

## Occurrence of *Peresiella clymenoides* HARMELIN, Capitellidae (Annelida: Polychaeta) in Toyama Bay, Central Japan.

Takao WATANABE<sup>1</sup> and Keiichi SHOUZEN<sup>2</sup>

### Abstract

Specimens of the capitellid polychaete, *Peresiella clymenoides*, are collected from Toyama Bay, Central Japan. The body is slender and cylindrical with 12 thoracic segments. The prostomium is distally pointed with 0 to 3 pairs of eyespots. The dorsal surfaces of the first and part of the second segment are somewhat flattened. The first three setigers have limbate capillary setae. The next 8 setigers have pseudocrochets and the abdominal uncini are of two types. The sampling depth ranged from 42 to 125 m. The sediment type is a silt-clay sand with a silt-clay content of 22.7-66.8%. The polychaete described in this brief paper may represent a new record of the species in Japan.

Key Words: Benthic polychaetes, Capitellidae, *Peresiella clymenoides*, Toyama Bay

There are two known species of the genus *Peresiella*: one from the Mediterranean *P. clymenoides* described by Harmelin (1968) and from Kinsale Harbour on the south coast of Ireland described by Dinneen (1982), and a second species *P. acuminatobrachiata* from the Tulear area of Madagascar described by Thomassin (1970). However, a species of *Peresiella* has not been reported previously from Japan. The samples reported here were collected by the Toyama Prefectural Fisheries Research Institute during a macrobenthos fauna survey on the east side of Toyama Bay in May, August and October of 1997 (Fig. 1 and Table 1). Toyama Bay is known as a steep sloping bay (Fujii, 1985), and the sampling stations are located in an area with that sloping tendency.

Genus *Peresiella* Harmelin, 1968

*Peresiella clymenoides* HARMELIN, 1968

(Figs. 1-9)

*Peresiella clymenoides* HARMELIN, 1968, pp. 257-259, figs. 1-9; Dinneen, 1982, pp. 471-475, fig. 1 A-G.

1 Takao WATANABE: Marine Biological Research Institute of Japan Co., Ltd., 4-3-16 Yutaka-cho, Shinagawa-ku, Tokyo 142-0042, Japan

2 Keiichi SHOUZEN: Toyama Prefectural Fisheries Research Institute, 364 Takatsuka, Namerikawa, Toyama 936-8536, Japan



Fig. 1. Map of Toyama Bay, showing collecting sites of *Peresiella clymenoides*.

Table 1. Station data from the surveys of Toyama Bay undertaken in 1997.

Station	Locality	Depth(m)
Stn. 1	36° 52.47'N, 137° 24.67' E	56
Stn. 7	36° 56.75'N, 137° 26.56' E	125
Stn.10	36° 57.55'N, 137° 28.47' E	42
Stn.13	36° 58.82'N, 137° 31.60' E	98
Stn.14	36° 59.04'N, 137° 33.37' E	97
Stn.15	36° 59.42'N, 137° 36.42' E	75

Material examined: Stn. 7 (1 specimen), Stn. 10 (14), Stn. 14 (22) coll. May 1997; Stn. 1 (18), Stn. 7 (11), Stn. 10 (12), Stn. 13 (1), Stn. 15 (4) coll. August 1997; and Stn. 1 (27), Stn. 10 (2) coll. October 1997.

### Description

All individuals are incomplete, lacking the posterior end. The body is slender and cylindrical; the largest one is 16 mm long and measured 0.42 mm wide at third setigerous segment and approximately 3 mm in thoracic length.

The thorax consists of an achaetus peristomium and 11 setigerous segments (Fig. 2A).

The prostomium is pointed with 0 to 3 pairs of eyespots. The peristomium is flattened on the dorsal surface like Maldanids (Fig. 2A). The first three setigerous segments have limbate capillary setae (Fig. 2C) without the first neurosetae. The following 8 setigerous segments have pseudocrochets each with parapodia (Fig. 2D, E).

Abdominal setae are of two types: one type is a hooded hook which has a broad shoulder but is present only on the 12th and 13th neuropodia. The other type of setae has normal hooded hooks on each parapodia. Both types of hooded hooks have tiny teeth on the top end (Fig. 2F, G).

The body has no branchia on any of the 24 abdominal segments, and as these individuals are incomplete, the following abdominal segments and pygidium are not observed.

### Remarks

All individuals of *P. clymenoides* from Toyama Bay are more slender: their width at the third setigerous segment ranges from 0.28-0.42 mm, compared with 0.41-0.67 mm for individuals from Kinsale Harbour (Dinneen, 1982) and 0.40-0.55 mm from the Mediterranean (Harmelin, 1968).

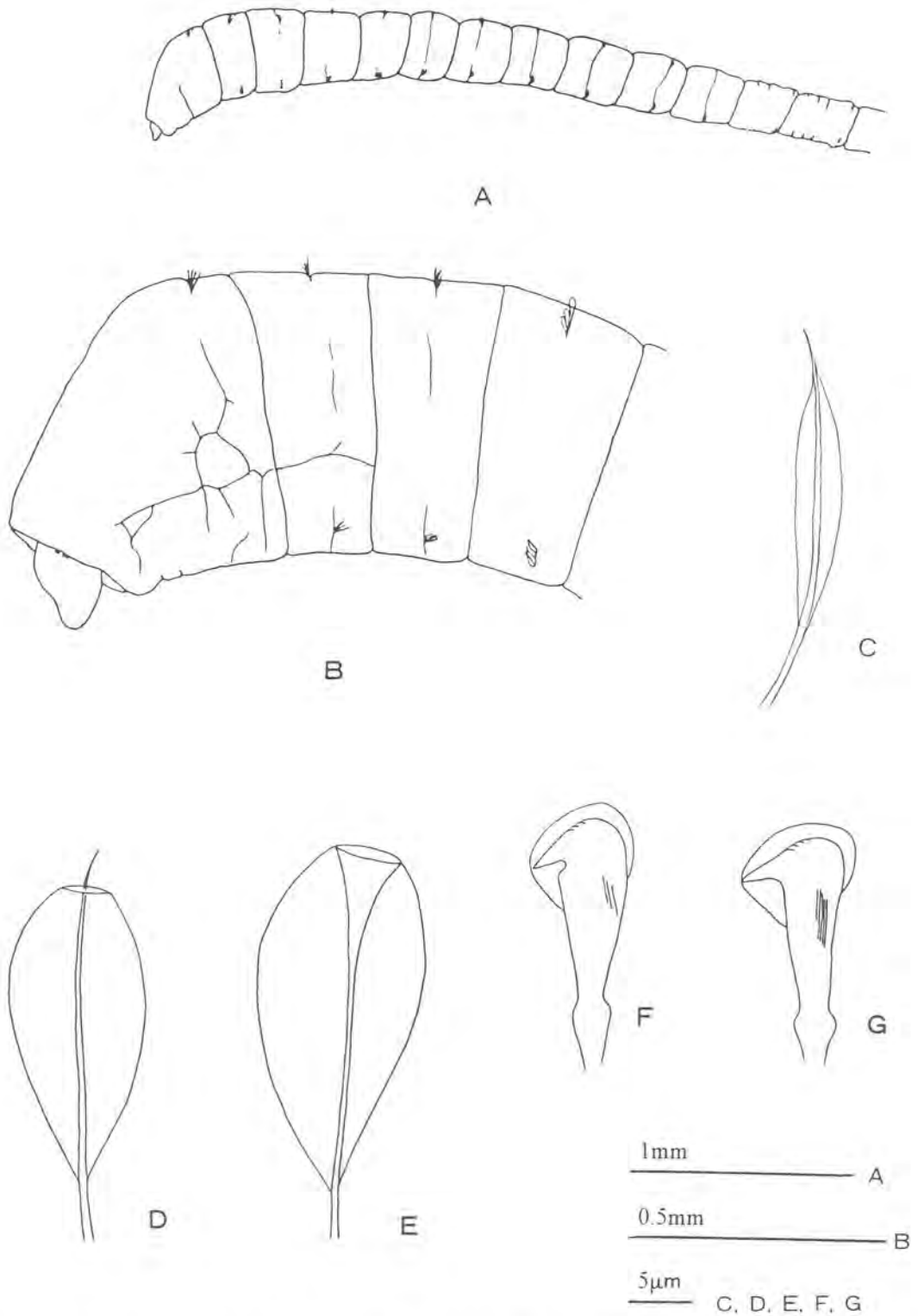


Fig. 2. *Peresiella clymenoides* HARMELIN. A, B: anterior ends of the body, lateral view; C: thoracic limbate capillary seta; D: thoracic pseudocrochet; E: broken thoracic pseudocrochet; F: specialised neuroseta from 12th setigerous segment; G: abdominal hooded hook .

The number of eye spots is variant, viz: 0-3 pairs in Toyama Bay, 3-4 pairs in Kinsale Harbour (Dinneen, 1982) and 5-8 pairs in the Mediterranean (Harmelin, 1968). Variation in eyespot number is common in not only capitellids (Dinneen, 1982), but also in other polychaete worms fixed by formalin or alcohol.

Two nuchal organs described by Harmelin (1968) are not observed in the specimens collected from Toyama Bay. This organ may be indistinct in normal individuals without an extended prostorium, and may be why Dinneen (1982) does not refer to a nuchal organ.

Dinneen (1982) described the shape of the head region as a flattened dorsal surface that extends to the second segment which explains the difference between the present and that described by Harmelin (1968). Individuals from Toyama Bay are similar to some extent as those of Kinsale Harbour.

Pseudocrochets covered the long reverse triangular hood of *P. clymenoides* described by Harmelin (1968), but the shape of the hood in individuals from Kinsale Harbour and Toyama Bay is like that of a balloon.

### Habitat

Sampling depth ranged from 5 to 25 m in Kinsale Harbour, 6 to 36 m in the Mediterranean and 42 to 125 m in Toyama Bay. The sediment type occupied by *P. clymenoides* in Kinsale Harbour is a silt-clay sand, with an average silt-clay content of 28%. In Toyama Bay the silt-clay content ranged from 22.7 to 66.8%. Stations occupied by many individuals (18-27 inds./0.1 m<sup>2</sup>) had a silt-clay content of 45.8 to 60.8%. All capitellids are non-selective deposit feeders (Fauchald & Jumars, 1979). Thus, it may be considered that the distribution of *P. clymenoides* depends on high silt-clay content rather than depth.

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### 要

### 約

日本で未記録種の *Peresiella clymenoides* (イトゴカイ科, 多毛綱) が富山湾黒東海域の水深 42~125m から発見された。本種は1968年に地中海で発見され、アイルランドの南部からの報告

もある。 *P. clymenoides* はその頭部の形態に特徴があり、タケフシゴカイ科に似て頭部背面に平らな面をもつことにより他のイトゴカイ科から容易に区別することができる。

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