



## A new species of *Hysterothylacium* (Nematoda: Anisakidae) from marine fishes from Yellow Sea, China, with a key to the species of the genus *Hysterothylacium*

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### Abstract

*Hysterothylacium sinense* sp. nov. was collected from the intestine of six species of marine fishes, *Astroconger myriaster* (Brevoort), *Trichiurus haumela* (Forsskål), *Saurida elongata* Temminck and Schlegel, *Coryphaena hippurus* Linnaeus, *Sillago sihama* (Forsskål) and *Argyrosomus argentatus* (Houttuyn) in the Yellow Sea, China. The new species differs from congeners by the presence of broad lateral alae, the length of the intestinal caecum (1.26–2.33mm long, 61.6–75.0% of oesophageal length), the number and arrangement of caudal papillae (22–27 pairs of preanal, 1 pair of paranal and 3 pairs of postanal papillae), the size of the spicules (1.65–2.67mm long, 5.1–9.5% of body length) and the vulval position (23.9–31.7% from anterior end). A key to the species of the genus *Hysterothylacium* is also given.

**Key words:** Anisakidae, China, fish, *Hysterothylacium*, Nematoda, new species

### Introduction

Adult nematodes of *Hysterothylacium* Ward & Magath, 1917 parasitize marine, estuarine and freshwater fishes. The genus was redefined by Deardorff and Overstreet (1981), who also listed the generic synonyms and the majority of species that they believed belonged to the genus. At present, with over 60 species, the genus, together with *Contracaecum* Railliet & Henry, 1912, is among the largest in the superfamily Ascarioidea (Deardorff and Overstreet, 1981; Bruce *et al.*, 1994).

In spite of the extent of the Chinese coastline, knowledge of the taxonomy and distribution of the nematodes from marine fishes is extremely limited. Until now, only five species of the genus *Hysterothylacium* have been recorded in fishes from China (Hsü, 1933; Yamaguti, 1941; Parukhin, 1966; Luo, 1999; Pan *et al.*, 1990). During a helminthological survey on some marine fishes in the Yellow Sea, North China, a new species belonging to the genus *Hysterothylacium* was collected from the intestine of six species of marine fishes, *Astroconger myriaster* (Brevoort), *Trichiurus haumela* (Forsskål), *Saurida elongata* Temminck and Schlegel, *Coryphaena hippurus* Linnaeus, *Sillago sihama* (Forsskål) and *Argyrosomus argentatus* (Houttuyn). The new species was described herein, and a key to the species of the genus *Hysterothylacium* is given.

### Material and methods

Nine hundred and fifty fishes belonging to 94 species were collected from the Yellow Sea, Shandong Province, Peoples Republic of China and were examined for parasites. Nematodes recovered from the digestive tract of fishes were washed in physiological saline, fixed in hot 4% formalin then stored in 70% ethanol until