**Pseudoceros astrorum**, a new species of Polycladida (Cotylea, Pseudocerotidae) from Northeastern Brazil

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**Abstract**

*Pseudoceros astrorum* n. sp. is characterized by a smooth dorsal surface with a brown ground colour, and with net-like pattern of small black granules, white spots of different sizes uniformly distributed, a thin black sub-marginal band, and a white marginal rim. The pseudotentacles are dark brown with white tips and the anterior margin and cerebral region is devoid of pigmentation. The male system is characterised by conspicuous spermiducal bulbs, a conical curved penis stylet, and the sucker lies more or less posterior. With this contribution, the number of known species from Brazil is now 72, and has created new interest in the lesser-known polyclad fauna from the northeast coast of Brazil.

**Key words:** biodiversity, morphology, Marine flatworms, Western Atlantic, Cotylea

**Introduction**

The Pseudocerotidae is one of the largest families within the Cotylea, with a large number of described species. The phylogeny as well as the monophyly of some genera are still unclear (Rawlinson & Litvaitis 2008). *Pseudoceros* is one of the most common tropical polyclad genera, and species of *Pseudoceros* are determined on the basis of their colour patterns (Newman & Cannon 1995), external morphological features, as well as the reproductive biology, and microanatomy (Hyman 1951; Prudhoe 1985; Faubel 1984; Bolaños et al. 2007).

The number of described polyclad species in Brazil is 71, most of them from the southern states, with only seven species described from the North-East of Brazil (Bahia et al., 2012). Much of the Brazilian coast remains unexplored, and the low number of described species suggests that the biodiversity of polyclads in Brazil is currently underestimated. This contribution reports the presence of a new species of *Pseudoceros* inhabiting the waters of Ceará State, northeast Brazil.

**Material and methods**

The specimens were collected by hand from the rocky intertidal zone at Pacheco Beach, Ceará, Brazil. The animals were photographed and measured *in vivo*. The specimens were fixed in frozen formalin mixed with seawater, and preserved in ethanol 70% (Newman & Cannon, 1995). One specimen was embedded in paraffin and sagittally sectioned at 7 µm, and histological sections stained with hematoxylin-eosin method. The description is based on morphological characteristics, coloration pattern, arrangement of eyes, and reconstruction of the reproductive structures from serial histological sections; the determination and description were made following Faubel’s system (1984). All given measurements are from the holotype, unless stated otherwise. The material collected was deposited in the Museu de Zoologia da Universidade de São Paulo, Brazil (MZUSP).
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Literature cited