

**Table S3.** Results of the parallel PERMANOVA and associated ANOVA in the RDA model for each environmental indicator.

Factors	Statistical test	PERMANOVA		ANOVA	
		<i>P-value</i>	$R^2$	<i>P-value</i>	<i>Variance</i>
Alt		0.001	0.411	< 0.001	17.74 %
Cond		0.001	0.217	< 0.001	15.16 %
TDS		0.01	0.206	< 0.001	9.09 %
WT		0.001	0.223	0.001	5.08 %
DO		0.03	0.097	> 0.05	1.52 %
PH		0.03	0.191	0.02	3.93 %
ORP		0.001	0.109	0.08	2.68 %
Si		0.001	0.141	0.005	4.63 %
TN		0.001	0.226	> 0.05	2.32 %
NH3		> 0.05	0.015	> 0.05	1.83 %
TP		> 0.05	0.046	> 0.05	1.75 %
DOC		> 0.05	0.011	> 0.05	2.01 %
Chla		> 0.05	0.034	> 0.05	1.05 %
TOC		> 0.05	0.059	> 0.05	1.64 %
Width		> 0.05	0.108	> 0.05	2.11 %
Flow_V		> 0.05	0.003	> 0.05	2.47 %
Turb		0.001	0.102	> 0.05	1.98 %
Residual					22.92 %