Table S3. Transformation of kelp (*Laminaria hyperborea*) photosyntehtic pigments (mean ± s.d. mg g^{-1}) by sea urchins (*Strongylocentrotus droebachiensis*).

	Chlorophylls				Major carotenoids		Xanthophyll cycle pigments			
	Chlorophyll *a*	Pheophytin *a**	Pheophorbide *a**	Chlorophyll *c*	Fucoxanthin	β-carotene	Violaxanthin	Antheraxanthin	Zeaxanthin	Total pigment
Spring										
Kelp (*n* = 15)	1 ± 0.14	0 ± 0	0.16 ± 0.059	0.078 ± 0.0092	0.31 ± 0.046	0.085 ± 0.016	0 ± 0	0 ± 0	0 ± 0	1.7 ± 0.22
Faeces (*n* = 15)	0.29 ± 0.089	0 ± 0	0.57 ± 0.16	0.066 ± 0.015	0.24 ± 0.067	0 ± 0	0 ± 0	0 ± 0	0.0092 ± 0.01	1.2 ± 0.31
Summer										
Kelp (*n* = 15)	0.23 ± 0.074	0.0051 ± 0.0095	0.058 ± 0.069	0.023 ± 0.005	0.1 ± 0.021	0.029 ± 0.01	0 ± 0	0 ± 0	0 ± 0	0.45 ± 0.11
Faeces (*n* = 14)	0.17 ± 0.066	0 ± 0	0.15 ± 0.063	0.021 ± 0.0092	0.11 ± 0.038	0.015 ± 0.011	0 ± 0	0 ± 0	0.0027 ± 0.006	0.47 ± 0.17
Autumn										
Kelp (*n* = 5)	0.23 ± 0.11	0 ± 0	0.12 ± 0.065	0.028 ± 0.0026	0.12 ± 0.014	0.038 ± 0.0089	0 ± 0	0 ± 0	0 ± 0	0.54 ± 0.07
Faeces (*n* = 15)	0.14 ± 0.03	0 ± 0	0.12 ± 0.028	0.02 ± 0.0034	0.076 ± 0.026	0.00052 ± 0.002	0 ± 0	0.0013 ± 0.005	0.0067 ± 0.0043	0.37 ± 0.077

Each *n* is the mean of a technical triplicate and represents a mature sporophyte or the sea urchin faeces derived from it. The *nnls* modelling error in each techincal replicate was not propagated for these estimates.

*Chlorophyll *a* degradation products, collectively called pheopigments.