

**Table S2. Experimental set up and conditions of the mesocosms.** Abbreviations for treatments as in Fig. 1, solutions A, B, C see Table S1.

	Volume (L)	(C) ( $\mu$ l)	(A) (ml)	(B) (ml)	Baltic Sea water (L)	Ultrapure water (L)	tDOM source	Salinity	pH
River water and Sea water (RB)	25	683	364	643	12	-	12 l River water	8.3 $\pm$ 0.2	7.3
Sea water control (cBS)	25	-	-	-	25	-	-	8.1 $\pm$ 0.1	8
Retentate and Sea water (ULTRA)	15	410	228	404	7.5	6.581	919 ml retentate	8.4 $\pm$ 0.2	7.3
Lyophilisate and Sea water (LYO)	1.6	41	23	55	-	0.689	67 ml of lyphilisated DOM	-	-
River water control (cRW)	4	109	-	-	-	-	2 l filtered RW + 2 l unfiltered RW	0.1 $\pm$ 0.01	7.9