

The following supplement accompanies the article

Spawning dynamics in the Hawaiian reef-building coral *Montipora capitata*

Jacqueline L. Padilla-Gamiño^{1,2,3,*}, Ruth D. Gates²

¹Department of Oceanography, University of Hawai'i, 1000 Pope Road, Honolulu, Hawaii 96822, USA

²Hawai'i Institute of Marine Biology, PO Box 1346, Kaneohe, Hawaii 96744, USA

³Present address: Marine Science Institute, University of California Santa Barbara, Santa Barbara, California 93106-6150, USA

*Email: gamino@hawaii.edu

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Supplement. Additional information on the environment at the study sites, colonies used in this study and supplementary figures and tests.

Table S1. Temperature, solar radiation, precipitation and wind records from Moku O Lo'e Island weather station in Kane'ohe Bay, O'ahu, Hawai'i, from 2006 to 2008. Max: maximum

Month	Sep 2006–Aug 2007			Sep 2007–Aug 2008			Month	Sep 2006–Aug 2007			Sep 2007–Aug 2008		
	Mean	Max	SD	Mean	Max	SD		Mean	Max	SD	Mean	Max	SD
(a) Temperature (°C)												(b) Total solar radiation (W m⁻²)	
September	26.893	28.1	0.595	26.86	28.3	0.634	September	222.2	1067.1	309.8	223.2	1046.3	305.6
October	26.505	28.2	0.796	25.649	27.1	0.534	October	160.8	981.2	246.2	179.5	942.9	254.4
November	25.792	27.2	0.620	24.878	26.7	0.644	November	138.6	846.4	219.2	149.6	878.7	218.8
December	23.753	25.2	0.520	23.478	24.7	0.634	December	115.0	805.9	178.4	106.2	734.2	163.2
January	23.378	24.6	0.354	22.514	24.5	0.812	January	125.7	845.7	195.5	134.8	807.5	202.6
February	22.661	23.7	0.390	23.375	25.4	1.147	February	165.1	866.2	241.7	169.7	965.3	253.1
March	24.119	25.2	0.470	24.86	26.3	0.597	March	187.9	1006.8	275.7	232.5	1051.9	312.1
April	24.407	26	0.732	24.593	26.6	0.865	April	246.5	1084.5	329.3	237.5	1136.7	316.3
May	25.696	27.5	0.855	26.001	27.8	0.933	May	261.2	1080.7	334.7	258.6	1127.5	327.9
June	26.742	28.3	0.620	26.58	28.7	0.545	June	257.3	1099.2	322.6	256.9	1091.3	322.3
July	26.564	28	0.458	27.648	29.3	0.723	July	225.5	1123.8	282.6	244.6	1100.7	310.9
August	26.846	28.3	0.686	26.919	27.8	0.464	August	238.9	1117.4	308.5	232.2	1116.3	300.3
Annual	25.299	28.3	1.575	25.29	29.3	1.704	Annual	195.2	1123.8	279.6	202.0	1136.7	283.1
(c) Precipitation (cm)												(d) Wind average velocity (km h⁻¹)	
September	0.0059	0.97	0.051	0.0040	0.58	0.028	September	17.7	32.7	5.3	19.1	29.6	5.3
October	0.0284	2.29	0.183	0.0041	0.53	0.028	October	12.6	36.8	8.4	19.9	32.3	6.6
November	0.0204	1.55	0.118	0.0401	3.33	0.235	November	11.2	34.4	7.0	13.6	34.4	8.2
December	0.0047	0.56	0.030	0.0299	2.01	0.139	December	17.6	37.3	7.9	20.3	60.5	9.7
January	0.0082	1.09	0.050	0.0060	0.58	0.031	January	15.6	57.4	10.9	19.3	38.3	9.3
February	0.0068	0.86	0.045	0.0042	0.58	0.032	February	17.3	37.5	9.9	14.0	31.9	8.4
March	0.0112	2.26	0.096	0.0006	0.13	0.007	March	13.8	38.6	9.3	17.5	30.4	7.7
April	0.0036	0.28	0.022	0.0073	0.79	0.049	April	20.1	35.2	7.8	16.6	33.9	8.5
May	0.0021	0.25	0.015	0.0071	1.17	0.071	May	17.4	32.3	7.1	16.5	32.2	7.5
June	0.0019	0.25	0.017	0.0051	0.84	0.045	June	19.8	31.9	5.2	17.9	33.3	5.3
July	0.0046	0.25	0.021	0.0058	0.48	0.032	July	19.8	29.8	3.8	17.0	33.1	6.3
August	0.0034	0.23	0.021	0.0042	0.51	0.027	August	18.9	32.7	5.7	18.8	30.7	5.1
Annual	0.0084	2.29	0.075	0.0099	3.33	0.087	Annual	16.8	57.4	8.1	17.6	60.5	7.7

Table S2. *Montipora capitata*. General linear model of lipid content in colonies before and after the reproductive seasons in 2007 and 2008 at Bridge to Nowhere (BTN) and Gilligan's Lagoon (GL) sites. Significant p-values ($p < 0.05$) in **bold**

Source	df	MS	F	p
Year	1	0.041	2.02	0.162
Site	1	0.089	2.18	0.161
Prepostspawn	1	0.160	7.94	0.007
Year × Site	1	0.001	0.06	0.806
Year × Prepostspawn	1	0.015	0.74	0.393
Site × Prepostspawn	1	0.118	5.85	0.020
Colony(Site)	15	0.041	2.03	0.034
Error	46	0.020		
Total	67			

Fig. S1. *Montipora capitata*. Examples of the morphologies of coral colonies examined in this study

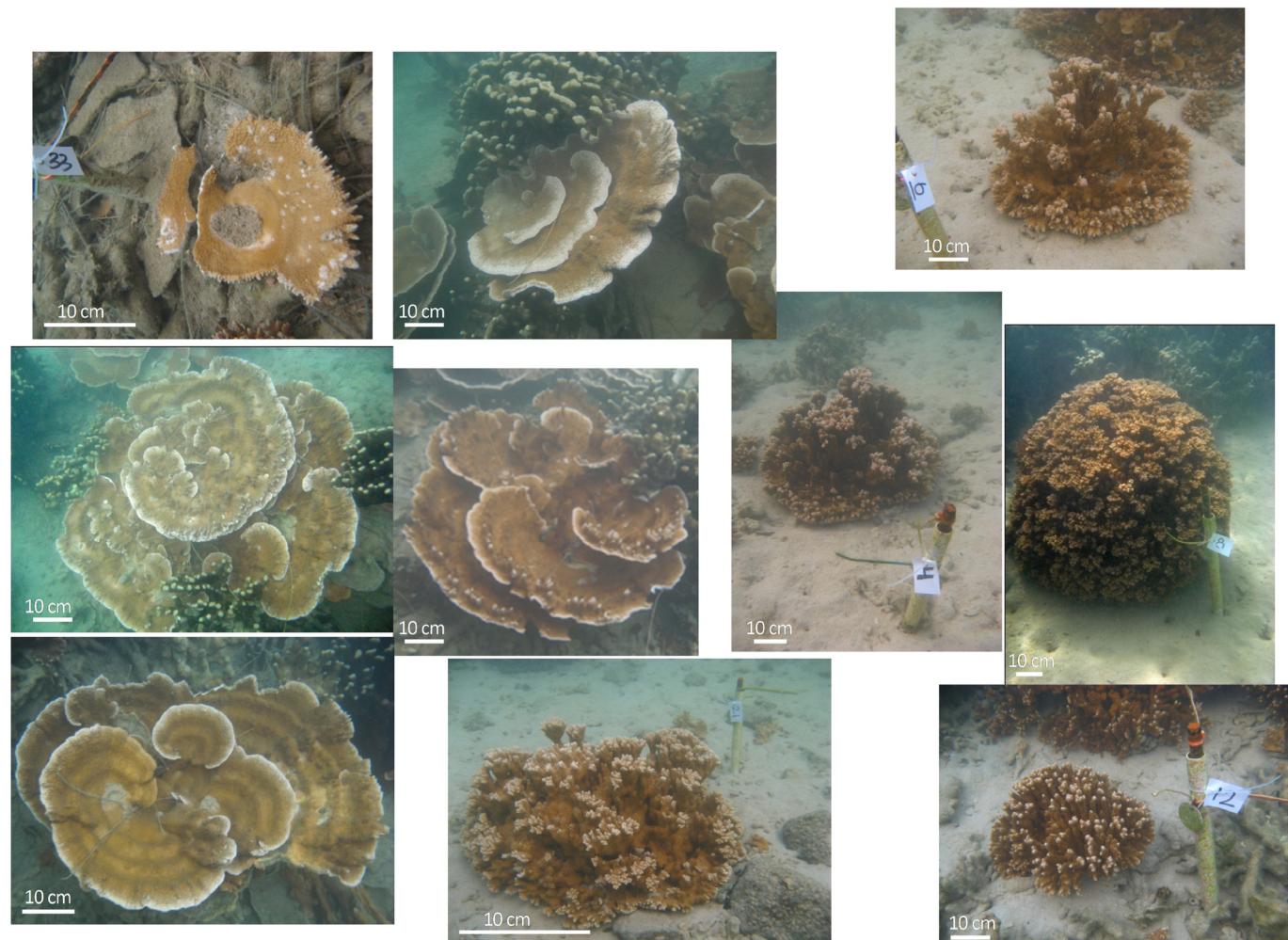
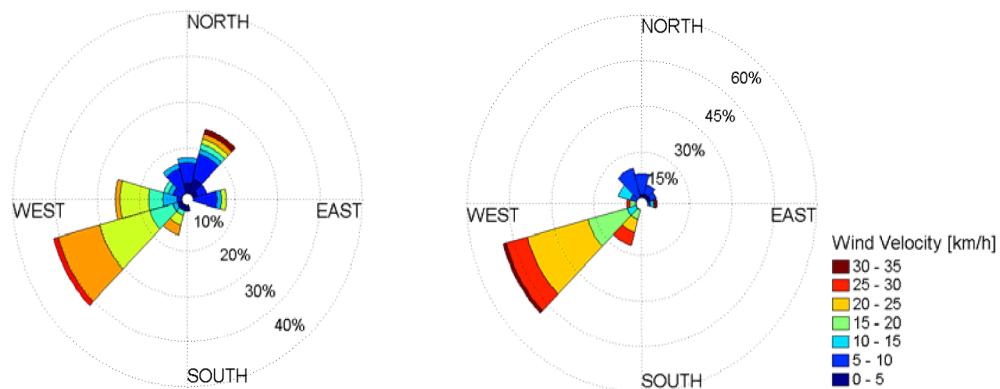


Fig. S2. Wind direction and velocity and precipitation for Moku O Lo'e Island in Kane'ohe Bay, O'ahu, Hawai'i

2007 (January-March)



2008 (January-March)

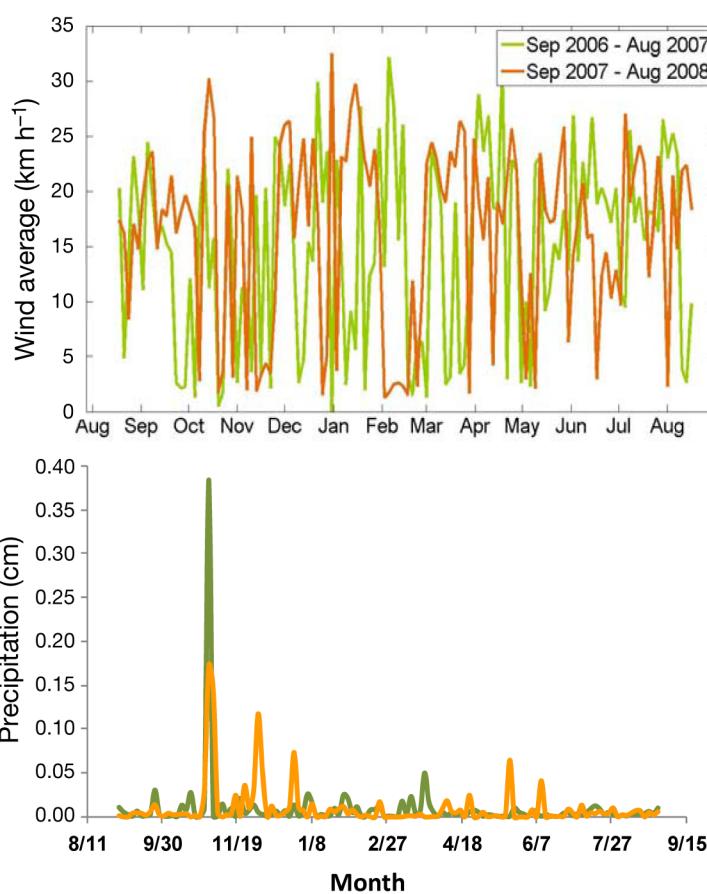
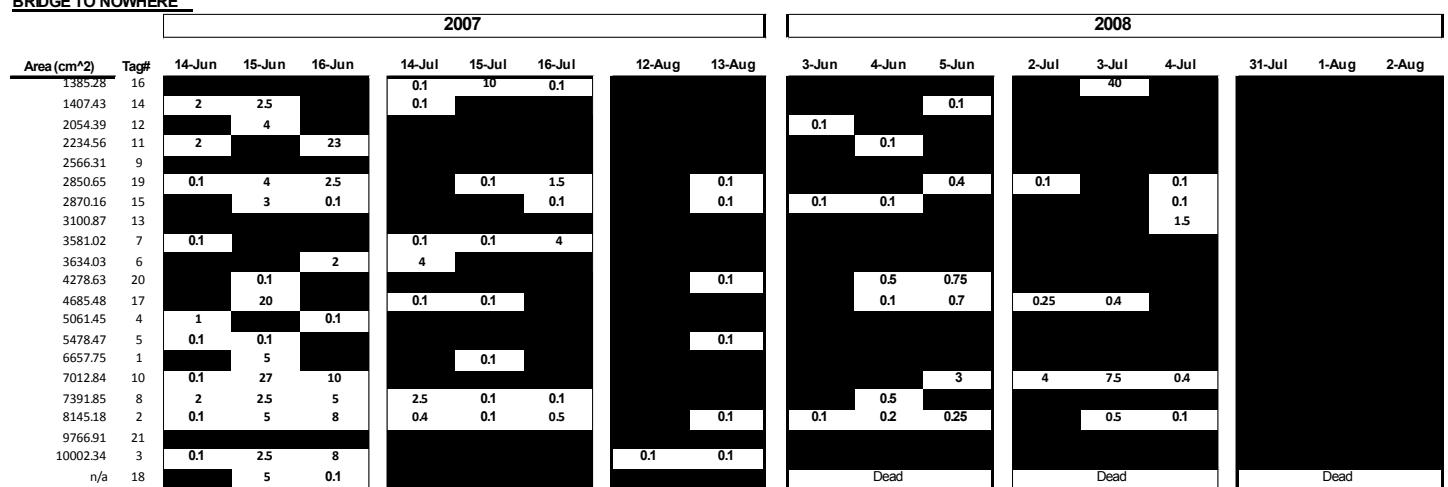


Fig. S3. *Montipora capitata*. Reproductive output per colony at the Bridge to Nowhere (BTN) and Gilligan's Lagoon (GL) sites. Open boxes with numbers indicate that spawning occurred; number in the box is the volume (ml) of eggs collected. Solid areas indicate periods with no spawning

BRIDGE TO NOWHERE



GILLIGAN'S LAGOON

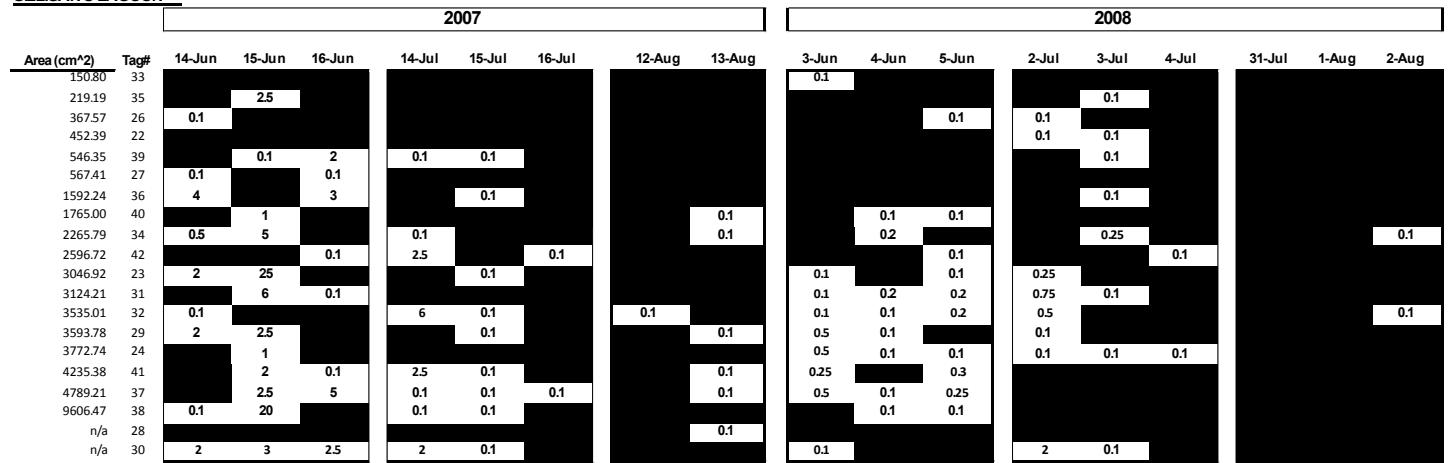


Fig. S4. *Montipora capitata*. Proportion of colonies that spawned once, twice or 3 times within each month at the Bridge to Nowhere (BTN) and Gilligan's Lagoon (GL) sites

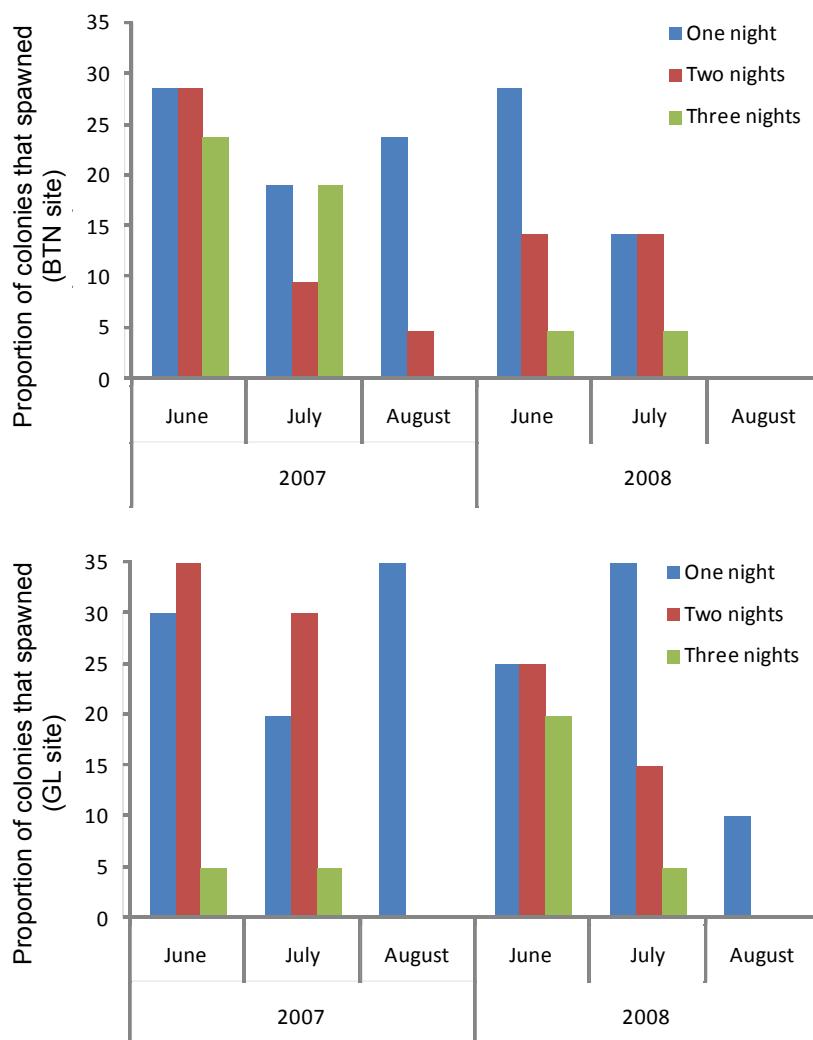


Fig. S5. *Montipora capitata*. Relationship between reproductive output (volume of eggs spawned) and colony size. BTN: Bridge to Nowhere; GL: Gilligan's Lagoon

