

Supplementary S1: raw data of phytoplankton abundance (Cyanobacteria, Bacillariophyceae, Chlorophyceae, Euglenophyceae, Dinophyceae and Total), of environmental parameters values and concentrations (T, pH, salinity, TSS, TP, DIP, Total N, DIN, DSi) and of trace metal concentrations (Cr, Co, Ni, Cu, Zn, Mo, Mn, Fe) from the dry season longitudinal profile (April 2017) and rainy season (October 2017) taken from SG01 to SG18

Dry season	Cyanobacteria	Bacillariophyceae	Chlorophyceae	Euglenophyceae	Dinophyceae	Total	T	pH	Salinity	TSS	TP	DIP	TN	DIN	DSi	Cr	Co	Ni	Cu	Zn	Mo	Mn	Fe
Apr-17	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	°C	-	-	mg L ⁻¹	mgP L ⁻¹	mgP L ⁻¹	mgN L ⁻¹	mgN L ⁻¹	mgSi L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹
SG01	1,000	47,800	3,100	400	1500	53800	31.1	6.2	0	26	0.12	0.08	2.7	0.7	0.5	0.45	0.33	1.46	1.24	12.5	0.43	35.5	21.6
SG02	0	331,000	31,000	1000	35000	398000	31	6.3	0	19	0.09	0.08	3.3	0.8	0.7	0.27	0.22	1.45	2.46	7.8	0.58	35	17.5
SG03	7,000	420,000	8,000	1000	4000	441000	30.7	6.3	0	31	0.15	0.03	3.1	0.6	1	0.29	0.1	1.65	1.8	7.6	0.72	21.4	21.6
SG04	13,000	540,000	30,000	0	9000	592000	30.7	6.4	0.1	29	0.14	0.07	3.6	0.6	0.5	0.35	0.1	2.09	1.65	5.7	0.94	21.2	12.3
SG05	12,000	4,098,000	138,000	6000	0	4254000	31.2	6.8	0.5	16	0.16	0.04	4.3	0.9	0.3	0.18	0.05	1.17	0.79	6.2	0.68	6.9	6.2
SG06	72,000	5,088,000	136,000	0	0	5296000	31	6.7	0.8	24	0.16	0.02	4.6	0.5	0.2	0.06	0.05	0.92	0.66	2.7	0.71	9.7	1.1
SG07	80,000	4,280,000	210,000	0	10000	4580000	31.2	6.9	1	16	0.12	0.03	4.4	0.7	0.2	0.1	0.03	0.86	0.64	3.4	0.44	2.1	2
SG08	110,000	4,110,000	50,000	0	0	4270000	31.5	7	1.1	18	0.11	0.03	3.7	0.6	1.3	0.26	0.05	1.33	0.74	6.6	0.64	2.2	4.8
SG09	112,500	2,072,500	60,000	0	0	2245000	31.6	7	0.9	19	0.11	0.06	4.7	0.7	2.1	0.04	0.03	0.9	0.68	2.2	0.65	2.4	2.1
SG10	97,500	1,122,500	60,000	0	2500	1282500	31.2	6.9	0.7	21	0.09	0.02	2.9	0.5	0.7	0.35	0.78	1.84	0.94	8.9	0.61	166.1	7.9
SG11	80,000	552,500	21,250	0	1250	655000	31.2	6.9	0.6	28	0.08	0.04	2.9	0.6	0.4	0.41	0.73	2.41	1.09	23	0.81	153.5	6.7
SG12	100,500	222,750	9,750	0	1500	334500	31	6.9	0.4	34	0.09	0.04	3.1	0.1	1.5	0.3	0.3	1.82	0.86	8.6	0.86	98	3.8
SG13	64,000	137,000	3,000	0	0	204000	31.4	7	0.6	37	0.09	0.04	3.4	0.6	0.7	0.23	0.09	1.72	0.91	4.4	1.2	32.6	3.3
SG14	65,500	66,000	4,250	0	250	136000	31.3	7	1	40	0.09	0.04	3.2	0.4	0.5	0.66	0.07	1.96	1.15	4.7	1.4	19.8	4.9
SG15	64,250	46,500	3,000	500	250	114500	31.3	7	1.1	32	0.09	0.06	3.3	0.5	1.1	1.78	0.08	2.69	0.99	4.6	1.62	11.6	13.9
SG16	67,000	49,000	5,750	0	250	122000	30.8	6.9	0.5	30	0.07	0.04	3.1	0.1	0.7	0.19	0.06	1.48	0.85	2.8	1.61	8.1	2.7
SG17	35,000	11,300	1,900	0	0	48200	31.1	7	0.9	42	0.11	0.02	3.1	0.2	0.8	0.27	0.06	1.76	1.33	5.4	1.15	9.7	3.5
SG18	45,600	11,000	2,300	0	100	59000	30.9	7	1.1	30	0.1	0.03	3.4	0.2	0.6	0.09	0.04	1.1	0.67	3	0.74	7.5	1.2

Rainy season	Cyanobacteria	Bacillariophyceae	Chlorophyceae	Euglenophyceae	Dinophyceae	Total	T	pH	Salinity	TSS	TP	DIP	TN	DIN	DSi	Cr	Co	Ni	Cu	Zn	Mo	Mn	Fe
Oct-17	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	ind L ⁻¹	°C	-	-	mg L ⁻¹	mgP L ⁻¹	mgP L ⁻¹	mgN L ⁻¹	mgN L ⁻¹	mgSi L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹	µg L ⁻¹
SG01	80	960	60	280	20	1400	28.5	6	0	42	0.14	0.04	3.1	0.8	0.9	0.25	0.63	1.76	2.27	14.4	0.22	58.7	28.8
SG02	120	370	50	810	70	1420	28.5	5.9	0	35	0.21	0.04	2.8	0.7	0.7	0.76	0.7	1.78	1.96	14.9	0.25	67.5	420.6
SG03	240	260	110	3310	40	3960	28.7	6	0	72	0.22	0.03	3.6	0.9	0.8	0.55	0.64	1.92	1.8	14	0.3	69.2	48.9
SG04	200	480	160	2660	0	3500	28.7	6	0	44	0.26	0.03	3.6	0.8	0.6	0.28	0.64	1.84	2.57	11.5	0.31	71.8	30.1
SG05	240	900	100	1680	0	2920	28.7	6.1	0	57	0.22	0.03	3.4	0.8	0.6	0.28	0.62	1.63	1.7	11.4	0.34	72.6	34.4
SG06	400	620	220	3160	60	4460	28.7	6.1	0	48	0.36	0.03	3.4	0.8	0.8	0.34	0.61	1.75	1.74	13	0.37	73.5	32.5
SG07	540	1090	390	4090	50	6160	29.1	6.1	0	38	0.21	0.06	4.2	0.9	1.2	0.3	0.55	1.83	1.46	11.4	0.42	79.8	33.4
SG08	560	2320	960	4540	60	8440	28.8	6.3	0	20	0.19	0.05	4	0.9	0.8	0.37	0.57	1.85	0.87	6.8	0.5	91.5	25.8
SG09	1480	5000	1600	9840	80	18000	28.8	6.3	0	18	0.17	0.04	4	0.8	0.9	0.27	0.4	1.73	0.76	8	0.49	85.7	37.7
SG10	1750	9400	3200	9250	0	23600	28.8	6.3	0	36	0.25	0.04	3.8	0.9	1	0.3	0.38	1.88	0.83	22.5	0.49	83	35.2
SG11	2350	8000	3250	10550	0	24150	28.9	6.4	0	21	0.23	0.06	3.7	1.1	0.9	0.33	0.41	1.72	0.75	5.3	0.5	94.8	25.7
SG12	1850	8200	2700	10500	50	23300	28.9	6.4	0	25	0.23	0.05	3	1.2	0.7	0.34	0.33	1.77	0.76	8.2	0.52	90.7	25.8
SG13	17650	3350	1800	2100	100	25000	28.6	6.4	0	35	0.14	0.08	3.7	0.7	0.6	0.27	0.16	1.15	0.84	3.6	0.31	39	14.9
SG14	29920	2240	1680	1280	0	35120	28.5	6.5	0	44	0.08	0.04	3.3	0.8	1.1	0.16	0.1	0.91	0.79	3	0.22	23	10.9
SG15	18900	1800	900	950	150	22700	28.2	6.5	0	42	0.15	0.04	3.6	0.5	2.4	0.22	0.15	1.31	1	7.1	0.27	34.7	16.6
SG16	6980	660	400	120	40	8200	28.4	6.4	0	57	0.09	0.05	4.3	0.5	1.8	0.12	0.08	0.94	0.98	8.3	0.2	19.4	9.5
SG17	12400	699	133	200	0	13432	28.3	6.4	0	79	0.09	0.04	3.2	0.8	0.8	0.14	0.11	0.99	0.88	7.9	0.19	26.6	25.1
SG18	17000	920	440	240	80	18680	28.4	6.4	0	56	0.08	0.04	3.4	0.9	1	0.11	0.13	0.97	0.9	2.8	0.22	31.6	12.1