

Supporting Information. Anthropogenic versus fish-derived nutrient effects on seagrass community structure and function. Jacob E. Allgeier, Craig A. Layman, Carmen G. Montana, Enie Hensel, Richard Appaldo, and Amy D. Rosemond. *Ecology*. 2018.

Appendix S2

Table S1 – Table of mean fish biomass per species within the different fish communities found in each treatment type.

Table S1

Treatment	genus	species	biomass	Treatment	genus	species	biomass
-FISH,-FERT	Acanthurus	chirurgus	2.78	+FISH,-FERT	Acanthurus	chirurgus	5.26
-FISH,-FERT	Acanthurus	coeruleus	1.58	+FISH,-FERT	Acanthurus	coeruleus	1.01
-FISH,-FERT	Acanthurus	bahianus	3.08	+FISH,-FERT	Acanthurus	bahianus	34.00
-FISH,-FERT	Balistes	vetula	55.11	+FISH,-FERT	Balistes	vetula	285.84
-FISH,-FERT	Chaetodon	capistratus	1.09	+FISH,-FERT	Canthidermi	sufflamen	572.95
-FISH,-FERT	Haemulon	plumieri	4.96	+FISH,-FERT	Chaetodon	striatus	1.73
-FISH,-FERT	Haemulon	sciurus	9.91	+FISH,-FERT	Haemulon	melanurum	7.07
-FISH,-FERT	Haemulon	aurolineatun	7.89	+FISH,-FERT	Haemulon	plumieri	19.92
-FISH,-FERT	Holocentrus	adscensionis	12.37	+FISH,-FERT	Haemulon	sciurus	25.43
-FISH,-FERT	Halichoeres	bivittatus	6.67	+FISH,-FERT	Haemulon	aurolineatun	59.23
-FISH,-FERT	Halichoeres	poeyi	10.08	+FISH,-FERT	Holocentrus	adscensionis	32.53
-FISH,-FERT	Thalassoma	bifasciatum	2.30	+FISH,-FERT	Myripristis	jacobus	67.28
-FISH,-FERT	Ocyurus	chrysurus	16.19	+FISH,-FERT	Sargocentror	coruscum	8.78
-FISH,-FERT	Pseudupenei	maculatus	5.73	+FISH,-FERT	Halichoeres	bivittatus	12.41
-FISH,-FERT	Gymnothora	vicinus	198.57	+FISH,-FERT	Halichoeres	radiatus	10.42
-FISH,-FERT	Abudefduf	saxatilis	1.77	+FISH,-FERT	Halichoeres	maculipinna	18.21
-FISH,-FERT	Stegastes	leucostictus	0.47	+FISH,-FERT	Halichoeres	poeyi	8.47
-FISH,-FERT	Sparisoma	chrysopterur	7.23	+FISH,-FERT	Thalassoma	bifasciatum	2.54
-FISH,-FERT	Sparisoma	radians	6.96	+FISH,-FERT	Ocyurus	chrysurus	32.17
-FISH,-FERT	Nicholsina	usta	13.15	+FISH,-FERT	Pseudupenei	maculatus	17.69
-FISH,-FERT	Pareques	acuminatus	1.97	+FISH,-FERT	Gymnothora	vicinus	198.57
-FISH,-FERT	Pterois	volitans	44.50	+FISH,-FERT	Holacanthus	ciliaris	6.09
-FISH,-FERT	Canthigaster	rostrata	0.64	+FISH,-FERT	Abudefduf	saxatilis	80.22
-FISH,-FERT	Aluterus	sp	0.00	+FISH,-FERT	Stegastes	leucostictus	3.76
				+FISH,-FERT	Nicholsina	usta	24.72
				+FISH,-FERT	Scarus	iserti	2.14
+FISH,+FERT	Acanthurus	chirurgus	6.64	+FISH,-FERT	Scarus	taeniopterus	20.58
+FISH,+FERT	Acanthurus	coeruleus	15.04	+FISH,-FERT	Sparisoma	chrysopterur	5.88
+FISH,+FERT	Acanthurus	bahianus	48.17	+FISH,-FERT	Sparisoma	sp	3.05
+FISH,+FERT	Balistes	vetula	285.84	+FISH,-FERT	Sparisoma	radians	5.95
+FISH,+FERT	Balistes	sp	313.61	+FISH,-FERT	Pareques	acuminatus	2.98
+FISH,+FERT	Haemulon	melanurum	10.49	+FISH,-FERT	Pterois	volitans	47.41
+FISH,+FERT	Haemulon	plumieri	13.06	+FISH,-FERT	Epinephelus	striatus	196.08
+FISH,+FERT	Haemulon	sciurus	24.51				
+FISH,+FERT	Haemulon	aurolineatun	35.37				
+FISH,+FERT	Holocentrus	adscensionis	40.49	-FISH,+FERT	Acanthurus	chirurgus	0.55
+FISH,+FERT	Myripristis	jacobus	74.70	-FISH,+FERT	Acanthurus	coeruleus	1.95
+FISH,+FERT	Sargocentror	coruscum	10.28	-FISH,+FERT	Acanthurus	bahianus	2.40
+FISH,+FERT	Halichoeres	bivittatus	6.34	-FISH,+FERT	Haemulon	plumieri	4.59
+FISH,+FERT	Halichoeres	poeyi	8.74	-FISH,+FERT	Haemulon	sciurus	16.47
+FISH,+FERT	Halichoeres	radiatus	4.22	-FISH,+FERT	Haemulon	aurolineatun	0.47
+FISH,+FERT	Halichoeres	maculipinna	27.08	-FISH,+FERT	Holocentrus	adscensionis	8.12
+FISH,+FERT	Thalassoma	bifasciatum	2.69	-FISH,+FERT	Myripristis	jacobus	20.26
+FISH,+FERT	Lutjanus	analis	548.45	-FISH,+FERT	Sargocentror	coruscum	3.34
+FISH,+FERT	Lutjanus	synagris	22.57	-FISH,+FERT	Halichoeres	bivittatus	5.70
+FISH,+FERT	Ocyurus	chrysurus	65.03	-FISH,+FERT	Halichoeres	poeyi	4.77
+FISH,+FERT	Pseudupenei	maculatus	17.60	-FISH,+FERT	Thalassoma	bifasciatum	0.91
+FISH,+FERT	Gymnothora	vicinus	198.57	-FISH,+FERT	Pseudupenei	maculatus	5.37
+FISH,+FERT	Holacanthus	ciliaris	6.86	-FISH,+FERT	Gymnothora	vicinus	188.46
+FISH,+FERT	Abudefduf	saxatilis	9.59	-FISH,+FERT	Stegastes	leucostictus	2.41
+FISH,+FERT	Stegastes	leucostictus	6.91	-FISH,+FERT	Nicholsina	usta	8.76
+FISH,+FERT	Nicholsina	usta	44.06	-FISH,+FERT	Sparisoma	radians	7.84
+FISH,+FERT	Scarus	iserti	0.46	-FISH,+FERT	Sparisoma	viride	3.19
+FISH,+FERT	Sparisoma	radians	12.98	-FISH,+FERT	Sparisoma	sp	1.92
+FISH,+FERT	Sparisoma	sp	7.34	-FISH,+FERT	Pareques	acuminatus	2.66
+FISH,+FERT	Sparisoma	viride	3.93	-FISH,+FERT	Pterois	volitans	67.21
+FISH,+FERT	Pareques	acuminatus	3.12	-FISH,+FERT	Epinephelus	striatus	89.35
+FISH,+FERT	Pterois	volitans	116.56	-FISH,+FERT	Canthigaster	rostrata	1.38
+FISH,+FERT	Epinephelus	striatus	356.09				
+FISH,+FERT	Canthigaster	rostrata	2.20				

Table S2 – ANOVA results and means per reefs for each date used in the repeatability surveys.

Table S2										
N excretion										
	Df	SumSq	MeanSq	F-value	P-value	date	4a	4b	4c	4d
date	5	0.99	0.20	2.68	0.064	5/25/13	0.12	0.99	0.10	0.93
treatment	3	5.23	1.74	23.68	0.000	5/26/13	0.15	2.06	0.25	1.64
Residuals	15	1.10	0.07			6/2/13	0.13	0.69	0.23	0.85
						6/4/13	0.10	1.00	0.18	0.69
						6/9/13	0.10	0.82	0.09	0.76
						8/7/14	0.13	0.99	0.18	1.56
P excretion										
	Df	SumSq	MeanSq	F-value	P-value	date	4a	4b	4c	4d
date	5	0.00	0.00	1.82	0.169	5/25/13	0.02	0.06	0.02	0.06
treatment	3	0.02	0.01	14.35	0.000	5/26/13	0.01	0.15	0.04	0.09
Residuals	15	0.01	0.00			6/2/13	0.01	0.05	0.03	0.07
						6/4/13	0.01	0.07	0.03	0.06
						6/9/13	0.01	0.04	0.02	0.07
						8/7/14	0.02	0.06	0.01	0.11
Biomass										
	Df	SumSq	MeanSq	F-value	P-value	date	4a	4b	4c	4d
date	5	497657.00	99531.00	1.60	0.221	5/25/13	237.17	657.59	153.10	578.51
treatment	3	2428366.00	809455.00	12.98	0.000	5/26/13	57.13	1611.47	514.72	978.18
Residuals	15	935313.00	62354.00			6/2/13	59.78	580.85	257.62	862.29
						6/4/13	35.52	912.83	255.93	975.62
						6/9/13	39.18	268.81	225.48	1010.51
						8/7/14	255.86	444.37	72.40	769.05