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## Description of three new *Tetranchyroderma* gastrotrichs (Macrotrichida: Thaumastodermatidae) from South Korea

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### Abstract

The present paper deals with description of three new marine gastrotrich species belonging to the genus *Tetranchyroderma* with a new record for Korea of *T. schizocirratum* Chang, Kubota & Shirayama, 2002, on the basis of specimens from the Korean coast. *Tetranchyroderma anisoankyrum* **sp. nov.** is differentiated from congeners by its dorsal cuticular armature of pentancre with central tine longer than the others, a pair of rod-like cephalic tentacles, 2 cirratum-type TbDL, 13–14 cirratum-type TbL per side, and a pair of TbL. *Tetranchyroderma coreense* **sp. nov.** is distinguished from other pentancreous species by cirratum-type tubes of 2 TbDL, one TbL, 3–4 TbVL, paired foot-type TbV, and absence of cephalic tentacles. *Tetranchyroderma oblongum* **sp. nov.** is characterized by the character combination of cuticular armature of tetrancre, 7 dorsolateral and 7–9 lateral cirratum-type tubes, and 33–38 TbVL along whole body. This brings the total number of species in the genus *Tetranchyroderma* known from South Korea to 12.

**Key words:** Gastrotricha, marine, meiofauna, new species, taxonomy, *Tetranchyroderma schizocirratum*

### Introduction

The genus *Tetranchyroderma* is the largest genus in the family Thaumastodermatidae and is defined primarily by the structure of the cuticular armature with multi-spined hooks (triancres, tetrancre, pentancre or combination of them). Other characters, such as the presence of lateral cephalic tentacles, are also important in species diagnosis (Todaro & Hummon 2008).

Hummon & Todaro (2010) recognized and listed 69 gastrotrich species in the genus *Tetranchyroderma*, which consist of three species with triancre, 27 with tetrancre, 36 with pentancre, and three with combinations of them, respectively. Since then, ten species have been added, comprising a species with triancre (*T. aapton* Dal Zotto, Ghiviriga & Todaro, 2010), two with tetrancre (*T. rhopalotum* Hummon, 2011 and *T. sinaiensis* Hummon, 2011), six with pentancre (*T. mainensis* Hummon & Guadiz, 2009, *T. corallium* Hummon, 2011, *T. xenodactylum* Hummon, 2011, *T. aethesbregmum* Lee & Chang, 2012, *T. megabitubulatum* Lee & Chang, 2012 and *T. bronhostylus* Atherton & Hochberg, 2012), and one with triancre and tetrancre combined (*T. insolitum* Lee & Chang, 2012).

In Korea, 21 marine species, including two chaetonotids, have been recorded, of which eight species belong to the genus *Tetranchyroderma* (Chang *et al.* 1998a, b; Chang & Lee 2001; Lee & Chang 2002, 2003, 2006, 2007, 2012a, b; Lee *et al.* 2009).

As a serial study on marine gastrotrichs in the northwestern Pacific, we have examined the retained samples collected from Korean coast since 1997. As a result, we confirmed three *Tetranchyroderma* species new to science with an unrecorded species new to Korean fauna. Herein we describe them with illustrations.