

# Papéis Avulsos de Zoologia

## ON TWO NEW SPECIES OF POGONOPHORA FROM THE SOUTHWESTERN ATLANTIC OCEAN

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### ABSTRACT

Two new records of the occurrence of Pogonophora are cited from the South Brazilian region, in depths from 784 and 1,120 m. The records from Ilha Grande (state of Rio de Janeiro) are of empty tubes and those from Rio Grande do Sul are of tubes containing fragments of two new species, *Siboglinum besnardi*, sp. n. and *Siboglinum nonatoi*, sp. n.

### INTRODUCTION

Southward & Southward (1966, 1968) in their papers dealing with Pogonophora of the Atlantic Ocean, give the following records of these animals from off South America (Map):

Stations	Positions	Depth (m)
"Chain" 12	07°09' S - 34°25.5' W	768 - 805
"Vema" 14	34°26'5 S - 17°32' E	708
		(empty tubes)
"Vema" 17	44°33' S - 49°19' W	5,329 - 5,332
		(empty tubes)

On the marine shelf of Brazil the only species collected up to the present time is *Crassibrachia braziliensis* Southward, 1968 captured during the investigations of the benthos aboard the "Chain"; therefore this is the first citation of Pogonophora in the southern region of Brazil.

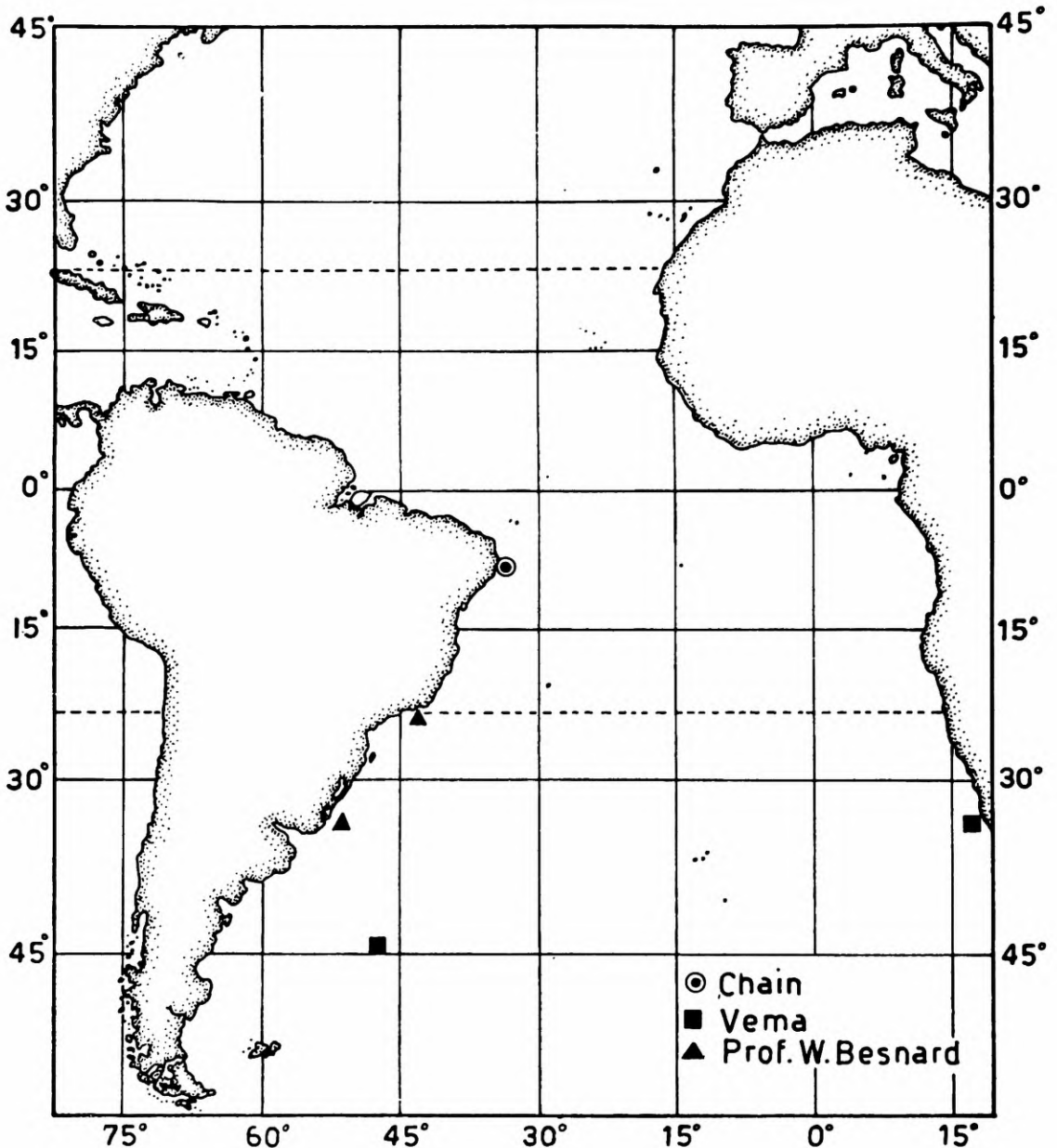
### NEW RECORDS

During the quantitative survey of the region of Ilha Grande and the exploration survey of the region of Rio Grande do Sul, we caught some Pogonophora tubes. Some of these are 10 cm long and 0.5 mm in diameter. The tubes from Ilha Grande are empty

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but those from Rio Grande do Sul contained the anterior region of numerous specimens in very good condition. The median and posterior region of the bodies of these specimens are badly damaged.



Records of Pogonophora in the southern Atlantic Ocean.

Comparing the protosoma, mesosoma and the tubes of species described by Ivanov (1963), Nielsen (1966), Southward (1966 and 1968) and by Southward & Southward (1967), we believe that the material from Rio Grande do Sul includes two new species described below. These species are deposited in the collection of the Oceanographic Institute of the University of S. Paulo.

Station list					
Station Number	Position	Depth (m)	Sediment	Bottom Water Temperature	Bottom Water Salinity
298	24°42' S 43°55' W	1,120	yellow viscous mud	3.37°C	34.40‰
404	34°50' S	784	mud	±8°C	± 34‰

***Siboglinum besnardi*, sp. n.**

(Figs. 1-6)

**MATERIAL**

Station 404. Several fragments of animals and tubes. Only the protosomal and mesosomal regions of the body are in good conditions.

**DESCRIPTION**

The fore-body is long, 976  $\mu$  length and 105  $\mu$  wide. The cephalic lobe is more or less triangular and a little flattened. It has only very long tentacle without any pinnulae. The keels of the bridde are fused on the dorsal and ventral sides of the body. The tube has a long flimsy and transparent anterior part. It is completely ringed, with or without little circular fine fibre, between the rings. The rings are yellow and heterogeneous and in a large part of the tube they are double.

**DISCUSSION**

The length of the tentacle and of the fore-body, the keels and the absence of any pinnulae make this species easily distinguished from the known species of *Siboglinum*.

**OBSERVATIONS**

In the anterior part of one tube we found some eggs of this species (Fig. 4); in two other tubes we found a Nematoda. We also found two *Solenogaster* making a knob with some tubes of this species. This species is dedicated to the late Prof. W. Besnard.

***Siboglinum nonatoi*, sp. n.**

(Figs. 7-9)

**MATERIAL**

Station 404. One fragment of animal with tube. This specimen has a well preserved protosoma and mesosoma, but only a part of the tentacle.

**DESCRIPTION**

The fore-body is long, 1.142  $\mu$  in length and 133  $\mu$  wide. The cephalic lobe is shorter than in the previous species and more or

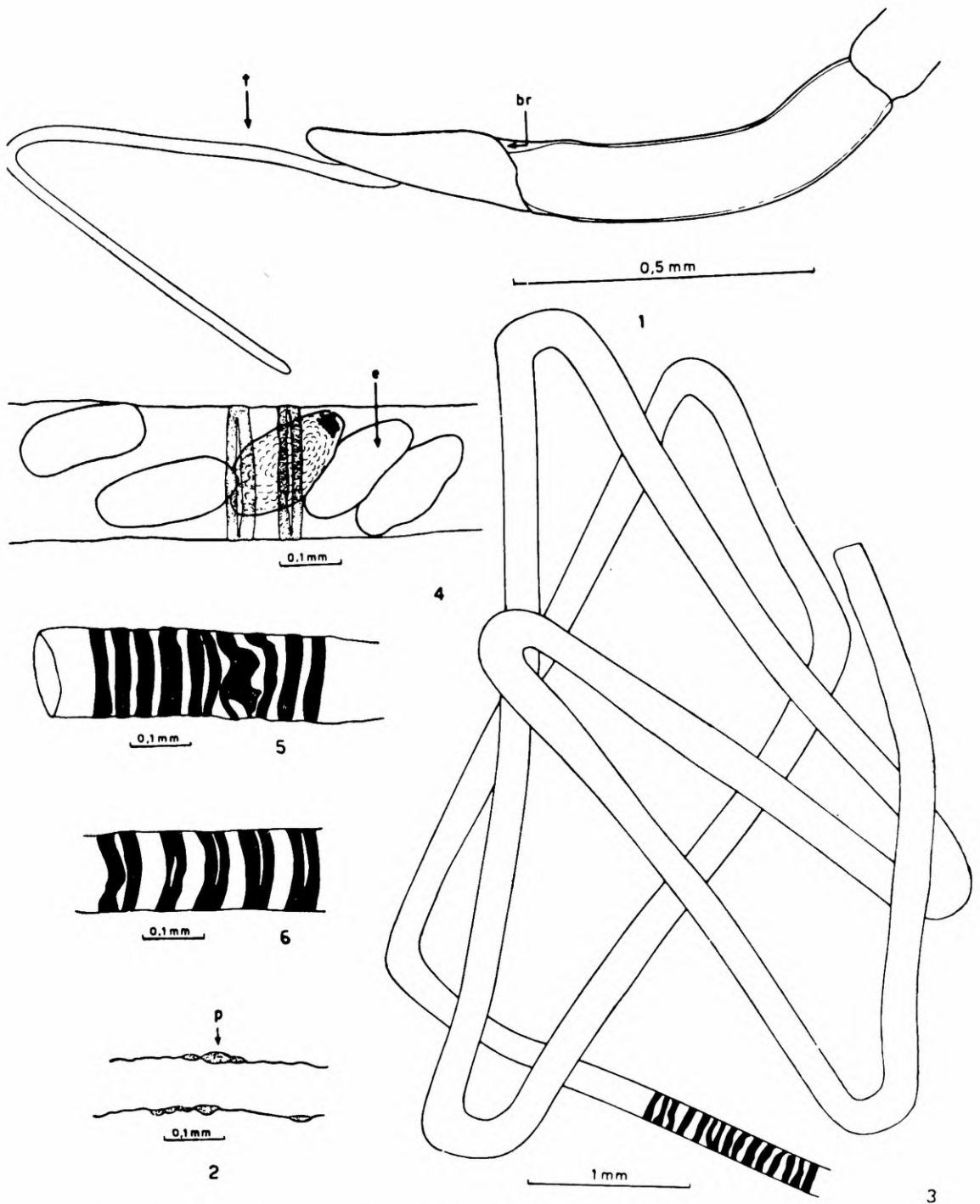


Fig. 1, anterior region of the body of *Siboglinum besnardi* (t = tentacle, br = bridle); 2, papilla (p) of *S. besnardi*; 3, anterior region of the tube of *S. besnardi*; 4, eggs (e) in the tube of *S. besnardi*; 5, middle part of the tube of *S. besnardi*; 6, another middle part of the tube of *S. besnardi*.

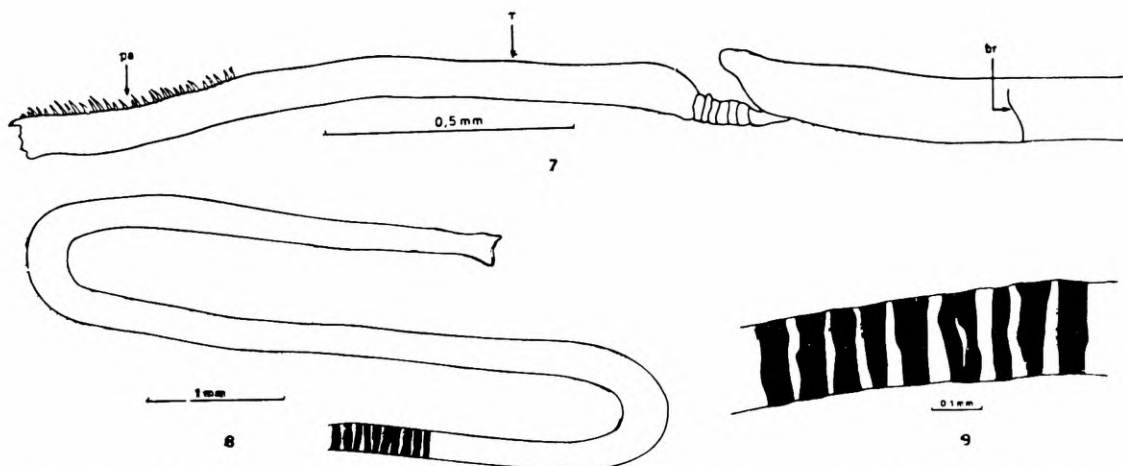


Fig. 7, anterior region of the body of *S. nonatoi* (t = tentacle, br = bridle, pa = papillae); 8, anterior region of the tube of *S. nonatoi*; 9, middle part of the tube of *S. nonatoi*.

less triangular and a little flattened. It has only one very robust tentacle and with one series of pinnulae, which do not occur in the basal region of the tentacle. The keels of the bridle are fused on the ventral side of the body but not on the dorsal side.

The tube is similar to that of the preceding species but the rings are larger. The tube is light brown-yellow coloured.

#### DISCUSSION

The structure of the tentacles and the fore-body make this species very easily distinguishable from the known species of *Siboglinum*. This species is dedicated to Dr. Edmundo F. Nonato.

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