

S3 Table. Abiotic parameters of the sampling sites.

location	sample	annual mean air temperature [°C]	annual mean water temperature [°C]	annual mean precipitation [mm/day]	vegetation period [month > 10°C]	grain size [µm]	Salinity [%]		TA [mM]		NH ₄ [µM]		NO ₂ [µM]		NO ₃ [µM]		NO _x [µM]		PO ₄ [µM]	
							P	S	P	S	P	S	P	S	P	S	P	S	P	S
Iceland	IC_1	4.5	8.9	4.3	0	516.5	0.2	0.2	0.0	0.4	7.4	7.8	0.9	0.0	NA	26.3	NA	26.3	0.0	0.0
	IC_2	4.5	8.9	4.3	0	168.7	3.1	3.1	0.0	1.8	4.2	2.6	0.4	0.0	NA	11.1	NA	11.1	0.1	0.0
	IC_4	3.0	7.0	4.1	1	98.8	3.2	3.2	1.7	1.8	2.2	3.5	0.0	0.0	2.2	8.6	2.2	8.6	0.0	0.0
	IC_5	3.0	7.7	4.1	1	76.3	2.2	2.5	1.3	1.4	3.5	7.2	0.0	0.0	7.7	9.0	7.7	9.0	0.0	0.0
	IC_6	4.3	7.5	3.9	1	75.0	3.8	3.9	1.5	1.9	2.3	16.5	0.0	0.0	0.4	2.5	0.4	2.5	2.0	0.1
	IC_3	3.0	7.0	4.1	1	51.0	0.8	0.9	0.0	0.3	3.5	4.8	0.0	0.0	5.4	8.6	5.4	8.6	0.3	0.0
	IC_7	5.0	8.9	4.2	2	33.2	3.1	3.1	2.3	2.2	1.8	6.1	0.0	0.6	5.0	7.1	5.0	7.7	2.5	2.2
Germany	DE_cg	9.6	11.2	2.9	6	778.7	4.5	3.5	6.8	2.9	46.6	19.6	1.6	1.0	2.9	3.4	4.5	4.5	33.5	3.2
	DE_sa	9.6	11.2	2.9	6	474.2	4.9	3.5	9.7	2.9	290.8	19.6	3.0	1.0	0.3	3.4	2.2	4.5	46.7	3.2
	DE_si	9.6	11.2	2.9	6	101.9	4.6	3.5	5.1	2.9	53.6	19.6	0.0	1.0	0.0	3.4	0.0	4.5	30.8	3.2
France	FR_T4	12.9	14.1	2.3	8	769.9	3.8	3.7	2.6	2.1	14.0	0.0	0.0	0.0	4.3	0.0	4.3	0.0	2.8	0.4
	FR_G	12.9	14.1	2.3	8	634.6	3.9	3.7	2.2	2.1	75.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.9
	FR_N1-3	13.8	14.4	2.2	8	406.9	3.8	3.7	2.8	2.1	19.4	6.1	0.0	0.3	0.0	1.0	0.0	1.3	1.4	1.1
	FR_T1-2	12.9	14.1	2.3	8	153.6	3.6	3.6	2.7	2.1	18.1	0.0	0.0	0.0	0.1	0.3	0.1	0.3	1.1	0.6
	FR_MSM	11.9	13.3	2.2	6	128.4	4.6	3.7	3.1	1.1	50.2	0.0	1.6	0.0	0.0	1.0	1.0	1.0	2.6	0.4
	FR_N4-5	13.8	14.4	2.2	8	49.3	4.6	3.8	4.3	2.2	35.9	0.0	0.0	0.0	0.1	0.0	0.1	0.0	9.0	0.5
	FR_T3	12.6	14.1	2.3	7	33.5	4.2	3.7	2.9	2.1	42.3	0.0	0.0	0.0	0.0	3.0	0.0	3.0	1.2	0.6
Croatia	CR	13.4	18.6	2.8	7	62.1	NA	3.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oman	OM_X	27.7	27.3	0.3	12	790.7	5.4	5.4	3.2	3.0	0.0	1.6	0.0	0.0	0.7	0.0	0.7	0.0	2.6	0.4
	OM_1	27.7	27.3	0.3	12	473.0	NA	18.0	NA	3.6	NA	34.1	NA	0.3	NA	2.3	NA	2.6	NA	2.0
	OM_3	27.7	27.3	0.3	12	352.3	19.0	18.0	3.7	3.6	30.3	34.1	0.3	0.3	1.6	2.3	1.9	2.6	1.8	2.0
	OM_2	27.7	27.3	0.3	12	193.9	19.0	18.0	3.7	3.6	40.4	34.1	0.3	0.3	5.2	2.3	5.5	2.6	2.7	2.0
	OM_4	27.7	27.3	0.3	12	151.2	18.0	18.0	3.6	3.6	34.4	34.1	0.3	0.3	2.3	2.3	2.6	2.6	2.7	2.0
	OM_5	27.7	27.3	0.3	12	58.7	18.0	18.0	3.6	3.6	35.2	34.1	0.3	0.3	3.0	2.3	3.3	2.6	2.1	2.0

Climate data: <https://eosweb.larc.nasa.gov/sse/> (averaged monthly values from 1983-2005), accessed 21.09.2017; water temperatures (estimated from values of nearby locations):

www.seatemperature.org, accessed 02.08.2017. Salinity, total alkalinity (TA), and nutrient concentrations (NH₄, NO₂, NO₃, NO_x, PO₄) in sea (S) and pore (P) water. No (pore) water samples could be obtained for samples CR and OM_1.