

Figure S2. Maintenance of stable nitrate enrichment throughout the 4 week experiment. Lines run through means of replicate mixing tanks; whiskers are standard errors of the mean. N0 = “ambient”, N2 = “low”, N4 = “high”.

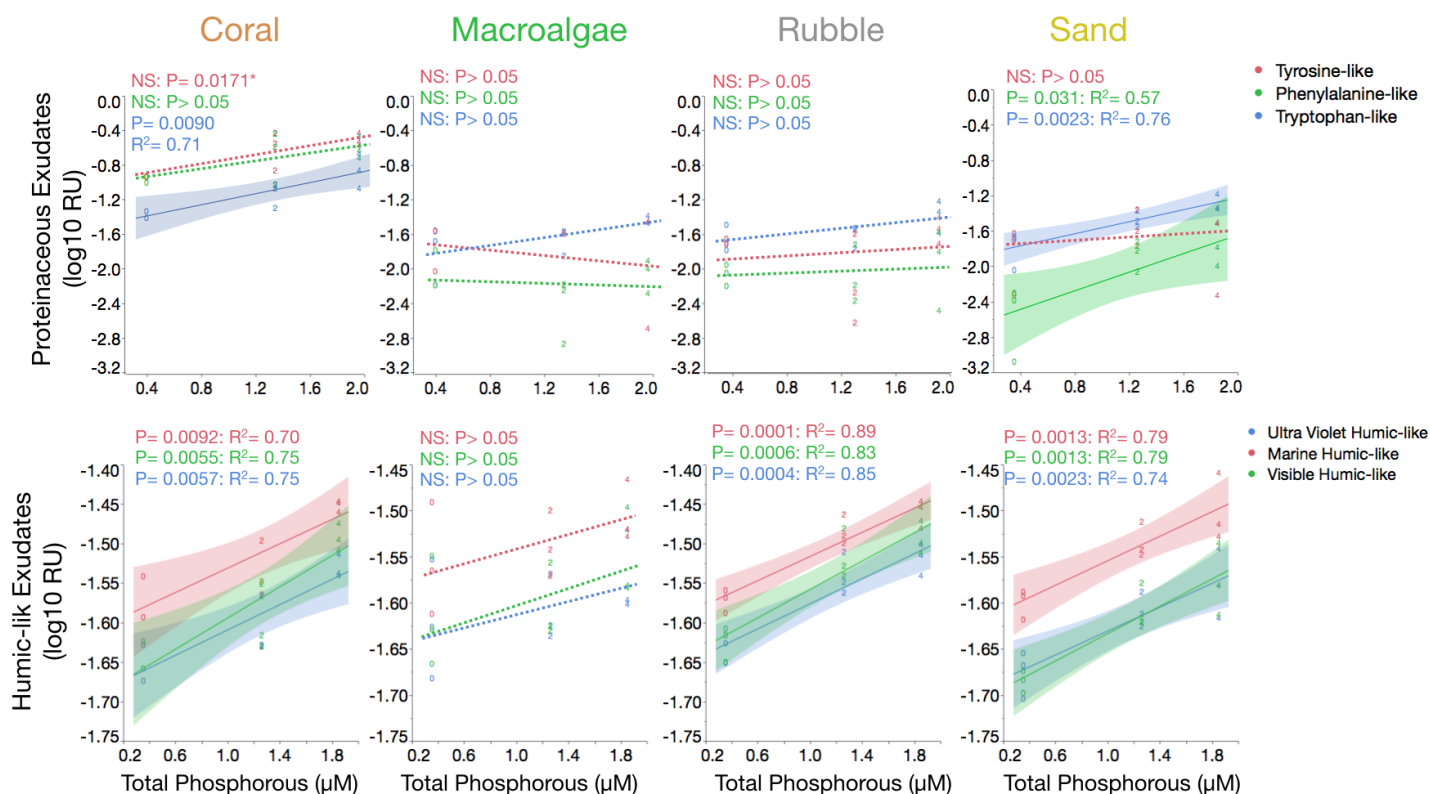


Figure S3. Response of fDOM exudate concentrations to nutrient enrichment. Nutrient concentrations (x-axis) were measured as total P in influent seawater. Regression models with solid lines and shaded ranges are significant at FDR-adjusted $p < 0.05$; nonsignificant regressions are shown as dashed lines. All measurements were done at week 2 as for Figure 2. RU is Raman Units of Water.

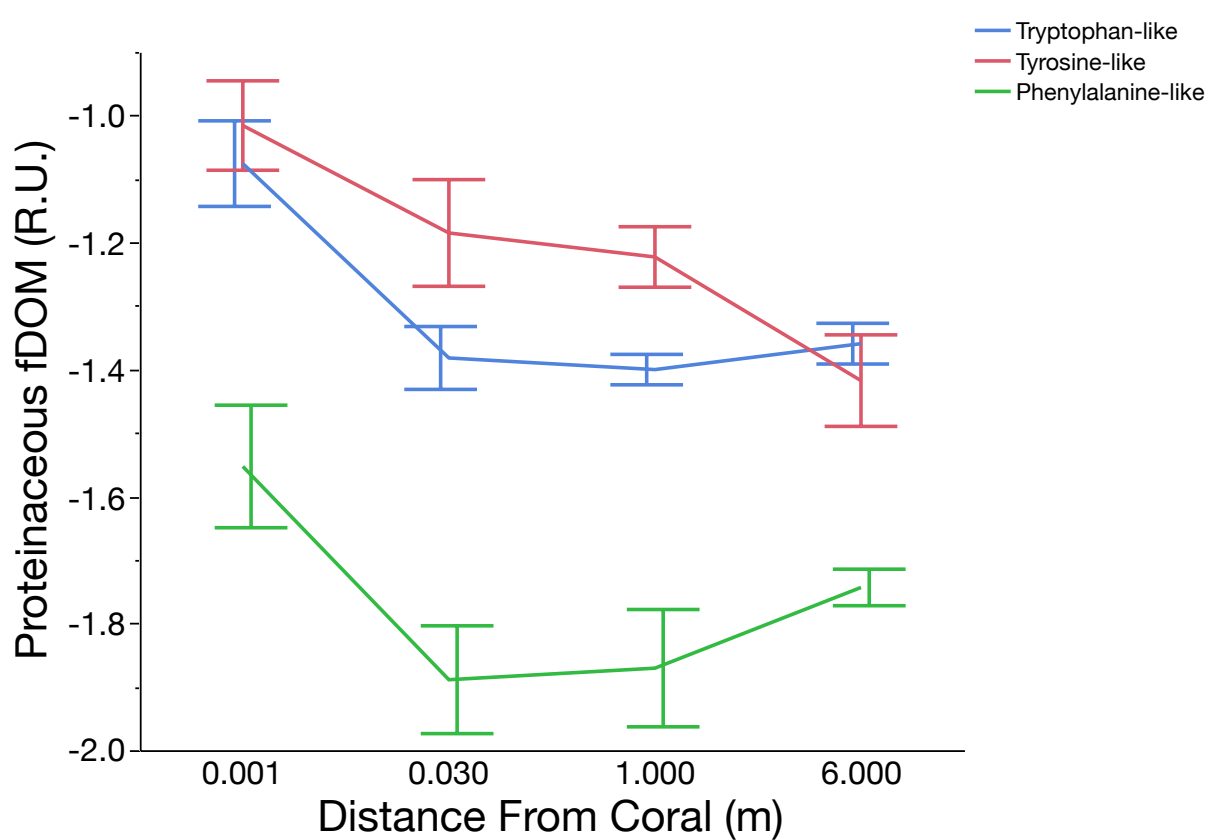


Figure S4. Proteinaceous fDOM is higher near corals in field surveys.

Table S1. List of fluorescent component analogues identified by PARAFAC.

Fluorophores				
Name	Abbreviation	Excitation (nm)	Emission (nm)	References
Ultra Violet Humic-like	A	260	380-460	(Coble, 1996) (Stedmon, 2003)
Visible Humic-like	C	350	420-480	(Coble, 1996) (Stedmon, 2003)
Marine Humic-like	M	312	380-410	(Coble, 1996)
Tyrosine-like	B	275	310	(Coble, 1996)
Tryptophan-like	T	275	340	(Coble, 1996)
Phenylalanine-like	F	240	299	(Lakowicz, 2010)

Table S2. ANCOVA results

Response Variable	Source	F Ratio	Prob > F
Dissolved Organic Carbon	Benthic Reef Constituent	7.1647	0.0003
Ultra Violet Humic-like	Benthic Reef Constituent	7.7142	0.0007
Marine Humic-like	Benthic Reef Constituent	4.7047	0.0088
Visible Humic-like	Benthic Reef Constituent	11.2997	<.0001
Tryptophan-like	Benthic Reef Constituent	19.0596	<.0001
Tyrosine-like	Benthic Reef Constituent	24.8591	<.0001
Phenylalanine-like	Benthic Reef Constituent	44.2393	<.0001
Dissolved Organic Carbon	Total Phosphorous	11.9701	0.0015
Ultra Violet Humic-like	Total Phosphorous	73.3065	<.0001
Marine Humic-like	Total Phosphorous	80.6294	<.0001
Visible Humic-like	Total Phosphorous	78.7661	<.0001
Tryptophan-like	Total Phosphorous	39.2947	<.0001
Tyrosine-like	Total Phosphorous	0.5474	0.4668
Phenylalanine-like	Total Phosphorous	4.6236	0.0410
*Three degrees of freedom were used for each test			