

Seasonal changes in phytoplankton community structure in a bioluminescent lagoon, St. Croix, US Virgin Islands

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Supplement 1: ChemTax initial and final ratio matrices for two groups (bins). (abbreviations: chc3 = chlorophyll *c*₃, b_fuco = 19' butanoyloxyfucoxanthin, fuco = fucoxanthin, h_fuco = 19' hexanoyloxyfucoxanthin, neo = neoxanthin, viola = violaxanthin, allo = alloxanthin, lut = lutein, zea = zeaxanthin, gyro = gyroxanthin, chl_b = chlorophyll *b*, chl_a = chlorophyll *a*)

Class/Pigment	chc3	perid	b_fuco	fuco	h_fuco	neo	viola	allo	lut	zea	gyro	chl_b	chl_a
Original Matrix													
Cyanobacteria										1.3240			1.0000
Chlorophytes						0.0490	0.0400		0.1740	0.0180		0.2820	1.0000
Dinoflagellates		0.5450											1.0000
Cryptophytes								0.3540					1.0000
Diatoms				0.8100									1.0000
<i>Karenia</i>	0.1000		0.1000	0.2910	0.1090						0.1360		1.0000
Bin 1 Matrix													
Cyanobacteria										0.5697			0.4303
Chlorophytes						0.0357	0.0599		0.0253	0.0131		0.1367	0.7292
Dinoflagellates		0.2542											0.7458
Cryptophytes								0.2614					0.7386
Diatoms				0.4475									0.5525
<i>Karenia</i>	0.2902		0.0540	0.1305	0.0489						0.0335		0.4429
Bin 2 Matrix													
Cyanobacteria										0.3385			0.6615
Chlorophytes						0.0278	0.0287		0.0868	0.0116		0.2007	0.6444
Dinoflagellates		0.2640											0.7360
Cryptophytes								0.2614					0.7386
Diatoms				0.2587									0.7413
<i>Karenia</i>	0.1214		0.0289	0.1478	0.1132						0.1432		0.4454

Supplement 2: List of photopigments quantified by HPLC.

19' butanoyloxyfucoxanthin
19' hexanoyloxyfucoxanthin
alloxanthin
antheraxanthin
chlorophyll *a*
chlorophyll *b*
chlorophyll c1+c2
chlorophyll c3
diadinoxanthin
diatoxanthin
gyroxanthin
lutein
neoxanthin
peridinin
prasincoxanthin
violaxanthin
zeaxanthin
 α carotene
 β carotene