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## A survey of nematodes of the genus *Cucullanus* Müller, 1777 (Nematoda, Securatoidea) parasitic in marine fishes off Brazil, including description of three new species

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### Abstract

A taxonomic survey of six nematode species (including three new taxa) from the genus *Cucullanus* Müller, 1777, parasites of marine fishes off the Brazilian coast, is provided. Nematodes were studied using light and scanning electron microscopy (SEM). *Cucullanus gastrophysi* n. sp. parasitic in *Lophius gastrophysus* Miranda Ribeiro differs from its congeners by the combination of the following features: shape and number of sclerotized structures in the oesophastome (a pair of lateral elongate structures and a single small reniform one), position of deirids and excretory pore (both anterior to oesophagus base), spicule length and spicule/body length ratio (0.97–1.29 mm and 6.5–10.5%, respectively), morphology and length of gubernaculum (V-shaped, 107–135 µm long). *Cucullanus protrudens* n. sp. from *Pagrus pagrus* (Linnaeus) has the cloacal lips broadly protruded, which differentiates it from several species of *Cucullanus*; other features, e.g., the length of spicules and gubernaculum (400–415 µm and 91–103 µm, respectively), arrangement of caudal papillae and position of excretory pore (slightly posterior to oesophagus-intestine junction) also characterize this species. *Cucullanus pseudopericis* n. sp. from *Pseudopercis semifasciata* (Cuvier) has deirids and excretory pore posterior to the oesophagus-intestine junction, which distinguishes the species from most of the congeners; furthermore, the arrangement of caudal papillae in combination with the length of spicules and gubernaculum (1.0–1.5 mm and 178–196 µm, respectively) separate this species from other taxa. Newly collected specimens of *C. cirratus* Müller, 1777 (type species of the genus) from *Urophycis brasiliensis* (Kaup), *C. pedroi* from *Conger orbignianus* Valenciennes (type host of the species) and *C. genypteri* Sardella, Navone & Timi, 1997 from *Genypterus brasiliensis* Regan, were studied as well. Comparisons between newly collected samples and the taxonomic data available for each respective species revealed features that were not previously mentioned (e.g. presence of unpaired cloacal papilla, detailed morphology of cloacal lips), as well as negligible differences in morphology and caudal papillae arrangement. Observations on the type material of *C. carioca* suggested affinities with the genus *Dichelyne* Jägerskiöld, 1902; however, the poor preservation of these specimens does not allow further conclusions. *Cucullanus rougetae* is considered to be a *species inquirenda*.

**Key words:** new species, Cucullanidae, parasites, Lophiiformes, Perciformes, Gadiformes, Anguilliformes, Ophidiiformes

### Introduction

*Cucullanus* Müller, 1777 (Securatoidea, Cucullanidae) is a nematode genus that includes a large number of species, widely distributed throughout the world and parasitizing freshwater, brackish and marine fishes or, rarely, aquatic