A new species of philichthyid copepod (Crustacea: Cyclopoida) parasitic on *Stellifer* spp. (Perciformes: Sciaenidae) from southeastern Brazil

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Abstract

A new species of copepod, *Colobomatus stelliferi* n. sp., belonging to the cyclopoid family Philichthyidae Vogt, 1877 is proposed based on female specimens collected from the mandibular canals of three species of sciaenid teleosts: *Stellifer* brasiliensis (Schultz) (type-host), *S. rastrifer* (Jordan) and *S. stellifer* (Bloch), collected in Caraguatatuba Bay, State of São Paulo, Brazil. The new species can be distinguished from its closest congeners by the absence of lateral processes in the genital somite, the presence of one cephalic process in the cephalosome and one pair of dorso-lateral processes on the fused pedigerous somites. This is the first species of *Colobomatus* Hesse, 1873 described as parasites of species of the teleost genus *Stellifer*.

Key words: Copepoda, Philichthyidae, *Colobomatus*, marine fish, Actinopterygii, Neotropical region

Introduction

The cyclopoid family Philichthyidae Vogt, 1877 comprises highly modified and internal parasitic species, which are generally recorded in subcutaneous spaces associated with the sensory canals of the lateral line and skull bones of marine actinopterygians (Boxshall & Halsey 2004; Madinabeitia et al. 2013). This family comprises approximately 87 species belonging to nine genera: *Colobomatoides* Essafi & Raibaut, 1980; *Colobomatus* Hesse, 1873; *Ichthyotaces* Shiino, 1932; *Leposphilus* Hesse, 1866; *Lernaeascus* Claus, 1886; *Philichthys* Steenstrup, 1862; *Procolobomatus* Castro-Romero, 1994; *Sarcotaces* Olsson, 1872; and *Sphaerifer* Richiardi, 1874. *Colobomatus* is the most speciose genus with 70 valid species, followed by *Sarcotaces, Procolobomatus* and *Sphaerifer* with 7, 3 and 2 species, respectively (Walter & Boxshall 2014).

In the southeastern Atlantic, only three species of philichthyid copepods belonging to *Colobomatus* have been hitherto recorded, *C. belizensis* Cressey & Schotte, 1983 parasitizing *Haemulon steindachneri* (Jordan & Gilbert) and *Orthopristis ruber* (Cuvier), *C. sudatlanticus* Pereira, Timi, Lanfranchi & Luque, 2012 parasitizing *Mullus argentinae* (Hubbs & Marini), and an unidentified species found in the gills of *Micropogonias furnieri* (Quoy & Gaimard) (Luque & Tavares 2007; Pereira et al. 2012).

During a population study of sciaenid fishes from the coastal zone of the State of São Paulo, southwestern Atlantic, several philichthyid copepods were recovered. A detailed morphological study of these specimens, based on light and scanning electron microscopy (SEM), revealed that they represent a new species of *Colobomatus* that is described herein.
exhibiting a high host-specificity at the genus level, C. stelliferi n. sp. is probably specific to members of the genus Stellifer (i.e. S. brasiliensis, S. rastrifer and S. stellifer).

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References


