

Supplemental Materials:

Variability in Symbiont Chlorophyll of Hawaiian Corals from Field and Airborne Spectroscopy

Gregory P. Asner ^{1,2*}, Crawford Drury ³, Nicholas R. Vaughn ¹, Joshua R. Hancock ³, and Roberta E. Martin ^{1,2}

¹ Center for Global Discovery and Conservation Science, Arizona State University, Hilo, HI 96720, USA;
nickvaughn@asu.edu (N.R.V.); roberta.martin@asu.edu (R.E.M.)

² School of Ocean Futures, Arizona State University, Hilo, HI 96720, USA

³ Hawai'i Institute of Marine Biology, University of Hawai'i, Kaneohe, HI 96744, USA; druryc@hawaii.edu (C.D.); hancock9@asu.edu (J.R.H.)

Figure S1

Figure S2

Table S1

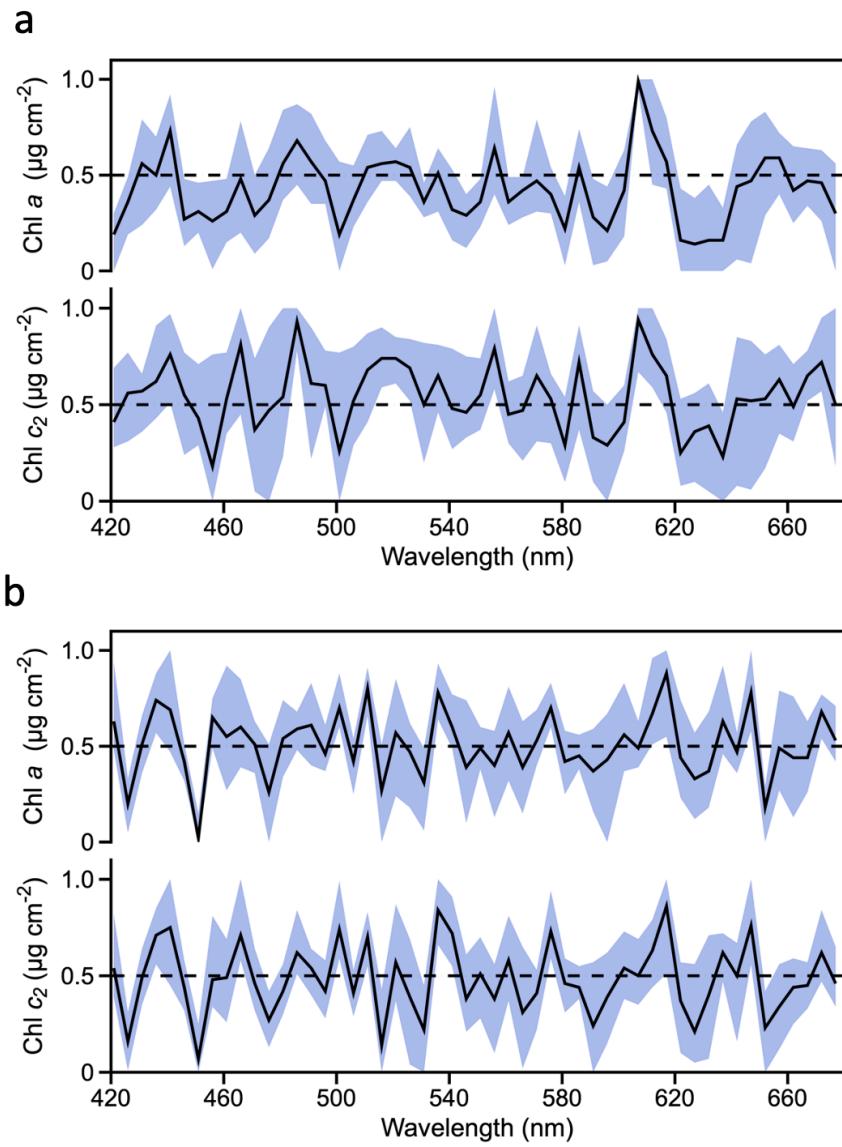


Figure S1. Mean and standard deviation of standardized spectral weighting vectors for Partial Least Squares Regression analyses of chemometric models of Chl a and Chl c_2 derived from (a) field spectroscopy and (b) airborne imaging spectroscopy.

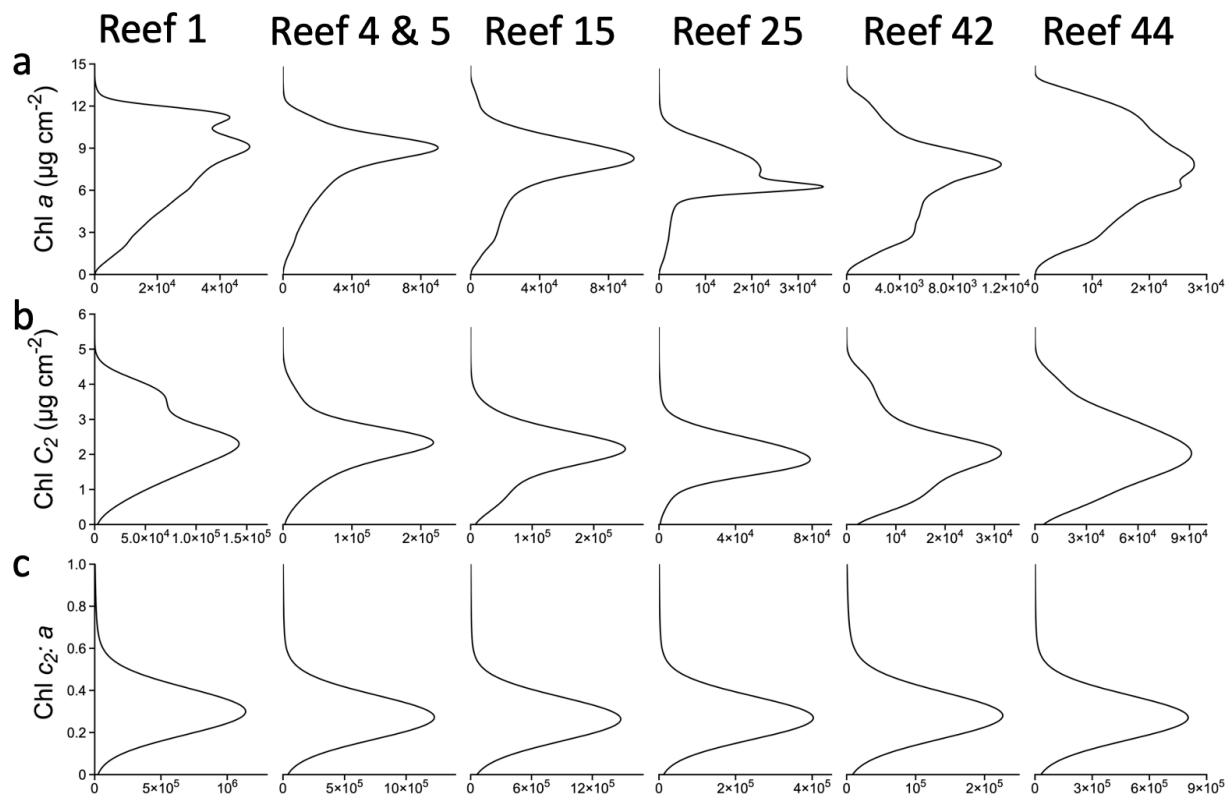


Figure S2. Distributions of (a) Chl a , (b) Chl c_2 , and (c) the ratio of Chl $c_2:a$ by patch reef named in Figure 1a.

Table S1. In situ chlorophyll concentrations, including mean, standard deviation and in parentheses minimum and maximum values for all samples combined as well as by species or each patch.

	Colonies	Samples	Chl a ($\mu\text{g cm}^{-2}$)	Chl c ₂ ($\mu\text{g cm}^{-2}$)
All data	59	147	6.15 \pm 3.49; (0.47-13.68)	1.81 \pm 0.98; (0.29-4.43)
Montipora	17	48	2.40 \pm 1.21; (0.47-5.15)	0.80 \pm 0.29; (0.29-1.50)
Porites	42	99	7.99 \pm 2.68; (2.28-13.68)	2.30 \pm 0.80; (0.63-4.43)
Patch 1	6	14	7.53 \pm 1.97; (3.69-10.30)	2.26 \pm 0.59; (1.10-2.89)
Patch 4	5	11	3.62 \pm 1.30; (2.16-6.80)	1.17 \pm 0.43; (0.54-2.02)
Patch 5	4	10	6.91 \pm 3.66; (2.43-12.38)	1.57 \pm 0.86; (0.72-2.76)
Patch 13	23	60	6.77 \pm 3.74; (0.90-13.68)	2.00 \pm 1.14; (0.29-4.43)
Patch 25	5	11	7.47 \pm 1.35; (5.18-9.25)	2.38 \pm 0.49; (1.29-3.17)
Patch 42	12	32	5.01 \pm 4.15; (0.47-12.59)	1.35 \pm 0.86; (0.31-3.01)
Patch 44	4	9	4.96 \pm 1.78; (2.28-8.47)	1.67 \pm 0.59; (1.19-2.94)