



## Redescription of *Cucullanus robustus* (Nematoda: Cucullanidae) from the conger eel *Conger myriaster* off Korea

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### Abstract

The nematode *Cucullanus robustus* Yamaguti, 1935 (Cucullanidae) is redescribed from specimens collected from the intestine of *Conger myriaster* (Brevoort) (Osteichthyes) collected off the southern coast of South Korea in September 2005. Examinations of its morphology by both light and scanning electron microscopy (latter used in this species for the first time) revealed the presence of a previously unreported unpaired median preanal papilla, and variations in the situation of the excretory pore relative to the oesophagus end, as well as in measurements of some organs. The morphology of *C. robustus* was compared with that of other congeneric species described from anguilliform fishes. The finding of *C. robustus* in Korean waters represents a new geographical record for this parasite.

**Key words:** *Cucullanus robustus*, Cucullanidae, SEM, Fish parasite, *Conger myriaster*, Korea

### Introduction

The nematode genus *Cucullanus* Müller, 1777 comprises a large number of species that parasitize a variety of freshwater, brackish-water and marine fishes; they are rarely found in freshwater turtles (Moravec *et al.* 2005). Although detailed descriptions and illustrations of some species are available for recent reports (e.g., Petter & Le Bel, 1992; Morand & Rigby 1998; Daniel *et al.* 2002; Moravec *et al.* 2005; 2007; Timi & Lanfranchi 2006), the descriptions of most species remain inadequate, making a relevant comparison of all species impossible and, sometimes, species identification problematic. Moreover, scanning electron microscopy (SEM), which reveals important taxonomic features, has rarely been used in this nematode group thus far.

To date, there are few data on the parasitic nematode fauna of freshwater and marine fishes in Korea (Chai *et al.* 1986; 1992; Kim *et al.* 1989). During recent investigations into the nematode fauna of fishes in Korea, adult specimens of *Cucullanus*, identified as *Cucullanus robustus* Yamaguti, 1935, were collected from the conger eel *Conger myriaster* (Brevoort) off the southern coast of South Korea. Their light microscopical (LM) and scanning electron microscopical (SEM) examinations enabled a detailed redescription of this hitherto insufficiently-known species, which is presented herein.

### Materials and methods

The nematode specimens were collected from the intestine of *Conger myriaster* caught in fish trap by local fisherman in Haenam City, on the southern coast of South Korea in late September 2005. A total of 27 worms