

Microbial dynamics in autotrophic and heterotrophic seawater mesocosms. II. Bacterial community structure and hydrolytic enzyme activities

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Aquatic Microbiol Ecology 49:123–141 (2007)

Appendix 1. Multiple correlations between enzymatic hydrolytic activities and mesocosm chemical and biological features. Correlation coefficients >0.50 or <-0.50 are reported; significant values ($p < 0.0001$) are in bold, for $p < 0.01$ specific p-values are provided. DOP: dissolved organic phosphorus; Total P: total phosphorus; POP: particulate organic phosphorus; POC: particulate organic carbon; PON: particulate organic nitrogen; DFCHO: dissolved free carbohydrates; DFAA: dissolved free amino acids; DCAA: dissolved combined amino acids; PCAA: particulate combined amino acids; TEP: transparent exopolymer particles; HNAN: heterotrophic nanoflagellate abundance, size 1 to 5 μm ; PNAN: phototrophic nanoflagellate abundance, size 1 to 5 μm ; HR: hydrolysis rate

	Laminarin HR	Xylan HR	Chondroitin HR	Amino- peptidase Activity
Phosphate				-0.74
Silica			-0.61 ($p = 0.002$)	-0.61 ($p = 0.004$)
DOP	-0.70			
Total P	-0.56 ($p = 0.004$)		-0.58 ($p = 0.003$)	-0.75
POP				0.70 ($p = 0.001$)
POC			0.72	0.90
PON			0.71	0.90
DFCHO		-0.58 ($p = 0.001$)	0.61 ($p = 0.001$)	
DFAA		-0.50 ($p = 0.008$)		
DCAA		-0.54 ($p = 0.003$)	0.53 ($p = 0.005$)	0.58 ($p = 0.006$)
PCAA			0.77	0.89
TEP (equiv. l^{-1})			0.75	0.90
TEP (area)			0.70	0.85
Net O_2			0.72	0.87
Gross O_2			0.72	0.86
Aminopeptidase activity			0.78	
Chlorophyll <i>a</i>			0.72	0.87
HNAN 1-5			0.67	0.83
PNAN 1-5			0.71	0.78

Appendix 2. (continued)

Enzyme annotation	Co_	Er_	Id_	Ni_	Oc_	Ph_	Ps_	Sa_	Sh_	Vi_	Pe_	Ro_	Si_	Si_	Su_	Su_	Po_
	psy	lit	loi	oce	ale	pro	atl	deg	bal	fis	ubi	nub	pom	sp. TM 1040	sp. EE- 36	sp. NAS- 141	irg
Peptidase M20B, tripeptide aminopeptidase (EC:3.4.11.4)																	
Peptidase M24A, methionine aminopeptidase, subfamily 1				+				++	+								
Prolyl aminopeptidase (EC:3.4.11.5)					+	+		+									+
Putative Zn-dependent aminopeptidase								+									+
Secretory tripeptidyl aminopeptidase (EC:3.4.11.-)														+			
Xaa-Pro aminopeptidase (EC:3.4.11.9)	++	+	++++	+	+						+	+					+