

Freitas & Pagliosa; Mangrove benthic macrofauna: drivers of community structure and functional traits at multiple spatial scales

Table S1. Categories of functional traits and the value given to each sub category of each annelid species. ba1: absence of body appendages, ba2: presence of body appendages, bs1: uncini, bs2: parapodia with similar rami, bs3: aciculae, s1: lower number of segments ($n \leq 100$), s2: higher number of segments ($n \geq 101$).

Species	ba1	ba2	bs1	bs2	bs3	s1	s2
<i>Enchytraeidae</i>	0	3	3	3	0	2	2
<i>Notomastus lobatus</i>	0	3	3	3	0	2	2
<i>Capitella cf. capitata</i>	0	3	3	3	0	2	2
<i>Heteromastus filiformis</i>	0	3	3	3	0	2	2
<i>Heteromastus similis</i>	0	3	3	3	0	2	2
<i>Mediomastus californiensis</i>	0	3	3	3	0	2	2
<i>Leitoscoloplos fragilis</i>	0	3	0	3	0	3	1
<i>Dipolydora socialis</i>	0	3	3	0	0	3	0
<i>Manayunkia brasiliensis</i>	0	3	3	0	0	2	2
<i>Streblospio sp.</i>	0	3	3	0	0	3	0
<i>Isolda pulchella</i>	3	0	3	0	0	3	0
<i>Lumbrineris sp.</i>	0	3	0	0	3	0	3
<i>Alitta succinea</i>	0	3	0	0	3	2	2
<i>Namalycastis abiuma</i>	0	3	0	0	3	2	2
<i>Laonereis spp.</i>	0	3	0	0	3	2	2
<i>Nereis riisei</i>	0	3	0	0	3	2	2
<i>Nereis oligohalina</i>	0	3	0	0	3	2	2
<i>Namanereis pontica</i>	0	3	0	0	3	2	2
<i>Perinereis cultrifera</i>	0	3	0	0	3	2	2
<i>Ceratonereis excisa</i>	0	3	0	0	3	2	2
<i>Perinereis vancaurica</i>	0	3	0	0	3	2	2
<i>Scoletoma tetraura</i>	0	3	0	0	3	0	3
<i>Sigambra grubii</i>	0	3	0	0	3	0	3
<i>Aglaophamus verrilli</i>	0	3	0	0	3	0	3
<i>Langerhansia sp.</i>	0	3	0	0	3	2	2
<i>Nephtys fluviialis</i>	0	3	0	0	3	0	3

Table S2. Hierarchical nested analysis of variance (ANOVA) and components of variation (CV) of climate and geophysical variables. CSs: Coastal settings, Si: Sites, PET: potential evapotranspiration, Pmin: minimum precipitation, Tmin: minimum air temperature.

Source					
Tidal range	d.f.	MS	F	p	CV (%)
CSs	2	85.90	141	< 0.001	87.20
Si(CSs)	6	0.61	$83345 \times e^{24}$	< 0.001	12.80
Residuals	72	0.00			0.00
Runoff					
CSs	2	6807137	259	< 0.001	90.30
Si(CSs)	6	26253	$24993 \times e^{24}$	< 0.001	9.70
Residuals	72	0.00			0.00
PET					
CSs	2	1079223	567	0.04	55.50
Si(CSs)	6	190189	$79049 \times e^{24}$	< 0.001	44.50
Residuals	72	0.00			0.00
Pmin					
CSs	2	30097	678	< 0.001	82.50
Si(CSs)	6	444	$59126 \times e^{24}$	< 0.001	17.50
Residuals	72	0.00			0.00
Tmin					
CSs	2	202.30	448	< 0.001	79.30
Si(CSs)	6	4.52	$5801 \times e^{24}$	< 0.001	20.70
Residuals	72	0.00			0.00

Table S3. Hierarchical nested analysis of variance (ANOVA) and components of variation (CV) of soil and vegetation variables. CSs: Coastal settings, Si: Sites.

Source					
Soil nitrogen	d.f.	MS	F	p	CV (%)
CSs	2	0.31	1.35	0.33	16.00
Si(CSs)	6	0.23	12.59	< 0.001	44.60
Residuals	72	0.02			39.40
Soil carbon					
CSs	2	32.43	0.77	0.50	0.00
Si(CSs)	6	42.08	38.52	< 0.001	67.10
Residuals	72	1.09			32.90
Soil phosphorus					
CSs	2	0.005	2.77	0.14	33.40
Si(CSs)	6	0.001	30.07	< 0.001	42.80
Residuals	72	0.00006			23.80
Soil organic matter					
CSs	2	1036.55	3.78	0.09	35.40
Si(CSs)	6	273.69	14.32	< 0.001	35.50
Residuals	72	19.12			29.10
Soil bulk density					
CSs	2	0.21	0.80	0.49	0.00
Si(CSs)	6	0.27	19.23	< 0.001	58.70
Residuals	72	0.01			41.30
Aboveground biomass					
CSs	2	643425	146	0.004	68.10
Si(CSs)	6	43924	16965 x e ²⁴	< 0.001	31.90
Residuals	72	0.00			0.00

Subsurface root biomass					
CSs	2	114.4	4.51	0.06	30.20
Si(CSs)	6	25.36	7.82	< 0.001	38.00
Residuals	72	3.24			31.80

Table S4. Mean abundance of each species in the study site. CSs: Coastal settings, TD: Tide-dominated delta, WD: Wave-dominated delta, TE: Tidal estuary.

CSs	TD	TD	TD	TD	TD	TD
Site	A	A	A	B	B	B
Sampling point	1	2	3	1	2	3
<i>Marionina</i> spp.1	0	0	0	0	0	0
<i>Marionina</i> spp.2	0	0	0	0	0	0
Enchytraeidae 1	0	0	0	0	0	0
Enchytraeidae 2	0	4	2	1	0	9
<i>Notomastus lobatus</i>	2	2	1	3	5	1
<i>Capitella cf. capitata</i>	1	0	1	4	1	2
<i>Lumbrineris</i> sp.	0	0	0	0	0	0
<i>Alitta succinea</i>	0	0	0	4	1	2
<i>Namalycastis abiuma</i>	0	1	0	0	0	0
<i>Laeonereis</i> spp.	0	0	1	1	0	3
<i>Heteromastus filiformis</i>	0	0	0	3	2	3
<i>Heteromastus similis</i>	0	0	0	0	0	0
<i>Mediomastus californiensis</i>	0	0	1	3	0	2
<i>Leitoscoloplos fragilis</i>	0	0	0	0	0	0
<i>Dipolydora socialis</i>	0	0	0	0	0	0
<i>Streblospio</i> sp.	0	0	0	0	1	1
<i>Isolda pulchella</i>	1	0	0	1	1	1
<i>Nereis rüsei</i>	0	0	0	0	0	0
<i>Nereis oligohalina</i>	0	0	1	0	0	0
<i>Namanereis pontica</i>	1	0	0	0	0	0
<i>Perinereis cultrifera</i>	0	1	0	0	0	0
<i>Ceratonereis excisa</i>	0	0	0	0	0	1
<i>Perinereis vancaurica</i>	0	0	0	0	0	0
<i>Scoletoma tetraura</i>	0	0	0	0	0	0
<i>Sigambra grubii</i>	0	0	0	0	1	0
<i>Aglaophamus verrilli</i>	0	0	0	1	0	1
<i>Langerhansia</i> sp.	0	0	0	0	0	1
<i>Nephtys fluvialis</i>	0	0	0	0	0	0
<i>Manayunkia brasiliensis</i>	0	0	0	0	0	0
<i>Uca thayeri</i>	0	0	0	0	0	0
<i>Uca maracoani</i>	0	0	1	0	0	0
<i>Uca uruguayensis</i>	0	0	0	0	0	0
<i>Uca mordax</i>	0	0	0	1	0	0
<i>Uca cumulanta</i>	0	0	0	1	0	0
<i>Uca rapax</i>	0	1	0	0	0	0
<i>Uca burgersi</i>	0	1	1	0	0	0
<i>Uca leptodactyla</i>	0	0	0	0	0	0
<i>Pachygrapsus gracilis</i>	0	0	0	0	0	0
<i>Corophium</i> sp.	0	0	0	0	0	0

<i>Chelorchestia darwinii</i>	0	0	0	0	0	0
<i>Halmyrapseudes spaansi</i>	0	1	0	7	2	8
<i>Monokaliapseudes schubartii</i>	0	0	0	0	0	0
<i>Heleobia australis</i>	0	0	0	0	0	0
Bivalvia 1	0	0	0	0	0	0
Bivalvia 2	0	0	0	0	0	0
Bivalvia 3	1	0	1	1	0	3
<i>Lucina pectinata</i>	0	0	0	0	0	0
<i>Tellina lineata</i>	0	0	0	0	0	0
<i>Macoma constricta</i>	3	0	1	0	2	0
<i>Cyclinella tenuis</i>	0	19	3	3	4	4
<i>Melampus coffeus</i>	0	0	0	0	0	0
<i>Mytella guyanensis</i>	0	0	0	1	0	0
Acari	0	1	0	2	1	2
Tipulidae	0	0	1	0	0	0
Collembola	0	1	0	0	0	0
Chironomidae	0	0	0	0	0	0
Diptera	2	0	0	0	0	0
Tabanidae	1	0	0	0	0	0
Dolichopodidae	0	0	0	0	0	1
Ceratopogonidae	0	1	0	0	0	0
CSs	TD	TD	TD	WD	WD	WD
Site	C	C	C	D	D	D
Sampling point	1	2	3	1	2	3
<i>Marionina</i> spp.1	0	0	0	0	0	0
<i>Marionina</i> spp.2	0	0	0	0	0	0
Enchytraeidae 1	0	0	0	1	7	0
Enchytraeidae 2	5	0	1	0	0	0
<i>Notomastus lobatus</i>	3	9	4	2	2	5
<i>Capitella</i> cf. <i>capitata</i>	3	2	1	2	0	1
<i>Lumbrineris</i> sp.	0	0	0	0	0	0
<i>Alitta succinea</i>	1	0	0	0	0	0
<i>Namalycastis abiuma</i>	6	0	0	0	0	0
<i>Laeonereis</i> spp.	0	0	0	0	0	0
<i>Heteromastus filiformis</i>	0	4	1	5	2	0
<i>Heteromastus similis</i>	0	0	0	0	0	0
<i>Mediomastus californiensis</i>	0	4	0	0	0	0
<i>Leitoscoloplos fragilis</i>	0	0	0	1	0	0
<i>Dipolydora socialis</i>	0	0	0	0	0	0
<i>Streblospio</i> sp.	0	0	0	0	0	0
<i>Isolda pulchella</i>	2	0	0	1	0	0
<i>Nereis riisei</i>	0	0	0	0	0	0
<i>Nereis oligohalina</i>	0	0	0	0	0	0
<i>Namanereis pontica</i>	0	1	0	0	0	0

<i>Perinereis cultrifera</i>	0	0	0	0	0	0
<i>Ceratonereis excisa</i>	0	0	0	0	0	0
<i>Perinereis vancaurica</i>	0	0	0	0	0	0
<i>Scoletoma tetraura</i>	0	0	0	0	0	0
<i>Sigambra grubii</i>	0	0	0	0	0	0
<i>Aglaophamus verrilli</i>	1	0	0	0	0	0
<i>Langerhansia</i> sp.	0	0	0	0	0	0
<i>Nephtys fluvialis</i>	0	1	0	0	0	0
<i>Manayunkia brasiliensis</i>	0	0	0	0	0	0
<i>Uca thayeri</i>	0	0	0	0	1	0
<i>Uca maracoani</i>	1	0	0	0	0	0
<i>Uca uruguayensis</i>	0	0	0	0	0	0
<i>Uca mordax</i>	0	0	0	0	0	0
<i>Uca cumulanta</i>	0	0	0	0	0	0
<i>Uca rapax</i>	0	0	0	1	1	1
<i>Uca burgersi</i>	0	0	0	0	0	0
<i>Uca leptodactyla</i>	0	0	0	0	1	0
<i>Pachygrapsus gracilis</i>	0	0	1	0	0	0
<i>Corophium</i> sp.	0	0	0	0	0	0
<i>Chelorchestia darwinii</i>	0	0	0	0	0	0
<i>Halmyrapseudes spaansi</i>	1	0	0	0	0	0
<i>Monokaliapseudes schubartii</i>	0	0	0	0	0	0
<i>Heleobia australis</i>	0	0	0	0	0	0
Bivalvia 1	0	0	0	0	0	0
Bivalvia 2	0	0	0	0	0	0
Bivalvia 3	0	1	0	0	0	0
<i>Lucina pectinata</i>	0	0	0	0	0	0
<i>Tellina lineata</i>	0	0	0	0	0	0
<i>Macoma constricta</i>	0	0	0	0	0	0
<i>Cyclinella tenuis</i>	0	0	1	0	0	0
<i>Melampus coffeus</i>	0	0	0	0	0	0
<i>Mytella guyanensis</i>	0	0	0	0	0	0
Acari	1	0	0	0	0	0
Tipulidae	0	0	0	0	0	0
Collembola	0	0	0	0	0	1
Chironomidae	0	0	0	0	0	0
Diptera	0	0	0	0	0	0
Tabanidae	0	0	0	0	0	0
Dolichopodidae	1	0	0	0	0	0
Ceratopogonidae	0	0	1	0	0	0
CSs	WD	WD	WD	WD	WD	WD
Site	E	E	E	F	F	F
Sampling point	1	2	3	1	2	3
<i>Marionina</i> spp.1	0	0	0	0	0	0

<i>Marionina</i> spp.2	0	0	0	0	0	0
Enchytraeidae 1	29	10	14	19	7	4
Enchytraeidae 2	0	0	0	0	0	0
<i>Notomastus lobatus</i>	0	0	3	3	0	0
<i>Capitella</i> cf. <i>capitata</i>	5	0	1	2	1	1
<i>Lumbrineris</i> sp.	0	0	0	0	1	0
<i>Alitta succinea</i>	0	0	3	0	0	0
<i>Namalycastis abiuma</i>	0	0	0	0	0	0
<i>Laeonereis</i> spp.	2	2	0	0	0	1
<i>Heteromastus filiformis</i>	20	11	14	4	6	0
<i>Heteromastus similis</i>	0	0	0	0	0	0
<i>Mediomastus californiensis</i>	0	0	0	0	0	0
<i>Leitoscoloplos fragilis</i>	0	0	0	0	0	0
<i>Dipolydora socialis</i>	0	0	0	0	0	0
<i>Streblospio</i> sp.	0	0	0	0	0	0
<i>Isolda pulchella</i>	0	1	0	0	0	0
<i>Nereis riisei</i>	9	2	1	0	0	0
<i>Nereis oligohalina</i>	0	1	0	0	0	1
<i>Namanereis pontica</i>	0	0	0	0	0	0
<i>Perinereis cultrifera</i>	0	0	0	0	0	0
<i>Ceratonereis excisa</i>	0	0	0	0	0	0
<i>Perinereis vancaurica</i>	0	0	0	0	0	0
<i>Scoletoma tetraura</i>	0	0	0	0	0	0
<i>Sigambra grubii</i>	0	0	0	0	0	0
<i>Aglaophamus verrilli</i>	0	0	0	0	0	0
<i>Langerhansia</i> sp.	0	0	0	0	0	0
<i>Nephtys fluvialis</i>	0	0	0	0	0	0
<i>Manayunkia brasiliensis</i>	0	0	0	0	0	0
<i>Uca thayeri</i>	0	0	0	0	0	1
<i>Uca maracoani</i>	0	0	1	0	0	0
<i>Uca uruguayensis</i>	0	0	0	0	0	0
<i>Uca mordax</i>	0	0	0	0	0	1
<i>Uca cumulanta</i>	0	0	0	0	1	0
<i>Uca rapax</i>	0	0	0	0	0	0
<i>Uca burgersi</i>	0	0	0	0	0	0
<i>Uca leptodactyla</i>	0	0	0	0	0	0
<i>Pachygrapsus gracilis</i>	0	0	0	0	0	0
<i>Corophium</i> sp.	0	0	1	0	0	0
<i>Chelorchestia darwinii</i>	0	0	0	0	0	0
<i>Halmyrapseudes spaansi</i>	0	0	0	0	0	0
<i>Monokaliapseudes schubartii</i>	0	0	0	0	0	0
<i>Heleobia australis</i>	0	0	0	0	0	0
Bivalvia 1	0	0	0	0	0	0
Bivalvia 2	0	0	1	0	0	0

Bivalvia 3	0	0	0	0	0	0
<i>Lucina pectinata</i>	0	0	0	0	0	0
<i>Tellina lineata</i>	0	0	0	0	0	0
<i>Macoma constricta</i>	0	0	0	0	0	0
<i>Cyclinella tenuis</i>	0	0	0	0	0	0
<i>Melampus coffeus</i>	0	0	0	1	0	0
<i>Mytella guyanensis</i>	0	0	0	0	0	0
Acari	0	0	0	1	0	0
Tipulidae	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Chironomidae	0	0	0	0	0	0
Diptera	0	0	0	0	0	0
Tabanidae	0	0	0	0	0	0
Dolichopodidae	0	0	0	0	0	1
Ceratopogonidae	0	0	0	0	0	0
CSs	TE	TE	TE	TE	TE	TE
Site	G	G	G	H	H	H
Sampling point	1	2	3	1	2	3
<i>Marionina</i> spp.1	9	23	16	0	0	0
<i>Marionina</i> spp.2	60	86	87	3	3	21
Enchytraeidae 1	0	0	0	0	0	0
Enchytraeidae 2	0	0	0	0	0	0
<i>Notomastus lobatus</i>	0	0	0	0	0	0
<i>Capitella</i> cf. <i>capitata</i>	56	31	115	3	1	9
<i>Lumbrineris</i> sp.	0	0	0	1	1	1
<i>Alitta succinea</i>	1	1	1	5	3	2
<i>Namalycastis abiuma</i>	0	0	0	0	1	0
<i>Laeonereis</i> spp.	10	9	9	1	1	7
<i>Heteromastus filiformis</i>	0	0	0	0	0	0
<i>Heteromastus similis</i>	5	7	1	1	2	3
<i>Mediomastus californiensis</i>	5	0	1	0	0	0
<i>Leitoscoloplos fragilis</i>	0	0	0	0	0	0
<i>Dipolydora socialis</i>	3	16	14	0	0	7
<i>Streblospio</i> sp.	0	0	0	0	0	0
<i>Isolda pulchella</i>	0	0	0	5	9	4
<i>Nereis riisei</i>	0	0	0	0	0	0
<i>Nereis oligohalina</i>	0	0	3	2	0	0
<i>Namanereis pontica</i>	0	0	0	0	0	0
<i>Perinereis cultrifera</i>	0	0	0	0	0	0
<i>Ceratonereis excisa</i>	0	0	0	0	0	0
<i>Perinereis vancaurica</i>	0	0	0	0	0	2
<i>Scoletoma tetraura</i>	0	0	0	0	1	0
<i>Sigambra grubii</i>	0	1	2	1	0	0
<i>Aglaophamus verrilli</i>	0	0	0	0	0	0

<i>Langerhansia</i> sp.	0	0	0	0	0	0
<i>Nephtys fluvialis</i>	0	0	0	0	0	0
<i>Manayunkia brasiliensis</i>	0	0	2	0	7	1
<i>Uca thayeri</i>	0	0	0	0	0	0
<i>Uca maracoani</i>	0	0	0	0	0	0
<i>Uca uruguayensis</i>	2	2	1	0	0	0
<i>Uca mordax</i>	0	0	1	0	0	0
<i>Uca cumulanta</i>	0	0	0	0	0	0
<i>Uca rapax</i>	0	0	0	0	0	1
<i>Uca burgersi</i>	0	0	0	0	0	0
<i>Uca leptodactyla</i>	1	1	0	0	0	0
<i>Pachygrapsus gracilis</i>	0	0	0	0	0	0
<i>Corophium</i> sp.	0	0	0	0	0	0
<i>Chelorchestia darwinii</i>	0	0	0	0	0	0
<i>Halmyrapseudes spaansi</i>	0	0	0	0	0	0
<i>Monokaliapseudes schubartii</i>	0	4	1	0	0	0
<i>Heleobia australis</i>	0	0	0	0	0	1
Bivalvia 1	0	0	1	0	0	1
Bivalvia 2	0	0	0	0	0	0
Bivalvia 3	0	0	0	0	0	0
<i>Lucina pectinata</i>	0	0	2	0	1	0
<i>Tellina lineata</i>	0	0	0	0	0	0
<i>Macoma constricta</i>	0	0	0	0	0	0
<i>Cyclinella tenuis</i>	0	0	0	0	0	0
<i>Melampus coffeus</i>	0	0	0	0	0	0
<i>Mytella guyanensis</i>	0	1	1	3	0	3
Acari	0	2	1	0	1	1
Tipulidae	0	1	0	0	0	0
Collembola	0	0	0	1	0	0
Chironomidae	0	1	0	0	0	0
Diptera	0	0	0	0	0	0
Tabanidae	0	0	0	0	0	0
Dolichopodidae	0	0	1	0	0	1
Ceratopogonidae	0	0	0	0	0	1
CSs	TE	TE	TE			
Site	I	I	I			
Sampling point	1	2	3			
<i>Marionina</i> spp.1	11	0	1			
<i>Marionina</i> spp.2	1	83	0			
Enchytraeidae 1	0	0	0			
Enchytraeidae 2	0	0	0			
<i>Notomastus lobatus</i>	0	0	0			
<i>Capitella cf. capitata</i>	5	9	4			
<i>Lumbrineris</i> sp.	0	0	0			

<i>Alitta succinea</i>	0	0	1
<i>Namalycastis abiuma</i>	0	0	0
<i>Laeonereis</i> spp.	2	1	1
<i>Heteromastus filiformis</i>	0	0	0
<i>Heteromastus similis</i>	0	1	1
<i>Mediomastus californiensis</i>	0	3	0
<i>Leitoscoloplos fragilis</i>	0	0	0
<i>Dipolydora socialis</i>	0	0	0
<i>Streblospio</i> sp.	0	0	0
<i>Isolda pulchella</i>	1	0	0
<i>Nereis rüsei</i>	0	0	0
<i>Nereis oligohalina</i>	0	0	0
<i>Namanereis pontica</i>	0	0	0
<i>Perinereis cultrifera</i>	0	0	0
<i>Ceratonereis excisa</i>	0	0	0
<i>Perinereis vancaurica</i>	0	0	0
<i>Scoletoma tetraura</i>	4	0	0
<i>Sigambra grubii</i>	0	0	0
<i>Aglaophamus verrilli</i>	0	0	0
<i>Langerhansia</i> sp.	0	0	0
<i>Nephtys fluvialis</i>	0	0	0
<i>Manayunkia brasiliensis</i>	1	0	3
<i>Uca thayeri</i>	0	0	0
<i>Uca maracoani</i>	0	0	0
<i>Uca uruguayensis</i>	0	0	0
<i>Uca mordax</i>	0	0	0
<i>Uca cumulanta</i>	0	0	0
<i>Uca rapax</i>	1	1	0
<i>Uca burgersi</i>	0	0	0
<i>Uca leptodactyla</i>	0	1	0
<i>Pachygrapsus gracilis</i>	0	0	0
<i>Corophium</i> sp.	0	0	0
<i>Chelorchestia darwinii</i>	0	0	0
<i>Halmyrapseudes spaansi</i>	0	0	0
<i>Monokaliapseudes schubartii</i>	1	1	0
<i>Heleobia australis</i>	0	2	0
Bivalvia 1	0	1	1
Bivalvia 2	0	0	0
Bivalvia 3	0	0	0
<i>Lucina pectinata</i>	0	0	0
<i>Tellina lineata</i>	1	0	0
<i>Macoma constricta</i>	0	0	0
<i>Cyclinella tenuis</i>	0	0	0
<i>Melampus coffeus</i>	0	0	0

<i>Mytella guyanensis</i>	0	0	0
Acari	0	2	0
Tipulidae	0	0	0
Collembola	0	0	0
Chironomidae	0	1	1
Diptera	0	0	0
Tabanidae	0	0	0
Dolichopodidae	0	1	0
Ceratopogonidae	0	0	0

Table S5. Hierarchical nested analysis of variance (ANOVA) and components of variation (CV) of macrofaunal total abundance, species richness, species diversity and trait diversity (Rao’s quadratic entropy) variables. CSs: Coastal settings, Si: Sites, Sp: Sampling points.

Source					
Total abundance	d.f.	MS	F	p	CV (%)
CSs	2	11.31	2.27	0.18	22.00
Si(CSs)	6	4.97	5.42	0.002	29.90
Sp(Si(CSs))	18	0.92	1.79	0.06	16.42
Residuals	54	0.51			31.58
Richness					
CSs	2	140.11	8.37	0.01	33.65
Si(CSs)	6	16.74	2.09	0.11	15.53
Sp(Si(CSs))	18	7.97	1.61	0.10	15.80
Residuals	54	4.95			35.02
Species Diversity					
CSs	2	1.70	5.26	0.04	29.73
Si(CSs)	6	0.32	2.53	0.06	19.40
Sp(Si(CSs))	18	0.13	0.85	0.63	14.80
Residuals	54	0.15			36.07
Trait diversity					
CSs	2	117.81	1.95	0.22	17.78
Si(CSs)	6	60.38	3.79	0.009	27.10
Sp(Si(CSs))	18	15.92	1.12	0.36	9.12
Residuals	54	14.24			46.08

Table S6. Mean abundance of each functional trait of annelids in the study site. CSs: Coastal settings, TD: Tide-dominated delta, WD: Wave-dominated delta, TE: Tidal estuary, ba1: absence of body appendages, ba2: presence of body appendages, bs1: uncini, bs2: parapodia with similar rami, bs3: aciculae, s1: lower number of segments ($n \leq 100$), s2: higher number of segments ($n \geq 101$).

CSs	TD	TD	TD	TD	TD	TD	TD	TD	TD
Site	A	A	A	B	B	B	C	C	C
Sampling point	1	2	3	1	2	3	1	2	3
ba1	1.00	0.00	0.00	2.00	0.33	0.33	0.00	2.00	0.00
ba2	7.67	4.33	7.00	15.67	17.67	23.67	15.67	23.67	7.33
bs1	3.50	2.00	2.17	7.67	8.17	8.83	6.50	11.50	2.50
bs2	2.50	2.00	2.17	5.67	6.83	7.17	6.50	9.50	2.50
bs3	2.67	0.33	2.67	4.33	3.00	8.00	2.67	4.67	2.33
s1	4.67	2.17	3.33	9.83	9.33	11.83	7.33	13.50	3.50
s2	4.00	2.17	3.67	7.83	8.67	12.17	8.33	12.17	3.83
CSs	WD	WD	WD	WD	WD	WD	WD	WD	WD
Site	D	D	D	E	E	E	F	F	F
Sampling point	1	2	3	1	2	3	1	2	3
ba1	0.33	0.33	0.00	2.00	5.67	10.33	4.00	0.33	0.33
ba2	123.33	245.00	204.67	28.00	20.33	51.67	41.67	19.00	70.67
bs1	61.17	122.00	102.33	11.50	9.83	39.83	24.83	7.83	36.17
bs2	58.50	111.00	81.33	7.50	3.50	16.83	19.50	5.17	34.50
bs3	4.00	12.33	21.00	11.00	12.67	5.33	1.33	6.33	0.33
s1	62.83	126.67	112.00	16.83	15.17	37.50	24.67	8.17	35.67
s2	60.83	118.67	92.67	13.17	10.83	24.50	21.00	11.17	35.33
CSs	TE	TE	TE	TE	TE	TE	TE	TE	TE
Site	G	G	G	H	H	H	I	I	I
Sampling point	1	2	3	1	2	3	1	2	3
ba1	0.00	0.00	0.67	0.00	0.67	0.00	0.00	0.00	0.00
ba2	7.00	13.67	6.33	34.33	43.33	47.67	23.00	15.00	11.33
bs1	3.50	6.50	3.83	12.50	20.17	21.33	11.50	6.67	5.17
bs2	3.50	7.17	3.17	12.50	19.50	21.33	11.50	6.67	5.17
bs3	0.00	0.00	0.00	9.33	4.33	5.00	0.00	1.67	1.00
s1	3.50	7.00	3.83	17.17	22.33	23.83	11.50	7.00	5.67
s2	3.50	6.67	3.17	17.17	21.67	23.83	11.50	8.00	5.67

Figure S1. Scheme of the experimental design and scales of spatial variability: CS (Tide-dominated delta, Wave-dominated delta and Tidal estuary), Sites (A, B and C), Sampling points (1, 2 and 3) and Replicates (a1, a2 and a3). CS = Coastal setting.

