

Table S9: Pearson correlation of physiological CWMs with site variables. For traits with two mutually exclusive commodities (reproduction), only one is included. p 0.05->0.001 plain text, p 0.001->0.0001 underlined, $p \leq 0.0001$ bold (unadjusted)

Feature	Variable	Diet					Reproduction
		Predator	Algivore	Detritibacterivore	Cyanobacterivore	Parasite	Obligate parthenogenetic
pH	pH	-	-	-	-	-0.15	-
total ions	EC	-	-0.16	0.15	-	-	-
cations	K	-0.20	-	-	-	-	-
	Ca	-	-0.17	0.16	-	-	-
	Mg	-	-0.16	-	-	-	-
	Al	-	-	-	-	-	0.16
anions	Cl	-	-	-	0.15	-	-
	SO ₄	-	-	-	0.15	-	-
silica	SiO ₂	-	-0.18	0.17	-	-	-
phosphorus	ortho-P	-	-0.16	0.18	-	-	-
	ortho-TP	-	-0.17	0.18	-	-	-
	TP	-	-0.19	0.22	-	-	-
	TPmax.	-	-0.19	0.21	-0.15	-0.16	-
nitrogen	NH ₄	-	-0.16	0.17	-	-	-
	KjN	-	-	0.15	-	-	-
	KjNmax.	-	-0.19	0.18	-	-	-
	TONmax.	-	-0.17	0.17	-	-	-
metabolism	pGOP	-	-	-	-	-	0.16
organics	CODp	-	-	-	-0.19	-	-
soil	clay	-	-	-	0.29	-	-
morphometry	width	-	-	-	0.20	-	-
	surface	-	-	-	0.22	-	-
	depth	-	-	-	0.27	-	-
	perimeter	-	-	-	0.22	-	-
	D _{sl}	-	-	-	-0.19	-	-