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Supplement of

Changing nutrient stoichiometry affects phytoplankton production, DOP accumulation and dinitrogen fixation – a mesocosm experiment in the eastern tropical North Atlantic

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Supplemental Information to ‘Changing nutrient stoichiometry affects phytoplankton production, DOP build up and dinitrogen fixation – a mesocosm experiment in the eastern tropical North Atlantic’

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 2 Table S1: Nominal and measured nutrient concentrations after the addition of nitrate or phosphate to the
 3 mesocosms in both experimental runs.

Run	Treat ID	NO ₃ ⁻ nom [μmol L ⁻¹]	PO ₄ ³⁻ nom [μmol L ⁻¹]	SiO ₂ nom [μmol L ⁻¹]	N : P nom	NO ₃ ⁻ [μmol L ⁻¹]	PO ₄ ³⁻ [μmol L ⁻¹]	SiO ₂ [μmol L ⁻¹]	N : P
1	12.0N/0.75P	12	0.75	15	16	11.52	0.73	15.22	15.78
1	12.0N/0.75P	12	0.75	15	16	10.97	0.68	14.97	16.11
1	12.0N/0.75P	12	0.75	15	16	10.63	0.52	15.04	20.47
1	6.35N/1.10P	6.35	1.1	15	5.76	5.66	1.00	15.06	5.66
1	12.0N/1.25P	12	1.25	15	9.6	10.74	1.14	15.01	9.39
1	12.0N/1.25P	12	1.25	15	9.6	11.16	1.12	15.33	9.95
1	12.0N/1.25P	12	1.25	15	9.6	10.89	1.09	15.13	9.97
1	12.0N/1.75P	12	1.75	15	6.86	10.55	1.57	14.97	6.74
1	12.0N/0.75P	12	0.75	15	16	10.82	0.61	15.10	17.64
1	12.0N/1.75P	12	1.75	15	6.86	10.82	1.58	14.90	6.86
1	12.0N/1.75P	12	1.75	15	6.86	11.07	1.53	15.01	7.24
1	12.0N/0.25P	12	0.25	15	48	11.16	0.15	15.12	76.78
1	12.0N/0.25P	12	0.25	15	48	11.18	0.16	15.00	69.80
1	17.65N/1.10P	17.65	1.1	15	16	16.90	1.01	15.27	16.75
1	12.0N/0.25P	12	0.25	15	48	11.33	0.15	15.15	75.77
2	12.0N/0.75P	12	0.75	15	16	12.58	0.47	14.51	27.00
2	12.0N/0.75P	12	0.75	15	16	12.36	0.51	14.18	24.32
2	12.0N/0.75P	12	0.75	15	16	12.61	0.51	14.34	24.72
2	6.35N/0.40P	6.35	0.4	15	15.99	6.91	0.18	14.63	39.35
2	17.65N/1.10P	17.65	1.1	15	16.05	18.43	0.79	14.47	23.45
2	20.0N/0.75P	20	0.75	15	26.67	20.57	0.47	15.09	43.92
2	20.0N/0.75P	20	0.75	15	26.67	20.60	0.45	14.16	45.92
2	20.0N/0.75P	20	0.75	15	26.67	21.90	0.45	15.18	48.81
2	4.00N/0.75P	4	0.75	15	5.33	4.62	0.45	15.33	10.38
2	17.65N/0.40P	17.65	0.4	15	44.46	18.47	0.22	15.36	84.31
2	4.00N/0.75P	4	0.75	15	5.33	4.49	0.47	14.92	9.59
2	4.00N/0.75P	4	0.75	15	5.33	3.99	0.49	15.68	8.17
2	2.00N/0.75P	2	0.75	15	2.67	2.06	0.46	16.39	4.52
2	6.00N/1.03P	6.00	1.03	15	5.77	6.69	0.78	15.46	8.55
2	2.00N/0.75P	2	0.75	15	2.67	1.87	0.56	17.64	3.33
2	2.00N/0.75P	2	0.75	15	2.67	2.71	0.48	15.04	5.60

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8 Table S2: Mass balance. P pool = PO_4^{3-} + DOP + POP. P pool_x = undetermined P pool, which represents
 9 a combination of measurement errors and wall growth. Statistical significance (t-test) between pool sizes
 10 on day 2 and day 8 is denoted by asterisks. No t-tests were conducted when only one replicate was
 11 available.

Run	Treat ID	Replicates	P pool day 2 [$\mu\text{mol L}^{-1}$]	P pool day 8 [$\mu\text{mol L}^{-1}$]	P pool _x [$\mu\text{mol L}^{-1}$]	P pool _x [%]
1	6.35N/1.10P	1	1.52	1.12	-0.40	26
1	12.0N/0.25P	3	0.53 ± 0.07	0.45 ± 0.03	-0.08	15
1	12.0N/0.75P	4	0.97 ± 0.12	0.71 ± 0.11	-0.26	27
1	12.0N/1.25P	3	1.42 ± 0.06	1.02 ± 0.10	-0.40*	28
1	12.0N/1.75P	3	1.86 ± 0.05	1.42 ± 0.20	-0.44*	24
1	17.65N/1.10P	1	1.34	0.92	-0.42	31
2	2.00N/0.75P	3	0.88 ± 0.11	0.84 ± 0.19	-0.04	5
2	4.00N/0.75P	3	0.89 ± 0.06	0.75 ± 0.12	-0.14	16
2	6.00N/1.03P	1	1.13	0.71	-0.42	37
2	6.35N/0.40P	1	0.56	0.54	-0.02	4
2	12.0N/0.75P	3	0.89 ± 0.07	0.76 ± 0.10	-0.13	15
2	17.65/0.40P	1	0.56	0.48	-0.08	14
2	17.65N/1.10P	1	1.19	1.15	-0.04	3
2	20.0N/0.75P	3	0.88 ± 0.03	0.73 ± 0.10	-0.15	17

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