

Growth and chronology of the rhodolith-forming, coralline red alga *Sporolithon durum* from the tropics

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Supplement. Detailed measurements of extension rates and growth patterns over the period July 2010 to August 2011 and individual, annual extension rates (presented as a summary in Table 2) for the 5 rhodolith branches covering the period 1963 to 2011.

Table S1. Extension rates and growth patterns of the 43 analysed *Sporolithon durum* branch tips from 7 rhodoliths for the period July 2010 to August 2011

Sample	Feb–Aug11 growth (mm)	Mg cycle length (mm)	Annual growth (mm)	Feb–Aug11 fraction of growth (%)	Feb–Aug11		Jul10–Feb11	
					Counted minor bands	Mean band width (mm)	Counted minor bands	Mean band width (mm)
R1-1	0.648	0.969	0.894	66.9	12	0.054	6	0.054
R1-2	0.894	1.140	1.053	78.4	14	0.064	6	0.041
R1-3	0.506	0.782	0.722	64.7	11	0.046	8	0.035
R1-4	0.505	0.780	0.720	64.7	11	0.046	7	0.039
R1-5	0.780	1.066	0.984	73.2	14	0.056	6	0.048
R1-6	0.629	0.866	0.799	72.6	11	0.057	6	0.040
R1-7	0.558	0.718	0.663	77.8	8	0.070	5	0.032
R1-8	0.341	0.629	0.581	54.2	6	0.057	8	0.036
R1-9	0.669	0.912	0.842	73.4	10	0.067	6	0.041
R2-1	0.303	0.571	0.527	53.2	5	0.061	9	0.030
R2-2	0.167	0.389	0.359	42.8	4	0.042	5	0.044
R2-3	0.171	0.449	0.415	38.1	3	0.057	8	0.035
R2-4	0.175	0.534	0.493	32.7	3	0.058	7	0.051
R3-1	0.643	0.913	0.843	70.4	11	0.058	7	0.039
R3-2	0.548	0.805	0.743	68.1	12	0.046	6	0.043
R3-3	0.520	0.691	0.638	75.3	12	0.043	5	0.034
R3-4	0.576	0.769	0.710	74.9	13	0.044	5	0.039
R3-5	0.526	0.732	0.676	71.9	11	0.048	4	0.051
R3-6	0.437	0.688	0.635	63.5	9	0.049	7	0.036
R3-7	0.505	0.632	0.583	79.9	13	0.039	3	0.042
R3-8	0.410	0.578	0.533	70.9	12	0.034	5	0.034
R3-9	0.558	0.793	0.732	70.4	12	0.047	7	0.034
R4-1	0.161	0.359	0.331	44.9	3	0.054	5	0.040
R4-2	0.486	0.639	0.590	76.1	10	0.049	3	0.051
R4-3	0.429	0.678	0.625	63.3	8	0.054	5	0.050
R4-4	0.445	0.600	0.554	74.1	9	0.049	4	0.039
R4-5	0.329	0.529	0.488	62.2	9	0.037	5	0.040

R5-1	0.209	0.380	0.351	54.9	7	0.030	6	0.029
R5-2	0.146	0.289	0.267	50.5	3	0.049	4	0.036
R5-3	0.453	0.683	0.631	66.3	11	0.041	7	0.033
R5-4	0.576	0.757	0.699	76.2	12	0.048	5	0.036
R5-5	0.356	0.577	0.533	61.8	9	0.040	6	0.037
R5-6	0.276	0.478	0.442	57.7	5	0.055	5	0.040
R6-1	0.196	0.439	0.405	44.7	4	0.049	7	0.035
R6-2	0.239	0.502	0.464	47.5	6	0.040	8	0.033
R6-3	0.417	0.596	0.550	69.9	12	0.035	7	0.026
R6-4	0.335	0.531	0.490	63.1	6	0.056	4	0.049
R6-5	0.517	0.714	0.659	72.4	11	0.047	5	0.039
R7-1	0.512	0.761	0.702	67.3	12	0.043	8	0.031
R7-2	0.617	0.804	0.742	76.7	12	0.051	6	0.031
R7-3	0.556	0.767	0.708	72.5	13	0.043	5	0.042
R7-4	0.556	0.773	0.714	71.9	13	0.043	5	0.043
R7-5	0.538	0.696	0.642	77.3	10	0.054	7	0.023

Table S2. *Sporolithon durum*. Annual extension rates measured for 5 different rhodolith branches over the period 1963–2011 using the combination of major growth banding and Mg/Ca cycles

Year	BSA1	BSA2	BSA3	MSA1	SSA1
2010				0.71	0.55
2009				1.01	0.72
2008	0.53	0.67	0.48	0.82	0.48
2007	0.46	0.48	0.46	0.46	0.61
2006	0.81	0.57	0.52	0.88	0.59
2005	0.56	0.49	0.59	0.43	0.62
2004	0.68	0.51	0.34	0.42	0.38
2003	0.67	0.35	0.53	0.93	0.60
2002	0.73	0.45	0.33	0.42	0.44
2001	0.72	0.53	0.51	0.87	0.72
2000	0.56	0.42	0.44	0.48	0.81
1999	0.87	0.46	0.81	1.13	0.54
1998	1.10	0.42	0.72	0.69	0.75
1997	1.22	1.04	0.51	0.79	0.88
1996	0.90	0.58	0.71	0.52	0.44
1995	0.57	0.38	1.02	0.66	0.53
1994	0.75	0.39	0.37	0.84	0.40
1993	1.02	0.24	0.66	0.52	0.66
1992	0.67	0.34	0.86	0.96	0.35
1991	0.78	0.19	0.48	0.81	0.69
1990	0.91	0.46	0.65	0.84	0.88
1989	0.65	0.33	0.74	0.82	0.32
1988	1.06	0.20	0.94	0.88	0.62
1987	1.09	0.62	0.37	0.49	0.47
1986	0.77	0.58	0.96	0.61	0.55
1985	0.99	0.30	0.27	0.73	0.53
1984	1.24	0.68	1.15	0.49	0.62
1983	1.03	0.38	0.98	0.99	0.65
1982	0.74	0.31	0.67	0.65	0.64
1981	1.07	0.37	0.71	0.53	0.69
1980	1.19	0.50	0.40	0.43	0.68
1979	0.71	0.53	0.58	0.48	0.58
1978	0.93	0.98	0.89	0.31	0.94
1977	0.76	0.57	0.41	0.52	1.20
1976	1.02	0.58	0.41	0.62	0.54
1975	0.46	0.50	0.52	0.65	0.61
1974	0.41	0.70	0.71	0.80	0.38
1973	0.33	0.28	0.27	0.71	0.76
1972	0.21	0.61	0.65	0.59	0.28
1971	0.31	0.39	0.64	0.41	0.43
1970	0.60	0.52	0.97	0.51	0.49
1969	0.69	0.34	0.61	0.78	0.49
1968	0.99	0.63	0.81	0.28	0.76
1967	0.74	0.63	1.18	0.76	0.29
1966	1.14	0.99	1.21	0.83	0.90
1965	0.73		0.82	0.54	1.11
1964	0.93			0.52	0.63
1963					0.68