

Alkaline phosphatase activity in relation to nutrient status in the northern Adriatic Sea

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Appendix 1. Supplementary data

Table A1. Alkaline phosphatase activity (APA) in various fractions, nutrients, hydrographic parameters and microbial biomass during 2006. As in most cases PO₄ concentrations were at the limit of detection, the N:P ratio was not considered. APA_t = total APA. APA_p = APA in particulate fraction. APA_d = APA in dissolved fraction. DOP = dissolved organic phosphorus. DIN = dissolved inorganic nitrogen. BA = bacterial abundance

Date 2006	Station	Depth (m)	APA _t (μmol l ⁻¹ h ⁻¹)	APA _p (%)	APA _d (%)	PO ₄ (μmol l ⁻¹)	DOP (μmol l ⁻¹)	DIN (μmol l ⁻¹)	Temp. (°C)	Salinity	Chl a (μg l ⁻¹)	BA (10 ⁶ cells l ⁻¹)
15 May	SJ108	0	4.63	98	2	0.03	0.18	5.72	21.17	34.07	7.83	697.9
		10	0.32	71	29	0.04	0.08	1.23	13.48	37.86	0.34	241.1
		30	0.11	4	96	0.08	0.10	3.31	9.70	38.34	0.58	780.0
12 Jun	SJ108	0	0.71	99	1	0.00	0.17	0.77	20.70	37.06	0.61	587.0
		10	0.30	77	23	0.00	0.15	0.69	17.80	37.64	0.14	279.4
		30	0.19	35	65	0.02	0.22	2.11	11.70	38.30	0.81	241.0
21 Sep	SJ108	0	3.10	99	1	0.11	0.42	13.91	24.11	25.04	13.62	1940.0
		10	0.37	89	11	0.03	0.23	1.13	22.04	36.87	0.60	758.3
		30	0.10	19	81	0.12	0.23	4.64	16.01	38.21	0.34	493.0
17 Oct	SJ101	0	0.26	96	4	0.04	0.34	1.88	19.20	33.58	2.38	1314.3
		10	0.02	100	0	0.01	0.36	1.07	21.06	36.64	0.68	641.3
		30	0.01	0	100	0.23	0.17	7.17	18.44	38.03	0.39	586.2

Table A2. Specific alkaline phosphatase activity (sAPA) and characteristics of microbial communities at the surface at Stns SJ108 and SJ107 in 2004 and SJ108 and SJ101 in 2006. Biomass = total microbial biomass. Auto:hetero = ratio of phytoplankton and heterotrophic bacteria biomass expressed as their content of C as a measure of autotrophic versus heterotrophic importance. Nano = percentage of nanophytoplankton chl a in total chl a. Microphyto = microphytoplankton abundance. Diatoms = percentage of diatoms in total microphytoplankton abundance

Date (dd.mm.yy)	Station	sAPA (nmol μgC ⁻¹ h ⁻¹)	Biomass (μg C l ⁻¹)	Auto:hetero (μg C _{chl a} /μg C _{BA})	Nano (%)	Microphyto (10 ⁶ cells l ⁻¹)	Diatoms (%)
31.05.04	SJ108	48.50	100.1	2.2	87	1.03	99
	SJ107	58.31	60.9	5.8	91	0.99	99
15.06.04	SJ108	34.07	72.5	5.0	72	0.33	84
	SJ107	24.78	26.6	1.8	69	0.11	94
02.09.04	SJ108	18.97	98.2	3.5	38	1.60	99
	SJ107	17.48	29.6	1.1	76	0.43	99
22.10.04	SJ108	0.70	238.2	8.1	80	0.30	92
	SJ107	1.25	74.7	4.0	90	0.04	81
17.11.04	SJ108	0.94	98.5	4.6	42	0.34	99
	SJ107	1.74	43.2	4.1	47	0.20	100
14.12.04	SJ108	0.75	53.1	4.3	86	0.01	93
	SJ107	1.08	24.7	4.4	82	0.02	94
15.05.06	SJ108	11.45	405.5	28.1	36	–	–
12.06.06	SJ108	16.71	42.2	2.6	47	1.10	98
21.09.06	SJ108	8.23	719.9	17.6	52	1.05	98
17.10.06	SJ101	1.76	145.4	4.5	46	0.84	100

Appendix 1 (continued)

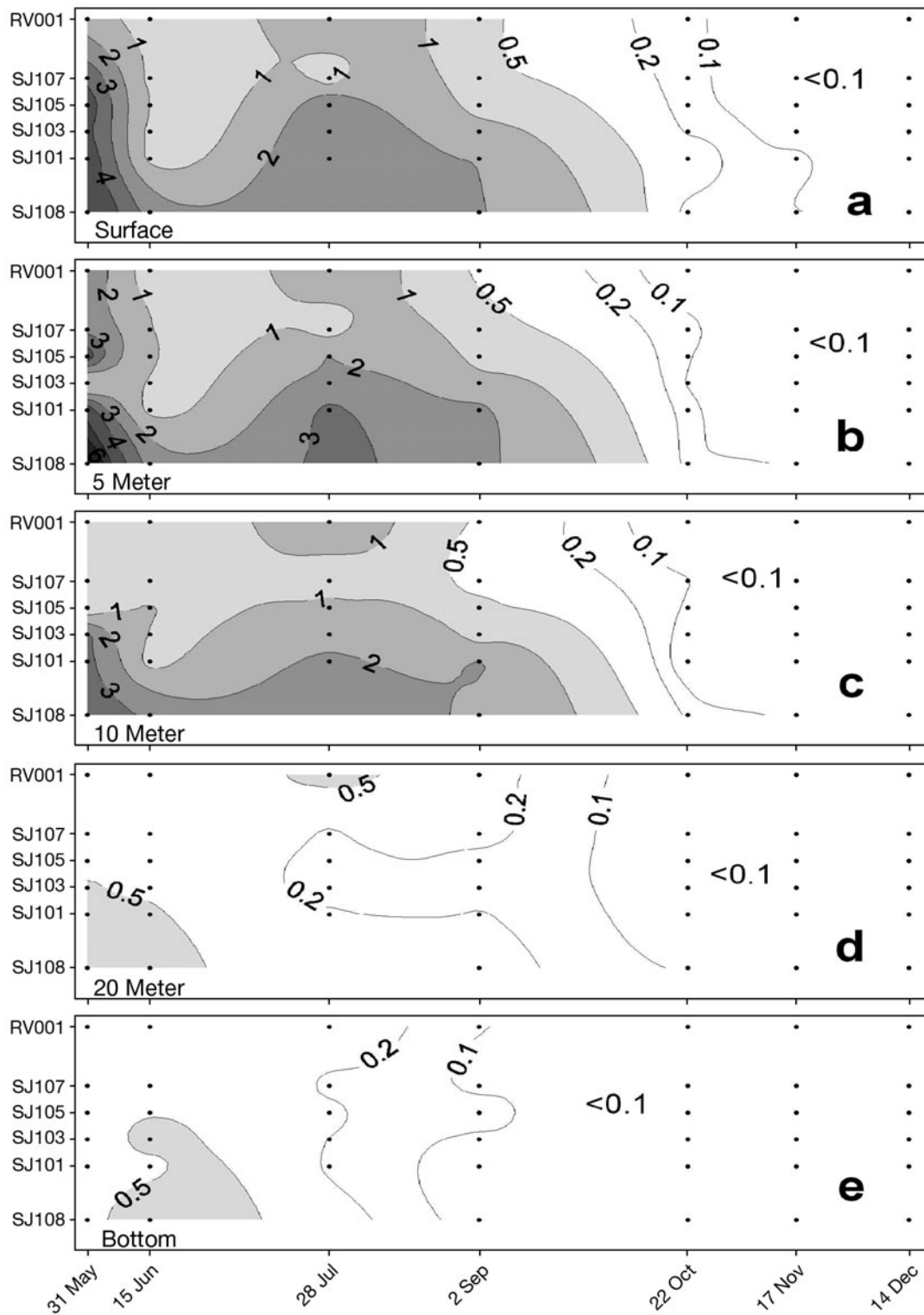


Fig. A1. Alkaline phosphatase activity (APA; $\mu\text{mol l}^{-1} \text{h}^{-1}$) distributions at (a) the surface, (b) 5 m, (c) 10 m, (d) 20 m and (e) the bottom at sampling stations shown in Fig. 1 in main article

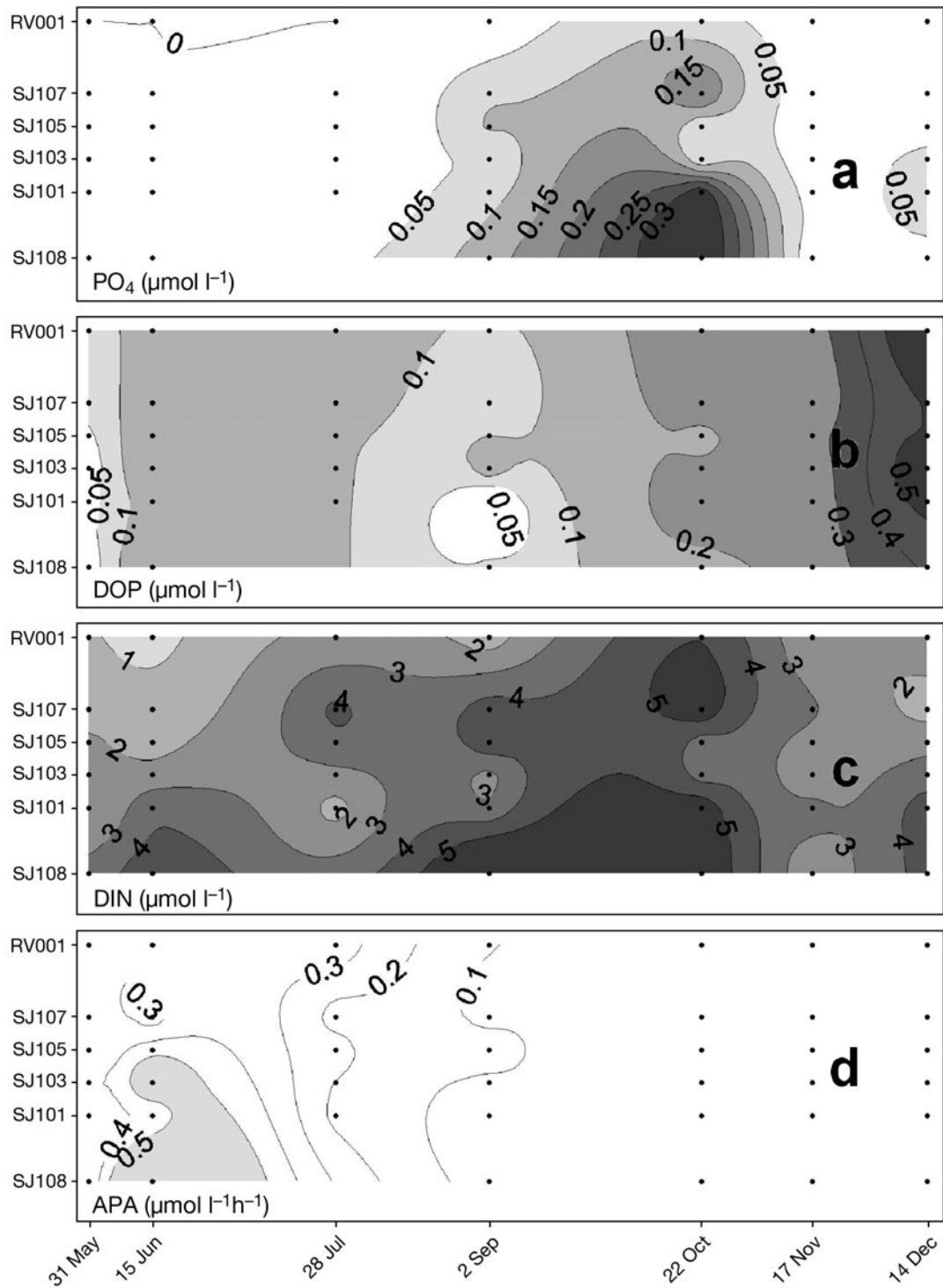


Fig. A2. (a) PO₄, (b) dissolved organic phosphorus (DOP), (c) dissolved inorganic nitrogen (DIN) and (d) alkaline phosphatase activity (APA) distributions at the bottom in 2004 at sampling stations shown in Fig. 1 in main article