

Table S5 Correlations between the relative abundances of the most abundant bacterial phyla and proteobacterial classes and the soil properties in Caohai and Waihai sediments.

	Temperature	pH	TOC	NH ₃ +NO ₂ ⁻ -N+NO ₃ ⁻ -N
<i>Acidobacteria</i>	0.286	0.000	-0.310	-0.310
<i>Actinobacteria</i>	-0.027	-0.375	-0.791*	-0.518
<i>Bacteroidetes</i>	-0.048	-0.109	0.714*	-0.095
<i>Chloroflexi</i>	0.071	-0.109	-0.262	-0.190
<i>Firmicutes</i>	-0.643	-0.109	-0.167	0.690
<i>Planctomycetes</i>	-0.245	-0.375	-0.355	-0.082
<i>Alphaproteobacteria</i>	0.429	0.218	0.762*	-0.286
<i>Betaproteobacteria</i>	-0.833*	-0.436	-0.048	0.452
<i>Deltaproteobacteria</i>	0.262	-0.218	-0.381	-0.262
<i>Epsilonproteobacteria</i>	-0.366	0.112	-0.220	0.195
<i>Gammaproteobacteria</i>	0.738*	0.546	0.357	-0.238
Unclassified	-0.024	0.165	0.036	-0.096
<i>Proteobacteria</i>				
Unclassified bacteria	0.524	-0.109	-0.048	-0.405

Significance at * $\alpha=0.05$ level