

The following supplement accompanies the article

Growth rate and age distribution of deep-sea black corals in the Gulf of Mexico

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SUPPLEMENT. Summary data for radiocarbon analysis including unique sample identification (sample ID), laboratory identification (Lab ID), sample distance from outer edge (μm), fraction modern relative to standard, fraction modern error, $\Delta^{14}\text{C}$ value as defined in Stuiver & Polach (1977), $\Delta^{14}\text{C}$ error, number of age ranges based on number of intersections with calibration curve, minimum and maximum age range (cal. year BP) based on 1 sigma, relative area under distribution of the calibration curve, and median probability age (YR)

Radiocarbon results from radial transects and radiocarbon calibration results. All calibrations were done using a reservoir correction ΔR of -30 ± 26 ^{14}C YR (Wagner et al. 2009), the CALIB 6.0 computer calibration program (Stuiver & Reimer 1993), and the marine09 calibration dataset (Hughen et al. 2004). Distance was measured from the outer edge into the center of the specimen. Radiocarbon concentration is given as fraction Modern, $\Delta^{14}\text{C}$, and conventional radiocarbon age. $\Delta^{14}\text{C}$ values were not age corrected (Stuiver & Polach 1977), and the conventional radiocarbon ages were not reservoir corrected. KCCAMS: Keck Carbon Cycle AMS Laboratory at UC Irvine; NOSAMS: National Ocean Sciences Accelerator Mass Spectrometry Facility; LLNL-CAMS: the Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory

Sample ID	Lab ID	Distance (μm)	Fraction modern	\pm SD	$\Delta^{14}\text{C}$	^{14}C age	\pm SD	No. age ranges	Minimum cal age range (1s)	Maximum cal age range (1s)	Relative area under distribution	Median probability age
GOM-JSL05-4876-BC1												
4876 1.1	KCCAMS	47	1.0772	0.0036	69.42	>Modern						
4876 1.2	KCCAMS	95	1.0763	0.0035	68.49	>Modern						
4876 1.3	KCCAMS	130	1.0829	0.0038	75.04	>Modern						
4876 1.4	KCCAMS	165	1.0828	0.0038	74.94	>Modern						
4876 1.5	KCCAMS	206	1.0720	0.0035	64.25	>Modern						
4876 2.3	KCCAMS	3383	0.9323	0.0031	-77.27	590	30	2	150 225	160 315	0.04 0.96	265
4876 3.1	KCCAMS	3418	0.9323	0.0031	-74.45	565	30	3	145 190 220	165 215 285	0.11 0.17 0.72	235
4876 4.1	KCCAMS	7025	0.8891	0.0030	-117.30	945	30	1	530	605	1.00	570
4876 5.1	KCCAMS	9353	0.8675	0.0029	-138.75	1140	30	1	670	745	1.00	715
4876 5.21	KCCAMS	14258	0.8551	0.0028	-151.08	1260	30	1	785	885	1.00	830
GOM-JSL09-3728_BC1												
3728 1.1	KCCAMS	45	1.0610	0.0035	53.35	>Modern						
3728 1.2	KCCAMS	72	1.0753	0.0036	67.50	>Modern						
3728 1.3	KCCAMS	95	1.0773	0.0039	69.50	>Modern						
3728 1.4	KCCAMS	112	1.0803	0.0037	72.45	>Modern						
3728 1.5	KCCAMS	151	1.1036	0.0036	95.62	>Modern						
3728 2.1	KCCAMS	1418	0.9036	0.0032	-102.98	815	30	1	450	505	1.00	475
3728 3.1	KCCAMS	3589	0.8221	0.0081	-183.89	1570	80	1	1070	1245	1.00	1150
3278 3.1 duplicate	KCCAMS	3589	0.8188	0.0089	-187.09	1610	90	1	1100	1285	1.00	1190
3728 4.1	KCCAMS	4382	0.8220	0.0029	-183.94	1580	30	1	1130	1230	1.00	1170
3728 5.1	KCCAMS	5404	0.8126	0.0028	-193.30	1670	30	1	1220	1295	1.00	1250

3728 6.1	KCCAMS	7144	0.7955	0.0027	-210.21	1840	30	1	1350	1465	1.00	1410
3728 7.1	KCCAMS	11838	0.7724	0.0026	-233.18	2080	30	1	1615	1740	1.00	1690
3728 7.19	KCCAMS	18090	0.7439	0.0025	-261.44	2380	30	1	1985	2100	1.00	2040
GOM-TOW-BC1 (delaminated transect)												
GOMBC 1-2	BetaAnalytic	17	0.9338		-72.59	550	60	1	130	285	1.00	205
GOMBC 1-6	BetaAnalytic	68	0.9526		-53.94	390	40					
GOMBC 1_14a	NOSAMS	102	0.9351	0.0031	-71.30	540	25	2	145	165	0.18	205
GOMBC 1-13	BetaAnalytic	145	0.9315		-74.90	570	40	2	180	265	0.82	
GOMBC 1_1a	NOSAMS	170	0.9362	0.0039	-70.26	530	35	1	145	165	0.12	240
GOMBC 1_25a	NOSAMS	238	0.9503	0.0033	-56.27	410 ^a	30		185	295	0.88	
GOMBC 1-23	BetaAnalytic	306	0.9188		-87.48	680	40	1	140	260	1.00	190
GOMBC 1_2a	NOSAMS	357	0.9390	0.0032	-67.45	505	25	1	300	405	1.00	360
GOMBC 1_10a	NOSAMS	425	0.9233	0.0032	-83.00	640	25	1	125	245	1.00	170
GOMBC 1-31	BetaAnalytic	485	0.9455		-60.98	450	40	1	270	360	1.00	320
GOMBC 1_15a	NOSAMS	578	0.9240	0.0033	-82.36	635	30	1	0	140	1.00	100
GOM-TOW-BC1 117	KCCAMS	578	0.9287	0.0031	-77.99	595	30	2	265	360	1.00	315
GOMBC 1_8a	NOSAMS	833	0.9373	0.0036	-69.17	520	30	1	155	155	0.00	270
GOMBC 1_27a	NOSAMS	944	0.9411	0.0036	-65.36	485	30	1	230	325	1.00	185
GOMBC 1_28a	NOSAMS	1148	0.9493	0.0036	-57.21	415 ^a	30		135	250	1.00	185
GOMBC 1_13a	NOSAMS	1233	0.9373	0.0029	-69.13	520	25	1	90	235	1.00	145
GOMBC 1_4a	NOSAMS	1420	0.9342	0.0028	-72.17	545	25	2	140	250	1.00	185
GOMBC 1_26a	NOSAMS	1573	0.9396	0.0032	-66.87	500	25	1	145	165	0.17	210
GOMBC 1_11a	NOSAMS	1717	0.9231	0.0035	-83.28	645	30	1	185	265	0.83	
GOMBC 1_5a	NOSAMS	1811	0.9400	0.0035	-66.43	495	30	1	120	245	1.00	165
GOMBC 1_16a	NOSAMS	1981	0.9125	0.0031	-93.76	735	25	1	275	370	1.00	325
GOMBC 1_30a	NOSAMS	2130	0.9453	0.0043	-61.16	450	35	1	105	240	1.00	160
GOMBC 1_29a	NOSAMS	2419	0.9429	0.0032	-63.60	450	35	1	365	460	1.00	410
GOMBC 1_17a	NOSAMS	2597	0.9196	0.0031	-86.74	675	25	4	0	130	1.00	100
GOMBC 1_18a	NOSAMS	3048	0.9419	0.0035	-64.55	480	30	1	0	10	0.05	120
GOM-TOW-BC1 34	KCCAMS	3048	0.9421	0.0031	-64.70	480	30	2	55	150	0.68	
GOMBC 1_3a	NOSAMS	3226	0.9424	0.0035	-64.11	475	30	3	160	195	0.19	
GOMBC 1_7a	NOSAMS	3422	0.9281	0.0039	-78.26	600	35	2	210	225	0.08	
									225	395	1.00	355
									300	155	0.53	135
									155	230	0.47	
									80	155	0.53	135
									155	230	0.47	
									65	150	0.62	130
									160	200	0.25	
									205	225	0.13	
									230	335	0.97	275

GOMBC 1_19a	NOSAMS	3915	0.9213	0.0035	-85.07	660	30	1		345		355		0.03		340
GOMBC 1_6a	NOSAMS	3991	0.9223	0.0035	-84.05	650	30	1		285		385		1.00		330
GOMBC 1_20a	NOSAMS	4340	0.8971	0.0028	-109.11	870	25	1		485		535		1.00		510
GOMBC 1_21a	NOSAMS	4722	0.9068	0.0040	-99.41	785	35	1		420		495		1.00		450
GOMBC 1_22a	NOSAMS	5173	0.9081	0.0029	-98.16	775	25	1		420		485		1.00		450
GOMBC 1_9a	NOSAMS	5743	0.9349	0.0050	-71.49	540	40	1		140		265		1.00		200
GOMBC 1_23a	NOSAMS	6457	0.9031	0.0034	-103.10	820	30	1		450		510		1.00		480
GOMBC 1_24a	NOSAMS	6763	0.9044	0.0032	-101.82	805	30	1		440		500		1.00		470
GOMBC 1_12a	NOSAMS	7604	0.8743	0.0027	-131.70	1080	25	1		635		695		1.00		670
GOM-TOW_BC1 (milled transect)																
145279	LLNL-CAMS	0	0.9335	0.0039	-73.10	550	35	2		145		165		0.16		210
145280	LLNL-CAMS	5100	0.9028	0.0031	-103.66	820	30	1		180		275		0.84		480
145281	LLNL-CAMS	9750	0.8737	0.0034	-132.53	1090	35	1		450		510		1.00		480
GOM-TOW-BC2 (delaminated transect)																
1.1	KCCAMS	191	1.0549	0.0018	47.26	>Modern										
1.2	KCCAMS	383	0.9516	0.0017	-55.29	400 ^a	15			0		95		1.00		70
1.3	KCCAMS	574	0.9474	0.0016	-59.47	435	15	1						1.00		145
1.4	KCCAMS	766	0.9413	0.0016	-65.54	485	15	1		100		230		1.00		170
2a.1	KCCAMS	1539	0.9395	0.0018	-67.29	500	20	1		125		240		1.00		370
3a.1	KCCAMS	3021	0.9172	0.0017	-89.40	695	15	1		320		410		1.00		725
4.1	KCCAMS	4194	0.8658	0.0018	-140.45	1160	20	1		680		755		1.00		905
7.1	KCCAMS	6153	0.8480	0.0014	-158.15	1330	15	1		870		945		1.00		1110
8.1	KCCAMS	7562	0.7576	0.0013	-247.88		15			1070		1155		1.00		1150
9.1	KCCAMS	9027	0.8273	0.0014	-178.68	1530	15	1		1110		1210		1.00		1630
10.1	KCCAMS	10035	0.8235	0.0015	-182.47	1560	15	1		1110		1210		1.00		1630
11.5	KCCAMS	11379	0.7765	0.0013	-229.10	2030	15	1		1590		1685		1.00		1630
GOM-TOW-BC2 (milled transect)																
145276	CAMS	0	0.9580	0.0033	-48.81	345	30									
145277	CAMS	8500	0.8184	0.0037	-187.38	1610	40	1		1160		1260		1.00		1200
145278	CAMS	15000	0.7706	0.0035	-234.85	2100	40	1		1650		1790		1.00		1710
GOM-JSL04-4734_BC1																
VK 1	NOSAMS	125	1.0793	0.0036	71.86	>Modern										
VK 2	NOSAMS	313	1.1061	0.0042	98.50	>Modern										
VK 1a	NOSAMS	313	1.1045	0.0042	96.91	>Modern										
VK 3a	BetaAnalytic	414	1.1090		101.38	>Modern										
VK 4	NOSAMS	464	1.1109	0.0039	103.31	>Modern										
VK 6	NOSAMS	614	1.1200	0.0042	112.28	>Modern										
VK 8	NOSAMS	827	1.1267	0.0059	118.93	>Modern										

VK 8a	NOSAMS	1090	1.1222	0.0043	114.52		>Modern												
VK 1a	BetaAnalytic	1153	1.1120		104.36		>Modern												
VK 34a	NOSAMS	1266	1.0754	0.0039	68.02		>Modern												
VK 16	NOSAMS	1504	0.9662	0.0041	-40.44		275 ^a	35											
VK 10a	NOSAMS	1567	0.9555	0.0030	-51.10		365 ^a	25											
VK 5a	NOSAMS	1767	0.9332	0.0095	-73.18		555	80	1		100		305		1.00			210	
VK 23a	NOSAMS	1968	0.9616	0.0037	-45.00		315 ^a	30											
VK 33a	NOSAMS	2106	0.9530	0.0035	-53.56		385 ^a	30											
VK 2a	NOSAMS	2319	0.9432	0.0035	-63.27		470	30	4		0		10		0.05			120	
											55		150		0.67				
											160		195		0.19				
											210		225		0.08				
VK 14a	NOSAMS	2582	0.9510	0.0037	-55.53		405 ^a	30											
VK 11a	NOSAMS	2732	0.9485	0.0036	-57.99		425	30	1		0		100		1.00			70	
VK 7a	NOSAMS	2870	0.9401	0.0037	-66.41		495	30	1		105		240		1.00			160	
VK 20a	NOSAMS	2971	0.9316	0.0037	-74.80		570	30	3		150		160		0.10			240	
											190		215		0.14				
											220		290		0.76				
VK 16a	NOSAMS	3171	0.9419	0.0036	-64.53		480	30	2		80		155		0.53			135	
VK 4a	NOSAMS	3322	0.9417	0.0036	-64.76		480	30	2		155		230		0.47			135	
											155		230		0.47				
VK 38a	NOSAMS	3484	0.9537	0.0037	-52.84		380	30											
VK 6a	NOSAMS	3635	0.9356	0.0037	-70.87		535	30	2		145		170		0.21			195	
VK 26a	NOSAMS	3886	0.9399	0.0036	-66.55		495	30	1		170		260		0.79				
VK 24a	NOSAMS	4086	0.9454	0.0032	-61.13		450	25	2		105		240		1.00			160	
											40		35		0.25			95	
											40		130		0.75				
VK 12a	NOSAMS	4324	0.9370	0.0029	-69.43		520	25	1		140		250		1.00			185	
VK 28a	NOSAMS	4550	0.9249	0.0040	-81.50		625	35	1		260		360		1.00			305	
VK 35a	NOSAMS	4675	0.9462	0.0036	-60.33		445	30	2		0		35		0.28			90	
											40		125		0.72				
VK 27a	NOSAMS	4788	0.9381	0.0032	-68.31		510	25	1		130		245		1.00			175	
VK 22a	NOSAMS	4989	0.9358	0.0031	-70.60		530	25	2		145		170		0.22			195	
											170		255		0.78				
VK 3a	NOSAMS	5189	0.9148	0.0037	-91.51		715	30	1		330		435		1.00			385	
VK 25a	NOSAMS	5502	0.9269	0.0036	-79.50		610	30	1		245		335		1.00			290	
VK 32a	NOSAMS	5628	0.9325	0.0037	-73.93		560	30	2		145		165		0.13			225	
											190		280		0.87				
VK 5a	BetaAnalytic	5966	0.9315		-74.90		570	40	2		145		165		0.12			240	
											185		295		0.88				
VK 36a	NOSAMS	6217	0.9351	0.0036	-71.33		540	30	2		145		165		0.19			200	
											175		265		0.81				

VK 13a	NOSAMS	6468	0.92220	0.0036	-84.36	650	30	1	280	375	1.00	330
VK 31a	NOSAMS	6768	0.9173	0.0030	-88.97	695	25	1	320	425	1.00	370
VK 29a	NOSAMS	7069	0.9249	0.0040	-81.43	625	35	1	260	360	1.00	305
VK 39a	NOSAMS	7270	0.9376	0.0034	-68.84	515	30	1	130	250	1.00	180
VK 19a	NOSAMS	7596	0.9134	0.0039	-92.90	725	35	2	335	345	0.09	395
						350			450	450	0.91	
VK 17a	NOSAMS	7784	0.9072	0.0033	-99.04	780	30	1	420	490	1.00	450
VK 37a	NOSAMS	8047	0.9217	0.0036	-84.68	655	30	1	285	380	1.00	335
VK 30a	NOSAMS	8273	0.8926	0.0040	-113.54	910	35	2	500	565	0.90	540
									580	595	0.10	
VK 4a	BetaAnalytic	8398	0.8974		-108.81	870	40	1	475	545	1.00	515
VK 9a	NOSAMS	8824	0.8803	0.0031	-125.78	1020	30	2	565	580	0.13	620
									595	655	0.87	

^{a14}C age beyond the range of the marine09 calibration dataset (Hughen et al. 2004)

LITERATURE CITED

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