Supplementary material

Table 1. PERMANOVA results of the pairwise comparisons between the factor "season" for the matrix of environmental variables using Euclidean distances for the resemblance matrix.

Seasons	t	P(perm)	Unique perms
DCS, DWS	1.94	0.00	999
DCS, HWS	3.02	0.00	997
DWS, HWS	1.44	0.09	999

Table 2. PERMANOVA results of the pairwise comparisons between the factor "habitat" for the matrix of environmental variables using Euclidean distances for the resemblance matrix.

Habitats	t	P(perm)	Unique perms
Caimanero lagoon, Huizache lagoon	0.85	0.53	126
Caimanero lagoon, river	2.60	0.03	35
Caimanero lagoon, tidal mangrove creek	1.89	0.02	537
Caimanero lagoon, ocean	3.12	0.00	933
Caimanero lagoon, inner tidal channel	3.09	0.00	315
Caimanero lagoon, Agua Grande Lagoon	2.35	0.05	35
Caimanero lagoon, main tidal channel	2.36	0.01	209
Huizache lagoon, river	2.80	0.00	126
Huizache lagoon, tidal mangrove creek	2.02	0.02	787
Huizache lagoon, ocean	4.40	0.00	989
Huizache lagoon, inner tidal channel	3.52	0.00	565
Huizache lagoon, Agua Grande Lagoon	3.05	0.02	56
Huizache lagoon, main tidal channel	2.80	0.00	421
river, tidal mangrove creek	1.73	0.06	535
river, ocean	5.44	0.00	956
river, inner tidal channel	1.59	0.05	316
river, Agua Grande Lagoon	1.66	0.17	35
river, main tidal channel	1.82	0.06	210
tidal mangrove creek, ocean	4.95	0.00	999
tidal mangrove creek, inner tidal channel	1.31	0.04	959
tidal mangrove creek, Agua Grande Lagoon	1.68	0.06	219
tidal mangrove creek, main tidal channel	2.71	0.00	891
ocean, inner tidal channel	6.60	0.00	997
ocean, Agua Grande Lagoon	3.02	0.00	753
ocean, main tidal channel	4.35	0.00	996
inner tidal channel, Agua Grande Lagoon	2.02	0.02	120
inner tidal channel, main tidal channel	2.57	0.00	761
Agua Grande Lagoon, main tidal channel	2.41	0.00	84

Table 3. PERMANOVA results of the pairwise comparisons between the factor "zones" for the matrix of environmental variables using Euclidean distances for the resemblance matrix.

Zones	t	P(perm)	Unique perms
unvegetated zones, buttonwood mangrove	0.75	0.52	56
unvegetated zones, white mangrove	2.22	0.00	524
unvegetated zones, ocean	4.28	0.00	769
unvegetated zones, red mangrove	2.43	0.00	559
buttonwood mangrove, white mangrove	2.35	0.00	964
buttonwood mangrove, ocean	4.50	0.00	987
buttonwood mangrove, red mangrove	2.84	0.00	962
white mangrove, ocean	5.40	0.00	999
white mangrove, red mangrove	2.60	0.00	998
ocean, red mangrove	5.13	0.00	999

Table 4. PERMANOVA results of the pairwise comparisons between the factor "habitat" for the matrix of fish assemblages using Bray-Curtis similarity for the resemblance matrix.

Groups	t	P(perm)	Unique perms
AguaGrande Lagoon, Main Tidal Channel	1.43	0.03	84
Caimanero lagoon, AguaGrande Lagoon	1.43	0.02	35
Caimanero lagoon, Coast	1.69	0.00	943
Caimanero lagoon, Huizache lagoon	1.17	0.09	126
Caimanero lagoon, Inner Tidal Channel	1.22	0.06	315
Caimanero lagoon, Main Tidal Channel	1.34	0.05	208
Caimanero lagoon, River	1.19	0.06	35
Caimanero lagoon, tidal mangrove creek	1.16	0.15	526
Coast, AguaGrande Lagoon	1.47	0.00	725
Coast, Inner Tidal Channel	1.65	0.00	996
Coast, Main Tidal Channel	1.74	0.00	995
Huizache lagoon, AguaGrande Lagoon	1.41	0.02	56
Huizache lagoon, Coast	1.75	0.00	978
Huizache lagoon, Inner Tidal Channel	1.50	0.00	559
Huizache lagoon, Main Tidal Channel	1.38	0.02	426
Huizache lagoon, River	1.08	0.22	126
Huizache lagoon, tidal mangrove creek	0.92	0.66	782
Inner Tidal Channel, AguaGrande Lagoon	1.03	0.42	120
Inner Tidal Channel, Main Tidal Channel	1.26	0.03	737
River, AguaGrande Lagoon	1.26	0.03	35
River, Coast	1.46	0.00	937
River, Inner Tidal Channel	1.26	0.04	315
River, Main Tidal Channel	1.22	0.05	209
River, tidal mangrove creek	1.27	0.04	550
tidal mangrove creek, AguaGrande Lagoon	1.51	0.01	217
tidal mangrove creek, Coast	2.08	0.00	999
tidal mangrove creek, Inner Tidal Channel	1.58	0.00	955
tidal mangrove creek, Main Tidal Channel	1.66	0.00	892

Table 5. PERMANOVA results of the pairwise comparisons between the factor "zones" for the matrix of fish assemblages using Bray-Curtis similarity for the resemblance matrix.

Groups	t	P(perm)	Unique perms
unvegetated zones, buttonwood mangrove	0.89	0.90	560
unvegetated zones, white mangrove	1.41	0.02	520
unvegetated zones, ocean	1.45	0.01	753
unvegetated zones, red mangrove	1.42	0.01	579
buttonwood mangrove, white mangrove	1.91	0.00	944
buttonwood mangrove, ocean	1.67	0.00	988
buttonwood mangrove, red mangrove	1.50	0.00	956
white mangrove, ocean	2.04	0.00	999
white mangrove, red mangrove	1.75	0.00	997
ocean, red mangrove	2.09	0.00	997