

Table 1S: Total numbers of planula larvae released over 3 months by 10 adults in each treatment (combining jars within treatments).

Feeding Interval	pCO ₂ (μatm)			Total
	410	770	1220	
3 d	22	21	28	71
21 d	15	8	9	32
Total	37	29	37	103

2-way Additive ANOVA, no nesting						
Source	Df	SS	MS	F	P	
pCO ₂	2	21.33	10.67	0.593	0.628	ns
Food	1	253.50	253.50	14.083	0.064	ns
Residuals	2	36.00	18.00			

Table 2S: Proportions of juvenile corals dying over 8 months in each treatment (combining jars within treatments). Initial numbers of juveniles are shown in parentheses.

Feeding Interval	pCO ₂ (µatm)		
	410	770	1220
3 d	0.038 (26)	0.038 (26)	0.148 (27)
21 d	0.081 (37)	0.159 (44)	0.285 (42)

Additive logistic regression model					
	Estimate	S.E	Z	P	
(Intercept)	-3.3790	0.6459	-5.231	< < 0.001	***
CO ₂ 750	0.6164	0.6431	0.958	0.338	ns
CO ₂ 1200	1.5069	0.5955	2.531	0.011	*
Food Low	1.0021	0.4944	2.027	0.043	*

Table 3S: Mean volumes (mm^3) \pm s.e.m. of juvenile skeletons after 8 months growth. Numbers of individuals are shown in parentheses.

Feeding Interval	pCO ₂ (μatm)					
	410	770	1220			
3 d	65.7 \pm 9.8 (23)	101.2 \pm 11.1 (23)	82.0 \pm 8.8 (22)			
21 d	10.8 \pm 1.5 (33)	8.7 \pm 0.9 (36)	9.6 \pm 1.1 (30)			

Nested ANOVA (log transformed data)						
Source	Df	SS	MS	F	P	
pCO ₂	2	1.06	0.53	1.202	0.303	ns
Food	1	184.40	184.40	419.966	< < 0.001	***
pCO ₂ X Food	2	2.98	1.49	3.390	0.036	*
pCO ₂ X Food X Jar	6	0.91	0.15	0.347	0.911	ns
Residuals (Coral)	156	68.50	0.44			

Table 4S: Mean weights (mg) \pm s.e.m. of juvenile skeletons after 8 months growth. Numbers of individuals are shown in parentheses.

Feeding Interval	pCO ₂ (µatm)					
	410	770	1220			
3 d	53.7 \pm 5.9 (18)	37.0 \pm 3.2 (23)	41.8 \pm 3.8 (22)			
21 d	11.2 \pm 1.1 (22)	5.8 \pm 0.4 (28)	6.9 \pm 0.6 (24)			

Nested ANOVA (log transformed data)						
Source	Df	SS	MS	F	P	
pCO ₂	2	5.45	2.73	16.031	< < 0.001	***
Food	1	104.59	104.59	614.761	< < 0.001	***
pCO ₂ X Food	2	0.35	0.17	1.023	0.363	ns
pCO ₂ X Food X Jar	6	0.30	0.05	0.293	0.939	ns
Residuals (Coral)	125	21.27	0.17			

Table 5S: Mean densities (mg mm^{-3}) \pm s.e.m. of juvenile skeletons after 8 months growth. Numbers of individuals are shown in parentheses.

Feeding Interval	pCO ₂ (μatm)					
	410	770	1220			
3	0.79 \pm 0.06 (18)	0.44 \pm 0.04 (23)	0.54 \pm 0.05 (22)			
21	1.02 \pm 0.04 (22)	0.68 \pm 0.02 (28)	0.73 \pm 0.03 (24)			

Nested ANOVA (log transformed data)						
Source	Df	SS	MS	F	P	
pCO ₂	1	1.357e-06	1.357e-06	36.637	< < 0.001	***
Food	1	1.534e-06	1.535e-06	41.441	< < 0.001	***
pCO ₂ X Food	1	1.800e-08	1.810e-08	0.488	0.486	ns
pCO ₂ X Food X Jar	8	1.697e-06	2.122e-07	5.730	< < 0.001	***
Residuals (Coral)	123	4.554e-06	3.700e-08			

Table 6S: Mean lengths (μm) \pm s.e.m. of aragonite crystals in septa of juvenile skeletons after 8 months growth. Numbers of measurements are shown in parentheses.

Feeding Interval	pCO ₂ (μatm)	
	410	1220
3	3.0 \pm 0.07 (33)	2.6 \pm 0.05 (44)
21	3.0 \pm 0.05 (29)	2.2 \pm 0.04 (42)

Nested ANOVA						
Source	Df	SS	MS	F	P	
pCO ₂	1	15.037	15.037	153.328	< 0.001	***
Food	1	1.266	1.266	12.913	< 0.001	***
pCO ₂ X Food	1	1.073	1.073	10.939	0.001	**
pCO ₂ X Food X Jar	14	2.901	0.207	2.112	0.015	
Residuals (Coral)	130	12.750	0.098			

Table 7S: Mean widths (μm) \pm s.e.m. of aragonite crystals in septa of juvenile skeletons after 8 months growth. Numbers of measurements are shown in parentheses.

Feeding Interval	pCO ₂ (μatm)	
	410	1220
3	0.13 \pm 0.006 (24)	0.14 \pm 0.006 (27)
21	0.14 \pm 0.005 (32)	0.13 \pm 0.004 (32)

Nested ANOVA						
Source	Df	SS	MS	F	P	
pCO ₂	1	0.00001	0.0000063	0.009	0.924	ns
Food	1	0.00050	0.0005029	0.729	0.395	ns
pCO ₂ X Food	1	0.00228	0.0022789	3.303	0.072	ns
pCO ₂ X Food X Jar	16	0.01757	0.0010980	1.591	0.086	ns
Residuals (Coral)	95	0.06556	0.0006901			