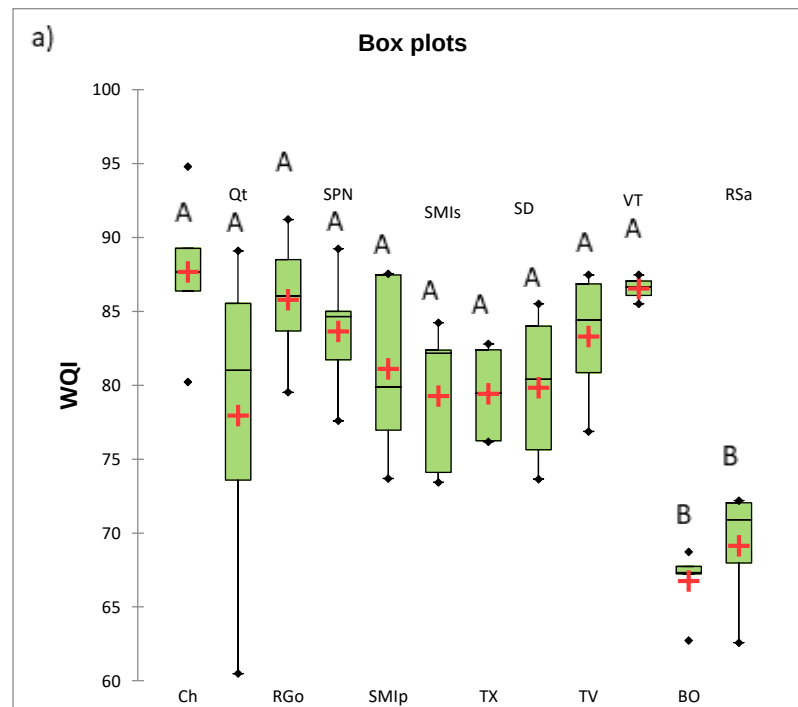


Supplementary Material

SM 1.



SM1. Mean values of the Water Quality Index for each study sites of the Río Grande and Río Salado sub-basin. Letters represent the groups of Newman–Keuls multiple comparison tests with significant differences.

SM 2. Factorial Analysis F1, F2 y F3

	F1	F2	F3	F4
Alkalinity	0.694	0.272	-0.015	-0.062
Cl-	0.910	0.092	-0.073	-0.048
Col.Fec	-0.065	0.116	-0.688	0.535
Col.Total	-0.162	0.164	-0.715	0.384
Color	0.068	0.636	-0.126	-0.201
Conductivity	0.957	0.226	0.090	0.135
DBO ₅	0.140	-0.487	0.465	-0.192
Hardness	0.565	-0.199	0.297	-0.068
NH ₃	-0.027	0.640	-0.036	-0.326
NO ₂	0.068	0.644	0.319	-0.508
NO ₃	-0.238	0.802	0.149	0.339
N _T	-0.035	0.649	0.238	0.248
DO	-0.324	0.509	0.214	0.072
O-PO ₄	0.146	-0.294	0.365	0.582
pH	0.238	-0.770	0.006	-0.263
P _T	-0.104	-0.188	0.485	0.715
Salinity	0.881	0.237	0.051	0.128
SO ₄	0.894	0.018	-0.026	0.106
TSS	0.180	0.272	-0.326	-0.087
Temperature (Water)	0.400	-0.266	-0.320	0.082
Temperature (Air)	0.272	-0.283	-0.356	-0.074
Turbidity	-0.048	-0.028	-0.584	-0.212
WQI	-0.447	0.167	0.302	0.044

Values in bold correspond for each variable with significant value for the factor analysis

SM 3. Correlation values of the environmental factors and land uses.

Variable	Natural Vegetation	Agriculture	Induced pasture	Human Settlements
Alkalinity	0.044	-0.081	0.049	-0.040
Cl-	0.178	-0.016	-0.176	-0.185
Fecal coliforms	0.126	0.005	-0.139	-0.147
Total coliforms	0.200	-0.040	-0.219	-0.069
Color	-0.025	0.083	-0.033	-0.091
Conductivity	0.165	-0.031	-0.146	-0.166
BOD ₅	-0.241	0.167	0.045	0.300
Hardness	-0.113	0.110	0.048	-0.055
NH ₃	-0.045	0.036	0.051	-0.085
NO ₂	-0.064	-0.080	0.213	-0.066
NO ₃	-0.005	-0.129	0.178	-0.037
N _T	-0.129	-0.127	0.348	-0.010
DO	-0.064	-0.005	0.036	0.185
O-PO ₄	-0.013	-0.130	0.206	-0.078
pH	-0.049	0.171	-0.147	0.028
P _T	0.020	-0.116	0.116	-0.009
Salinity	0.161	-0.027	-0.148	-0.159
SO ₄	0.166	0.040	-0.233	-0.171
TSS	0.087	-0.006	-0.096	-0.070
Temperature (water)	0.002	0.182	-0.175	-0.153
Temperature (air)	0.059	0.148	-0.234	-0.096
Turbidity	-0.155	0.218	-0.040	-0.005
Natural Vegetation	1	-0.669	-0.413	-0.656
Agriculture	-0.669	1	-0.374	0.355
Induced pasture	-0.413	-0.374	1	0.179
Human Settlements	-0.656	0.355	0.179	1

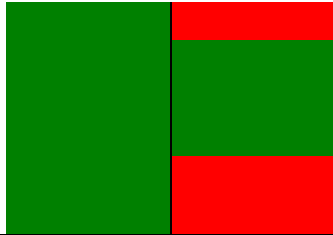
values in bold showed significant correlations ($p < 0.05$)

Supplementary Material 4

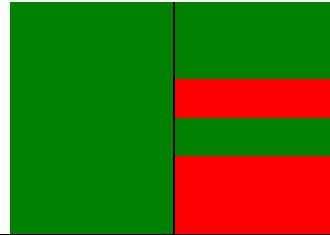
SM. 4. Families of Aquatic Macroinvertebrates in Río Salado and Río Grande.

Family/Taxa	Sub basin Grande	Salado	Family	Sub basin Grande	Salado	Family	Sub basin Grande	Salado
Acari			Gerridae			Notonectidae		
Aeshnidae			Gomphidae			Odontoceridae		
Aphididae			Gordiidae			Oligochaeta		
Baetidae			Haliplidae			Ostracoda		
Belostomatidae			Hebridae			Perlidae		
Caenidae			Helicopsychidae			Philopotamidae		
Calamoceratidae			Heptageniidae			Physidae		
Calopterygidae			Hydraenidae			Planorbidae		
Carabidae			Hydrobiidae			Platystictidae		
Ceratopogonidae			Hydrobiosidae			Polycentropodidae		
Chironomidae			Hydrometridae			Psephenidae		
Cicadellidae			Hydrophilidae			Psychodidae		
Coenagrionidae			Hydropsychidae			Ptilodactylidae		
Corixidae			Hydroptilidae			Sciomyzidae		
Corydalidae			Lampyridae			Scirtidae		
Crambidae			Leptoceridae			Simuliidae		
Culicidae			Leptohiphidae			Sphaeriidae		
Dixidae			Leptophlebiidae			Staphylinidae		
Dolichopodidae			Lestidae			Stratiomyidae		

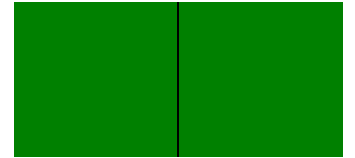
Dryopidae
Dytiscidae
Elmidae
Empididae
Ephydriidae
Gelastocoridae



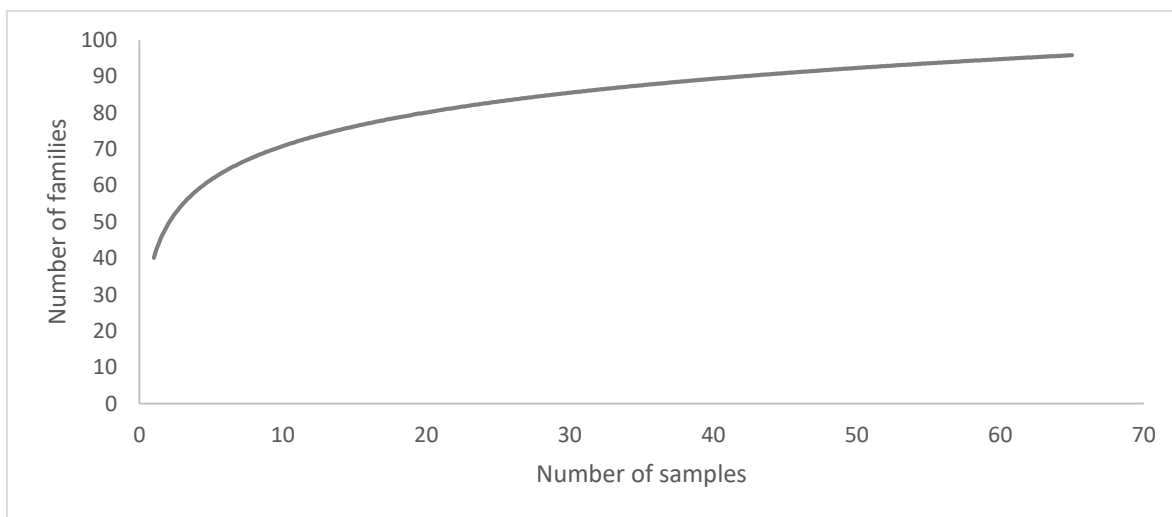
Libellulidae
Lutrochidae
Mesoveliidae
Naucoridae
Nepidae
Noteridae



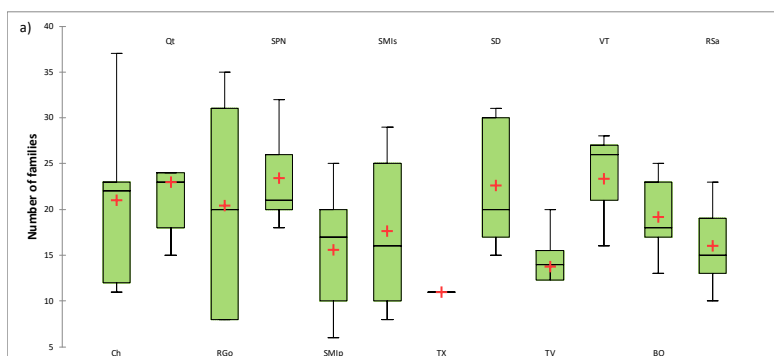
Tabanidae
Thiaridae
Tipulidae
Veliidae



SM 5. Rarefaction curves for the aquatic macroinvertebrates of the TCBR.



SM 6.



Box and whisker plot of mean values of the number of families of aquatic macroinvertebrates by study sites