada

Introduction

The genus Thulinius (Bertolani 1981) (formally Thulinia but changed due to junior synonymy; see: Bertolani 2003) was established based on the presence of 12 peribuccal lamellae. Later, scanning electron microscope observations showed the lamellae are partially fused (Bertolani et al. 1999). The genus Thulinius is now characterised mainly by the presence of 12 partially fused peribuccal lamellae and 6 peribuccal lobes (which may appear divided into a larger number of sub-lobes), and the buccal-pharyngeal apparatus and claws of the Isohypsibius type. To date four species in this genus are known from around the world: T. augusti (Murray, 1907), T. itoi (Tsurusaki, 1980), T. ruffoi Bertolani, 1981, T. stephaniae (Pilato, 1974) (Fig. 1). It is also possible that some other species attributed to the genus Isohypsibius should be transferred to genus Thulinius. One of these species is certainly Isohypsibius saltursus, described by Schuster et al. in 1978. In this paper we present a redescription of Thulinius saltursus comb. nov. and a key to the species of the genus Thulinius.

Material and methods

We examined the holotype and 27 paratypes of Thulinius saltursus comb. nov.: 21 preserved at The Bohart Museum, Department of Entomology, University of California, Davis, USA and 7 at the Civic Museum of Natural History of Verona, Italy (Maucci’s collection). We also examined the holotype and 20 paratypes of Thulinius ruffoi preserved at the Department of Biology, University of Modena and Reggio Emilia, Modena.

All measurements are given in micrometers [µm]. Structures were measured only if their orientations were suitable. Body length was measured from the anterior extremity to the caudal end of the body, excluding the hind legs. Buccal tube length and the level of the stylet support insertion point were measured according to Pilato (1981). Buccal tube widths were measured as the external and internal diameters at the level of the...