

Barrens of gold: gonad conditioning of an overabundant sea urchin

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Aquaculture Environment Interactions 10: 345–361 (2018)

Table S1. Summary of three-way analysis of variance examining the fixed effects of site, diet and their interaction and the random effect of tank (nested within site*tank) on the gonad index, gonad weight, diameter and total wet weight of *Heliocidaris erythrogramma*. Asterisks denote significance at $p < 0.05$.

Parameters	Source	df	MS	F	P
Gonad index	Site	2	0.03813	19.802	2.84E-05*
	Diet	2	0.01884	9.782	0.00133*
	Site*Diet	4	0.00092	0.476	0.753
	Tank	18	0.00193	0.8468	0.644
	Error	293	0.00228		
Gonad weight	Site	2	540.3	76.256	1.63E-09*
	Diet	2	54.2	7.654	0.00393*
	Site*Diet	18	9	1.265	0.32
	Tank	4	7.1	0.543	0.935
	Error	293	13.08		
Diameter	Site	2	263.71	15.884	0.000106*
	Diet	2	55.82	3.362	0.057
	Site*Diet	18	13.12	0.79	0.547
	Tank	4	16.6	0.96	0.507
	Error	293	17.3		
Total weight	Site	2	4484	27.978	3.00E-06*
	Diet	2	383	2.392	0.12
	Site*Diet	18	127	0.79	0.547
	Tank	4	160	1.11	0.34
	Error	293	143.8		

Table S2. Summary of two-way analysis of variance examining the effects of treatment and tank (nested within treatment) on the gonad index, gonad weight, diameter and total wet weight of *Heliocidaris erythrogramma*. Asterisks denote significance at $p < 0.05$.

Parameters	Source	<i>df</i>	MS	<i>F</i>	<i>P</i>
Gonad index	Treatment	1	5.335E-3	13.59	4.20E-2*
	Tank	10	3.93E-3	0.68	0.74
	Error	94	5.76E-4		
Gonad weight	Treatment	1	46.91	8.51	0.02*
	Tank	10	5.51	1.01	0.44
	Error	94	5.44		
Diameter	Treatment	1	0.24	0.02	0.90
	Tank	10	13.22	1.38	0.20
	Error	94	9.62		
Total weight	Treatment	1	5.42	0.04	0.85
	Tank	10	145.19	1.15	0.34
	Error	94	126.50		