Table S1 Monthly values and means ± standard deviation (SD) of surface temperature (T), salinity (S), reactive phosphorous ($P\text{-}PO_4$), total organic phosphorous (TP), ammonium ($N\text{-}NH_3$), nitrate ($N\text{-}NO_3$), nitrite ($N\text{-}NO_2$), total organic nitrogen (TN), chlorophyll *a* (Chla) and total dinoflagellate cell density (Tot Din) in Santa Giusta Lagoon (SG) at each sampling station (A, B, C, D) from March 2015 to February 2016. Btm: below the detection threshold of the method (< 0.01 µM for $N\text{-}NO_2$). ns: not sampled.

		M	A	M	J	J	A	S	O	N	D	J	F	mean	SD
T °C	A	13.11	20.35	ns	26.85	29.52	27.23	21.10	18.10	11.63	11.43	9.62	12.77	18.34	7.18
	B	13.40	20.73		26.97	29.96	28.31	20.53	18.02	11.67	11.11	9.83	12.65	18.47	7.38
	C	13.79	20.23		27.02	29.95	28.16	21.01	17.58	11.93	11.70	10.03	13.04	18.59	7.21
	D	13.53	18.82		25.67	28.80	26.25	21.81	19.36	12.68	11.89	9.81	12.93	18.32	6.62
S	A	16.78	25.12		34.34	37.10	39.52	39.96	37.53	36.73	34.30	32.48	30.90	33.16	6.89
	B	16.85	24.86		33.65	36.63	39.20	39.80	37.61	36.75	34.54	32.75	30.73	33.03	6.84
	C	16.62	24.50		33.39	36.60	38.63	39.24	37.57	36.68	34.43	32.35	30.30	32.76	6.84
	D	24.46	35.46		37.91	38.94	39.02	39.15	38.72	37.60	34.54	32.53	30.75	35.37	4.61
$P\text{-}PO_4$ µM	A	1.04	0.59		0.14	0.14	0.13	0.09	0.42	0.93	1.02	0.86	0.57	0.54	0.38
	B	0.98	0.79		0.36	0.18	0.56	0.18	0.24	0.90	0.81	0.66	0.61	0.57	0.29
	C	1.02	1.17		0.54	0.29	0.13	0.38	0.25	0.99	0.94	0.65	0.51	0.62	0.36
	D	1.02	0.33		0.57	0.90	0.36	0.33	0.45	1.02	0.70	0.73	0.47	0.62	0.27
TOP µM	A	1,08	1,05		2,03	2,20	2,09	2,40	1,67	1,77	1,59	1,20	1,33	1.67	0.47
	B	1,03	1,26		1,78	1,98	3,61	2,01	1,83	1,74	1,53	1,13	1,21	1.74	0.71
	C	1,15	2,09		2,03	2,27	2,02	1,91	1,78	1,51	1,54	1,43	1,27	1.73	0.37
	D	0,93	0,71		1,02	0,93	1,47	1,02	0,83	1,33	1,44	1,29	1,28	1.11	0.26
$N\text{-}NH_3$ µM	A	1.06	0.54		0.54	0.61	0.85	2.09	0.60	12.28	5.21	2.61	1.95	2.58	3.51
	B	0.94	0.58		0.57	0.73	1.41	1.24	0.51	12.66	2.09	1.48	1.70	2.17	3.52
	C	0.63	1.39		0.48	0.59	0.87	5.23	0.85	12.75	5.18	1.58	1.63	2.83	3.71
	D	0.72	0.78		0.73	2.79	3.13	3.06	3.74	14.82	2.56	1.96	1.37	3.24	3.99
$N\text{-}NO_3$ µM	A	0.93	0.40		0.38	0.24	0.13	0.64	0.25	0.84	1.35	1.25	2.83	0.84	0.78
	B	0.72	0.79		0.30	0.15	0.09	0.48	0.16	0.77	0.96	1.08	0.52	0.55	0.34
	C	0.75	0.40		0.27	0.14	0.15	0.56	0.24	1.03	1.21	0.90	0.34	0.54	0.37
	D	0.89	0.44		0.35	0.38	0.18	0.59	0.98	1.18	2.00	1.02	0.79	0.80	0.51
$N\text{-}NO_2$ µM	A	btm	btm		btm	btm	btm	btm	0.03	0.38	0.62	0.24	0.05	0.12	0.21
	B	btm	btm		btm	btm	btm	btm	0.06	0.65	0.32	0.22	btm	0.11	0.21
	C	btm	btm		btm	btm	btm	btm	0.08	0.39	0.66	0.21	btm	0.12	0.22
	D	btm	btm		btm	btm	btm	btm	btm	0.27	0.76	0.21	btm	0.11	0.24
TON µM	A	30.21	29.92		43.69	61.05	54.59	65.75	44.52	47.41	56.53	38.90	45.32	47.08	11.65
	B	26.21	30.67		44.05	56.56	88.85	58.91	44.50	38.89	55.82	30.78	40.46	49.71	17.53
	C	32.10	32.95		49.19	53.60	63.92	59.17	45.28	51.24	60.04	32.89	43.53	47.63	11.40
	D	30.57	9.59		23.03	19.22	20.22	17.38	11.93	35.09	47.40	27.62	36.96	25.36	11.44
Chla mg m^{-3}	A	1.03	1.24		5.24	3.92	5.09	6.68	8.17	0.92	1.46	0.94	0.32	3.18	2.74
	B	1.18	0.42		5.18	6.88	29.87	1.58	6.94	1.08	2.27	0.90	0.81	5.19	8.54
	C	2.21	3.06		6.50	5.61	11.76	1.64	6.10	0.57	1.19	0.90	0.93	3.68	3.47
	D	0.62	1.04		3.18	1.52	3.63	1.29	1.56	0.56	0.84	1.33	1.55	1.56	0.98
Tot Din	A	64	793		1774	105	1086	147	0	3	221	523	121	440	566
cells x 10^3 L^{-1}	B	148	403		1243	554	3898	93	233	7	253	391	889	738	1110
	C	486	687		1520	665	2245	16	43	5	95	608	353	611	700
	D	66	195		8	23	1776	4	27	27	15	1332	129	328	617