

Table S1. The percentage of bleached mantle of each giant clam individual per giant clam type between July 2019 and February 2021. Giant clam type refers to: healthy giant clams, moderately bleached giant clams with 26 to 50% bleached mantle, and severely bleached giant clams with 76 to 100% bleached mantle. Mortality of individual clams is also indicated.

Giant clam type	Replicate	Tag number	July 2019	December 2019	March 2020	May 2020	August 2020	September 2020	December 2020	February 2021
Healthy	1	1H	0	0	0	0	0	0	0	0
Healthy	2	2H	0	0	0	0	0	0	0	0
Healthy	3	3H	0	0	0	0	0	0	0	0
Healthy	4	4H	0	0	0	0	0	0	0	0
Healthy	5	5H	0	0	0	0	0	0	0	0
Healthy	6	6H	0	0	0	0	0	0	0	DEAD
Healthy	7	7H	0	0	0	0	0	0	0	0
Healthy	8	8H	0	0	0	0	0	0	0	0
Healthy	9	9H	0	0	0	0	0	0	0	0
Healthy	10	10H	0	0	0	0	0	0	0	0
Healthy	11	11H	0	0	0	0	0	0	0	0

Healthy	12	12H	0	0	0	0	0	0	DEAD	DEAD
Healthy	13	13H	0	0	0	0	0	0	0	0
Healthy	14	14H	0	0	0	0	0	0	0	0
Healthy	15	16H	0	0	0	0	0	0	0	0
Healthy	16	17H	0	0	0	0	0	0	0	0
Healthy	17	18H	0	0	0	0	0	0	0	0
Healthy	18	19H	0	0	0	0	0	0	0	0
Healthy	19	20H	0	0	0	0	0	0	0	0
Healthy	20	21H	0	0	0	0	0	0	0	0
Healthy	21	22H	0	0	0	0	0	0	0	0
Healthy	22	23H	0	0	0	0	0	0	0	0
Healthy	23	24H	0	0	0	0	0	0	0	0
Healthy	24	25H	0	0	0	0	0	0	0	0
Healthy	25	26H	0	0	0	0	0	0	0	0
Healthy	26	27H	0	0	0	0	0	0	0	0

Healthy	27	29H	0	0	0	0	0	0	0	0
Healthy	28	30H	0	0	0	0	0	0	0	0
Healthy	29	31H	0	0	0	0	0	0	0	0
Healthy	30	32H	0	0	0	0	0	0	0	0
Moderately Bleached	1	8	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	2	18	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	3	38	1-25	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	4	49	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	5	63	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	6	66	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	7	68	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	8	81	0	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	9	87	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	10	109	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	11	118	1-25	26-50	26-50	26-50	26-50	26-50	26-50	26-50

Moderately Bleached	12	134	0	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	13	155	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	14	170	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	15	172	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	16	181	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	17	193	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	18	197	76-100	1-25	1-25	1-25	26-50	26-50	26-50	26-50
Moderately Bleached	19	201	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	20	217	0	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	21	231	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	22	234	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	23	248	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	24	258	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	25	271	76-100	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	26	278	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50

Moderately Bleached	27	313	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	28	341	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	29	732	26-50	26-50	26-50	26-50	26-50	26-50	26-50	26-50
Moderately Bleached	30	C211	0	0	0	0	26-50	26-50	26-50	26-50
Severely Bleached	1	4	76-100	76-100	76-100	76-100	76-100	76-100	DEAD	DEAD
Severely Bleached	2	19	51-75	26-50	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	3	21	76-100	51-75	51-75	51-75	76-100	76-100	76-100	DEAD
Severely Bleached	4	31	1-25	1-25	1-25	1-25	76-100	76-100	76-100	76-100
Severely Bleached	5	33	26-50	1-25	1-25	1-25	76-100	76-100	51-75	26-50
Severely Bleached	6	100	76-100	76-100	76-100	76-100	76-100	76-100	DEAD	DEAD
Severely Bleached	7	141	1-25	1-25	1-25	1-25	76-100	76-100	DEAD	DEAD
Severely Bleached	8	180	76-100	26-50	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	9	200	51-75	1-25	1-25	1-25	76-100	76-100	76-100	76-100
Severely Bleached	10	202	26-50	51-75	26-50	26-50	76-100	76-100	DEAD	DEAD
Severely Bleached	11	203	51-75	51-75	51-75	51-75	76-100	76-100	76-100	DEAD

Severely Bleached	12	221	26-50	1-25	1-25	1-25	76-100	76-100	76-100	76-100
Severely Bleached	13	256	26-50	1-25	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	14	261	26-50	26-50	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	15	268	26-50	0	26-50	26-50	76-100	76-100	DEAD	DEAD
Severely Bleached	16	391	76-100	51-75	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	17	440	26-50	26-50	26-50	26-50	76-100	76-100	76-100	76-100
Severely Bleached	18	469	76-100	51-75	51-75	51-75	76-100	76-100	76-100	76-100
Severely Bleached	19	480	76-100	0	0	1-25	76-100	76-100	26-50	1-25
Severely Bleached	20	483	76-100	1-25	0	0	76-100	76-100	26-50	1-25
Severely Bleached	21	545	26-50	1-25	1-25	1-25	76-100	76-100	76-100	76-100
Severely Bleached	22	572	76-100	1-25	0	0	76-100	76-100	76-100	76-100
Severely Bleached	23	575	76-100	1-25	1-25	26-50	76-100	76-100	76-100	76-100
Severely Bleached	24	C1	0	26-50	26-50	26-50	76-100	76-100	76-100	DEAD
Severely Bleached	25	C104	0	0	76-100	76-100	76-100	76-100	76-100	51-75
Severely Bleached	26	C204	0	0	0	0	76-100	76-100	76-100	DEAD

Severely Bleached	27	C205	0	0	0	0	76-100	76-100	DEAD	DEAD
Severely Bleached	28	C206	0	0	0	0	76-100	76-100	76-100	DEAD
Severely Bleached	29	C209	0	0	0	0	76-100	76-100	76-100	51-75
Severely Bleached	30	C212	0	0	0	0	76-100	76-100	DEAD	DEAD

Table S2. The reproductive condition of each giant clam individual per giant clam type, based on the concentration of eggs, in September 2020, December 2020, and February 2021. Giant clam type refers to: healthy giant clams, moderately bleached giant clams with 26 to 50% bleached mantle, and severely bleached giant clams with 76 to 100% bleached mantle. Mortality of individual clams is also indicated. See methods for the descriptions of the different concentrations of eggs.

Giant clam type	Replicate	Tag number	September 2020	December 2020	February 2021
Healthy	1	1H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	2	2H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	3	3H	FEW	CONCENTRATED	CONCENTRATED
Healthy	4	4H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	5	5H	CONCENTRATED	CONCENTRATED	DEAD
Healthy	6	6H	CONCENTRATED	CONCENTRATED	CONCENTRATED

Healthy	7	7H	FEW	CONCENTRATED	CONCENTRATED
Healthy	8	8H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	9	9H	FEW	CONCENTRATED	CONCENTRATED
Healthy	10	10H	FEW	FEW	CONCENTRATED
Healthy	11	11H	FEW	FEW	CONCENTRATED
Healthy	12	12H	CONCENTRATED	DEAD	DEAD
Healthy	13	13H	FEW	CONCENTRATED	CONCENTRATED
Healthy	14	14H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	15	16H	EMPTY	FEW	CONCENTRATED
Healthy	16	17H	FEW	CONCENTRATED	CONCENTRATED
Healthy	17	18H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	18	19H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	19	20H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	20	21H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	21	22H	CONCENTRATED	CONCENTRATED	CONCENTRATED

Healthy	22	23H	FEW	CONCENTRATED	CONCENTRATED
Healthy	23	24H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	24	25H	FEW	CONCENTRATED	CONCENTRATED
Healthy	25	26H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	26	27H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	27	29H	FEW	CONCENTRATED	CONCENTRATED
Healthy	28	30H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	29	31H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Healthy	30	32H	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	1	8	FEW	FEW	CONCENTRATED
Moderately bleached	2	18	FEW	CONCENTRATED	EMPTY
Moderately bleached	3	38	EMPTY	EMPTY	EMPTY
Moderately bleached	4	49	FEW	FEW	CONCENTRATED
Moderately bleached	5	63	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	6	66	CONCENTRATED	CONCENTRATED	CONCENTRATED

Moderately bleached	7	68	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	8	81	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	9	87	FEW	CONCENTRATED	FEW
Moderately bleached	10	109	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	11	118	CONCENTRATED	FEW	CONCENTRATED
Moderately bleached	12	134	EMPTY	EMPTY	FEW
Moderately bleached	13	155	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	14	170	FEW	FEW	CONCENTRATED
Moderately bleached	15	172	CONCENTRATED	FEW	CONCENTRATED
Moderately bleached	16	181	FEW	CONCENTRATED	CONCENTRATED
Moderately bleached	17	193	FEW	CONCENTRATED	CONCENTRATED
Moderately bleached	18	197	FEW	EMPTY	FEW
Moderately bleached	19	201	FEW	FEW	CONCENTRATED
Moderately bleached	20	217	CONCENTRATED	FEW	CONCENTRATED
Moderately bleached	21	231	EMPTY	EMPTY	EMPTY

Moderately bleached	22	234	CONCENTRATED	FEW	CONCENTRATED
Moderately bleached	23	248	CONCENTRATED	FEW	FEW
Moderately bleached	24	258	FEW	FEW	FEW
Moderately bleached	25	271	FEW	EMPTY	FEW
Moderately bleached	26	278	FEW	FEW	FEW
Moderately bleached	27	313	FEW	FEW	FEW
Moderately bleached	28	341	CONCENTRATED	CONCENTRATED	CONCENTRATED
Moderately bleached	29	732	FEW	FEW	CONCENTRATED
Moderately bleached	30	C211	CONCENTRATED	FEW	FEW
Severely Bleached	1	4	EMPTY	DEAD	DEAD
Severely Bleached	2	19	EMPTY	FEW	EMPTY
Severely Bleached	3	21	EMPTY	EMPTY	DEAD
Severely Bleached	4	31	FEW	FEW	EMPTY
Severely Bleached	5	33	FEW	FEW	CONCENTRATED
Severely Bleached	6	100	EMPTY	DEAD	DEAD

Severely Bleached	7	141	EMPTY	DEAD	DEAD
Severely Bleached	8	180	EMPTY	EMPTY	FEW
Severely Bleached	9	200	EMPTY	EMPTY	EMPTY
Severely Bleached	10	202	FEW	DEAD	DEAD
Severely Bleached	11	203	EMPTY	FEW	DEAD
Severely Bleached	12	221	EMPTY	EMPTY	EMPTY
Severely Bleached	13	256	CONCENTRATED	EMPTY	EMPTY
Severely Bleached	14	261	EMPTY	EMPTY	EMPTY
Severely Bleached	15	268	FEW	DEAD	DEAD
Severely Bleached	16	391	FEW	EMPTY	EMPTY
Severely Bleached	17	440	EMPTY	EMPTY	FEW
Severely Bleached	18	469	EMPTY	FEW	EMPTY
Severely Bleached	19	480	EMPTY	EMPTY	EMPTY
Severely Bleached	20	483	EMPTY	EMPTY	EMPTY
Severely Bleached	21	545	CONCENTRATED	EMPTY	EMPTY

Severely Bleached	22	572	EMPTY	EMPTY	EMPTY
Severely Bleached	23	575	EMPTY	FEW	FEW
Severely Bleached	24	C1	FEW	FEW	DEAD
Severely Bleached	25	C104	CONCENTRATED	EMPTY	FEW
Severely Bleached	26	C204	EMPTY	EMPTY	DEAD
Severely Bleached	27	C205	FEW	DEAD	DEAD
Severely Bleached	28	C206	EMPTY	EMPTY	DEAD
Severely Bleached	29	C209	EMPTY	EMPTY	EMPTY
Severely Bleached	30	C212	FEW	DEAD	DEAD