

Supplementary Material

The following supplement accompanies the article

Scale sensitivity of environmental effects on the temporal beta diversity of fishes in tropical coastal lagoons

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Table S1. List of species collected in the Maricá, Saquarema, and Araruama lagoons. For each species, the relative abundance (RA) in number of individuals and frequency (Fr) in samples per coastal lagoon and in the 183 samples obtained at sites in the inner, middle, and outer zones of all lagoons.

	Maricá		Saquarema		Araruama		All lagoons	
	RA (%)	Fr (%)	RA (%)	Fr (%)	RA (%)	Fr (%)	RA (%)	Fr (%)
Albuliformes								
Albulidae								
<i>Albula vulpes</i>	0.01	5	0.03	16			0.02	7
Atheriniformes								
Atherinopsidae								
<i>Atherinella brasiliensis</i>	25.33	100	18.76	100	71.14	100	26.90	100
<i>Odontesthes incisa</i>			0.00	3			0.00	1
Aulopiformes								
Synodontidae								
<i>Synodus intermedius</i>			0.00	2			0.00	1
Beloniformes								
Belonidae								
<i>Strongylura marina</i>			0.01	10			0.00	3
Hemiramphidae								
<i>Hemiramphus brasiliensis</i>			0.00	2			0.00	1
<i>Hyporhamphus roberti</i>	0.00	2					0.00	1
<i>Hyporhamphus unifasciatus</i>	0.00	2	0.01	6	0.45	22	0.05	10
Clupeiformes								
Clupeidae								
<i>Brevoortia aurea</i>	0.09	12	0.00	3			0.03	5

<i>Brevoortia pectinata</i>	0.16	25	1.25	17			0.69	14
Clupeidae (larvae)			0.20	16			0.10	5
<i>Harengula clupeola</i>	0.17	28	2.67	44	0.32	29	1.44	34
<i>Opisthonema oglinum</i>			0.08	3	1.31	41	0.18	15
<i>Sardinella brasiliensis</i>	0.12	4	0.36	13			0.23	5
Engraulidae								
<i>Anchoa januaria</i>	54.92	95	62.01	73	0.13	11	52.65	58
<i>Anchoa lyolepis</i>	0.00	4	0.08	13	0.00	2	0.04	6
<i>Anchoa marinii</i>			0.00	2			0.00	1
<i>Anchoa</i> spp. (larvae)	0.25	14	6.37	13			3.30	9
<i>Anchoa tricolor</i>	0.01	2	0.01	6			0.01	3
<i>Anchoviella brevirostris</i>	0.00	2					0.00	1
<i>Cetengraulis edentulus</i>			0.08	13			0.04	4
Engraulidae (larvae)			0.32	16	0.08	3	0.17	7
Cyprinodontiformes								
Anablepidae								
<i>Jenynsia multidentata</i>	3.08	95	0.84	35	8.11	24	2.49	50
Poeciliidae								
<i>Phalloptychus januarius</i>	1.56	58	0.00	6			0.61	20
<i>Poecilia vivipara</i>	0.90	72	0.25	32	3.52	24	0.85	42
Elopiformes								
Elopidae								
<i>Elops saurus</i>	0.37	33	0.06	40	2.10	67	0.40	47
<i>Leptocephalus larvae</i>	0.16	5	0.18	32	0.00	2	0.15	13
Mugiliformes								
Mugilidae								
<i>Mugil curema</i>	0.16	16	0.01	8	0.01	3	0.07	9

<i>Mugil liza</i>	0.18	16	0.11	24	0.25	10	0.15	16
<i>Mugil</i> spp. (larvae)	0.48	23	0.75	35	0.36	13	0.60	23
Perciformes								
Blenniidae								
<i>Parablennius pilicornis</i>			0.00	2			0.00	1
<i>Scartella cristata</i>			0.00	2			0.00	1
Carangidae								
<i>Caranx crysos</i>	0.00	4	0.01	5	0.01	2	0.01	3
<i>Caranx latus</i>	0.01	7	0.00	6			0.00	4
<i>Oligoplites saurus</i>	0.00	2	0.09	38			0.05	14
<i>Trachinotus carolinus</i>	0.00	2	0.00	3	0.03	3	0.00	3
<i>Trachinotus falcatus</i>	0.00	2			0.01	2	0.00	1
<i>Trachinotus goodei</i>			0.00	5			0.00	2
<i>Trachurus lathami</i>					0.00	2	0.00	1
Centropomidae								
<i>Centropomus parallelus</i>	0.00	2					0.00	1
<i>Centropomus undecimalis</i>			0.00	2	0.01	5	0.00	2
Cichlidae								
<i>Geophagus brasiliensis</i>	0.00	4	0.00	2			0.00	2
<i>Oreochromis niloticus</i>	0.01	7					0.00	2
Ephippidae								
<i>Chaetodipterus faber</i>	0.00	2					0.00	1
Gerreidae								
<i>Diapterus auratus</i>	0.00	4					0.00	1
<i>Diapterus rhombeus</i>	0.18	19	0.76	46	0.95	10	0.55	25
<i>Eucinostomus argenteus</i>	1.32	33	3.43	97	9.10	35	3.21	56
<i>Eucinostomus gula</i>	0.00	2	0.01	5	0.03	6	0.01	4

<i>Eucinostomus melanopterus</i>	0.01	2					0.00	1
<i>Eucinostomus</i> spp. (larvae)	0.01	4			0.17	6	0.02	3
<i>Eugerres brasilianus</i>	0.00	2					0.00	1
Gobiidae								
<i>Bathygobius soporator</i>	0.00	0	0.01	10	0.01	3	0.01	4
<i>Ctenogobius boleosoma</i>	0.08	11	0.57	27			0.32	13
<i>Ctenogobius shufeldti</i>					0.00	2	0.00	1
<i>Ctenogobius stigmaticus</i>					0.00	2	0.00	1
<i>Gobionellus oceanicus</i>	7.14	14	0.26	35	0.04	8	2.93	19
<i>Microgobius meeki</i>	3.23	47					1.26	15
Haemulidae								
<i>Haemulopsis corvinaeniformis</i>					0.01	3	0.00	1
Kyphosidae								
<i>Kyphosus incisor</i>	0.00	4	0.00	2			0.00	2
Lutjanidae								
<i>Lutjanus jocu</i>			0.00	2			0.00	1
Mullidae								
<i>Pseudopeneus maculatus</i>			0.00	2			0.00	1
Percophidae								
<i>Percophis brasiliensis</i>	0.00	2					0.00	1
Pomacentridae								
<i>Abudefduf saxatilis</i>			0.00	2			0.00	1
<i>Pomatomus saltatrix</i>			0.00	5			0.00	2
Sciaenidae								
<i>Cynoscion leiachus</i>	0.00	2					0.00	1
<i>Larimus breviceps</i>			0.00	2	0.84	6	0.09	3
<i>Menticirrhus americanus</i>			0.00	2			0.00	1

<i>Micropogonias furnieri</i>	0.01	9	0.05	17	0.00	2	0.03	9
<i>Pogonias cromis</i>			0.13	11	0.25	32	0.09	15
Sciaenidae (larvae)			0.00	3	0.25	21	0.03	8
<i>Stellifer stellifer</i>					0.02	3	0.00	1
<i>Umbrina coroides</i>					0.00	2	0.00	1
Serranidae								
<i>Diplectrum formosum</i>			0.00	2			0.00	1
<i>Diplectrum radiale</i>			0.00	2			0.00	1
<i>Dules auriga</i>			0.00	5			0.00	2
Sparidae								
<i>Archosargus probatocephalus</i>					0.01	2	0.00	1
<i>Archosargus rhomboidalis</i>	0.06	5	0.00	8	0.01	2	0.03	5
<i>Diplodus argenteus</i>			0.14	10			0.07	3
Sphyraenidae								
<i>Sphyraena tome</i>			0.00	2			0.00	1
Trichiuridae								
<i>Evoxymetopon taeniatus</i>			0.00	2			0.00	1
<i>Trichiurus lepturus</i>	0.00	2					0.00	1
Pleuronectiformes								
Achiridae								
<i>Achirus lineatus</i>	0.01	9	0.00	6	0.06	13	0.01	9
Cynoglossidae								
<i>Symphurus tessellatus</i>					0.00	2	0.00	1
Paralichthyidae								
<i>Paralichthys brasiliensis</i>					0.03	2	0.00	1
<i>Paralichthys patagonicus</i>					0.00	2	0.00	1
Scorpaeniformes								

Dactylopteridae								
	<i>Dactylopterus volitans</i>	0.00	2			0.00	1	
Scorpaenidae								
	<i>Scorpaena isthmensis</i>	0.00	2			0.00	1	
Triglidae								
	<i>Prionotus punctatus</i>	0.00	4			0.00	1	
Siluriformes								
Ariidae								
	<i>Aspistor luniscutis</i>			0.17	3	0.02	1	
	<i>Genidens genidens</i>	0.00	2			0.00	1	
Syngnathiiformes								
Syngnathidae								
	<i>Syngnathus dunckeri</i>	0.00	2			0.00	1	
	<i>Syngnathus eluscens</i>	0.00	2			0.00	1	
	<i>Syngnathus folletti</i>	0.00	2			0.00	1	
	<i>Syngnathus scovelli</i>		0.03	22	0.12	14	0.03	13
Tetraodontiformes								
Monacanthidae								
	<i>Monacanthus ciliatus</i>	0.00	2			0.00	1	
	<i>Stephanolepis hispidus</i>	0.00	2			0.00	1	
Tetraodontidae								
	<i>Sphoeroides greeleyi</i>	0.03	30			0.01	10	
	<i>Sphoeroides splengleri</i>	0.01	8	0.02	5	0.01	4	
	<i>Sphoeroides testudineus</i>	0.00	3	0.03	3	0.00	2	