



## Taxonomic and nomenclatural notes on freshwater Gastrotricha

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### Abstract

Some taxonomic and nomenclatural remarks concerning freshwater species of Gastrotricha Chaetonotida are presented. In the family Chaetonotidae, the subgenus *Chaetonotus* (*Hystricochaetonotus*) is synonymized with the subgenus *C.* (*Chaetonotus sensu stricto*). The genus *Lepidochaetus* is moved to a subgeneric rank into the genus *Chaetonotus*, and the subgenus *Nudichaetonotus* Schwank, 1990 is synonymized with *C.* (*Lepidochaetus*). *Chaetonotus* (*Lepidochaetus*) *brasilianus* is proposed as a replacement name for *Chaetonotus brasiliense* Kisielowski, 1991, which has become a secondary junior homonym of *Chaetonotus brasiliensis* Schwank, 1990. Emended diagnoses of the genus *Chaetonotus* and of the subgenera *C.* (*Chaetonotus sensu stricto*), and *Chaetonotus* (*Lepidochaetus*) are given. The 3 subgenera of the genus *Ichthyidium* introduced by Schwank (1990) have not been introduced in the present list. In the family Dasydytidae, the subgenus *Dasydytes* (*Setodytes*) is synonymized with the genus *Setopus*. Six new species by Schwank (1990) (*Aspidiophorus ontarionensis*, *Chaetonotus* (*C.*) *furculatus*, *Chaetonotus* (*Zonochaeta*) *anna*, *Ichthyidium malleum*, *Lepidodermella forficulata* and *Dasydytes* (*Setodytes*) *lemnicola*) are *nomina nuda*. An updated list of the reliable world freshwater species of Gastrotricha is reported.

**Key words:** Gastrotricha, Chaetonotida, taxonomy, systematics, nomenclature, checklist, fresh waters

### Introduction

The taxonomy of Gastrotricha is still mainly based on characters of external morphology, like the shape and size of body regions and of microsculptures of the external cuticle (scales, spines, plates, adhesive tubes etc.). Unfortunately, these appear often variable at specific level, and in some cases also at generic level, so making a sure taxonomic identification very difficult. Basic works on the systematics of the phylum are Zelinka (1889) and Remane (1936). Mola (1932, 1935) revised the systematics of the Italian species and introduced new supergeneric taxa, most of which were not accepted by following Authors. The most recent and important work of systematic revision and re-organization of the taxonomy of the freshwater species of Gastrotricha was carried out by Schwank (1990). This Author introduced new genera and subgenera and formalized the traditional taxonomical division of the large genus *Chaetonotus*, first proposed by Remane (1936). Kisielowski (1991) advanced a possible evolutionary scenario of the phylum, and discussed the taxonomic subdivision of the genus *Chaetonotus*, and later modified it by emending the diagnoses of its subgenera in accordance with his phylogenetic views (Kisielowski 1997). Two lists of world freshwater species are available on-line (Hummon, 2008a; Todaro & Tongiorgi, 2008), both based on the taxonomic schemes by Schwank (1990) and Kisielowski (1997). Currently the state of taxonomy of the order Chaetonotida is quite unstable compared to the other gastrotrich order, Macro-dasyida, for which a complete list of specific names and an overview of the world distribution have been provided by Hummon (2008b).