

CIRCEIS OSHURKOVI SP.N. (POLYCHAETA, SPIRORBIDAE) FROM THE NORTH PACIFIC

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ABSTRACT

Circeis oshurkovi sp.n. from the Commander area of the North Pacific is described. It resembles *Circeis spirillum* in collar chaetae structure, tube morphology and ecology, but differs in the structure of its operculum, which is convex distally with a large, bilaterally symmetrical frontal talon. The material was collected from hydrozoans at depths of 105-160 m.

Key words: *Circeis*, Spirorbidae, North Pacific, Commander Islands.

INTRODUCTION

A new species of *Circeis* was discovered in material collected recently near the Commander Islands. This species is described below as *C. oshurkovi* sp. n.

I am grateful to B.A. Sheiko for collecting the worms. This study was supported by the Russian Foundation for Fundamental Essays (grant N 94-04-12585 a).

MATERIAL AND METHODS

The material was collected in the Commander Islands area by the fishing vessel "Pogranichnik Zmeev". The worms are preserved in 70% alcohol. For total body preparations Fore's liquid (aqueous solution of chloral hydrate and gum arabic) was used.

RESULTS

Circeis oshurkovi sp.n.

Holotype. Total preparation of the body on slide, tube damaged during preparation (N° 1/2743, KIE), North Pacific, 54°39.0'N, 166°29.6'E (SW of Monati Point, Bering Island, Commander Islands), 26.4.1996, st. 30, depth 105 m, on hydrozoans, coll. B.A. Sheiko.

Paratypes. 1) 6 specimens in alcohol and two preparations of bodies on slide

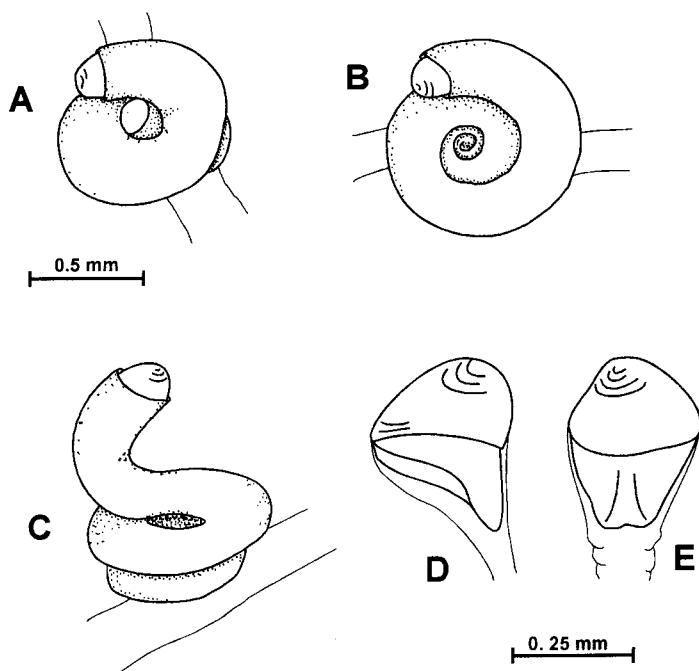


Fig. 1. *Circeis oshurkovi* sp. n. A-C – tubes. D,E – operculum, side and frontal view.

(KIE, N°N° 2/2744 – 4/2746 – 6; ZMU, N° PL-883 – 2), same location as holotype. 2) 22 specimens (KIE, N° 5/2747 – 19; ZI, N° 1/50397 – 3), North Pacific 55°04.4'N, 165°52.1'E, near Podutesnaja Bay, Bering Island, Commander Islands, 6.5.1996, st. 73, depth 140-160 m, on hydrozoans, coll. B.A. Sheiko.

Type material has been deposited in the collections of the Kamchatka Institute of Ecology and the Environment of the Far East Branch of the Russian Academy of Science, Petropavlovsk-Kamchatsky (KIE), the Zoological Institute, St. Petersburg (ZISP) and the Zoological Museum of the Moscow State University (ZMU).

Description. Tube dextral, thin, semi-translucent and smooth, sometimes coiled in one plane, but usually with last whorls covering the inner whorls or coiling upward away from the substrate (Fig. 1 A-C). Largest diameter of whorl coiled in one plane is 1,3 mm. All three tubes that were damaged during preparation contained embryos stuck to each other and the inner wall of the tube.

Bodies of fixed specimens are colourless or yellowish. Margins of thoracic membrane not fused dorsally over thoracic groove and reaching asetigerous zone only.

Distal plate of operculum (Fig.1 D, E) convex, thick and vitreous. Large spade-shape frontal talon bilaterally symmetrical, with distinct saddle-shaped concavity distally.

Three thoracic setigers (two thoracic tori on each side of the body).

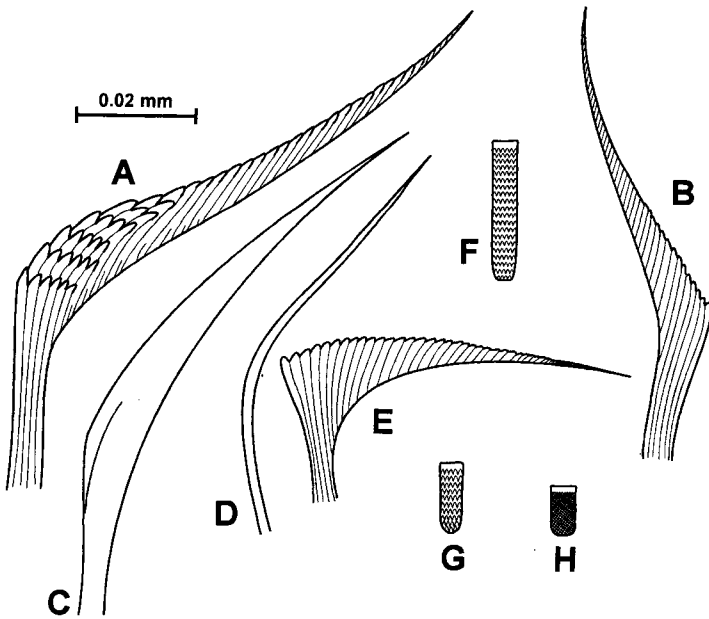


Fig. 2. *Circeis oshurkovi* sp. n. A – collar chaeta from the convex (left) side of body. B – collar chaeta from the concave (right) side of the body. C – simple chaeta from the second or third fascicle. D – accompanying capillary chaeta from the first thoracic fascicle. E – abdominal geniculate chaeta. F – largest of the thoracic uncini. G – smallest of the thoracic uncini. H – abdominal uncinus.

Collar chaetae (Fig. 2 A, B) simple, somewhat geniculate, with coarse marginal serration, 5-6 per fascicle from convex (left) and 2-3 from concave (right) side of the body. Collar chaetae from convex side (Fig. 2A) cross-striated and larger than those from the concave side (Fig. 2B). Accompanying capillary chaetae (Fig. 2 D) present in the first fascicles. Notochaetae of second and third setigers (Fig. 2 C) simple. Sickle chaetae absent from third setiger. Thoracic uncini (Fig. 2 F, G) have a blunt anterior peg and 5-6 longitudinal rows of teeth. The smallest uncini, in the ventral part of each torus, of approximately same size as abdominal uncini.

Abdomen short, with 6-9 setigers. Abdominal chaetae 1-2 per fascicle, with coarsely serrated blades and an optically dense geniculate projection extending beyond the line of the shaft (Fig. 2 E). Hooked capillary chaetae absent. Abdominal uncini (Fig. 2H) small with blunt anterior peg and numerous longitudinal rows of teeth. Abdominal tori present only on concave side of the body.

Remarks. This new species resembles *Circeis spirillum* (L., 1758) in collar chaetae structure, tube morphology and ecology. All other previously described species of *Circeis* (*C. armoricana* Saint-Joseph, 1894; *C. paguri* Knight-Jones & Knight-Jones, 1977; *C. gurjanovae* Rzhavsky, 1992 and *C. vitreopsis* Rzhavsky, 1992) have sharply geniculate collar chaetae without cross-striation. The tubes of the first three of these species are usually planospiral and white (Knight-Jones & Knight-Jones 1977; Knight-Jones et al. 1979; Al-Ogily & Knight-Jones 1981;

Rzhavsky 1992a). The tube of *C. vitreopsis* is thick, solid, vitreous and moreover sinistral (Rzhavsky 1992b).

Circeis oshurkovi differs distinctly from *C. spirillum* in operculum morphology. The operculum of *C. spirillum* is distally concave with a flat excentric talon (Knight-Jones & Knight Jones 1977; Knight-Jones et al. 1979).

Etymology. This species is named in memory of the Russian marine hydrobiologist Vladimir Vasiljevich Oshurkov.

Ecology. Worms were collected from hydrozoans in depths of 105-160 m.

Distribution. Known only from the Commander Islands, North Pacific.

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