TABLE S1. Modules with significant correlations to environmental variables based on WGCNA.

Module	Size (vOTUs)	Water-column layer	Environmental variable
B	220	Mixolimnion	Oxygen
C	287	Mixolimnion	Oxygen
I	49	Metalimnion	N/A
J	290	Metalimnion	N/A
O	1538	Monimolimnion	Total nitrogen
P	61	N/A	Total nitrogen
T	1176	N/A	High bacteriochlorophylls *e*-like concentration
U	710	Monimolimnion	N/A
V	130	N/A	High bacteriochlorophylls *e*-like concentration

N/A: no significant correlation was observed