

Table S1. Coefficient (r) for the correlations between the relative abundances of taxonomic groups and soil physicochemical properties.

Taxa		Total N	SOM	pH	EC
Phyla	Proteobacteria	-0.079	-0.339	-0.068	-0.576
	Verrucomicrobia	0.099	0.279	0.112	0.600 *
	Cyanobacteria	-0.208	-0.203	-0.088	-0.427
	Actinobacteria	-0.219	-0.218	-0.170	-0.430
Class	Alphaproteobacteria	-0.246	-0.680 *	0.357	-0.518
	Deltaproteobacteria	0.288	0.704 *	-0.403	0.498
	Betaproteobacteria	-0.480	-0.489	0.287	-0.410
	Opitutae	0.099	0.279	0.112	0.600 *
	Gammaproteobacteria	0.186	0.506	-0.291	0.359
Family	<i>Bradyrhizobiaceae</i>	-0.279	-0.685 *	0.314	-0.576 *
	<i>Geobacteraceae</i>	0.249	0.633 *	-0.370	0.412
	<i>Desulfuromonadaceae</i>	0.269	0.670 *	-0.343	0.580 *
	<i>Rhodospirillaceae</i>	0.148	0.325	-0.082	0.370
	<i>Opitutaceae</i>	0.084	0.219	0.133	0.587 *
	<i>Comamonadaceae</i>	-0.265	-0.316	0.250	0.040
	<i>Desulfovibrionaceae</i>	0.224	0.423	-0.362	0.125
	<i>Phyllobacteriaceae</i>	-0.156	-0.428	0.577 *	-0.108
	<i>Burkholderiaceae</i>	-0.357	-0.579 *	0.037	-0.755 **
Genus	<i>Bradyrhizobium</i>	-0.279	-0.685 *	0.314	-0.576 *
	<i>Geobacter</i>	0.249	0.633 *	-0.370	0.412
	<i>Desulfuromonas</i>	0.274	0.663 *	-0.356	0.578 *
	<i>Azospirillum</i>	0.078	0.315	-0.063	0.408
	<i>Desulfovibrio</i>	0.117	0.244	-0.360	-0.096
	<i>Mesorhizobium</i>	-0.156	-0.428	0.577 *	-0.108
	<i>Pseudacidovorax</i>	-0.444	-0.526	0.396	-0.177
	<i>Rhodoplanes</i>	0.029	-0.270	0.225	-0.201
	<i>Azotobacter</i>	0.158	0.430	-0.277	0.256
	<i>Sagittula</i>	0.263	0.338	-0.280	0.172

*: $p < 0.05$; **: $p < 0.01$