

Supplement of Biogeosciences, 13, 313–321, 2016
<http://www.biogeosciences.net/13/313/2016/>
doi:10.5194/bg-13-313-2016-supplement
© Author(s) 2016. CC Attribution 3.0 License.



Supplement of

Carbon storage in seagrass soils: long-term nutrient history exceeds the effects of near-term nutrient enrichment

A. R. Armitage and J. W. Fourqurean

Correspondence to: A. R. Armitage (armitaga@tamug.edu)

The copyright of individual parts of the supplement might differ from the CC-BY 3.0 licence.

Figure 2

Aboveground seagrass carbon (g/m ²)								
Site	Control	Control SE	Nitrogen	Nitrogen S	Phosphoru	Phosphoru	N+P	N+P SE
Duck	4.430236	1.125067	8.031794	1.637477	14.73958	1.217118	22.8458	4.351017
S. Nest	11.3026	1.644228	10.5467	1.837124	32.23244	3.187389	31.19565	3.25402
Bob Allen	4.836005	1.573296	2.634321	0.53836	29.30926	6.084383	34.82456	5.345665
Rabbit	42.30078	3.708418	46.46315	5.2512	33.77436	5.12439	49.41764	9.176709
Nine Mile	31.74926	6.201547	48.26819	3.017039	32.01938	3.973285	38.4588	6.626898
Sprigger	15.21667	2.135688	28.49336	8.834796	21.89695	4.468922	29.00016	2.905956

Belowground seagrass carbon (g/m ²)								
Site	Control	Control SE	Nitrogen	Nitrogen S	Phosphoru	Phosphoru	N+P	N+P SE
Duck	66.76964	9.628614	54.85001	7.293034	74.15739	11.89022	80.29481	18.42369
S. Nest	36.56858	5.791091	55.97872	9.650072	37.25504	6.113952	46.60856	5.891508
Bob Allen	50.36709	6.066434	26.4471	3.746765	93.52633	26.5981	130.9143	20.55131
Rabbit	268.7172	32.77629	239.0142	14.10573	198.7294	17.94996	217.1586	27.03517
Nine Mile	265.5426	32.21961	305.5856	17.37714	188.7886	21.71215	230.4419	14.49476
Sprigger	135.3169	17.83603	121.579	7.337567	114.3343	4.418106	100.12	14.0625

Figure 3

Site	Soil organic carbon (g/m ²)							
	Control	Control SE	Nitrogen	Nitrogen S	Phosphoru	Phosphoru	N+P	N+P SE
Duck	2155.524	192.8566	2175.523	124.3122	1588.42	127.4036	2200.465	191.3031
S. Nest	1401.836	201.713	1303.208	143.3611	1767.931	243.022	1329.324	248.5057
Bob Allen	2533.584	141.1477	2616.129	84.50633	2808.026	120.925	3066.309	175.6469
Rabbit	3260.05	399.0325	3869.749	239.4372	3421.145	312.5982	2749.66	162.2941
Nine Mile	2731.666	114.82	2972.437	219.6327	2478.704	245.4659	2804.651	47.85991
Sprigger	2515.754	240.6658	1793.987	288.6277	1620.416	251.846	2177.919	203.1467

Site	Soil organic carbon (%)							
	Control	Control SE	Nitrogen	Nitrogen S	Phosphoru	Phosphoru	N+P	N+P SE
Duck	1.391667	0.102548	1.591667	0.103196	1.026667	0.086049	1.31	0.114426
S. Nest	0.885	0.084568	0.953333	0.070648	1.155	0.149638	0.911667	0.143838
Bob Allen	2.478333	0.054001	2.425	0.069606	2.44	0.106333	2.815	0.099457
Rabbit	6.433333	0.473474	7.086667	0.392646	6.018333	0.388668	5.873333	0.241643
Nine Mile	4.89	0.203617	5.215	0.209948	4.523333	0.215092	4.853333	0.184222
Sprigger	2.083333	0.080898	1.613333	0.131698	1.516667	0.135688	1.813333	0.168951

Figure 4

average

aboveground <i>Thalassia</i> N:P	leaf organic C content (g/m ²)	Soil organic C (%)	Site
141.9	2561.479	2.33	BA
98.8	2573.527	2.6	BA
	2649.947	2.3	BA
97.6	2036.191	2.58	BA
	3067.884	2.49	BA
124.8	2312.473	2.57	BA
	1454.491	1.14	D
80.8	2425.712	1.49	D
82.5	1696.787	1.27	D
82.9	2668.982	1.85	D
93.5	2400.811	1.28	D
98.2	2286.359	1.32	D
65.2	3101.437	4.76	NM
53.3	3041.963	4.61	NM
62.6	2713.296	5.87	NM
65.5	2530.95	4.93	NM
74.3	2412.806	4.6	NM
72.2	2589.545	4.57	NM
55.7	3951.322	6.23	R
62.8	3625.505	5.05	R
53.1	1611.987	6.25	R
56.9	4321.528	7.14	R
58.2	2699.38	5.61	R
55.2	3350.576	8.32	R
88.2	1354.819	0.88	SN
94.3	650.0383	0.58	SN
91.4	2032.336	1.19	SN
85.6	1065.988	0.75	SN
128.7	1742.857	0.97	SN
75.9	1564.974	0.94	SN

Figure 5

Total

<i>Thalassia</i> Abv C (g/m ²)	organic C content (g/m ²)	Soil organic C (%)	Site
	2561.479	2.33	BA
6.1	2573.527	2.6	BA
0.5	2649.947	2.3	BA
3.1	2036.191	2.58	BA
4.5	3067.884	2.49	BA
9.9	2312.473	2.57	BA
	1454.491	1.14	D
6.9	2425.712	1.49	D
2.2	1696.787	1.27	D
6.8	2668.982	1.85	D
1.5	2400.811	1.28	D
4.8	2286.359	1.32	D
37.5	3101.437	4.76	NM
16.1	3041.963	4.61	NM
31.5	2713.296	5.87	NM
32.8	2530.95	4.93	NM
56.7	2412.806	4.6	NM
15.9	2589.545	4.57	NM
43.5	3951.322	6.23	R
34.8	3625.505	5.05	R
32.0	1611.987	6.25	R
44.9	4321.528	7.14	R
40.7	2699.38	5.61	R
57.8	3350.576	8.32	R
13.9	1354.819	0.88	SN
17.0	650.0383	0.58	SN
9.2	2032.336	1.19	SN
10.8	1065.988	0.75	SN
5.2	1742.857	0.97	SN
11.6	1564.974	0.94	SN

Figure 6

Total

<i>Thalassia</i> Blw C (g/m ²)	organic C content (g/m ²)	Soil organic C (%)	Site
37.0	2561.479	2.33	BA
59.2	2573.527	2.6	BA
32.1	2649.947	2.3	BA
53.2	2036.191	2.58	BA
48.0	3067.884	2.49	BA
72.7	2312.473	2.57	BA
	1454.491	1.14	D
100.9	2425.712	1.49	D
50.9	1696.787	1.27	D
68.8	2668.982	1.85	D
46.0	2400.811	1.28	D
67.3	2286.359	1.32	D
375.0	3101.437	4.76	NM
172.0	3041.963	4.61	NM
329.1	2713.296	5.87	NM
192.9	2530.95	4.93	NM
285.3	2412.806	4.6	NM
238.9	2589.545	4.57	NM
305.5	3951.322	6.23	R
185.2	3625.505	5.05	R
198.1	1611.987	6.25	R
405.2	4321.528	7.14	R
266.0	2699.38	5.61	R
252.3	3350.576	8.32	R
26.7	1354.819	0.88	SN
60.7	650.0383	0.58	SN
47.2	2032.336	1.19	SN
25.9	1065.988	0.75	SN
30.0	1742.857	0.97	SN
28.9	1564.974	0.94	SN