



## Three new serpulids (Polychaeta: Serpulidae) from the Brazilian Exclusive Economic Zone

JOÃO MIGUEL DE MATOS NOGUEIRA<sup>1</sup> & ADRIANO ABBUD

Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo - USP, Rua do Matão, travessa 14, n° 101, 05508-900, SP, Brazil. E-mail: [nogueira@ib.usp.br](mailto:nogueira@ib.usp.br)

<sup>1</sup>Corresponding author

### Abstract

Three new species of serpulids from Brazil are described herein, two of which were described, but not named, by Zibrowius are here considered as new species and given specific names. *Vermiliopsis zibrowii* sp. nov. is characterized by an operculum with a single endplate or several septa progressively nearer to each other towards the tip and which are separated by conspicuous ribs. *Pseudovermilia harryi* sp. nov. has an operculum with several septa separated by short ribs and its tube is different from similar congeners. *Filogranula revizee* sp. nov. has an operculum with a sunken funnel and, frequently, a slender, distally sharp spine. Comparisons between these three species and related species are provided.

**Key words:** Polychaeta, Serpulidae, *Vermiliopsis*, *Pseudovermilia*, *Filogranula*, Brazil

### Resumo

Três espécies novas de serpulídeos do Brasil são aqui descritas, duas das quais já haviam sido descritas, mas não nomeadas, por Zibrowius, são aqui consideradas como espécies novas para a ciência e a elas são atribuídos nomes específicos. *Vermiliopsis zibrowii* sp. nov. é caracterizada pelo opérculo com placa distal única, ou com diversos septos progressivamente mais próximos entre si em direção à ponta, separados uns dos outros por costelas marcadas. *Pseudovermilia harryi* sp. nov. tem opérculo com diversos septos separados entre si por curtas costelas e tubos diferentes daqueles dos congêneres mais parecidos. *Filogranula revizee* sp. nov. tem opérculo com um funil afundado no bulbo e, freqüentemente, uma espinha fina e pontiaguda. São fornecidas comparações entre estas três espécies e os congêneres mais parecidos.

### Introduction

Although very common in marine environments, especially in hard substrates such as rocks, corals, and shells, serpulids are one of the most difficult families of polychaetes to work with. Most of the known taxa are extremely variable and overlap with closely related taxa, often making it difficult to establish the limits between species; frequently specimens cannot be identified beyond genus (e. g., see Zibrowius 1970; ten Hove & Wolf 1984; Bastida-Zavala & Salazar-Vallejo 2000a).

Besides the great intraspecific variability, characters used to distinguish taxa are often confusing and difficult to study. Chaetae, for example, present little variation within many genera and the shape of opercula and tubes seem to be more useful. However, tubes are rarely preserved after extraction of