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Table S1. Differences of each carotenoid, each chlorophyll (chl a and b) plus their derived products pheophytins (phe a and b) between samples from Praia de Boa Viagem (BV) and IMTA.

Pigments	**Z value**	**p value**	**Results**	**mg pigment/ g extract**	
				Boa Viagem	**IMTA**
Neoxanthin	t = -1.08	0.29	*	4.15 ± 3.67	9.96 ± 18.36
Lut + Ant	Z = -0.17	0.86	*	18.20 ± 10.04	31.39 ± 37.71
β- car + Zea	Z = -3.18	0.001*	IMTA > BV	44.98 ± 20.35	259.09 ± 356.77
β- car + Zea + Aurochrome[1]	Z = -2.60	0.009*	IMTA > BV	66.59 ± 29.95	279.34 ± 359.46
Total carotenoids	Z = -2.94	0.003*	IMTA > BV	107.29 ± 34.92	351.06 ± 388.22
Chla a + Phe a	t= -1.41	0.009*	IMTA > BV	477.89 ± 128.39	570.41 ± 188.21
Chl b + Phe b	t= -3.60	0.002*	IMTA > BV	225.19 ± 103.47	548.11 ± 346.80

* Significant difference ($p < 0.05$). [1]Aurochrome was added, because it is a degradation product (isomerization) of β-carotene. t value from the Student test and Z value from the Mann-Whitney test. The mg pigment/ g extract with mean ± standard deviation.

Table S2. Difference of each carotenoid, chlorophylls (chl a and b) over time [initial time (fresh), 1 (one) week (1W), 2 (two) weeks (2W), and 4 (four) weeks (4W)] of samples from natural banks (Boa Viagem Beach) and IMTA.

Carotenoids	**F or H value**	***p* value**	**Result**
Boa Viagem Beach			
Neoxanthin	F = 0.46	0.72	Without difference
Lut + ant	F = 2.18	0.17	Without difference
β-car + zea	F = 9.46	0.005*	4w = 1w < others
Violaxanthin	H = 8.74	0.03*	4w < others
Total carotenoids	H = 4.59	0.20	Without difference
Chl a + phe a	F = 3.82	0.28	Without difference
Chl b + phe b	F = 3.73	0.06	Without difference
IMTA			
Neoxanthin**	F = 1.52	0.28	Without difference
Lut + ant	F = 0.37	0.77	Without difference
β-car + zea***	F = 0.27	0.85	Without difference
Violaxanthin	F = 0.79	0.53	Without difference
Total carotenoids ***	F = 0.23	0.87	Without difference
Chl a + phe a	F = 0.52	0.68	Without difference
Chl b + phe b	F = 2.26	0.16	Without difference

* Significant difference ($p < 0.05$), ** Square root transformed, and *** log transformed. F indicates the one-way ANOVA value, H the Kruskal-Wallis test value, and *p* the significance value of the analyses.