

The following supplement accompanies the article

Comparison of fish and invertebrate assemblages among variably altered tidal creeks in a coastal landscape

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Table S1. Habitat characteristics and environmental measurements of watershed, creek, and water quality metrics for six tidal creeks in coastal North Carolina (USA) sampled with a 1 m² throw trap and wire mesh minnow traps monthly from spring-fall 2012 and 2013. Metrics apply only to that portion of each creek over which fish data were collected (see *Methods* for details). Minnow trap sampling was conducted in all six creeks; throw trap sampling occurred in each creek except Webb Creek. Measurements with associated parenthesis are: average (standard error).

Creek metric / Sample gear	Measurement	Atlantic Veneer	Porters	Pelletier East	Pelletier West	Spooners	Webb
Watershed area (m ²)		414224	1095729	1127387	698413	490859	86951
Impervious area (m ²)		64322	110166	260740	325629	64220	20074
Vegetated edge (m)		500	1200	145	500	400	0
Watershed imperviousness (%)		15.5	10.0	23.1	46.7	13.0	23.1
High tide wetted area (m ²)		5209	15162	4170	5427	7691	13494
Marsh area (m ²)		4247	9498	112	3707	6324	0
High tide marsh area (%)		81.5	62.6	2.7	68.3	82.2	0
Culvert downstream		Yes	No	Yes	Yes	Yes	No
Continuous marsh downstream		Yes	Yes	No	No	Yes	No
Standing water at low tide		No	No	Yes	Yes	No	Yes

Creek metric / Sample gear	Measurement	Atlantic Veneer	Porters	Pelletier East	Pelletier West	Spooners	Webb
Throw trap	Channel depth (m), mean	0.21	0.27	0.96	0.28	0.29	2.00
	Distance to channel (m), mean	5.8 (0.1)	11.25 (0.9)	0.4 (0.1)	4.7 (0.3)	3.5 (0.5)	-
	Distance to channel (m), range	0 - 27	0 - 45	0 - 2	0 - 17	0 - 40	-
	Depth (m), mean	0.19 (0.01)	0.23 (0.01)	0.19 (0.01)	0.19 (0.01)	0.19 (0.01)	-
	Depth (m), range	0.1 - 0.5	0.1 - 0.6	0.1 - 0.5	0.1 - 0.5	0.1 - 0.6	-
	Temperature (°C), mean	24.9 (0.4)	26.0 (0.4)	27.6 (0.4)	26.8 (0.4)	27.3 (0.5)	-
	Temperature (°C), range	15.1 - 34.7	17.1 - 37.5	21.1 - 33.4	15.8 - 34.9	18.7 - 35.9	-
	Salinity (psu), mean	30.0 (0.7)	25.8 (0.5)	21.0 (0.9)	17.6 (0.8)	25.6 (1.0)	-
	Salinity (psu), range	5 - 39	4 - 35	6 - 35	0 - 30	3 - 40	-
	Dissolved oxygen (mg/l), mean	4.83 (0.12)	5.26 (0.20)	5.7 (0.3)	5.0 (0.27)	4.2 (0.2)	-
Dissolved oxygen (mg/l), range	2.28 - 8.17	1.90 - 11.06	1.67 - 14.20	1.28 - 12.20	1.71 - 8.99	-	
Minnow trap	Temperature (°C), mean	24.8 (0.5)	25.3 (0.4)	27.5 (0.4)	25.0 (0.4)	26.2 (0.5)	26.2 (0.4)
	Temperature (°C), range	13.3 - 35.3	13.5 - 37.5	16.1 - 32.7	13.6 - 34.5	8.3 - 36.1	18.7 - 31.8
	Salinity (psu), mean	26.9 (0.8)	27.5 (0.5)	18.4 (0.9)	17.8 (0.8)	20.7 (0.9)	28.9 (0.3)
	Salinity (psu), range	10 - 40	5 - 35	0 - 35	0 - 31	0 - 39	22 - 34
	Dissolved oxygen (mg/l), mean	4.28 (0.13)	5.53 (0.15)	5.85 (0.25)	5.25 (0.25)	4.65 (0.13)	5.63 (0.20)
	Dissolved oxygen (mg/l), range	2.02 - 8.17	2.14 - 11.00	2.62 - 14.20	1.58 - 12.04	2.41 - 9.45	2.23 - 8.66

Table S2. Number of trap sets and number of fish and invertebrate taxa captured by a 1 m² throw trap actively deployed on the marsh surface in five tidal creeks in coastal North Carolina USA from spring through autumn of 2012 and 2013.

Creek	Atlantic Veneer		Porters		Pelletier East		Pelletier West		Spooners	
Year	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
Number of traps set	70	70	70	70	44	39	70	70	67	70
<i>Amphipoda</i>	232	337	158	294	1602	642	977	1076	1281	1198
<i>Fundulus heteroclitus</i>	257	296	322	303	117	114	150	152	219	139
<i>Palaemonetes</i> spp.	122	156	344	181	273	215	7	1	45	49
<i>Gambusia holbrooki</i>	124	66	3	4	102	233	241	219	111	57
<i>Cyprinodon variegatus</i>	12	13			12	6	66	61	12	4
<i>Xanthidae</i>	1	54	3	88		4		7		16
<i>Farfantepenaeus</i> spp.			3	15	13	64		10		
<i>Callinectes sapidus</i>	3	1	9	12	8	6	2		3	1
<i>Fundulus diaphanus</i>	9	6	10	8				5		3
<i>Dormitator maculatus</i>		5			14	11			2	4
<i>Mugil</i> spp.	2	2	14	5	1	4	1		4	
<i>Menidia menidia</i>				2	8	10				
<i>Lagodon rhomboids</i>			1			15				
<i>Leiostomus xanthurus</i>			2	3		2				
<i>Gobiosoma</i> spp.	1		1			1				
<i>Anguilla rostrate</i>						1				1
<i>Eucinostomus argenteus</i>						1				
<i>Centropomus undecimalis</i>					1					

Table S3. Number of trap sets and number of fish and invertebrate taxa captured by 6.4 mm wire mesh minnow traps passively deployed in unvegetated channels of six tidal creeks in coastal North Carolina USA from spring through autumn of 2012 and 2013.

Creek	Atlantic Veneer		Porters		Pelletier East		Pelletier West		Spooners		Webb	
Year	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
Number of traps set	69	82	140	102	70	61	85	88	92	83	61	68
<i>Fundulus heteroclitus</i>	7831	6602	2369	1290	214	31	1464	2162	3037	4270		
<i>Lagodon rhomboides</i>			86	23	337	156	1	1	60	147	362	235
<i>Cyprinodon variegatus</i>	117	87	2	15	23	1	878	94	134	53		
<i>Gambusia holbrooki</i>	19	15	6		3	1	45	156	46	3		
<i>Gobiosoma</i> spp.	6	22	1	3		1	1		2	4	6	7
<i>Dormitator maculatus</i>	9	22	1			2		1		2		
<i>Palaemonetes</i> spp.			10	1		3						
<i>Fundulus diaphanus</i>	2		2	5					1			
<i>Callinectes sapidus</i>		2	2	1					1	2		
<i>Mugil</i> spp.	1	2							3			
<i>Farfantepenaeus</i> spp.		1	2	2	1							
<i>Leiostomus xanthurus</i>						1		3	1	1		
<i>Orthopristis chrysoptera</i>											5	
<i>Anguilla rostrata</i>				1					1			
<i>Lutjanus griseus</i>												1
<i>Cynoscion nebulosus</i>										1		
<i>Eucinostomus argenteus</i>	1											
<i>Paralichthys lethostigma</i>					1							
<i>Bairdiella chrysoura</i>			1									
<i>Elops saurus</i>										1		
<i>Xanthidae</i>												1