POGONOPHORA III

The Genus Lamellisabella

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Introduction

In 1957 a paper by IVANOV appeared with descriptions of several new species of Pogonophora from the north-western part of the Pacific Ocean. In this report the genus *Lamellisabella* comprises two species, *L. zachsi* and *L. johanssoni*; and according to IVANOV the differences between them are very small. In my paper from 1956 I described a find of *L. zachsi* from the Gulf of Panama. This record was so far from the earlier known distribution of this species that it indicated a more worldwide distribution of the Pogonophora species than was hitherto expected. When IVANOV's paper appeared, and I saw how small the differences between the species were, I sent my specimen from the Gulf of Panama to IVANOV and asked him to make a comparison with his material of *L. zachsi* and *L. johanssoni*. IVANOV was kind

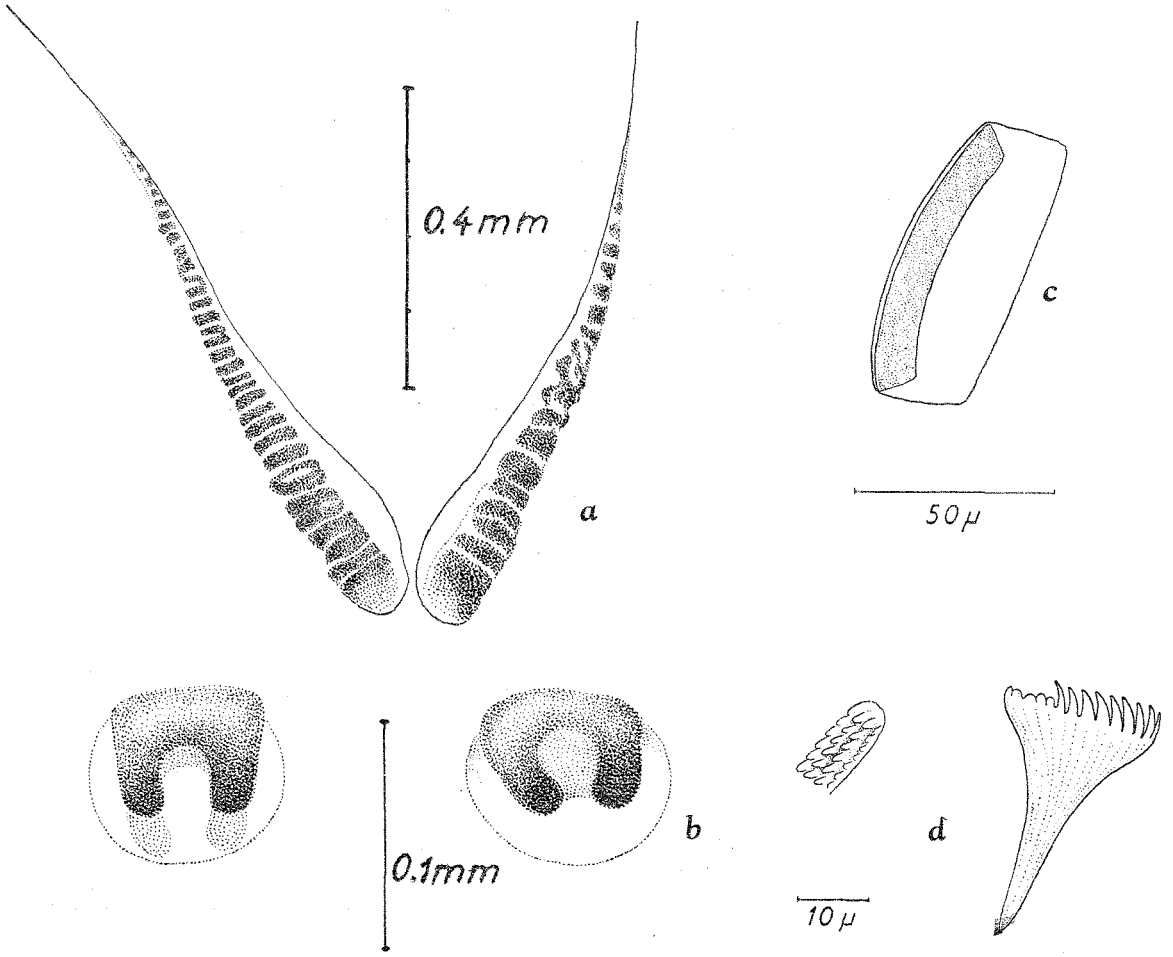

Fig. 1. *Lamellisabella ivanovi* sp. nov. a. Bridle. b. Horseshoeshaped platelets. c. Platelet from the posterior part of the trunk. d. Dendated platelets from the belt. (P. WINTHER del.).

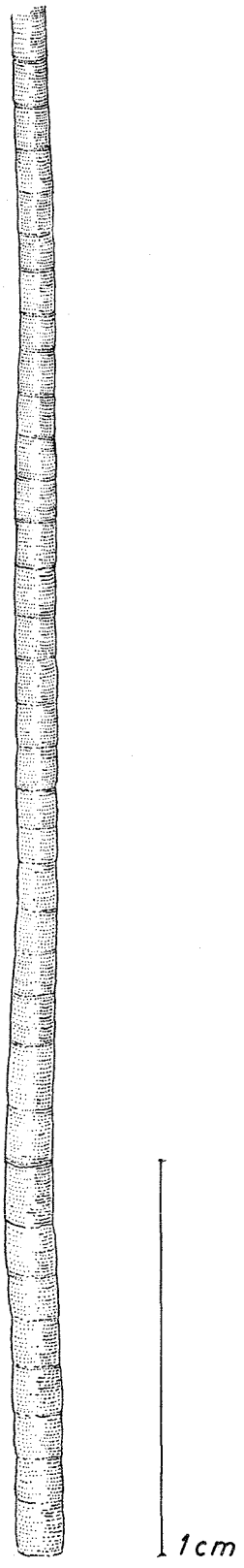

Fig. 2. *Lamellisabella ivanovi* sp. nov. Tube. (P. WINTHER del.).

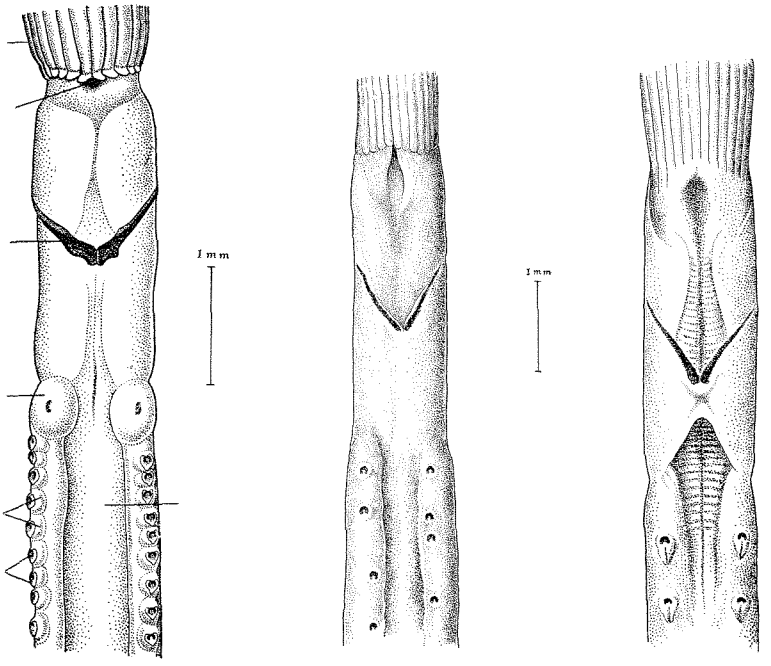

Fig. 3. a. *Lamellisabella johanssoni* Ivanov. (After A. V. IVANOV 1957). b. *Lamellisabella ivanovi* sp. nov. c. *Lamellisabella zachsi* Uschakov. Anterior parts, ventral view. (P. WINTHER del.).

enough to undertake a very detailed investigation of the problem and concluded that the specimen from the Gulf of Panama was a new species belonging to the genus *Lamellisabella*. He sent me a list with several characters from the three species of *Lamellisabella* compared to each other and allowed me to publish it together with the description of the new species.

I am very grateful to Professor IVANOV for his kind help, and it is a pleasure to me to name the new species after him.

Description of the new species

FAM. LAMELLISABELLIDAE
Uschakov, 1933

Lamellisabella ivanovi sp. nov.
(Figs. 1, 2 and 3b).

Material:

Gulf of Panama. St. 724. 5°44'N, 79°20'W. 2950-3190 m. 1 specimen almost complete: 90 × 1 mm (Holotype preserved in the Zoological Museum of the University, Copenhagen). Tube: 150 × $1^1/_2$ mm. 1 specimen, only the anterior part is present, 35 × 1 mm. Several fragments of tubes.

The 22 tentacles are fused forming a hollow cylinder which opens ventrally through a pit between the base of the tentacles (Fig. 3b). The length of the tentacle-crown is 12 mm. The protosoma and mesosoma together have a length of 3 mm and a width of 1 mm. The bridle is very dark with a brighter anterior edge and bright bands between dark ones at the posterior part (Fig. 1a). This structure is very characteristic of the present species. The two wings of

the bridle do not meet dorsally and are not fused ventrally. The broadest part of the wings is 110 μ. On the border of the anterior part of the ventral groove of the trunk are placed 15-18 horseshoe-shaped chitinized platelets with a diameter of 75 μ (Fig. 1b). In the posterior part of this section are platelets of another type (Fig. 1c) between the horseshoe-shaped ones, and these platelets are the only ones present in the posterior part of the trunk. At the middle of the trunk are two belts, parallel to each other and interrupted on the ventral surface. They consist of rows of small chitinoid platelets with four rows of denticles (Fig. 1d). The preannular section of the trunk is 70 mm long and has a diameter of 1 mm. The length of the postannular section cannot be indicated since the posterior part is absent.

The tube is strongly chitinized, without collars, but faintly segmented (Fig. 2). The colour is brown, light brown and translucent in the upper part and darker in the lower part. It is 150 mm long with a maximum diameter of $1^1/_2$ mm.

Distribution:

Gulf of Panama, 2950-3500 m.

Discussion

Since the differences between the three known species of the genus *Lamellisabella* are small I find it useful to publish IVANOV's list, which he sent me, to show why he preferred to regard the specimen from the Gulf of Panama as a new species.

As seen from the table below it looks as if *L. ivanovi* is closest related to *L. johanssoni,* since most of the characters are very much alike in these two species, e.g. number of tentacles, length of tentacle-crown, width of bridle-wings, number and size of horseshoe-shaped platelets. In the flat shape of the bridle *L. ivanovi* has more in common with *L. zachsi,* in which the bridle wings also are not fused ventrally as in *L. ivanovi. L. ivanovi* is distinguished from both the other species by the strange structure of the bridle which in both of the known specimens consists of dark bands alternating with bright ones (Fig. 1a).

Since the number of tentacles seems to be a very useful character to distinguish the species of Pogonophora, I agree with IVANOV in separating the three forms discussed above in three species, *L. zachsi* from the Sea of Okhotsk and the Bering Sea, *L. johanssoni* from the Japan Trench and *L. ivanovi* from the Gulf of Panama.

Zoogeographical Remarks

Since my first papers on the Pogonophora were published in 1956, several new records of Pogonophora have turned up. The most comprehensive paper is that of IVANOV (1957), in which he describes 12 new species from the north-western part of the Pacific. In 1956 appeared the description of *Siboglinum ekmani* from the Skagerrak (JÄGERSTEN 1956), and in 1958 the description of two new species from the Continental slope south-west of Great Britain (SOUTHWARD 1958b). These two species, *Siboglinum atlanticum* and *S. inermis* were found together with *S. ekmani* at a depth of 600-1500 m. In the Skagerrak *S. ekmani* is recorded from depths between 500 and 700 m (KIRKEGAARD 1958a). Until now 26 species are described, most of them from the Pacific area, but also from the Polar Basin and the Atlantic. Moreover, IVANOV has told me that the numerous Soviet expeditions have recorded at least 25 new species, not yet described, from several other localities in the Pacific (e.g. off the Canadian coast), the Indian Ocean, the Polar Basin and in shore waters off the

Table 1. Taxonomic characters of three species of *Lamellisabella.*

	L. zachsi	*L. johanssoni*	*L. ivanovi*
Number of tentacles	29-31	18	20-22
Length of tentackle-crown	27 mm (max)	12 mm (max)	12 mm
Length of Protosoma + mesoma	2.5-3 mm	2-3 mm	3 mm
Diameter of mesosoma	1.3 mm (max)	1 mm (max)	1 mm
Wings of bridle	not fused ventrally	fused ventrally	not fused ventrally
Max. width of bridle wings	60-70 μ	125 μ	110 μ
Shape of bridle wrings	flat	with high ant. edge	flat
Number of horseshoeshaped platelets on each side	22-30	15-25	15-18
Diameter of horseshoeshaped platelets	60 μ	70 μ	75 μ
Tube	not segmented	segmented	segmented

Antarctic.[1] It seems as if the Pogonophora are distributed in all three oceans, and as I wrote in my paper from 1956 I am now more convinced than ever that the Pogonophora occur in every place of the world where the conditions suit this strange group of animals.

1. Since I wrote this, two new papers have appeared, so the total number of described species is now 44.

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