Notes on some Pelagic Polychaetes collected in the Japan Trench

Notes on Some Pelagic Polychaetes Collected in the Japan Trench [1) 2)]

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今島 実： 日本海溝で得られた浮游性多毛類について.

(With 3 Text-figures and 2 Table)

This report on the pelagic polychaetes is based on the material obtained on the Second Cruise of the Japanese Expedition of Deep Seas (JEDS-2) in 1959. The sampling gears and method used was reported by Suyehiro and others (1960). The stations where the material was collected are shown in Table 1.

Table 1. Collecting data on the material.

Station No.	Station	Wire length (m)	Wire angle	Time	Date
A2	40°25′ N., 144°36′ E. | 40°22′ N., 144°32′ E.	6,000	43°	12 40 | 21 51	Sept. 12, '59
A3-(a)	40°59′ N., 147°26′ E. | 40°48′ N., 147°19′ E.	3,764	50°	14 36 | 23 40	Sept. 15, '59
A3-(b)	40°38′ N., 147°19′ E. | 40°36′ N., 147°19′ E.	2,500	29°	11 18 | 12 27	Sept. 16, '59
C2	42°35′ N., 148°23′ E. | 42°26′ N., 148°28′ E.	2,335	39°	20 58 | 02 20	Sept. 22-23, '59

The material consists of 127 individuals referable to 7 species, representing 6 genera and 5 families. The species and their distribution are shown in Table 2, *Tomopteris septentrionalis* being the most predominant. All the species were previously recorded as being on the Japanese coasts or the north Pacific Ocean by Izuka (1914), Okuda, (1937), Treadwell (1943) and Uschakov (1952, 1955b, 1957), except *Tomopteris* sp.

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Table 2. Species and their distribution in stations.

	A2	A3-(a)	A3-(b)	C2
Nectochaeta grimaldi Marenzeller	1	1		
Pelagobia longicirrata Greeff		1		
Typhloscolex mülleri Busch			2	
Sagitella kowalevskii Wagner				2
Rhynchonerella angelini (Kinberg)				1
Tomopteris septentrionalis Steenstrup	19	30	29	40
Tomopteris sp.			1	

Family APHRODITIDAE

Nectochaeta grimaldi Marenzeller

(Text-fig. 1)

Nectochaeta grimaldi : Fauvel, 1923, p. 90, fig. 34 ; Wesenberg-Lund, 1939, p. 8, fig. 5 ; Uschakov, 1955b, p. 318, fig. 5 ; ……, 1957, p. 289.

Occurrence : A2, A3-(a).

Two specimens measure 9㎜ and 10㎜ long for 27 and 28 setigerous segments. The proboscis has nine pairs of distal papillae and two pairs of interlocking jaws. The body is without color in alcohol. There are 12 and 13 elytrophores, and in one specimen the elytrophores are arranged on segments 2, 4, 5, 7, 9……21 and 23, and in the other one they are arranged on segments 2, 4……23 and 26, but all the elytra except the last one are lost. The prostomium is wide rather than long, and has four eyes. The median and lateral antenna are a long slender style with tapering distal ends. The notopodium of the parapodium is a short, fingerlike lobe, and provided with only two setae which are slightly serrated. The neuropodial lobes are more elongated and extended out into a acicular lobe. The neurosetae are of two kinds : the superior group of setae are very elongated, slender with long spinous region and provided with a fine bifid tip, while the setae of the inferior group are shorter, stouter, with a short spinous region and the distal tip is distinctly bifid.

Remarks : Fauvel (1923) mentioned that this species may be a form of pelagic stage of *Lepidasthenia maculata* Potts. But, as I have not any corroborator, I have identified this species. The fact that this species was obtained from seas to Japan was reported by Uschakov (1955b).

Distribution : Atlantic, Mediterranean and Pacific.

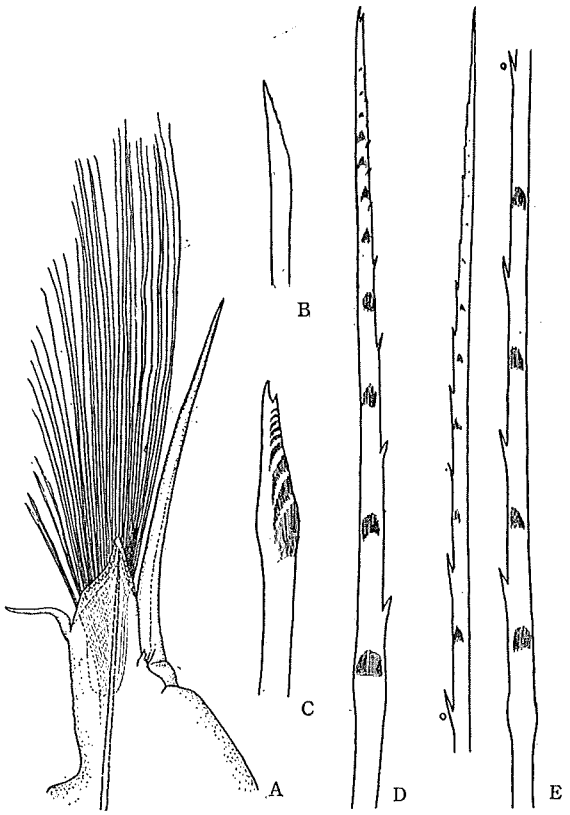

Fig. 1. *Nectochaeta grimaldi* Marenzeller.
A, 12th parapodium, anterior view, ×28 ; B, Dorsal seta ; C–D, Inferior ventral setae ; E, Superior ventral seta, B–E, ×300.

Family PHYLLODOCIDAE

Pelagobia longicirrata Greeff

Pelagobia longicirrata : Fauvel, 1923, p. 192, fig. 72 ; Okuda, 1937, p. 75, fig. 1 ; Uschakov, 1957, p. 268 ; Dales, 1957, p. 107, figs. 11-13 ; ……, 1960, p. 483.

Occurrence : A3-(a).

A single specimen in the poor preserved condition was examined. It measures 5 mm in length. The prostomium is damaged, but four short antennae and two pairs of tentacular cirri are recognized. Each parapodia are very injured, and a great part of the parapodia lost the dorsal, ventral cirri and the endpieces of the compound setae.

Remarks ; The above mentioned specimen was identical with this species, judging from the number of the antennae and of the tentacular cirri, and of the form of the imparfect parapodium and compound setae. The species is widly distributed in the world. The fact that it was found in Seto and Misaki in Japan was reported by Okuda (1937).

Distribution : Antarctic, Mediterranean, Indian, Pacific, Borneo Sea and Malacca

Straits.

Family TYPHLOSCOLECIDAE

Typhloscolex mülleri Busch
(Text-fig. 2)

Typhloscolex mülleri : Fauvel, 1923, p. 226, fig. 85 ; Treadwell, 1943, p. 38, fig. 27 ; Berkeley and Berkeley, 1948, p. 30, fig. 39 ; Uschakov, 1957, p. 286 ; Dales, 1957, p. 146, fig. 55 ; ·····, 1960, p. 485.

Occurrence : A3-(b).

Two damaged specimens were collected. Both of them measure approximately 5㎜ in length. Prostomium of the examined specimens are more or less transformed and the cilia of the dorsal and ventral cephalic lobes are not observed, but there are recognizable

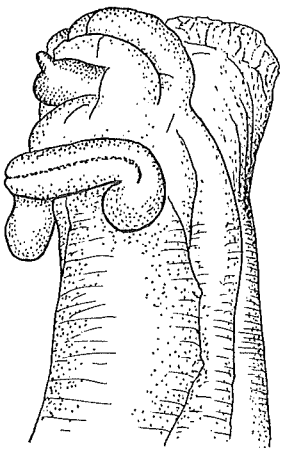

Fig. 2. *Typhloscolex mülleri* Busch.
Anterior body in dorso-lateral view, ×70.

traces of the cilia on the dorsal cephalic lobe. All of the dorsal and ventral cirri and anal cirri are lost.

Remarks : In Japanese waters the species was recorded first by Treadwell (1943). Uschakov (1957) also reported the species from many stations in the northwest Pacific.

Distribution : Atlantic, Mediterranean, Adriatic, Borneo Sea, Malacco Straits and Pacific.

Sagitella kowalevskii Wagner

Sagitella kowalevskii : Fauvel, 1923, p. 228, fig. 85 ; Okuda, 1937, p. 76, fig. 2 ; Berkeley and Berkeley, 1948, p. 31, fig. 40 ; Uschakov, 1955a, p. 114, fig. 14 ; ·····, 1957, p. 288 ; Dales, 1957, p. 147, figs. 56, 57.

Occurrence : C2.

Two specimens lost a great part of parapodial cirri. They measure 9㎜ and 15㎜

in length. The prostomium is pointed at the terminal portion. There is a pair of nuchal organs. Eight to ten segments of anterior region are devoid of setae. Two anal cirri are well developed and foliaceous. The dorsal view of the anterior region of these specimens resemble those of Dales's figure.

Remarks : In Japan, this species was first reported as being found in Misaki and Shimoda Harbour by Okuda (1937). Uschakov (1957) also reported that this species was found off Japan in the Pacific and off the east coast of Kamchatka.

Distribution : Atlantic and Mediterranean and Pacific.

Family ALCIOPIDAE

Rhynchonerella angelini (Kinberg)

(Text-fig. 3)

Callizona Angelini : Fauvel, 1923, p. 215, fig. 81 ; Wesenberg-Lund, 1939, p. 41, fig. 27 ; Berkeley and Berkeley, 1948, p. 40, fig. 56.

Rhynchonerella pycnocera : Treadwell, 1943, p. 36.

Rhynchonerella angelini : Dales, 1957, p. 133, figs. 44-46.

Occurrence : C2.

One complete specimen was collected. It measures 31㎜ long for 93 chaetiger. Dorsal colour is yellow brown. Prostomium is conical, with 4 stout antennae and one small median antenna between the eyes, which are red and large with sidewards turned cornea. The proboscis is short and provided with 12 rounded papillae. Five pairs of tentacular cirri consist of one pair on the first segment and two pairs of the dorsal and ventral cirri on the following two segments, and the dorsal cirri are longer than

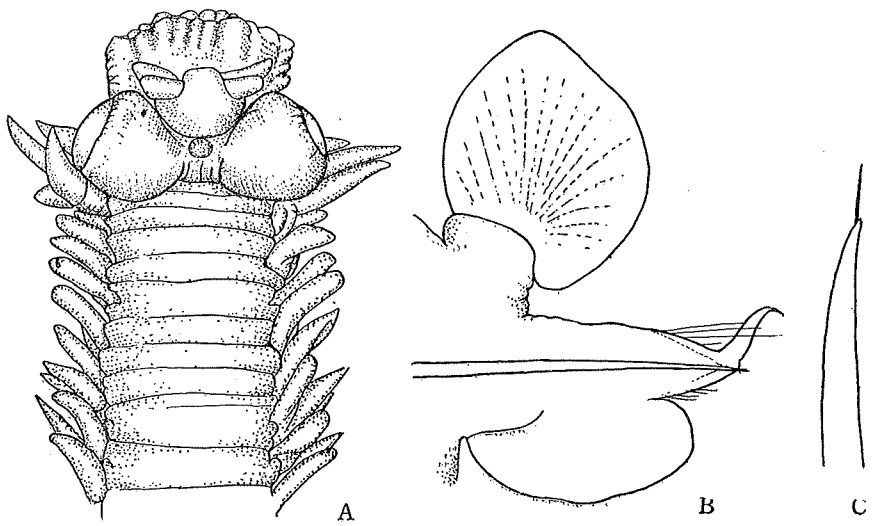

Fig. 3. *Rhynchonerella angelini* (Kinberg).
A, Dorsal view of anterior body, ×17 ; B, 5th parapodium, anterior view, ×45 ; C, Compound acicular seta, ×530.

the ventral one. The parapodium is elongated, and bears a cirriform process extending beyond the lanceolate ventral cirrus. The dorsal cirrus is more foliaceous lamellar. Setae are of two sorts : long compound setae and short compound acicular setae with minute end-pieces. Complete long compound setae are mostly lost except for one of the few anterior parapodia. There are 5 to 7 compound acicular setae in the anterior segment, but these are a small number in comparison with 8 to 17 of Wesenberg-Lund's specimen and 11 to 15 of Dales's specimen. Segmental glands are developed, and formed a black band on each side of the body.

Remarks : This species was recorded off the coast of Japan by Treadwell (1943) as *R. pycnocera.*

Distribution : Atlantic, Mediterranean, Alaska and Pacific.

Family TOMOPTERIDAE

Tomopteris (Tomopteris) septentrionalis Steenetrup

Tomopteris septentrionalis : Izuka, 1914, p. 13 ; Fauvel, 1923, p. 224, fig. 84, d ; Berkeley and Berkeley, 1948, p. 26, fig. 33 ; Uschakov, 1957, p. 282.

Tomopteris (Tomopteris) septentrionalis : Dales, 1957, p. 145, figs. 51, f and 52, g.

Occurrence : A2, A3-(a), A3-(b), C2.

The length of the specimens from each locality varies from 3 to 13 ㎜, and the number of parapodia from 15 to 24. Anterior tentacular cirri are absent. Nuchal organs extend backward far beyond the line of eyes from the base of the posterior tentacular cirri. Chromophile glands and the hyaline glands in the parapodia are found only in the ventral pinnules, and its features resemble those of Dales's figures. The tail is absent.

Remarks : The present species is one of the commonest pelagic polychaetes. Izuka (1914) has also recorded previously about the species from Misaki.

Distribution : Atlantic, Mediterranean and Pacific.

Tomopteris sp.

Occurrence : A3-(b)

A single damaged specimen, destitute of a great part of both dorsal and ventral pinnules, was examined. It measures 10 ㎜ long and has 20 parapodia. One anterior pair of tentacular cirri are present. The tail is not recognizable. Because both pinnules of the parapodia are not observed this specimen did not give accurate identification, but it differs from the former species in having anterior tentacular cirri.

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