

Supplementary Material

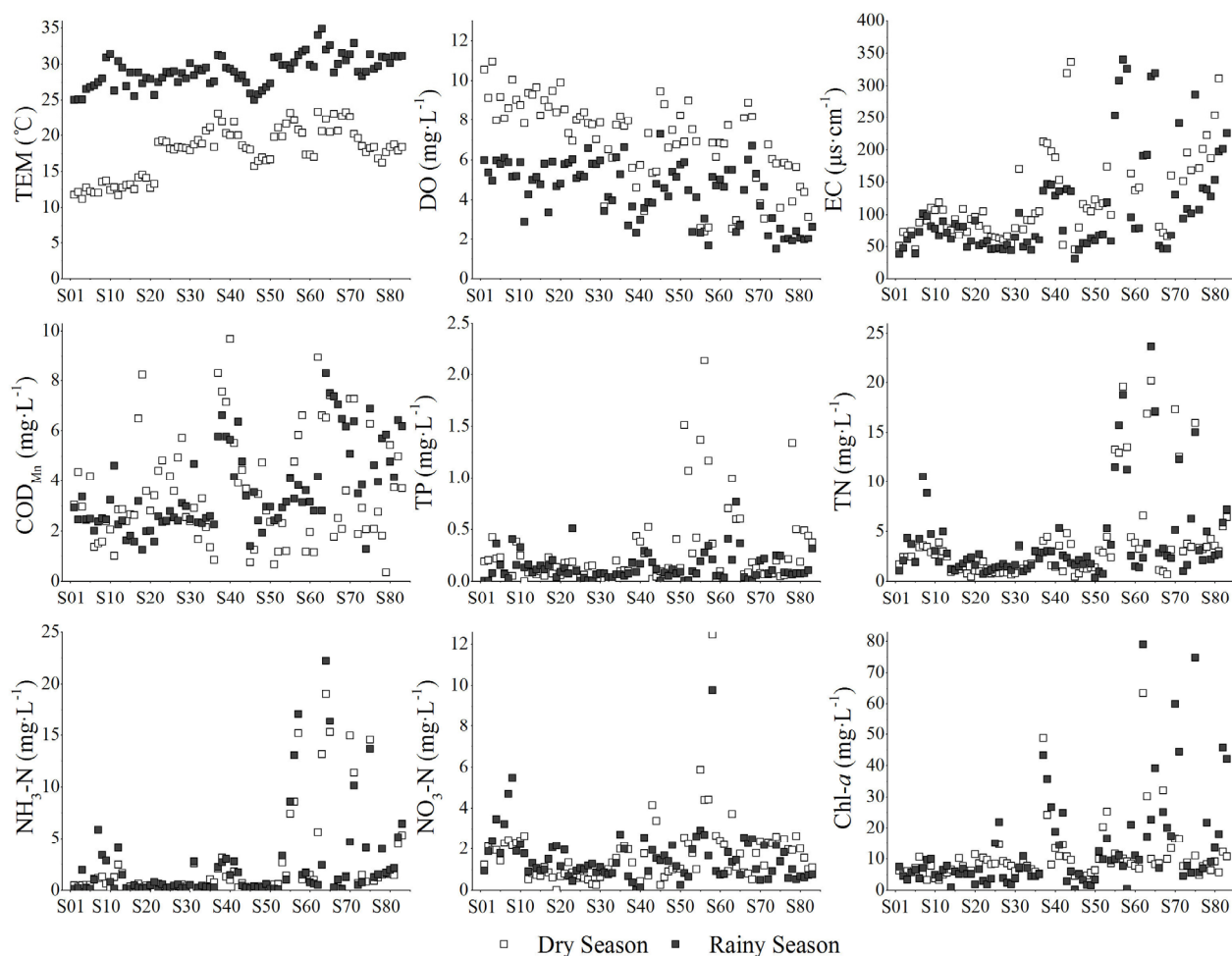


Figure S1. Measured values for the water quality parameters of 83 site in the dry and rainy seasons in the Dongjiang River basin.

Table S1. Values of environmental quality standards for surface water of China (GB3838-2002) (State Environmental Protection Administration 2002).

Water quality parameters	Units	State standard for surface water				
		I	II	III	IV	V
water temperature	°C	a	a	a	a	a
dissolved oxygen (DO)	mg·L ⁻¹	7.5	6.0	5.0	3.0	2.0
permanganate index (COD _{Mn})	mg·L ⁻¹	2.0	4.0	6.0	10.0	15.0
total phosphorus (TP)	mg·L ⁻¹	0.02	0.1	0.2	0.3	0.4
ammonia nitrogen (NH ₃ -N)	mg·L ⁻¹	0.15	0.5	1.0	1.5	2.0

Notes: a: Temperature: weekly average increase due to human factor should be (1) summer: ≤ 1 °C, (2) winter: ≤ 2 °C; Grade I: suitable for river headwaters and national nature reserve areas; Grade II: suitable for first-degree conservation areas of surface water resource for centralized potable drinking water, infrequent hydrobiology habitats, spawning areas of organisms like fish and shrimp, feeding areas of young fish; Grade III: suitable for second-degree conservation areas of surface water resource for centralized potable drinking water, and water areas for fishery and swimming; Grade IV: suitable for areas for industrial water utilization and entertainment, where people do not touch water directly; Grade V: suitable for water areas for agriculture and general landscape.