The following appendix accompanies the article

Morphology and ecological zonation of Caribbean reef corals: the *Montastraea 'annularis'* species complex

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Appendix 1. List of specimens used in the morphometric analysis, landmarks on transverse thin sections of corallites of *Montastrea*, correlations between original variables and canonical variates in morphometric analyses, and depth distribution of samples

Table A1. List of specimens used in the morphometric analyses. Specimens whose colony numbers begin with 'CBC' were collected by John Pandolfi at Carrie Bow Cay, Belize in 2001; specimens whose numbers begin with 'Mac' are in the collections of Ian Macintyre at the Smithsonian Institution. The species identifications (*Montastraea* sp.) of 'CBC' colonies that were used in the analyses are based on a combination of field observations and videos taken in the field at the time that the specimens were collected. The species identifications (*Montastraea* sp.) of 'Mac' colonies are based on laboratory examination of the external form of entire colonies and associated X-radiographs

Colony ID	Depth (m)	Original field ID	ID used in analysis
CBC-01-1	23	*annularis* s.s.	*annularis*
CBC-01-2	26	*faveolata*	*annularis*
CBC-01-3	28	*annularis* s.s.	*annularis*
CBC-01-4	41	*franksi*	*franksi*
CBC-01-5	56	*total plate*	*franksi*
CBC-01-6	67	*faveolata/franksi*	*franksi*
CBC-01-7	68	*franksi*	*franksi*
CBC-01-8	41	*annularis* s.s.	*annularis*
CBC-01-9	45	*franksi*	*franksi*
CBC-01-10	30	*faveolata*	*faveolata*
CBC-01-11	30	*faveolata*	*faveolata*
CBC-01-12	30	*annularis* s.s.	*annularis*
CBC-01-13	32	*faveolata/annularis* s.s.	*annularis*
CBC-01-14	33	*faveolata*	*faveolata*
CBC-01-15	4	*faveolata*	*faveolata*
CBC-01-16	4	*faveolata/annularis* s.s.	*faveolata*
CBC-01-17	4	*faveolata/annularis* s.s.	*faveolata*
CBC-01-18	100	*franksi*	*franksi*
CBC-01-19	45	*franksi*	*franksi*
CBC-01-20	45	*annularis* s.s.	*annularis*
CBC-01-21	23	*faveolata*	*faveolata*
CBC-01-22	21	*annularis* s.s.	*annularis*
CBC-01-23	20	*total plate*	*franksi*
CBC-01-24	17	*annularis* s.s.	*annularis*
CBC-01-25	17	*franksi*	*franksi*
CBC-01-26	17	*faveolata*	*faveolata*
CBC-01-27	102	*franksi*	*franksi*
CBC-01-28	97	*total plate*	*franksi*
CBC-01-29	76	*faveolata/franksi*	*franksi*
CBC-01-30	60	*annularis* s.s.	*annularis*
CBC-01-31	27	*faveolata/franksi*	*franksi*
CBC-01-32	30	*faveolata*	*annularis*
CBC-01-33	30	*faveolata/annularis* s.s.	*annularis*
CBC-01-34	30	*faveolata/franksi*	*faveolata*
CBC-01-35	30	*annularis* s.s.	*annularis*

Table A1 (continued)

Colony ID	Depth (m)	Original field ID	ID used in analysis
CBC-01-36	5	*faveolata/annularis* s.s.	*faveolata*
CBC-01-37	3	*faveolata/annularis* s.s.	*faveolata*
CBC-01-38	3	*faveolata/annularis* s.s.	*faveolata*
CBC-01-39	3	*faveolata/annularis* s.s.	*faveolata*
CBC-01-40	3	*total plate*	*faveolata*
CBC-01-41	98	*total plate*	*franksi*
CBC-01-42	98	*faveolata/franksi*	*franksi*
CBC-01-43	78	*faveolata/franksi*	*franksi*
CBC-01-44	6	*annularis* s.s.	*annularis*
CBC-01-45	6	*faveolata*	*faveolata*
CBC-01-46	6	*faveolata/annularis* s.s.	*faveolata*
CBC-01-47	7	*annularis* s.s.	*annularis*
CBC-01-48	7	*faveolata/franksi*	*faveolata*
CBC-01-49	6	*annularis* s.s.	*annularis*
CBC-01-50	105	*franksi*	*franksi*
Mac1	30		*annularis*
Mac2	50		*annularis*
Mac3	70		*annularis*
Mac4	98		*franksi*
Mac5	70		*franksi*
Mac6	80		*annularis*
Mac7	80		*faveolata*
Mac8	80		*franksi*
Mac9	1–2		*faveolata*
Mac10	1–2		*faveolata*
Mac11	32		*annularis*

Table A2. Landmarks on transverse thin sections of corallites of *Montastraea*. Types are: 1 = juxtaposition of structures; 2 = maxima of curvature; 3 = extremal points

Number	Type	Description
1	3	Center of corallite
2	2	Outermost point on secondary costa
3	1	Outer left junction of secondary costoseptum with wall dissepiment
4	1	Outer right junction of secondary costoseptum with wall dissepiment
5	1	Inner left junction of secondary costoseptum with wall dissepiment
6	1	Inner right junction of secondary costoseptum with wall dissepiment
7	2	Innermost point on secondary septum
8	2	Outermost point on tertiary costa
9	1	Outer left junction of tertiary costoseptum with wall dissepiment
10	1	Outer right junction of tertiary costoseptum with wall dissepiment
11	1	Inner left junction of tertiary costoseptum with wall dissepiment
12	1	Inner right junction of tertiary costoseptum with wall dissepiment
13	2	Innermost point on tertiary septum
14	2	Outermost point on primary costa
15	1	Outer left junction of primary costoseptum with wall dissepiment
16	1	Outer right junction of primary costoseptum with wall dissepiment
17	1	Inner left junction of primary costoseptum with wall dissepiment
18	1	Inner right junction of primary costoseptum with wall dissepiment
19	2	Innermost point on primary septum

Table A3. Correlations between original variables and canonical variates in analyses comparing: Analysis 1: 3 Belize growth forms; Analysis 2: 3 Belize growth forms and 3 Panamá species; Analysis 3: environments within the columnar growth form; Analysis 4: environments within the massive growth form; Analysis 5: environments within the platy growth form; and Analysis 6: 3 Panamá species and 3 Jamaican populations. For definitions of variables see Table 1 in main article. **Most strongly correlated, *relatively high correlation

Variable	Analysis 1		Analysis 2			Analysis 3		Analysis 4		Analysis 5		Analysis 6		
	1	2	1	2	3	1	2	1	2	1	2	1	2	3
	72.60	27.40	59.94	19.24	10.19	76.29	23.71	92.05	7.95	87.32	12.68	44.31	28.05	15.14
csize	−0.584*	0.385**	−0.602*	0.393**	−0.059	−0.149*	−0.279**	−0.354**	−0.085	−0.097	−0.366*	0.270	0.051	−0.334*
x10	−0.260	0.063	−0.294	−0.045	−0.343*	0.042	0.022	0.055	−0.041	−0.046	−0.223	0.201	0.008	−0.031
x14	−0.036	0.074	−0.042	0.012	−0.418*	0.088	0.000	0.093	0.204*	0.005	−0.211	0.024	0.151	0.177
x15	−0.119	0.150*	−0.124	0.099	−0.550**	0.077	−0.019	0.193*	0.132	0.073	−0.204	0.095	0.253	0.273
x17	0.300	0.149*	0.284	0.188*	−0.297	0.060	−0.045	0.046	0.333*	−0.025	−0.045	−0.133	0.386*	0.373*
x18	0.238	0.070	0.225	0.078	−0.181	0.011	0.122	0.039	0.164	−0.039	−0.008	0.021	0.185	0.316
x2	−0.108	0.076	−0.101	−0.105	−0.160	0.028	0.031	0.031	−0.033	0.082	−0.012	−0.103	−0.063	−0.126
x4	−0.060	−0.024	0.004	−0.169	0.002	0.045	0.039	−0.013	−0.073	0.101*	−0.190	−0.187	−0.099	−0.087
x5	−0.200	−0.042	−0.180	−0.021	0.259	−0.033	−0.069	−0.036	−0.160	0.058	0.107	0.007	−0.164	−0.299
x6	−0.285	−0.167*	−0.275	−0.203*	0.291	−0.032	0.061	−0.041	−0.246*	−0.007	0.017	0.163	−0.366*	−0.384*
x9	0.077	0.062	0.149	−0.079	−0.272	0.041	−0.038	0.046	0.114	0.120*	−0.202	−0.272	0.053	0.162
y1	0.259	0.164*	0.255	0.164*	−0.283	0.063	0.018	0.040	0.216*	−0.005	−0.028	−0.037	0.207	0.410*
y10	0.579*	−0.066	0.609*	−0.076	−0.027	0.012	−0.065	0.019	0.091	0.186**	0.338*	−0.514*	0.176	0.074
y13	−0.045	0.063	−0.099	0.015	−0.457*	−0.013	−0.090	−0.052	0.187	−0.074	−0.130	−0.037	0.063	0.058
y14	0.185	−0.055	0.191	−0.083	−0.045	−0.058	−0.126	−0.135	−0.360**	0.052	0.246	−0.269	0.199	0.026
y15	0.541*	−0.059	0.588*	−0.071	0.050	0.049	−0.135	−0.029	0.087	0.056	0.414*	−0.506*	0.176	0.085
y16	0.474*	−0.043	0.528*	−0.100	−0.073	−0.050	−0.184*	−0.111	0.097	0.081	0.532**	−0.440*	0.124	0.152
y19	0.214	0.241*	0.250	0.189*	−0.396*	0.230**	0.201*	0.173*	0.055	−0.015	−0.121	−0.124	0.125	0.405*
y2	0.239	0.002	0.255	0.032	−0.019	−0.018	−0.093	−0.022	−0.144	0.028	0.293*	−0.248	0.099	−0.138
y3	0.554*	−0.090	0.646*	−0.017	0.118	0.011	0.001	−0.007	0.095	0.059	0.292*	−0.545*	0.079	0.029
y4	0.605**	−0.052	0.664**	−0.028	0.049	0.023	−0.064	−0.005	0.115	0.092	0.277*	−0.570*	0.156	0.059
y7	0.251	0.167*	0.246	0.179*	−0.377*	0.055	0.078	0.055	0.248*	−0.055	−0.032	−0.126	0.176	0.306*
y8	0.366	0.012	0.379	0.067	−0.055	−0.029	−0.168*	0.047	−0.063	0.084	0.221	−0.412	0.232	−0.074
y9	0.542*	−0.097	0.601*	−0.071	0.063	0.005	−0.065	0.010	0.003	0.085	0.325*	−0.550*	0.160	0.047

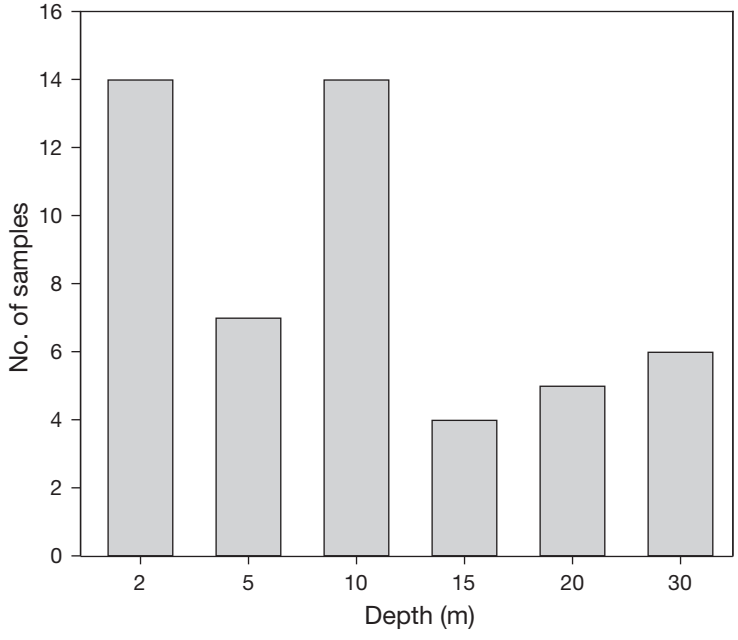

Fig. A1. Depth distribution of samples of the *Montastraea 'annularis'* species complex collected from Carrie Bow Cay reef for morphometric study