Heterolepidoderma caudosquamatum (Gastrotricha: Chaetonotida), a new species from brackish waters of Denmark

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Abstract

A new species of Gastrotricha Chaetonotida was found in Denmark: it is the first gastrotrich finding from Danish brackish waters. The diagnostic scales at the dorsal posterior end account for the proposed name Heterolepidoderma caudosquamatum. The morphological affinity of the new species with marine species of the genus supports its marine origin.

Key words: brackish waters; meiofauna; Gastrotricha; Chaetonotida; Danish fauna; new species; Heterolepidoderma caudosquamatum

Introduction

Faunistic knowledge of Gastrotricha Chaetonotida from Denmark is very poor. Only two freshwater species, Chaetonotus larus (Müller, 1773) and Ichthydium podura (Müller, 1773) have been originally described from Denmark (Müller 1773). Ten marine species [Aspidiophorus mediterraneus Remane, 1927; Chaetonotus atrox Wilke, 1954; Chaetonotus somniculosus Mock, 1979; Draculiciteria tesselata (Renaud-Mornant, 1968); Halichaetonotus aculifer (Gerlach, 1953); Halichaetonotus pleuracanthus (Remane, 1927); Heteroxenotrichula affinis (Remane, 1934); Heteroxenotrichula squamosa Wilke, 1954; Xenotrichula intermedia Remane, 1934; Xenotrichula velox Remane, 1927] are known from Danish coast (Mock, 1979) and another, Diuronotus rupperti Todaro, Balsamo & Kristensen, 2005, has been recently described from Læsø island (Todaro et al. 2005).

A faunistic research aimed to improve the knowledge of Danish Gastrotricha was undertaken in June 2008 at a few sites in the island of Seeland (Copenhagen-area), and is still in progress. First observations have evidenced the presence of a new species of Gastrotricha Chaetonotida which is described in the present paper. The complete results of the faunistic study on gastrotrichs from Denmark will be published separately.

Materials and methods

Sampling was carried out in June 2008 at a small coastal pond, located about 8–10 m from the sea coast in Copenhagen’s docklands area (55°43.241’ N, 12°37.019’ E; Figure 1). The pond showed clear brackish waters (12‰ salinity), sandy sediment and abundant shore vegetation.

Sediment samples were taken at 0.50 m depth from several sites along the pond shore by gently scraping the surface layer of the substratum using a nylon net (mesh 60 µm). To collect periphytic species, the shore vegetation at the collection sites was carefully and repeatedly washed into the net. Living specimens were