Supplementary material

A new genus of frenulates (Annelida: Siboglinidae) from shallow waters of the Yenisey River estuary, Kara Sea

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Table S1. Main morphological characteristics of polibrachiid genera

		Bubkoa	Crispabrachia	Cvclobrachia	Diplobrachia	Galathealinum	Heptabrachia	Polybrachia	Zenkevitchiana
Tube	M:		2	1	0.17–0.3	1.33–2.6	0.25–0.7	0.5–1.16	
	Maximum diameter (mm) Frills	0.36	collar-like	1					1.6
	FILIS	collar-like	collar-like	absent	absent or	collar-like	absent or	collar-like	absent
TT 4 1	NT 1	10	(50.)	5 12	inconspicuous	70.060	inconspicuous	10 (70.)	2
Tentacles	Number	18	(50+)	5–13	2–4	78–268	4–17	12-(70+)	2
	Length (mm)	1.6–2	1.5–2	?	3–17.2	15–29	3–17.5	1.75–20	50–91
	Arrangement	circle	chaotic	circle	N/A	horseshoe	horseshoe or chaotic	horseshoe	circle
	Free or fused	Free	Free	Free	Free	Free or fused (?)	Free	Free	Free
	Pinnules (rows)	absent	absent	?	present (2)	present (2–4)	present (3-4)	present (2–5)	present (1)
Forepart	Diameter (mm)	0.14 - 0.17	1.5-1.8	0.55	0.08-0.25	1–1.5	0.23-0.5	0.25-1.3	0.8
	Prebridal dorsal ridges	absent	present	present	absent	present or inconspicuous	present or inconspicuous	present or inconspicuous	inconspicuous
	Bridle keels on dorsal side	Not fused	Not fused, touched	Fused	Not fused	Fused or touched	Fused of not	Fused of not	Fused
	Bridle keels on ventral side	Not fused	Not fused	Not fused, widely gapped	Fused of not	Fused of not	Fused of not	Not fused, widely gapped	Not fused
Trunk	Number of cuticular plaques per metameric papilla	1	1	1	1	1–10	1	1	0
	Metameric papilla cuticular plaques diameter (μm)	35–42	30–45	40	12–25	40–90	20–40	21–30	-
	Multiple glands on metameric pappilae	absent	present	unknown	present	present	present	?	present
	Nonmetameric papilla cuticular plaques diameter (µm)	21–28	30–35	?	12–30	25–80	15–40	30–40	40–60
	Number of cuticular plaques per nonmetameric papilla	1	4–7	?	1	2–30	1	1	1
	Shape of cuticular plaques	oval/crescenic	crescenic/cantle- like	kidney-shaped	bow-shaped	crescenic	round/oval	round/oval	bow-shaped
	Wing-like flaps on the border of metameric and nonmetameric parts of trunk	absent	present	unknown	absent	absent	absent	unknown	absent

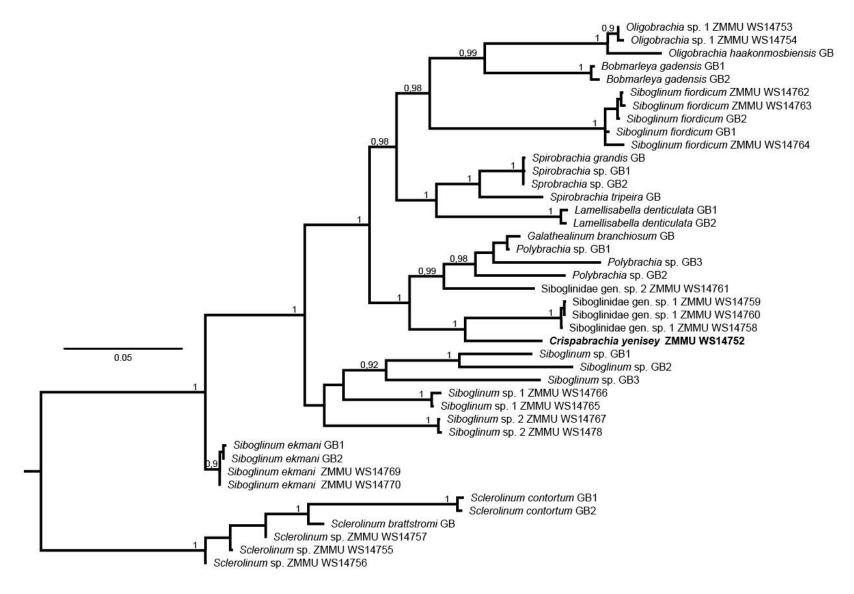


Fig. S1. Bayesian phylogenetic tree of frenulates pogonophores based on the concatenated dataset (*COI* with all positions, *H3*, 28S, 16S) and showing a position of the new genus *Crispabrachia*, gen. nov within polybrachiid frenulates. Numbers above branches indicate posterior probabilities (>0.9).