

Supplementary Table 1. 2018 Rubble area data for the three Maldivian Islands. c = community island, u = uninhabited island and r = resort island, SA = surface area.

Island	Site	Subsample	Sample Name	SA of Rubble 1 (cm ²)	SA of Rubble 2 (cm ²)	SA of Rubble 3 (cm ²)	Total SA (cm ²)
Rasdhoo (c)	1	a	R1.1	26.9	21.5	30.0	78.4
		b	R1.2	23.3	37.6	33.5	94.4
		c	R1.3	26.3	35.4	28.1	89.8
	2	a	R2.1	26.0	17.9	N/A	43.9
		b	R2.2	35.7	25.7	N/A	61.4
		c	R2.3	29.5	25.7	N/A	55.2
Vihamaafaru (u)	1	a	V1.1	17.9	25.8	N/A	43.7
		b	V1.2	23.6	22.0	N/A	45.6
		c	V1.3	22.3	19.6	N/A	41.9
	2	a	V2.1	22.3	17.6	N/A	39.9
		b	V2.2	22.7	28.0	N/A	50.7
		c	V2.3	31.7	17.2	N/A	48.9
Maayafushi (r)	1	a	M1.1	17.9	12.3	N/A	30.2
		b	M1.2	9.6	14.9	N/A	24.6
		c	M1.3	17.6	25.3	N/A	43.0
	2	a	M2.1	16.9	28.9	N/A	45.8
		b	M2.2	17.8	15.0	N/A	32.8
		c	M2.3	13.0	20.6	N/A	33.7

Supplementary Table 2. 2018 *Amphistegina* data. c = community island, u = uninhabited island and r = resort island, specs = specimens, PB = partially bleached, B = bleached, SA = surface area.

Island	Site	Subsample	Total Living	Normal Specs	PB Specs	B Specs	Rubble SA (cm ²)	Living (ind/100 cm ²)	PB %	B %	Specs. with B %
Rasdho (c)	1	a	70	40	24	6	78.4	89	34.3	8.6	42.9
		b	161	114	39	8	94.4	171	24.2	5.0	29.2
		c	173	92	72	9	89.8	193	41.6	5.2	46.8
	2	a	108	69	34	5	43.9	246	31.5	4.6	36.1
		b	201	135	51	15	61.4	328	25.4	7.5	32.8
		c	114	55	41	18	55.2	206	36.0	15.8	51.8
Vihamaafaru (u)	1	a	95	66	19	10	43.7	218	20.0	10.5	30.5
		b	161	102	26	33	45.6	353	16.1	20.5	36.6
		c	58	38	12	8	41.9	139	20.7	13.8	34.5
	2	a	49	37	12	0	39.9	123	24.5	0.0	24.5
		b	123	81	34	8	50.7	243	27.6	6.5	34.1
		c	110	72	31	7	48.9	225	28.2	6.4	34.5
Maayafushi (r)	1	a	65	46	16	3	30.2	215	24.6	4.6	29.2
		b	24	18	2	4	24.6	98	8.3	16.7	25.0
		c	27	15	5	7	43.0	63	18.5	25.9	44.4
	2	a	124	94	17	13	45.8	270	13.7	10.5	24.2
		b	34	22	7	5	32.8	104	20.6	14.7	35.3
		c	27	14	10	3	33.7	82	37.0	11.1	48.1

Supplementary Table 3. *In situ* sea temperature and photosynthetic active radiation (PAR) measurements obtained during the 2018 sampling campaign for the both the surface (0 m) and at 10 m water depth. c = community island, u = uninhabited island, r = resort island, k = PAR extinction coefficient.

Island	Site	Date	Time	Temperature at 0 m (°C)	Temperature at 10 m (°C)	PAR at 0 m ($\mu\text{mol m}^{-2} \text{s}^{-1}$)	PAR at 10 m ($\mu\text{mol m}^{-2} \text{s}^{-1}$)	k
Rasdhoo (c)	1	02.09.2018	1221	30.5	29.8	1633.2	632.3	0.095
	2	03.09.2018	0845	30.3	30.3	1046.3	496.5	0.075
Vihamaafaru (u)	1	04.09.2018	1025	30.5	29.8	1406.5	616.8	0.082
	2	05.09.2018	~0900	30.1	30.1	1087.7	492.7	0.079
Maayafushi (r)	1	06.09.2018	1100	30.3	30.0	1848.6	700.6	0.097
	2	07.09.2018	0730	No data	No data	No data	No data	N/A