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A taxonomic revision of *Pseudochitinopoma* Zibrowius, 1969 (Annelida, Serpulidae) with description of two new species

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Abstract

This study is a revision of the poorly known genus *Pseudochitinopoma* Zibrowius, 1969 (Annelida, Serpulidae), erected for *Hyalopomatopsis occidentalis* Bush, 1905 from the West Coast of North America. Subsequently, an unnamed *Pseudochitinopoma* sp. nov. from the Seychelles (ten Hove 1994) (described herein as *P. amirantensis* sp. nov.) and *P. pavimentata* Nishi, 1999 were added to the genus. *Ficopomatus capensis* Day, 1961 is herein referred to *Pseudochitinopoma*, based on examination of the type material. Finally, *Pseudochitinopoma beneliahuae* sp. nov. was described from Western Australia and the Red Sea. Reproductive patterns and phylogenetic affinities of *Pseudochitinopoma* spp. are discussed.

Key words: *Pseudochitinopoma amirantensis* sp. nov., *P. beneliahuae* sp. nov., *P. capensis* comb. nov., *P. occidentalis*, *P. pavimentata*, reproduction, taxonomy

Introduction

Serpulid taxonomy is very confused (see ten Hove & Kupriyanova 2009) and some taxa are poorly known. To alleviate this situation at least partially, Zibrowius (1969) published a review of little known serpulid genera. In this review, he conducted a partial revision of the genus *Chitinopoma* Levinsen, 1884, concluding that the genus included a single species *Chitinopoma serrula* (Stimpson, 1854), females of which incubate embryos in specialized brooding chambers near the tube entrance. Simultaneously Zibrowius (1969) established a new monotypic genus *Pseudochitinopoma* for *Hyalopomatopsis occidentalis* Bush, 1905 from the West Coast of the USA. The generic name was chosen to stress the superficial similarity of the new genus with *Chitinopoma.*

The difference between the genera *Chitinopoma* and *Pseudochitinopoma* was based (Zibrowius 1969) on variation in chaetation between *C. serrula* and *P. occidentalis*: presence of thoracic *Apomatus* chaetae in the former and lack of those in the latter, as well as the shape of the uncinal anterior peg (pointed in the former and bifurcate in the latter). Also, brooding in special chambers outside the tube *versus* assumed broadcasting and subsequent development of planktotrophic larvae was listed as one of the main diagnostic characters separating the genera *Chitinopoma* and *Pseudochitinopoma*.

Although over 40 years have passed after that publication, the composition of the genus *Pseudochitinopoma* still remains very poorly known. Ten Hove (1994) listed an unnamed species *Pseudochitinopoma* sp. nov. from the Seychelles and another species, *P. pavimentata* Nishi, 1999, was described from off Honshu, Japan. Ten Hove & Weerdenburg (1978) were the first to suggest that the nominal taxon *Ficopomatus capensis* Day, 1961 cannot be included into *Ficopomatus*, but might belong to *Chitinopoma*, *Chitinopomoides*, or *Pseudochitinopoma*. Ten Hove & Kupriyanova (2009) also tentatively listed *F. capensis* in *Chitinopoma*, however, based on an apparent lack of thoracic *Apomatus* chaetae, the taxon might rather belong to *Pseudochitinopoma*.

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