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Aclymeme gesae, new genus and species of Euclymeninae (Polychaeta: Maldanidae) from the Sea of Japan

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ABSTRACT: *Aclymene gesae*, a new genus and species of Euclymeninae (Maldanidae) is described from Peter the Great Bay, Sea of Japan. The new species differs from all Maldanidae in having four pair of tongue-like lobes on the posterior segments. Most other characters of the species are typical of those in genus *Euclymene* VERRIL, but the number of hooks on the first setigers in the new species differs from that found in all known species of *Euclymene*.
KEYWORDS: Polychaeta, *Aclymene, Aclymene gesae*, Sea of Japan,

Introduction

During my studies in Vostoc Bay, in Peter the Great Bay (Sea of Japan) Dr. V. RADASHEVSKY gave me a polychaeta worm, which he collected in the Bay at the depths of 6-8 m by means of scuba-diving. The specimen belongs to the Maldanidae. It has unusual posterior segments with paired large tongue-like appendages. These appendages are furnished with numerous glandular cells, but the function of the appendage is unknown. The structure of the posterior segments of the new species differs from all known species of Maldanidae (see ARWIDSSON, 1906; DAY, 1967; HARTMANN-SCHRÖDER, 1967; FAUCHALD, 1977; IMAHIMA AND SHIRAKI, 1982 a.o.). Worms with similar posterior appensages belonging to the Maldanidae were found by DR. I. ZACHS in 1932 in Peter the Great Bay from 42 m and 75 m. In an unpublished manuscript descriptions of 3 posterior ends, as *Axiothella*? were made by DR. ZACHS. Unfortunately the material and figures were lost during the war.

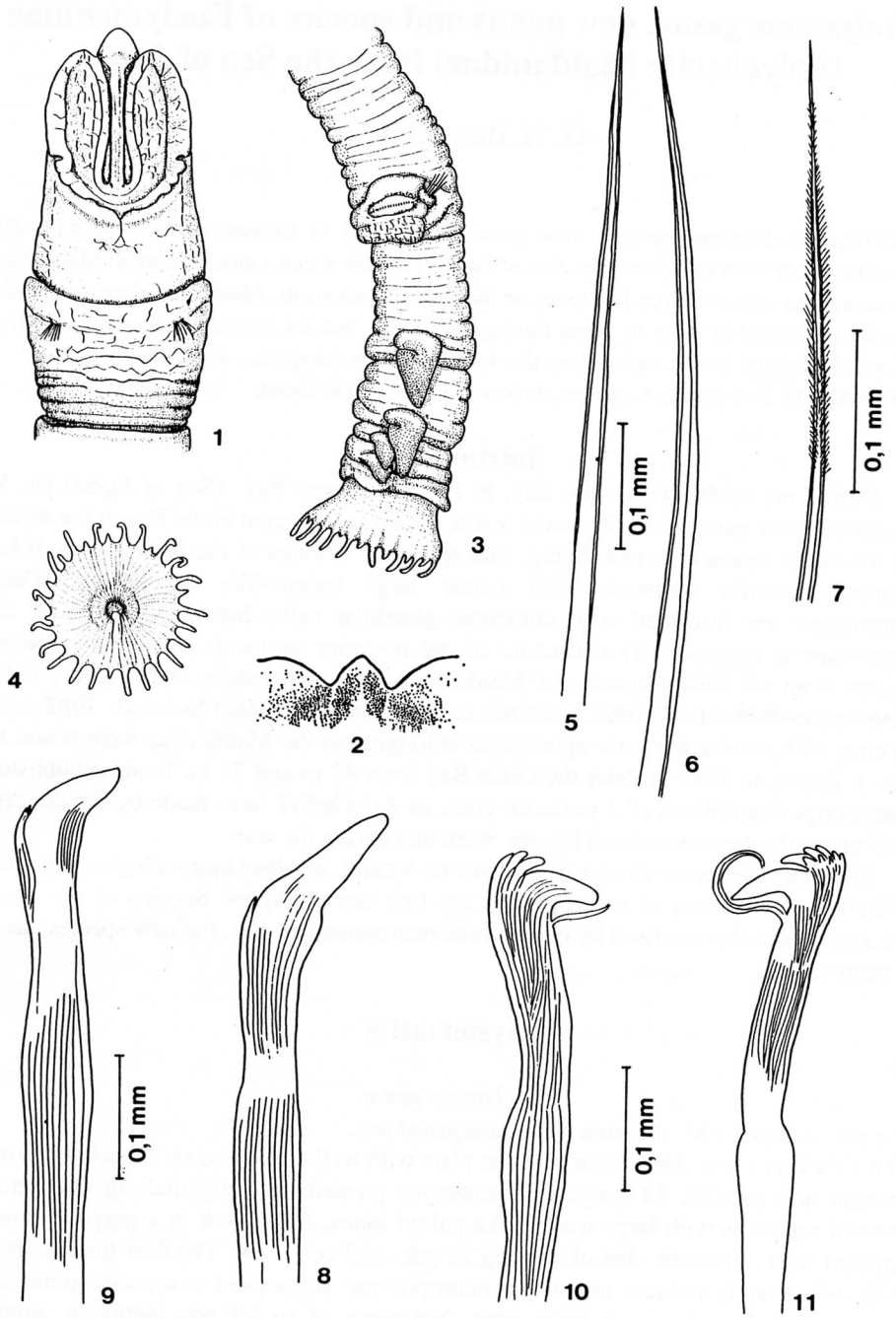
The new species ist closest to *Euclymene* VERRIL in other morphological features, excluding the number of neurosetae in the first three setigers. Species of the genus *Euclymene* are characterised by one to three neurosetae *per* side, the new species has 4-7 neurosetae.

Systematics

Aclymene gen.n.

T y p e s p e c i e s : *Aclymene gesae*, designated here.

D e s c r i p t i o n : Head with cephalic plate with well developed rim. Nuchal grooves straight and parallel. 18 setigers, 4 achaetous preanals and pigydial rig. Achaetous preanal segments with large tongue-like paired lobes. Anus sunk in a pigydial funnel rimmed with numerous cirri of varying length; anal cone low. The first three setigers with 4-7 strongly reduces uncini per neuroposium; subsequent neurosetae numerous with series of teeth above main fang. Notosetae of two kinds including winged capillaries and feathered forms. Glandular rings on anterior segments and glandular streaks on posterior ones.



Figs. 1-11. *Aclymene gesae* sp.n.

Fig.1, Cephalic plate and first setiger, top view; **Fig.2**, Ocelli on the ventral side of prostomium and cephalic rim; **Fig.3**, Posterior end, lateral view; **Fig.4**, Pygidial funnel, bottom view; **Figs.5, 6**, Bilimbate capillary setae from median setiger; **Fig.7**, Tip of feathered capillary; **Fig.8**, Neuroseta of setiger 1; **Fig.9**, neuroseta of setiger 2; **Fig.10**, uncini from setiger 4; **Fig.11**, normal hook from median setiger.

Aclymene gesae sp.n.
Figs. 1-11

Ho l o t y p e : (I/50388, Zoological Institute, Russian Academy of Sciences., St. Petersburg)
L o c u s t y p i c u s : The Sea of Japan, Vostoc Bay . Peter the Great Bay, 6-8 m, sand. - Date: 30 July 1987. - Collector: V. RADASHEVSKY.
E t y m o l o g y : The species is named in honor of DR. GESA HARTMANN-SCHRÖDER.

D e s c r i p t i o n : Holotype ovigerous female. Complete, with 23 segments, pygidial ring and funnel. Setigerous segments 18 and 4 apodous preanal setigers. Lenght 168 mm, width from 3 to 5 mm (setigers 9-10 widest). The anterior eight segments relatively short (length 3-6 mm), setigers 9-10 (length 12 mm) about 2.5 times as long as broad, setigers 11-15 (14-16 mm) being about four times as long as broad, setigers 16-18 shorter (8-10 mm). Posterior segments short, the length of first two preanals 3-4 mm each, and the last two ones 0.5 mm each. Posterior parts of podial swellings and tongue like lobes of the last segments are brown in alcohol.

Cephalic plate elliptical. Well developed cephalic rim with middorsal cleft and two deep postlateral incisions. Prostomium large subconial (Fig. 1). Some eye-spots on dorsal side of prostomium and numerous well marked ocelli on its ventral side (Fig. 1, 2).

Glands distributed on ventral side of cephalic rim, on prostomium, on cephalic keel, over the whole surface of the anterior nine setigers, on the anterior parts of podial swellings and on neuropodial tori, on tongue-like lobes of preanal setigers, on pygidial ring and on outer side of pygdial funnel. Broad, white stout glandular band on first setiger, about 2/3 of the surface of the segment. Narrow glandular rings on setigers 2-3, faint glandular rings on setigers 4-5. Thickened ventral glandular streaks between parapodial swellings on setigers 13-18 and on the first preanal segment. Broad midventral longitudinal glandular belt from setiger 9 onwards to setiger 14.

Notosetae narrow winged capillaries (Figs 5,6) and feathered capillaries (Fig. 7). First three setigers with strongly reduces neuropodial uncini, each with one vestigial denticle above the rostrum (Figs. 8, 9). Neurosetae of fourth setiger with three teeth above the rostrum; tendons poorly marked or absent (Fig. 10). Following neurosetae with a vertical series of teeth above the main fang (five teeth in a row and acessory teeth) and well developed tendons below (Fig. 11). Uncini number 7 per side on the first setiger, 5 on the second setiger and 4-5 on the third. The fourth neuropodium with 15 uncini and the following neuropodia with 33-37 hooks in one row.

Paired nephridial pores on ventrum of setigers 6-9. Tube is unknown.

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