



## One new species and records of *Ichthydium* Ehrenberg, 1830 (Gastrotricha: Chaetonotida) from Sweden with a key to the genus

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### Abstract

The freshwater gastrotrich fauna of Sweden is poorly known. Only seven species of freshwater gastrotrichs have been reported so far. This paper is the first in a series of contributions about the Swedish freshwater gastrotrich fauna. Here we describe one new species, *Ichthydium skandicum* n. sp., from Jämtland, northern Sweden. The new species falls within the boundary of the subgenus *Forficulichthys* and is morphologically closest to *Ichthydium tanytrichum* from which it can be differentiated based on the presence of four pairs of dorsal, keeled scales in the posterior trunk region. Moreover, we provide morphometric data for three additional *Ichthydium* species: *I. diacanthum*, *I. squamigerum* and *I. tanytrichum*, Italian species all of which are reported for the first time outside Italy. Considering the accompanying fauna, a total of thirteen freshwater Gastrotricha are reported for the first time from Sweden. Finally we present a dichotomous key for *Ichthydium* along with distributional data of the species considered.

**Key words:** Chaetonotidae, Freshwater fauna, Meiofauna, Taxonomy, Taxonomical key

### Introduction

Gastrotricha are microscopic animals which inhabit both freshwater and marine environments. To date around 750 species are known. Gastrotrichs are considered cosmopolitan and have been reported, in the literature, from all continents except Antarctica (see e. g. d'Hondt, 1971; Balsamo *et al.*, 2008). Gastrotrichs are a common component of the interstitial fauna of marine sands as well as of the freshwater periphyton and epibenthos. Freshwater representatives belong, with very few exceptions, to the order Chaetonotida (Balsamo & Todaro, 2002). Characteristic for this order is the tenpin-shaped body usually with a bifurcated posterior end bearing adhesive tubes. To date Chaetonotida include 29–30 genera of which *Chaetonotus* Ehrenberg, 1830 with more than 200 nominal species is the most numerous (Todaro & Tongiorgi, 2008; Balsamo *et al.* 2009).

Only seven species of freshwater gastrotrichs have been reported for Sweden so far. Hofsten (1923) found *Chaetonotus macrochaetus* Zelinka, 1889, *C. maximus* Ehrenberg, 1838 and *Lepidodermella squamata* (Dujardin, 1841), while studying the rotifer fauna of northern Sweden. Moreover, Schwank (1990) reported *C. chuni* Voigt, 1901, *C. longispinosus* Stokes, 1887 and *C. schultzei* Metschnikoff, 1865 as present in Sweden. In addition, Fauna Europaea includes *Aspidiophorus squamulosus* (Roszczak, 1936) among the Swedish fauna. The limnic species reported from Sweden, except *A. squamulosus*, are all considered to have a cosmopolitan distribution and have been found in Central Europe, North America and/or Asia (see Schwank, 1990).