

**Supplemental Table S1** Bacterial Statistics of sample sequencing data processing results.

Treatments	PE Reads	Raw Tags	Clean Tags	Effective Tags	AvgLen(bp)	GC(%)	Q20(%)	Q30(%)	Effective(%)
CK	79818	65166	50617	50177	418	53.9	95.03	90.49	62.86
J1F1	79968	67652	52152	51626	420	54.9	95.04	90.55	64.56
J1F2	79911	67269	52302	52103	419	53.48	95.21	90.83	65.2
J2F1	80054	65136	50231	49460	417	55.11	94.76	90.03	61.78
J2F2	79953	67466	51877	51613	421	55.02	95.03	90.51	64.55
J3F1	80091	65576	50242	49607	420	55.28	94.97	90.37	61.94
J3F2	80012	66440	51702	50993	418	54.98	95.04	90.51	63.73
Summation				355579					

**Supplemental Table S2** Bacterial Principal Component Analysis.

Treatments	PC1	PC2	PC3
CK	0.019085617	0.005447994	-0.013445546
J1F1	-0.009222153	-0.00436525	-0.00395959
J1F2	0.010482959	-0.009585698	0.019617434
J2F1	-0.005250512	0.022265587	0.008669914
J2F2	-0.009798274	-0.005152839	-0.004729944
J3F1	-0.003912177	-0.004250348	-0.002020142
Loading	57.11473027	20.23959552	11.27009892

**Supplemental Table S3** Bacterial microbial community.

a. phylum

phylum	CK	J1F1	J1F2	J2F1	J2F2	J3F1	J3F2
Proteobacteria	0.115624658	0.473966551	0.161354364	0.348277453	0.445275553	0.373476256	0.279783654
Firmicutes	0.50095259	0.004601872	0.542531143	0.069055675	0.003691729	0.130275458	0.168533654
Bacteroidetes	0.07180554	0.134427264	0.125924471	0.106249359	0.19052215	0.107291537	0.099399038
Acidobacteria	0.01180335	0.146760282	0.046010865	0.074592433	0.140768266	0.107665462	0.068581731
Actinobacteria	0.072659586	0.055248764	0.042891114	0.054009023	0.0581025	0.097295276	0.154975962
Cyanobacteria	0.181276689	0.001341117	0.002487074	0.23113401	0.001713155	0.008226349	0.101081731
Chloroflexi	0.005387058	0.076128116	0.022383664	0.043140572	0.057016697	0.051477004	0.031971154
Gemmatimonadetes	4.38E-05	0.017118965	0.006893994	0.027017328	0.015080591	0.032830612	0.021129808
Verrucomicrobia	0.003043907	0.026506784	0.006435849	0.008971598	0.024128945	0.013610869	0.012235577
Saccharibacteria	0.016993321	0.016671926	0.008552043	0.003075977	0.01602162	0.005957871	0.024230769
Planctomycetes	0	0.009230041	0.002225277	0.009843125	0.015490783	0.033179609	0.008365385
Tenericutes	0.014058907	0.000184075	0.019940223	0.002435148	0.000144774	0.003639536	0.006706731
Latescibacteria	2.19E-05	0.014962659	0.000719942	0.003204142	0.014115433	0.005982799	0.003245192
Nitrospirae	0.000481769	0.007836331	0.003294282	0.008151338	0.006659589	0.00463667	0.005961538
Armatimonadetes	0	0.002761123	0.000589044	0.002563314	0.001954445	0.002916615	0.001995192
Parcubacteria	0	0.001051857	0.002639789	0.001486722	0.001495995	0.00523495	0.000552885
Elusimicrobia	0.000328479	0.001945935	0.000414512	0.001666154	0.001278834	0.00239312	0.001442308
Chlorobi	0	0.002734827	6.54E-05	0.001512355	0.000820384	0.001994266	0.001225962
Microgenomates	0	0.002866309	0.00122172	0.00041013	0.001085803	0.001445843	0.000865385
Spirochaetae	0.000547465	0.000289261	0.000109082	0.001025326	0.000265418	0.002966471	0.002403846
Others	0.004970984	0.003365941	0.003316098	0.002178817	0.004367339	0.007503428	0.0053125

b. genus							
genus	CK	J1F1	J1F2	J2F1	J2F2	J3F1	J3F2
Lactobacillus	0.190277017	0.00205112	0.161550712	0.028811648	0.001351221	0.044148074	0.048365385
Nicotiana_otothra	0.169626629	0.000604818	0.000829025	0.050240952	0.000530837	0.007029789	0.015432692
Rhodococcus	0.037731304	0.000420743	0.017344067	0.014508356	0.001544252	0.047014832	0.088149038
uncultured_bacterium_f_Anaerolineaceae	0.003416183	0.052645419	0.017496782	0.028811648	0.040464241	0.041854668	0.019326923
uncultured_bacterium_f_Cytophagaceae	0.00251834	0.055669507	0.015424221	0.013021634	0.080228742	0.023632058	0.0078125
uncultured_bacterium_f_Bacteroidales_S24-7_group	0.055491076	0.000447039	0.073412309	0.011073516	0.000193032	0.023557273	0.031850962
Microcystis	0	2.63E-05	0	0.177970881	0	0	0
uncultured_bacterium_o_Xanthomonadales	0.002868718	0.039891659	0.00820298	0.01625141	0.045893254	0.045768416	0.012451923
uncultured_bacterium_c_Subgroup_6	0.003613271	0.041732408	0.011519078	0.015302984	0.043890551	0.025701109	0.016875
uncultured_bacterium_f_Nitrosomonadaceae	0.003328589	0.038024613	0.009446517	0.026145801	0.044228356	0.01792347	0.015
Ruminococcaceae_UCG-014	0.023891383	0.000157778	0.090952724	0.002973444	4.83E-05	0.004910881	0.011009615
Allobaculum	0.04110369	0.000210371	0.057966272	0.004844663	0.000168903	0.012439237	0.015360577
Sphingomonas	0.003000109	0.043704639	0.010908218	0.016559007	0.019110125	0.019244672	0.011346154
uncultured_bacterium_f_Erysipelotrichaceae	0.057812329	0.000236668	0.02779414	0.00522916	0.000482579	0.009647264	0.012475962
Acidibacter	0.003416183	0.013989692	0.003621528	0.021813801	0.019423801	0.028368441	0.010769231
uncultured_bacterium_f_Chitinophagaceae	0	0.024403071	0.007657569	0.009843125	0.032212142	0.011018322	0.008197115
Haliangium	0.003087704	0.017539708	0.006523115	0.010150723	0.018241482	0.023083635	0.011730769
uncultured_bacterium_f_Xanthomonadales_Incertae_Sedis	0.002781123	0.016303776	0.01230447	0.011945043	0.017565872	0.013012589	0.013990385
uncultured_bacterium_p_Saccharibacteria	0.014343589	0.016145998	0.003926959	0.002537681	0.01556317	0.00508538	0.023533654
Chroococcidiopsis	0	0	0	0	0	0	0.074423077
Others	0.317398445	0.532213106	0.385910945	0.451194504	0.500868642	0.492533965	0.462139423
Unclassified	0.064294317	0.103581571	0.077208369	0.080770019	0.117990541	0.104025925	0.089759615

**Supplemental Table S4** Ternary Diagram, CK, J1 and J2 groups in the bacterial phylum level.

Phylum	Genus	CK_ratio	F1_ratio	F2_ratio	CK_reabundance	F1_reabundance	F2_reabundance
Verrucomicrobia	uncultured_bacterium_c_OPB35_soil_group	0.0432	0.5405	0.4162	0.000679	0.00848449	0.006533158
Saccharibacteria	uncultured_bacterium_p_Saccharibacteria	0.3966	0.2164	0.387	0.014344	0.00782724	0.013997408
Actinobacteria	Aeromicrobium	0	0.8043	0.1957	0	0.00060603	0.000147423
Proteobacteria	Dokdonella	0	0.9083	0.0917	0	0.00015364	1.55E-05
Proteobacteria	Vulgatibacter	0	0.0294	0.9706	0	2.56E-05	0.000845741
Bacteroidetes	Bacteroides	0.3913	0.0932	0.5156	0.007314	0.00174128	0.009636797
Actinobacteria	Brachybacterium	0	0.9257	0.0743	0	0.00029021	2.33E-05
Proteobacteria	Steroidobacter	0.0661	0.3206	0.6133	0.000438	0.00212539	0.004065766
Firmicutes	Family_XIII_AD3011_group	0.7384	0	0.2616	0.00046	0	0.000162941
Proteobacteria	uncultured_bacterium_f_P3OB-42	0	0.444	0.556	0	0.00045239	0.000566414
Chloroflexi	Ornatilinea	1	0	0	0.000788	0	0
Chloroflexi	uncultured_bacterium_c_Gitt-GS-136	0.0192	0.4782	0.5026	2.19E-05	0.00054628	0.000574173
Latescibacteria	uncultured_bacterium_p_Latescibacteria	0.0018	0.5967	0.4015	2.19E-05	0.00722974	0.004864953
Actinobacteria	uncultured_bacterium_f_Propionibacteriaceae	0	0	1	0	0	0.000287087
Proteobacteria	Caulobacter	0	0.6816	0.3184	0	0.00152789	0.000713837
Bacteroidetes	Flavitalea	0	0.7522	0.2478	0	0.00058896	0.000193977
Proteobacteria	uncultured_bacterium_f_Blfdi19	0	0.9565	0.0435	0	0.00017071	7.76E-06
Bacteroidetes	Flavobacterium	0.0748	0.2994	0.6258	0.000569	0.00227903	0.004764085
Bacteroidetes	Nibribacter	0	0.898	0.102	0	0.00013657	1.55E-05
Firmicutes	Clostridium_sensu_stricto_1	0.5574	0.0633	0.3793	0.012701	0.00144253	0.008643632
Firmicutes	Acetitomaculum	0.6382	0	0.3618	0.000219	0	0.000124146
Firmicutes	Anaerococcus	0	0.5326	0.4674	0	0.00024754	0.000217255
Firmicutes	Ruminococcaceae_UCG-005	0.3089	0.0708	0.6203	0.001117	0.00025607	0.002242379
Proteobacteria	Alsobacter	1	0	0	0.001029	0	0
Firmicutes	uncultured_bacterium_f_Peptococcaceae	0.4137	0	0.5863	0.000635	0	0.000900055
Chloroflexi	uncultured_bacterium_f_Anaerolineaceae	0.0489	0.5867	0.3644	0.003416	0.04101404	0.025473111
Proteobacteria	uncultured_bacterium_f_Syntrophaceae	1	0	0	0.000547	0	0

Proteobacteria	uncultured_bacterium_f_KF-JG30-B3	0.0177	0.5548	0.4276	8.76E-05	0.0027485	0.002118233
Chloroflexi	uncultured_bacterium_o_C0119	0	0.4889	0.5111	0	0.00034143	0.000356918
Proteobacteria	Georgfuchsia	0	0.0576	0.9424	0	1.71E-05	0.000279327
Bacteroidetes	Parafilimonas	0	0.0323	0.9677	0	8.54E-06	0.00025605
Actinobacteria	Rubrobacter	0.1249	0.4056	0.4695	0.000394	0.00128036	0.001481987
Proteobacteria	Meganema	0	1	0	0	0.00363621	0
Bacteroidetes	uncultured_bacterium_f_KD3-93	0	0.6247	0.3753	0	0.00098161	0.000589691
Chlamydiae	uncultured_bacterium_f_Simkaniaceae	0	0	1	0	0	0.000450028
Proteobacteria	uncultured_bacterium_f_Unknown_Family	0.151	0.4746	0.3744	0.000328	0.00103282	0.000814705
Actinobacteria	Alpinimonas	0	0.7675	0.2325	0	0.00023046	6.98E-05
Actinobacteria	uncultured_bacterium_f_288-2	0	0.7397	0.2603	0	0.00026461	9.31E-05
Firmicutes	Aerococcus	0	0.7246	0.2754	0	0.00046946	0.000178459
Nitrospirae	uncultured_bacterium_f_0319-6A21	0.0756	0.5045	0.4199	0.000197	0.0013145	0.001094032
Proteobacteria	Sphingomonas	0.0698	0.6117	0.3185	0.003	0.02628996	0.013687045
Proteobacteria	Panacagrimonas	0	0.5621	0.4379	0	0.00017925	0.000139664
Proteobacteria	uncultured_bacterium_f_A0839	0	0.4987	0.5013	0	0.00104989	0.001055237
Chloroflexi	Roseiflexus	0	0.6096	0.3904	0	0.00239853	0.001536301
Bacteroidetes	Dinghuibacter	0	0.3284	0.6716	0	0.00020486	0.000418991
Proteobacteria	Ferrovibrio	0	0.5946	0.4054	0	0.00030729	0.000209496
Deinococcus-Thermus	Truepera	0.984	0.016	0	0.000526	8.54E-06	0
Nitrospirae	Nitrospira	0.0297	0.5681	0.4021	0.000285	0.00543724	0.003848511
Gemmatimonadetes	uncultured_bacterium_f_Longimicrobiaceae	0	0.9278	0.0722	0	0.00508728	0.000395714
Chloroflexi	uncultured_bacterium_c_JG37-AG-4	0	0.1803	0.8197	0	3.41E-05	0.000155182
Proteobacteria	Klebsiella	0.1684	0.2712	0.5604	0.000504	0.00081089	0.001675965
Chloroflexi	uncultured_bacterium_c_TK10	0	0.4532	0.5468	0	0.00138278	0.001668206
Firmicutes	Syntrophomonas	1	0	0	0.000788	0	0
Proteobacteria	Nannocystis	0	0.5479	0.4521	0	0.00064871	0.000535378
Tectomicrobia	uncultured_bacterium_p_Tectomicrobia	0	0.4737	0.5263	0	7.68E-05	8.54E-05
Planctomycetes	uncultured_bacterium_c_Pla3_lineage	0	0.4919	0.5081	0	0.00018779	0.000193977

Gemmatimonadetes	Gemmatirosa	0	0.4296	0.5704	0	0.00087064	0.001156105
Actinobacteria	Pseudonocardia	0.4011	0.4011	0.1978	0.000504	0.00050361	0.000248291
Firmicutes	Enterococcus	0.5846	0.1934	0.222	0.003044	0.00100721	0.001156105
Firmicutes	Ruminococcaceae_UCG-009	0.671	0.0635	0.2655	0.002256	0.00021339	0.000892296
Actinobacteria	Nocardioidea	0	0.2892	0.7108	0	0.00135718	0.003336411
Bacteroidetes	Hymenobacter	0	0.3929	0.6071	0	8.54E-05	0.000131905
Cyanobacteria	uncultured_bacterium_o_Gastranaerophilales	0	0.1626	0.8374	0	5.12E-05	0.000263809
Acidobacteria	uncultured_Acidobacteria_bacterium	0.0904	0.4975	0.4122	0.001577	0.00868081	0.007192682
Elusimicrobia	uncultured_bacterium_o_Lineage_IIb	0	0.7733	0.2267	0	0.00026461	7.76E-05
Parcubacteria	uncultured_bacterium_c_Candidatus_Magasanikbacteria	0	0.3089	0.6911	0	0.00011096	0.000248291
Fibrobacteres	uncultured_bacterium_f_Fibrobacteraceae	0	1	0	0	0.00040971	0
Proteobacteria	uncultured_bacterium_f_DA111	0	0.6753	0.3247	0	0.00132303	0.000636246
Firmicutes	Anaerostipes	0	0.2056	0.7944	0	3.41E-05	0.000131905
Bacteroidetes	uncultured_bacterium_c_Bacteroidetes_VC2.1_Bac22	0	0.6422	0.3578	0	0.00052921	0.000294846
Proteobacteria	uncultured_bacterium_o_Alphaproteobacteria_Incertae_Sedis	0	0.9454	0.0546	0	0.00268875	0.000155182
Actinobacteria	uncultured_bacterium_c_MB-A2-108	0	0.4831	0.5169	0	0.00067432	0.000721596
Acidobacteria	uncultured_bacterium_c_Subgroup_5	0	0.3639	0.6361	0	0.00011096	0.000193977
Euryarchaeota	uncultured_archaeon	0	0.569	0.431	0	0.00015364	0.000116386
Elusimicrobia	uncultured_bacterium_o_MVP-88	0.0595	0.5987	0.3417	0.000109	0.00110111	0.000628487
Proteobacteria	Massilia	0	0.7849	0.2151	0	0.00240707	0.000659523
Firmicutes	[Bacteroides]_pectinophilus_group	1	0	0	0.001183	0	0
Proteobacteria	Roseomonas	0	1	0	0	0.00234732	0
Spirochaetae	Treponema_2	0	0.2921	0.7079	0	7.68E-05	0.000186218
Gemmatimonadetes	uncultured_bacterium_c_S0134_terrestrial_group	0	0.3204	0.6796	0	5.12E-05	0.000108627
Proteobacteria	Peredibacter	1	0	0	0.00081	0	0
Firmicutes	[Eubacterium]_ruminantium_group	0.8509	0.0903	0.0589	0.003701	0.00039264	0.00025605
Firmicutes	Lachnospiraceae_NC2004_group	0.6348	0.0707	0.2945	0.00092	0.00010243	0.00042675
Actinobacteria	Microbacterium	0.0509	0.5161	0.433	2.19E-05	0.00022193	0.000186218
Bacteroidetes	uncultured_bacterium_f_AKYH767	0	0.4044	0.5956	0	0.0014596	0.002149269

Proteobacteria	Paucibacter	0	0.9478	0.0522	0	0.00028168	1.55E-05
Bacteroidetes	Prevotella_9	0	0.3834	0.6166	0	0.00011096	0.000178459
Proteobacteria	uncultured_bacterium_f_I-10	0	0.6672	0.3328	0	0.002629	0.001311287
Proteobacteria	Arenimonas	0	0.6704	0.3296	0	0.001673	0.000822464
Acidobacteria	PAUC26f	0	1	0	0	0.00017925	0
Firmicutes	Anaerotruncus	0.8574	0.0341	0.1085	0.002146	8.54E-05	0.000271568
Chloroflexi	uncultured_bacterium_o_JG30-KF-CM45	0	0	1	0	0	0.000201736
Firmicutes	Veillonella	0.7257	0.1886	0.0857	0.000263	6.83E-05	3.10E-05
Firmicutes	Clostridium_sensu_stricto_3	0	0	1	0	0	0.000178459
Proteobacteria	uncultured_bacterium_o_SC-I-84	0	0.596	0.404	0	0.00302164	0.002048401
Firmicutes	Lactobacillus	0.658	0.0878	0.2542	0.190277	0.02537664	0.073501913
Proteobacteria	Desulfovibrio	0.7242	0.1197	0.1562	0.002015	0.00033289	0.000434509
Proteobacteria	Serratia	0.8362	0.0128	0.151	0.001117	1.71E-05	0.000201736
Cyanobacteria	uncultured_bacterium_c_Chloroplast	0.6168	0.3761	0.007	0.001358	0.00082796	1.55E-05
Firmicutes	[Clostridium]_innocuum_group	0.8101	0.0243	0.1656	0.000569	1.71E-05	0.000116386
Chlamydiae	Neochlamydia	0	0.4445	0.5555	0	6.83E-05	8.54E-05
Bacteroidetes	uncultured_bacterium_o_Sphingobacteriales	0	0.7999	0.2001	0	0.00161325	0.000403473
Actinobacteria	uncultured_bacterium_f_Coriobacteriaceae	0.7511	0.1025	0.1464	0.000438	5.97E-05	8.54E-05
Planctomycetes	uncultured_bacterium_c_OM190	0	0.497	0.503	0	0.00346549	0.003507111
Acidobacteria	uncultured_bacterium_f_Acidobacteriaceae_[Subgroup_1]	0	0.636	0.364	0	0.00023046	0.000131905
Elusimicrobia	uncultured_bacterium_o_Lineage_Ila	0	1	0	0	0.00017071	0
Proteobacteria	uncultured_bacterium_f_TK34	0	0.627	0.373	0	0.00069139	0.000411232
Bacteroidetes	uncultured_bacterium_c_Bacteroidetes_vadinHA17	0.965	0.035	0	0.000942	3.41E-05	0
Firmicutes	Erysipelatoclostridium	1	0	0	0.000547	0	0
Nitrospirae	Unclassified	0	0.4158	0.5842	0	9.39E-05	0.000131905
Actinobacteria	Quadriflustra	0	0.1416	0.8584	0	2.56E-05	0.000155182
Proteobacteria	uncultured_bacterium_f_Thiotrichaceae	0	1	0	0	0.00022193	0
Firmicutes	Roseburia	0.4854	0.151	0.3636	0.002496	0.00077675	0.001869942
Firmicutes	Coprococcus_1	0	0.171	0.829	0	2.56E-05	0.000124146



Firmicutes	Ruminococcus_1	0.5519	0.0454	0.4027	0.008825	0.00072553	0.006440049
Proteobacteria	Comamonas	0.8187	0.133	0.0483	0.000263	4.27E-05	1.55E-05
Gemmatimonadetes	uncultured_bacterium_f_Gemmatimonadaceae	0.0009	0.6424	0.3567	2.19E-05	0.01533012	0.008511728
Proteobacteria	uncultured_bacterium_o_Rhizobiales	0	0.7675	0.2325	0	0.00025607	7.76E-05
Proteobacteria	Inquilinus	0	0.4177	0.5823	0	0.00012804	0.000178459
Firmicutes	Marvinbryantia	0	0	1	0	0	0.000232773
Firmicutes	Unclassified	0.4879	0.1018	0.4102	0.015745	0.00328624	0.013237017
Proteobacteria	Polyangium	0	0.5946	0.4054	0	0.00010243	6.98E-05
Proteobacteria	Escherichia-Shigella	0.7834	0.0474	0.1692	0.015088	0.00091332	0.00325882
Bacteroidetes	uncultured_bacterium_f_Bacteroidales_S24-7_group	0.5344	0.1146	0.351	0.055491	0.01189877	0.036452231
Proteobacteria	uncultured_bacterium_f_Xanthomonadales_Incertae_Sedis	0.0896	0.4421	0.4683	0.002781	0.01372541	0.014540545
Chlorobi	uncultured_bacterium_f_OPB56	0	0.7591	0.2409	0	0.00198028	0.000628487
Spirochaetae	uncultured_bacterium_f_Leptospiraceae	0.4378	0.5622	0	0.000372	0.000478	0
Actinobacteria	uncultured_bacterium_f_Euzebyaceae	0.6923	0.1237	0.184	0.000526	9.39E-05	0.000139664
Acidobacteria	uncultured_bacterium_f_ABS-19	0	0.5525	0.4475	0	0.00046946	0.000380196
Proteobacteria	Hirschia	0.0399	0.4946	0.4655	0.000547	0.00678588	0.006385736
Bacteroidetes	Unclassified	0	0.6894	0.3106	0	0.00580428	0.002614815
Actinobacteria	Micrococcus	0.3066	0.6437	0.0497	0.001533	0.00321796	0.000248291
Cyanobacteria	Unclassified	0.3574	0.1393	0.5033	0.000854	0.00033289	0.00120266
Proteobacteria	Candidatus_Odyssella	0	0.453	0.547	0	0.0005975	0.000721596
Proteobacteria	uncultured_organism	0	0.3204	0.6796	0	5.12E-05	0.000108627
Bacteroidetes	Chryseolinea	0	0.3922	0.6078	0	0.00066578	0.00103196
Acidobacteria		0.0072	0.6651	0.3277	2.19E-05	0.0020315	0.001000923
Tenericutes	uncultured_bacterium_o_Mollicutes_RF9	0.6129	0.098	0.2891	0.009395	0.00150228	0.004430444
Acidobacteria	Paludibaculum	0.1382	0.3258	0.536	0.000438	0.00103282	0.001699242
Bacteroidetes	uncultured_bacterium_f_NS11-12_marine_group	0	0.3337	0.6663	0	0.00052068	0.001039719
Proteobacteria	Bosea	0	0.3976	0.6024	0	0.00038411	0.000581932
Spirochaetae	Brevinema	0	0	1	0	0	0.000302605
Firmicutes	Staphylococcus	0.4267	0.2623	0.311	0.002694	0.00165593	0.001963051

Chloroflexi	uncultured_bacterium_c_Ardenticatenia	0	0.6433	0.3567	0	0.00085357	0.000473305
Bacteroidetes	uncultured_bacterium_f_env.OPS_17	0	0.6758	0.3242	0	0.00122914	0.000589691
Chloroflexi	uncultured_Chloroflexi_bacterium	0	0.8075	0.1925	0	0.00052068	0.000124146
Proteobacteria	uncultured_bacterium_f_KD3-10	0	0.6875	0.3125	0	0.00029021	0.000131905
Firmicutes	Trichococcus	0.9762	0.0026	0.0212	0.003219	8.54E-06	6.98E-05
Proteobacteria	Azoarcus	0	0.0207	0.9793	0	8.54E-06	0.000403473
Bacteroidetes	Ferruginibacter	0	0.6413	0.3587	0	0.00011096	6.21E-05
Proteobacteria	Candidatus_Alysiosphaera	0	0.6673	0.3327	0	0.00052921	0.000263809
Armatimonadetes	uncultured_bacterium_o_Armatimonadales	0	1	0	0	0.0005975	0
Firmicutes	Peptoniphilus	0	0.9678	0.0322	0	0.00069993	2.33E-05
Proteobacteria	Pseudomonas	0.0379	0.6512	0.3109	0.000394	0.00677735	0.003235543
Chloroflexi	uncultured_bacterium_c_KD4-96	0.0241	0.5935	0.3824	0.000109	0.00269728	0.001738037
Omnitrophica	uncultured_bacterium_p_Omnitrophica	0	0.6147	0.3853	0	0.00024754	0.000155182
Microgenomates	uncultured_bacterium_c_Candidatus_Levybacteria	0	0.3667	0.6333	0	0.00017071	0.000294846
Proteobacteria	uncultured_bacterium_f_Hyphomicrobiaceae	0	0.7536	0.2464	0	0.00237292	0.00077591
Proteobacteria	Rhodobacter	0	0.9941	0.0059	0	0.00129743	7.76E-06
Firmicutes	uncultured_bacterium_f_Ruminococcaceae	0.785	0.0501	0.1649	0.008825	0.00056336	0.001854424
Proteobacteria	Rhodovarius	0	1	0	0	0.00029021	0
Acidobacteria	uncultured_bacterium_c_Subgroup_11	0	0.6875	0.3125	0	0.00032436	0.000147423
Actinobacteria	uncultured_bacterium_f_Sporichthyaceae	0	0.7757	0.2243	0	0.00018779	5.43E-05
Actinobacteria	Rhodococcus	0.4018	0.2243	0.3739	0.037731	0.02106611	0.035117667
Proteobacteria	Ralstonia	0.8596	0.0558	0.0846	0.000394	2.56E-05	3.88E-05
Acidobacteria	uncultured_bacterium_c_Subgroup_22	0	0.4761	0.5239	0	0.00016218	0.000178459
Proteobacteria	Methylobacterium	0	0.171	0.829	0	0.00012804	0.000620728
Bacteroidetes	Niastella	0.1622	0.4907	0.3471	0.002124	0.00642738	0.00454683
Actinobacteria	Blastococcus	0.1795	0.4548	0.3657	8.76E-05	0.00022193	0.000178459
Proteobacteria	uncultured_bacterium_o_HTA4	0	0.9732	0.0268	0	0.00028168	7.76E-06
Bacteroidetes	Rikenellaceae_RC9_gut_group	0	0.278	0.722	0	5.97E-05	0.000155182
Acidobacteria	Unclassified	0.0474	0.5343	0.4183	0.003876	0.04369425	0.034202093

Proteobacteria	Phaselicystis	0	0.5518	0.4482	0	0.00272289	0.002211342
Proteobacteria	uncultured_bacterium_f_Rhodospirillaceae	0.0774	0.5054	0.4171	0.001292	0.00843327	0.006959909
Chloroflexi	uncultured_bacterium_o_Ardenticatenales	0	0.5238	0.4762	0	0.00014511	0.000131905
Actinobacteria	Solirubrobacter	0	0.557	0.443	0	0.00109257	0.000869019
Proteobacteria	Pasteurella	0	0.0547	0.9453	0	8.54E-06	0.000147423
Bacteroidetes	Alloprevotella	0.6624	0.1475	0.19	0.00046	0.00010243	0.000131905
Proteobacteria	uncultured_bacterium_f_Rhodobiaceae	0	0.2259	0.7741	0	0.00011096	0.000380196
Fusobacteria	Cetobacterium	0.8428	0	0.1572	0.000416	0	7.76E-05
Proteobacteria	uncultured_bacterium_o_TRA3-20	0.0071	0.5655	0.4274	0.000131	0.01048184	0.007922037
Actinobacteria	Virgisporangium	0.541	0.246	0.213	0.000394	0.00017925	0.000155182
Proteobacteria	uncultured_bacterium_f_Sandaracinaceae	0.029	0.4283	0.5427	0.000416	0.00615424	0.007797891
Acidobacteria	uncultured_bacterium_c_Subgroup_18	0	0.3228	0.6772	0	0.00011096	0.000232773
Verrucomicrobia	Terrimicrobium	0	0.6111	0.3889	0	0.00017071	0.000108627
Proteobacteria	Castellaniella	1	0	0	0.000854	0	0
Acidobacteria	uncultured_bacterium_f_Blastocatellaceae_[Subgroup_4]	0	0.6474	0.3526	0	0.00232171	0.001264733
Firmicutes	Ruminiclostridium_9	0.4554	0.0775	0.4671	0.00311	0.00052921	0.003188988
Proteobacteria	uncultured_bacterium_f_Alcaligenaceae	0	0.518	0.482	0	0.0003585	0.000333641
Proteobacteria	uncultured_bacterium_f_Oligoflexaceae	0	1	0	0	0.00015364	0
Actinobacteria	Dietzia	0	0.372	0.628	0	5.97E-05	0.000100868
Proteobacteria	uncultured_bacterium_o_SAR324_clade[Marine_group_B]	0	1	0	0	0.00030729	0
Cyanobacteria	uncultured_bacterium_o_Vampirovibrionales	0.99	0.0012	0.0088	0.006986	8.54E-06	6.21E-05
Actinobacteria	Coriobacteriaceae_UCG-002	0.5692	0.213	0.2178	0.001095	0.00040971	0.000418991
Elusimicrobia	Unclassified	0.27	0.5578	0.1722	0.000219	0.00045239	0.000139664
Proteobacteria	Aquicella	0.1352	0.6478	0.217	0.000372	0.00178396	0.00059745
Acidobacteria	Stenotrophobacter	0	0.5437	0.4563	0	0.00022193	0.000186218
Chlamydiae	Unclassified	0	0	1	0	0	0.000147423
Proteobacteria	uncultured_bacterium_o_Rickettsiales	0	0	1	0	0	0.000418991
Firmicutes	Subdoligranulum	0.4903	0.1911	0.3185	0.000131	5.12E-05	8.54E-05
Proteobacteria	Hydrogenophaga	0.6273	0.0719	0.3007	0.000372	4.27E-05	0.000178459

Bacteroidetes	uncultured_bacterium_f_NS9_marine_group	0	0.7447	0.2553	0	0.00097307	0.000333641
Firmicutes	Ruminococcaceae_UCG-010	0.6561	0.0058	0.3381	0.001927	1.71E-05	0.000993164
Planctomycetes	Unclassified	0	0.47	0.53	0	0.00248389	0.002801034
Proteobacteria	uncultured_bacterium_f_Nitrosomonadaceae	0.0629	0.5135	0.4236	0.003329	0.02718621	0.022423786
Chloroflexi	uncultured_bacterium_c_JG30-KF-CM66	0	0.5116	0.4884	0	0.00034143	0.000325882
Proteobacteria	Haliea	0	0.8288	0.1712	0	0.00018779	3.88E-05
Planctomycetes	SM1A02	0	0.7071	0.2929	0	0.0025095	0.001039719
Actinobacteria	Unclassified	0.2549	0.3845	0.3606	0.002672	0.00402885	0.00377868
Verrucomicrobia	Chthoniobacter	0.1818	0.3356	0.4826	0.001073	0.00198028	0.002847588
Proteobacteria	Devosia	0.1283	0.5836	0.288	0.00046	0.00209125	0.00103196
Candidatus_Berkelbacteria	uncultured_bacterium_p_Candidatus_Berkelbacteria	0	0.5902	0.4098	0	0.00061457	0.00042675
Verrucomicrobia	Akkermansia	0	0.6545	0.3455	0	0.00026461	0.000139664
Proteobacteria	Lautropia	0	0.7723	0.2277	0	0.00031582	9.31E-05
Proteobacteria	Polycyclovorans	0.0137	0.5828	0.4034	2.19E-05	0.00093039	0.000644005
Parcubacteria	Unclassified	0	0.2391	0.7609	0	3.41E-05	0.000108627
Firmicutes	Ruminococcaceae_NK4A214_group	0.4685	0.088	0.4435	0.003	0.00056336	0.002839829
Bacteroidetes	Sediminibacterium	0	0.8413	0.1587	0	0.00045239	8.54E-05
Bacteroidetes	Fluviicola	0	0.3549	0.6451	0	0.00020486	0.000372437
Chloroflexi	uncultured_bacterium_c_S085	0	0.5599	0.4401	0	0.00126328	0.000993164
Cyanobacteria	Solanum_torvum	0.9155	0.0845	0	0.000832	7.68E-05	0
Actinobacteria	Sporichthya	0	0.6552	0.3448	0	0.00048653	0.00025605
Cyanobacteria	Nicotiana_otophora	0.8725	0.0994	0.028	0.169627	0.01933336	0.005446885
Actinobacteria	Asaccharobacter	0.1089	0.0424	0.8487	2.19E-05	8.54E-06	0.0001707
Bacteroidetes	Flavisolibacter	0	0.3178	0.6822	0	0.00040118	0.00086126
Verrucomicrobia	Unclassified	0.7301	0.2474	0.0225	0.000504	0.00017071	1.55E-05
Proteobacteria	Paracoccus	0.0116	0.8163	0.1722	2.19E-05	0.00154496	0.000325882
Proteobacteria	uncultured_bacterium_f_Comamonadaceae	0	0.6249	0.3751	0	0.00045239	0.000271568
Bacteroidetes	Solitalea	0	0.3669	0.6331	0	0.00050361	0.000869019
Firmicutes	Faecalibaculum	0.6474	0.1391	0.2135	0.02757	0.00592378	0.00909366

Firmicutes	Turicibacter	0.2308	0.0934	0.6758	0.001161	0.00046946	0.003398484
Proteobacteria	Sphingobium	0.0518	0.6759	0.2723	0.000569	0.0074346	0.002995011
Firmicutes	Ruminiclostridium_5	0.7362	0.0327	0.2311	0.003263	0.00014511	0.001024201
Bacteroidetes	uncultured_Bacteroidetes_bacterium	0	0.6617	0.3383	0	0.00013657	6.98E-05
Proteobacteria	Agaricicola	0	0.962	0.038	0	0.00019632	7.76E-06
Firmicutes	Bacillus	0.2391	0.3542	0.4067	0.000328	0.00048653	0.000558655
Firmicutes	Kurthia	0	0.6343	0.3657	0	0.00034996	0.000201736
Proteobacteria	Variovorax	0	0.8319	0.1681	0	0.00038411	7.76E-05
Gemmatimonadetes	uncultured_bacterium_c_BD2-11_terrestrial_group	0	0.6122	0.3878	0	0.00028168	0.000178459
Proteobacteria	Acidibacter	0.095	0.5987	0.3063	0.003416	0.0215185	0.011010157
Proteobacteria	Desulfatiglans	0	0	1	0	0	0.000225014
Verrucomicrobia	uncultured_bacterium_f_Verrucomicrobiaceae	0	0.6836	0.3164	0	0.00046946	0.000217255
Proteobacteria	Candidatus_Xenohalotis	0	0	1	0	0	0.000178459
Firmicutes	Ruminococcaceae_UCG-004	0.5538	0.0116	0.4346	0.003263	6.83E-05	0.002560502
Actinobacteria	uncultured_bacterium_o_Acidimicrobiales	0.1076	0.4352	0.4573	0.002475	0.01001238	0.010521334
Bacteroidetes	uncultured_bacterium_c_SM1A07	0	0.2683	0.7317	0	7.68E-05	0.000209496
Actinobacteria	Promicromonospora	0	0.5641	0.4359	0	0.00017071	0.000131905
Proteobacteria	Delftia	0	0.1865	0.8135	0	4.27E-05	0.000186218
Acidobacteria	uncultured_bacterium_c_Subgroup_17	0.0833	0.5266	0.3901	0.000197	0.00124621	0.000923332
Actinobacteria	Enterorhabdus	0.7366	0.0261	0.2373	0.000241	8.54E-06	7.76E-05
Proteobacteria	Aeromonas	0	0.1822	0.8178	0	0.00013657	0.000612969
Bacteroidetes	Chryseobacterium	0.0014	0.9931	0.0055	2.19E-05	0.0154923	8.54E-05
Actinobacteria	Ilumatobacter	0.0153	0.5443	0.4404	2.19E-05	0.00077675	0.000628487
Cyanobacteria	Microcystis	0	1	0	0	0.0592719	0
Bacteroidetes	uncultured_bacterium_f_PHOS-HE51	0	0.4191	0.5809	0	0.00190346	0.002638093
Spirochaetae	Turneriella	0.1725	0.4455	0.382	0.000175	0.00045239	0.000387955
Actinobacteria	Actinophytocola	0.8924	0.0105	0.0971	0.003635	4.27E-05	0.000395714
Proteobacteria	Noviherbaspirillum	0	0.5925	0.4075	0	0.00031582	0.000217255
Planctomycetes	uncultured_bacterium_f_Planctomycetaceae	0	0.2764	0.7236	0	0.00021339	0.000558655

Proteobacteria	uncultured_bacterium_o_X35	0	0.3549	0.6451	0	5.12E-05	9.31E-05
Proteobacteria	Alicyclophilus	0	0	1	0	0	0.000155182
Firmicutes	Dialister	0	1	0	0	0.00033289	0
Proteobacteria	Porphyrobacter	0	0.9812	0.0188	0	0.00162178	3.10E-05
Proteobacteria	uncultured_bacterium_f_Coxiellaceae	0	1	0	0	0.00041825	0
GAL15	uncultured_bacterium_p_GAL15	0	0.3909	0.6091	0	5.97E-05	9.31E-05
Proteobacteria	Raoultella	0.2369	0.7452	0.018	0.000307	0.00096453	2.33E-05
Proteobacteria	Sorangium	0	0.6166	0.3834	0	0.00213393	0.001326805
Saccharibacteria	Candidatus_Saccharimonas	0.5353	0.0948	0.3699	0.00265	0.00046946	0.001831147
Proteobacteria	uncultured_bacterium_f_MNC12	0	0.4445	0.5555	0	6.83E-05	8.54E-05
Armatimonadetes	uncultured_bacterium_p_Armatimonadetes	0	0.5395	0.4605	0	0.00098161	0.000837982
Actinobacteria	Corynebacterium_1	0.2996	0.3745	0.3258	0.000635	0.00079382	0.00069056
Firmicutes	Finegoldia	0	0.7705	0.2295	0	0.00049507	0.000147423
Proteobacteria	Arcobacter	1	0	0	0.001095	0	0
Proteobacteria	Enhydrobacter	0	0.8607	0.1393	0	0.00124621	0.000201736
Proteobacteria	uncultured_bacterium_f_Moraxellaceae	0	0.2996	0.7004	0	0.0001195	0.000279327
Proteobacteria	Skermanella	0	0.2529	0.7471	0	6.83E-05	0.000201736
Actinobacteria	CL500-29_marine_group	0.0264	0.6081	0.3654	2.19E-05	0.00050361	0.000302605
Firmicutes	Ruminococcaceae_UCG-014	0.3821	0.0435	0.5744	0.023891	0.00272289	0.035916854
Firmicutes	Pediococcus	1	0	0	0.001117	0	0
Proteobacteria	Dongia	0.1539	0.4718	0.3743	0.000964	0.00295335	0.002343247
Verrucomicrobia	Candidatus_Methylophilum	0	0.1209	0.8791	0	1.71E-05	0.000124146
Acidobacteria	uncultured_bacterium_c_AT-s3-28	0	0.171	0.829	0	2.56E-05	0.000124146
Actinobacteria	Glutamicibacter	0.0401	0.5594	0.4005	0.000109	0.00152789	0.001094032
Bacteroidetes	uncultured_bacterium_f_Cytophagaceae	0.0377	0.4564	0.5059	0.002518	0.03049806	0.03380638
Firmicutes	uncultured_bacterium_f_Eubacteriaceae	0.8597	0.1403	0	0.000942	0.00015364	0
Bacteroidetes	Chitinophaga	0	0.6627	0.3373	0	0.00021339	0.000108627
Proteobacteria	Lysobacter	0	0.4076	0.5924	0	0.00417396	0.006067613
Firmicutes	Anaerovorax	0.5378	0.0135	0.4487	0.000679	1.71E-05	0.000566414

Proteobacteria	Amaricoccus	0	0	1	0	0	0.000395714
Synergistetes	uncultured_bacterium_f_Synergistaceae	1	0	0	0.000482	0	0
Planctomycetes	CL500-3	0	0.9898	0.0102	0	0.00827109	8.54E-05
Bacteroidetes	Prevotella_1	0	0.4231	0.5769	0	0.00010243	0.000139664
Chloroflexi	uncultured_bacterium_c_P2-11E	0	0.2391	0.7609	0	3.41E-05	0.000108627
Proteobacteria	G55	0	0.5684	0.4316	0	0.00067432	0.0005121
Proteobacteria	uncultured_bacterium_o_KI89A_clade	0	0.5	0.5	0	0.00017071	0.0001707
Proteobacteria	Acinetobacter	0.08	0.5959	0.3241	0.000547	0.00408006	0.002219101
Chloroflexi	Unclassified	0	0.6651	0.3349	0	0.00396057	0.001994088
Actinobacteria	Bifidobacterium	0.6446	0.1057	0.2497	0.014322	0.00234732	0.005547753
Saccharibacteria	uncultured_Candidatus_Saccharibacteria_bacterium	0	0.4905	0.5095	0	0.00017925	0.000186218
Proteobacteria	uncultured_bacterium_f_B79	0	0.5475	0.4525	0	9.39E-05	7.76E-05
Proteobacteria	Oligella	1	0	0	0.000613	0	0
Firmicutes	Listeria	0	0.8189	0.1811	0	0.00031582	6.98E-05
Gemmatimonadetes	Unclassified	0.0445	0.6244	0.3311	2.19E-05	0.00030729	0.000162941
Proteobacteria	Wolbachia	0	0.1146	0.8854	0	1.71E-05	0.000131905
Candidatus_Berkelbacteria	Unclassified	0	0.5238	0.4762	0	7.68E-05	6.98E-05
Acidobacteria	Vicinamibacter	0.0795	0.518	0.4025	0.000307	0.00199735	0.001551819
Proteobacteria	Methylothera	0	0.7777	0.2223	0	0.00165593	0.000473305
Firmicutes	Ruminococcaceae_UCG-003	0.9167	0.0404	0.0429	0.001161	5.12E-05	5.43E-05
Proteobacteria	uncultured_bacterium_f_Methylobacteriaceae	0	0.8198	0.1802	0	0.00077675	0.0001707
Tenericutes	Mycoplasma	0.4722	0.0056	0.5222	0.000723	8.54E-06	0.000799187
Planctomycetes	AKYG587	0	0.8148	0.1852	0	0.00017071	3.88E-05
Fusobacteria	Fusobacterium	0.5178	0.1294	0.3528	0.000854	0.00021339	0.000581932
Firmicutes	Weissella	0.1445	0.1112	0.7443	0.000854	0.00065725	0.004399407
Firmicutes	Allobaculum	0.5656	0.0817	0.3527	0.041104	0.00594085	0.025628293
Actinobacteria	Agromyces	0	0.092	0.908	0	0.00023046	0.002273415
Actinobacteria	Streptomyces	0.1833	0.5277	0.2891	0.000679	0.00195468	0.001070755
Verrucomicrobia	uncultured_bacterium_f_DA101_soil_group	0	0.2612	0.7388	0	0.00015364	0.000434509

Proteobacteria	uncultured_bacterium_f_Xanthobacteraceae	0	0.602	0.398	0	0.00037557	0.000248291
Acidobacteria	uncultured_bacterium_c_Subgroup_25	1	0	0	0.000613	0	0
Firmicutes	Ezakiella	0	0	1	0	0	0.000162941
Acidobacteria	Candidatus_Solibacter	0.1585	0.4216	0.4199	0.000504	0.0013401	0.001334564
Proteobacteria	uncultured_bacterium_f_JG34-KF-361	0	0.4753	0.5247	0	0.0001195	0.000131905
Proteobacteria	Nordella	0	0.5487	0.4513	0	0.0017925	0.001474228
Proteobacteria	Pseudoxanthomonas	0	0.6631	0.3369	0	0.00029021	0.000147423
Proteobacteria	uncultured_bacterium_f_Bradyrhizobiaceae	0.259	0.4116	0.3294	0.000854	0.00135718	0.001086273
Actinobacteria	Arthrobacter	1	0	0	0.00046	0	0
Chloroflexi	uncultured_bacterium_f_AKIW781	0	0.6318	0.3682	0	0.00033289	0.000193977
Proteobacteria	uncultured_bacterium_f_Acetobacteraceae	0.2298	0.2926	0.4776	0.000328	0.00041825	0.0006828
Acidobacteria	RB41	0	0.6317	0.3683	0	0.00733217	0.004275262
Proteobacteria	Azohydromonas	0.0288	0.5043	0.4669	0.000131	0.00230464	0.002133751
Acidobacteria	uncultured_bacterium_c_Subgroup_15	0	0.8603	0.1397	0	0.000239	3.88E-05
Firmicutes	[Eubacterium]_coprostanoligenes_group	0.6481	0.0606	0.2912	0.013227	0.00123768	0.005943467
Proteobacteria	uncultured_bacterium_f_Salinisphaeraceae	1	0	0	0.000679	0	0
Proteobacteria	uncultured_bacterium_f_DUNssu044	0	0.4037	0.5963	0	6.83E-05	0.000100868
Proteobacteria	Sandaracinus	0	0.4979	0.5021	0	0.00054628	0.000550896
Actinobacteria	uncultured_bacterium_f_Acidimicrobiaceae	0.0293	0.6483	0.3224	6.57E-05	0.00145107	0.000721596
Bacteroidetes	Sporocytophaga	0	0.3894	0.6106	0	0.00034143	0.000535378
Armatimonadetes	uncultured_bacterium_f_Fimbriimonadaceae	0	0.6312	0.3688	0	0.0005975	0.000349159
Tenericutes	Anaeroplasma	0.4493	0.0137	0.5369	0.001117	3.41E-05	0.001334564
Proteobacteria	Brevundimonas	0.0483	0.6778	0.2739	2.19E-05	0.00030729	0.000124146
Proteobacteria	Thiobacillus	0	1	0	0	0.00165593	0
Proteobacteria	Chelatococcus	0.9698	0.0302	0	0.000547	1.71E-05	0
Bacteroidetes	Alistipes	0.5776	0.0701	0.3523	0.001336	0.00016218	0.000814705
Firmicutes	Christensenellaceae_R-7_group	0.6066	0.1478	0.2456	0.001226	0.00029875	0.000496582
Actinobacteria	Luedemannella	0	0.4988	0.5012	0	0.00032436	0.000325882
Proteobacteria	Bradyrhizobium	0.2628	0.3677	0.3695	0.003526	0.00493363	0.004958062



Actinobacteria	Actinoplanes	0	0.8544	0.1456	0	0.00027314	4.66E-05
Firmicutes	Tyzzarella	0.7133	0.0649	0.2218	0.001971	0.00017925	0.000612969
Fibrobacteres	possible_genus_04	0.5455	0.1613	0.2932	0.000635	0.00018779	0.0003414
Proteobacteria	Rhodoplanes	0.0367	0.7432	0.2201	0.000394	0.00798942	0.002366524
Proteobacteria	uncultured_bacterium_f_Nannocystaceae	0	0.8102	0.1898	0	0.00082796	0.000193977
Proteobacteria	Hyphomicrobium	0	0.7088	0.2912	0	0.00062311	0.00025605
Gemmatimonadetes	Gemmatimonas	0	0.5173	0.4827	0	0.00386667	0.003607979
Synergistetes	Thermovirga	1	0	0	0.000482	0	0
Bacteroidetes	Prevotella	0	0.2683	0.7317	0	4.27E-05	0.000116386
Proteobacteria	uncultured_bacterium_f_SM2D12	0.877	0.0436	0.0793	0.002058	0.00010243	0.000186218
Acidobacteria	Blastocatella	0	0.8024	0.1976	0	0.00040971	0.000100868
Bacteroidetes	Crocinitomix	0	0.9346	0.0654	0	0.00022193	1.55E-05
Bacteroidetes	Parabacteroides	0	0.2373	0.7627	0	0.000239	0.00076815
Bacteroidetes	Dyadobacter	0	0.2683	0.7317	0	4.27E-05	0.000116386
Actinobacteria	Nonomurea	0	0.2421	0.7579	0	7.68E-05	0.000240532
Microgenomates	uncultured_Microgenomates_group_bacterium	0	0.4591	0.5409	0	0.00023046	0.000271568
Proteobacteria	Psychrobacter	0	0.2619	0.7381	0	8.54E-05	0.000240532
Firmicutes	Oscillibacter	0.9083	0.019	0.0727	0.002037	4.27E-05	0.000162941
Bacteroidetes	Prevotellaceae_NK3B31_group	0.2343	0.2055	0.5603	8.76E-05	7.68E-05	0.000209496
Firmicutes	Ruminiclostridium_6	0.5034	0.1861	0.3106	0.00127	0.00046946	0.000783669
Elusimicrobia	uncultured_bacterium_o_Lineage_IIc	0	0.0873	0.9127	0	1.71E-05	0.000178459
Proteobacteria	uncultured_bacterium_o_NB1-j	0	0.453	0.547	0	0.00278264	0.003359688
Acidobacteria	uncultured_bacterium_o_Subgroup_7	0.3714	0.4244	0.2042	0.000635	0.00072553	0.000349159
Proteobacteria	Enhygromyxa	0	0.5585	0.4415	0	0.00039264	0.000310364
FCPU426	uncultured_bacterium_p_FCPU426	0	0.3438	0.6562	0	0.00017071	0.000325882
Tenericutes	Unclassified	0.4604	0.0932	0.4464	0.002825	0.00057189	0.002738961
Acidobacteria	uncultured_bacterium_c_Subgroup_6	0.066	0.5016	0.4324	0.003613	0.02744228	0.023657482
Proteobacteria	Silanimonas	0	1	0	0	0.00065725	0
Bacteroidetes	uncultured_bacterium_f_Saprospiraceae	0	0.7263	0.2737	0	0.0038496	0.001450951

Firmicutes	Lachnoclostridium	0.7466	0.0374	0.216	0.002387	0.0001195	0.00069056
Proteobacteria	Falsirhodobacter	0.7498	0.0731	0.1771	0.000263	2.56E-05	6.21E-05
Proteobacteria	uncultured_bacterium_f_Polyangiaceae	0	0.6227	0.3773	0	0.00163885	0.000993164
Bacteroidetes	Cloacibacterium	0	0.3176	0.6824	0	9.39E-05	0.000201736
Proteobacteria	uncultured_bacterium_f_Hyphomonadaceae	0	0.1315	0.8685	0	0.00086211	0.005695176
Armatimonadetes	uncultured_bacterium_o_Chthonomonadales	0	0.4872	0.5128	0	0.00016218	0.0001707
Bacteroidetes	uncultured_bacterium_f_Chitinophagaceae	0	0.4877	0.5123	0	0.01497162	0.015727687
Acidobacteria	Bryobacter	0	0.6636	0.3364	0	0.00740899	0.003755402
Firmicutes	Lachnospiraceae_NK4A136_group	0.6422	0.049	0.3088	0.02249	0.00171568	0.010816179
Microgenomates	uncultured_bacterium_c_Candidatus_Woesebacteria	0	1	0	0	0.00016218	0
Firmicutes	Ruminiclostridium_1	0	0	1	0	0	0.000186218
Proteobacteria	Sulfurifustis	0.2052	0.2523	0.5425	0.000285	0.00034996	0.000752632
Firmicutes	uncultured_bacterium_f_Erysipelotrichaceae	0.7508	0.0665	0.1827	0.057812	0.00512142	0.01406724
Armatimonadetes	Unclassified	0	0.7675	0.2325	0	0.00040971	0.000124146
Bacteroidetes	Ohtaekwangia	0	0.2949	0.7051	0	0.002629	0.006284867
Actinobacteria	Brevibacterium	0.1991	0.2717	0.5292	0.000131	0.00017925	0.000349159
Cyanobacteria	Microcoleus	0	0	1	0	0	0.002358765
Proteobacteria	Rhodomicrobium	0	0.4766	0.5234	0	0.00040971	0.000450028
Chloroflexi	uncultured_bacterium_c_SBR2076	0.5307	0.2307	0.2386	0.000569	0.00024754	0.00025605
Proteobacteria	uncultured_bacterium_f_BIrii41	0.1983	0.4296	0.372	0.004248	0.00920149	0.007968591
Proteobacteria	H16	0	0.601	0.399	0	0.00455806	0.003026047
Bacteroidetes	Adhaeribacter	0	0.4905	0.5095	0	0.00053775	0.000558655
Bacteroidetes	Odoribacter	0.3727	0	0.6273	8.76E-05	0	0.000147423
Proteobacteria	Parasutterella	0.3348	0.0843	0.5809	0.001051	0.00026461	0.001823387
Bacteroidetes	Barnesiella	0.9412	0	0.0588	0.000372	0	2.33E-05
Acidobacteria	DS-100	0	0.7294	0.2706	0	0.00041825	0.000155182
Proteobacteria	uncultured_bacterium_f_Methylophilaceae	0.2248	0.6408	0.1344	0.00035	0.00099868	0.000209496
Cloacimonetes	Unclassified	0.9927	0	0.0073	0.001051	0	7.76E-06
Actinobacteria	Lawsonella	0	0.5874	0.4126	0	0.00037557	0.000263809

Proteobacteria	Rubellimicrobium	0.0847	0.1651	0.7502	2.19E-05	4.27E-05	0.000193977
Firmicutes	Streptococcus	0.5566	0.2104	0.2331	0.000723	0.00027314	0.000302605
Chloroflexi	Anaerolinea	1	0	0	0.000482	0	0
Proteobacteria	Cellvibrio	0	0.7376	0.2624	0	0.00019632	6.98E-05
Planctomycetes	uncultured_bacterium_c_BD7-11	0	0.2391	0.7609	0	3.41E-05	0.000108627
BRC1	uncultured_bacterium_p_BRC1	0	0.4074	0.5926	0	8.54E-05	0.000124146
Acidobacteria	Aridibacter	0.0434	0.8797	0.0769	2.19E-05	0.00044386	3.88E-05
Proteobacteria	Burkholderia-Paraburkholderia	0.1103	0.3273	0.5624	0.000394	0.00116939	0.002009606
Planctomycetes	uncultured_bacterium_f_Phycisphaeraceae	0	0.6814	0.3186	0	0.00029875	0.000139664
Firmicutes	uncultured_bacterium_f_Clostridiales_vadinBB60_group	0.9537	0	0.0463	0.001599	0	7.76E-05
Proteobacteria	Undibacterium	0	0.0305	0.9695	0	8.54E-06	0.000271568
Actinobacteria	uncultured_bacterium_o_Gaiellales	0.0245	0.5039	0.4717	0.000153	0.00315821	0.002956215
Actinobacteria	Jatrophihabitans	0	0.7196	0.2804	0	0.000239	9.31E-05
Proteobacteria	uncultured_bacterium_f_Xanthomonadaceae	0.3054	0.4532	0.2414	0.000569	0.00084503	0.000450028
Cyanobacteria	Pleurocapsa	1	0	0	0.00162	0	0
Bacteroidetes	Terrimonas	0.0083	0.4687	0.523	8.76E-05	0.00495071	0.005524476
Proteobacteria	uncultured_bacterium_f_Caulobacteraceae	0	0.4066	0.5934	0	0.00032436	0.000473305
Actinobacteria	Amycolatopsis	0.6396	0.2244	0.136	0.000438	0.00015364	9.31E-05
Spirochaetae	uncultured_Spirochaetales_bacterium	0	0.9502	0.0498	0	0.00044386	2.33E-05
Cyanobacteria	Chroococcidiopsis	0	0	1	0	0	0.02402216
Proteobacteria	Pseudolabrys	0	0.7735	0.2265	0	0.00076821	0.000225014
Proteobacteria	Rhizobacter	0	0.8297	0.1703	0	0.00026461	5.43E-05
Proteobacteria	Campylobacter	0	0.386	0.614	0	0.00010243	0.000162941
WS6	uncultured_bacterium_p_WS6	0	0.882	0.118	0	0.00168153	0.000225014
Bacteroidetes	vadinBC27_wastewater-sludge_group	0.693	0.075	0.2319	0.000394	4.27E-05	0.000131905
Proteobacteria	Desulfomicrobium	1	0	0	0.000547	0	0
Proteobacteria	Tahibacter	0.2501	0.4485	0.3013	0.000109	0.00019632	0.000131905
Firmicutes	Blautia	0.287	0.0124	0.7006	0.000197	8.54E-06	0.000481064
Firmicutes	[Eubacterium]_nodatum_group	0.5445	0.1222	0.3333	0.000723	0.00016218	0.000442268

Proteobacteria	BD1-7_clade	0	0.1642	0.8358	0	4.27E-05	0.000217255
Actinobacteria	uncultured_bacterium_f_Micromonosporaceae	0.4427	0.174	0.3833	0.002715	0.00106696	0.002351006
Actinobacteria	Janibacter	0	0.7202	0.2798	0	0.00099868	0.000387955
Firmicutes	Planomicrobium	0	0	1	0	0	0.00042675
Deferribacteres	Mucispirillum	0.5349	0.1651	0.3001	0.000526	0.00016218	0.000294846
Verrucomicrobia	Roseimicrobium	0	0.2323	0.7677	0	0.00028168	0.000931091
Firmicutes	uncultured_bacterium_f_Lachnospiraceae	0.6879	0.0936	0.2185	0.009723	0.00132303	0.00308812
Firmicutes	[Eubacterium]_ventriosum_group	1	0	0	0.000569	0	0
Proteobacteria	uncultured_bacterium_o_Xanthomonadales	0.049	0.5808	0.3702	0.002869	0.03403184	0.021694431
Chloroflexi	uncultured_bacterium_f_Caldilineaceae	0	0.6549	0.3451	0	0.00058896	0.000310364
Firmicutes	Ruminococcus_2	0.8015	0.0526	0.146	0.002343	0.00015364	0.00042675
Parcubacteria	uncultured_bacterium_p_Parcubacteria	0	0.6668	0.3332	0	0.00248389	0.001241455
Actinobacteria	Mycobacterium	0	0.4231	0.5769	0	0.00017071	0.000232773
Nitrospirae	uncultured_bacterium_f_Nitrospiraceae	0	0	1	0	0	0.000162941
Proteobacteria	Rhizomicrobium	0.0639	0.4818	0.4543	0.000394	0.00297042	0.002801034
Actinobacteria	Paenarthrobacter	0	0.362	0.638	0	0.00055482	0.000977646
Chlorobi	uncultured_bacterium_f_SJA-28	0	0.6335	0.3665	0	9.39E-05	5.43E-05
Proteobacteria	uncultured_bacterium_f_RB446	0	0.731	0.269	0	0.0003585	0.000131905
Proteobacteria	Phenylobacterium	0.1603	0.5944	0.2452	0.001796	0.00665785	0.00274672
Acidobacteria	uncultured_bacterium_f_Sva0725	0	0.5475	0.4525	0	0.00065725	0.000543137
Firmicutes	Fusicatenibacter	0.73	0.239	0.031	0.000547	0.00017925	2.33E-05
Proteobacteria	Rhizobium	0.1984	0.5575	0.2441	0.001161	0.00326064	0.001427674
Firmicutes	Eisenbergiella	0	0.018	0.982	0	8.54E-06	0.000465546
Proteobacteria	Altererythrobacter	0.1814	0.4637	0.3549	0.003022	0.00772481	0.005912431
Proteobacteria	Sphingopyxis	0	0.7601	0.2399	0	0.00472024	0.001489746
Proteobacteria	Ensifer	0	0.6217	0.3783	0	0.00100721	0.000612969
Proteobacteria	Caenimonas	0.0292	0.6295	0.3413	0.000131	0.00283385	0.001536301
Firmicutes	[Ruminococcus]_torques_group	0	0.3311	0.6689	0	7.68E-05	0.000155182
Acidobacteria	Elev-16S-1166	0	0.44	0.56	0	8.54E-05	0.000108627

Actinobacteria	Rhizocola	0	0.5702	0.4298	0	0.00139985	0.001055237
Proteobacteria	Woodsholea	0.05	0.6793	0.2707	0.000591	0.00804063	0.003204506
Actinobacteria	Iamia	0	0.6541	0.3459	0	0.00224489	0.001187142
SR1_[Absconditabacteria]	Unclassified	0	0	1	0	0	0.000612969
Cyanobacteria	uncultured_bacterium_o_Obscuribacterales	0	0.3138	0.6862	0	0.00031582	0.00069056
Bacteroidetes	Mucilaginibacter	0	0	1	0	0	0.000271568
Proteobacteria	Helicobacter	0.0502	0.505	0.4448	0.000109	0.00110111	0.000969887
Microgenomates	Unclassified	0	0.585	0.415	0	0.00069993	0.000496582
Proteobacteria	uncultured_bacterium_f_Sneathiellaceae	0	0.3834	0.6166	0	0.00011096	0.000178459
Proteobacteria	Reyranella	0.0855	0.5218	0.3927	0.000723	0.00441296	0.003320893
Firmicutes	Exiguobacterium	1	0	0	0.000438	0	0
Firmicutes	Lachnospiraceae_UCG-001	1	0	0	0.001073	0	0
Proteobacteria	Variibacter	0.1248	0.5366	0.3386	0.001226	0.00527506	0.003328652
Proteobacteria	Polaromonas	0.2954	0.5286	0.176	0.000482	0.00086211	0.000287087
Proteobacteria	OM27_clade	0	0.5454	0.4546	0	0.00195468	0.00162941
Firmicutes	Erysipelotrichaceae_UCG-007	0	0	1	0	0	0.000178459
Proteobacteria	Unclassified	0.3883	0.3063	0.3054	0.036527	0.02881653	0.028731931
Latescibacteria	Unclassified	0	0.4317	0.5683	0	0.00074261	0.000977646
Proteobacteria	Pedomicrobium	0	0.4127	0.5873	0	0.00255217	0.003631257
Proteobacteria	Craurococcus	0	0.2202	0.7798	0	0.00016218	0.000574173
Proteobacteria	Vibrio	0	0.6535	0.3465	0	0.00051214	0.000271568
TM6_[Dependentiae]	Unclassified	0	0.6875	0.3125	0	0.00017071	7.76E-05
Proteobacteria	Acidovorax	0	0.3823	0.6177	0	0.00015364	0.000248291
Microgenomates	uncultured_bacterium_c_Candidatus_Pacebacteria	0	1	0	0	0.00029875	0
Firmicutes	Ruminococcaceae_UCG-013	0.4474	0.1885	0.3641	0.00081	0.00034143	0.000659523
Proteobacteria	uncultured_bacterium_o_Myxococcales	0.0319	0.4893	0.4787	6.57E-05	0.00100721	0.000985405
Firmicutes	Holdemanella	1	0	0	0.000745	0	0
Verrucomicrobia	Opitutus	0.1025	0.5536	0.3439	0.000788	0.00425931	0.002645852
Proteobacteria	Pseudohongiella	0.206	0.5782	0.2158	0.000985	0.00276557	0.00103196

Proteobacteria	Stenotrophomonas	0.596	0.2262	0.1778	0.000832	0.00031582	0.000248291
Firmicutes	Ruminiclostridium	0.9427	0	0.0573	0.000766	0	4.66E-05
Proteobacteria	Zoogloea	1	0	0	0.000613	0	0
Firmicutes	Faecalibacterium	0.6028	0.141	0.2563	0.000657	0.00015364	0.000279327
Actinobacteria	Propionibacterium	0.2594	0.3713	0.3693	0.001139	0.00163032	0.001621651
Firmicutes	Lachnospiraceae_UCG-006	0.3789	0.0394	0.5817	0.000328	3.41E-05	0.000504341
Proteobacteria	Mesorhizobium	0.2146	0.3491	0.4363	0.000504	0.00081943	0.001024201
Firmicutes	Gracilibacter	1	0	0	0.000569	0	0
Firmicutes	[Eubacterium]_xylanophilum_group	0.2776	0.2124	0.51	0.000591	0.00045239	0.001086273
Proteobacteria	Haliangium	0.0964	0.5299	0.3737	0.003088	0.01697751	0.011972285

**Supplemental Table S5** Ternary diagram, F1, F2 and F3 groups in the bacterial phylum level.

Phylum	Genus	J1_ratio	J2_ratio	J3_ratio	J1_reabundance	J2_reabundance	J3_reabundance
Verrucomicrobia	uncultured_bacterium_c_OPB35_soil_group	0.3931	0.432	0.1749	0.0088	0.00967	0.00391605
Saccharibacteria	uncultured_bacterium_p_Saccharibacteria	0.2852	0.2786	0.4362	0.009468	0.009247	0.014477146
Actinobacteria	Aeromicrobium	0.5903	0.376	0.0337	0.000644	0.00041	3.67E-05
Proteobacteria	Dokdonella	0.3935	0.0513	0.5553	9.54E-05	1.24E-05	0.000134614
Proteobacteria	Vulgatibacter	0.2249	0.7484	0.0266	0.00031	0.001032	3.67E-05
Bacteroidetes	Bacteroides	0.2965	0.0509	0.6525	0.005211	0.000895	0.011466683
Actinobacteria	Brachybacterium	0	0.3006	0.6994	0	0.000137	0.000318179
Proteobacteria	Steroidobacter	0.4808	0.2294	0.2898	0.004507	0.00215	0.002716759
Firmicutes	Family_XIII_AD3011_group	1	0	0	0.00025	0	0
Proteobacteria	uncultured_bacterium_f_P3OB-42	0.1233	0.4497	0.427	0.000191	0.000696	0.000660833
Chloroflexi	uncultured_bacterium_c_Gitt-GS-136	0.4478	0.3334	0.2188	0.000751	0.000559	0.00036713
Latescibacteria	uncultured_bacterium_p_Latescibacteria	0.3769	0.395	0.2281	0.006773	0.007097	0.004099615
Actinobacteria	uncultured_bacterium_f_Propionibacteriaceae	0	0.0274	0.9726	0	1.24E-05	0.000440556
Proteobacteria	Caulobacter	0.4489	0.3207	0.2304	0.001479	0.001056	0.000758735
Bacteroidetes	Flavitalea	0.4386	0.2613	0.3001	0.000501	0.000298	0.000342654
Proteobacteria	uncultured_bacterium_f_Blfdi19	0.9505	0.0495	0	0.000238	1.24E-05	0
Bacteroidetes	Flavobacterium	0.1395	0.6937	0.1668	0.001514	0.007532	0.001811173
Bacteroidetes	Nibribacter	0.3791	0.6209	0	8.35E-05	0.000137	0
Firmicutes	Clostridium_sensu_stricto_1	0.7128	0.05	0.2372	0.010994	0.000771	0.003659059
Firmicutes	Acetitomaculum	1	0	0	0.000191	0	0
Firmicutes	Anaerococcus	0	0	1	0	0	0.000697546
Firmicutes	Ruminococcaceae_UCG-005	0.1348	0.0319	0.8333	0.000525	0.000124	0.003242979
Firmicutes	uncultured_bacterium_f_Peptococcaceae	0.9029	0	0.0971	0.001252	0	0.000134614
Chloroflexi	uncultured_bacterium_f_Anaerolineaceae	0.339	0.353	0.3081	0.033435	0.034814	0.030386098
Proteobacteria	uncultured_bacterium_f_KF-JG30-B3	0.4882	0.3662	0.1456	0.003529	0.002647	0.001052438
Chloroflexi	uncultured_bacterium_o_C0119	0.1815	0.2129	0.6056	0.000191	0.000224	0.000636358
Proteobacteria	Georgfuchsia	0.1014	0.8986	0	4.77E-05	0.000423	0

Bacteroidetes	Parafilimonas	1	0	0	0.000405	0	0
Actinobacteria	Rubrobacter	0.1422	0.566	0.2918	0.000596	0.002374	0.001223766
Proteobacteria	Meganema	0	1	0	0	0.005295	0
Bacteroidetes	uncultured_bacterium_f_KD3-93	0.3802	0.1821	0.4377	0.000882	0.000423	0.001015725
Chlamydiae	uncultured_bacterium_f_Simkaniaceae	0.0498	0.8992	0.0511	3.58E-05	0.000646	3.67E-05
Proteobacteria	uncultured_bacterium_f_Unknown_Family	0.5854	0.1366	0.278	0.001598	0.000373	0.000758735
Actinobacteria	Alpinimonas	0.1619	0.4781	0.36	7.15E-05	0.000211	0.00015909
Actinobacteria	uncultured_bacterium_f_288-2	0.1584	0.3538	0.4877	8.35E-05	0.000186	0.000256991
Firmicutes	Aerococcus	0.1378	0.0522	0.81	0.000131	4.97E-05	0.000770972
Nitrospirae	uncultured_bacterium_f_0319-6A21	0.1549	0.3951	0.4499	0.00056	0.001429	0.001627608
Proteobacteria	Sphingomonas	0.4379	0.3036	0.2586	0.02578	0.017873	0.015223643
Proteobacteria	Panacagrimonas	0.3251	0.4953	0.1797	0.000155	0.000236	8.57E-05
Proteobacteria	uncultured_bacterium_f_A0839	0.2031	0.3724	0.4245	0.000644	0.001181	0.001346142
Chloroflexi	Roseiflexus	0.2378	0.4492	0.3129	0.001395	0.002635	0.001835648
Bacteroidetes	Dinghuibacter	0.236	0.764	0	0.000227	0.000733	0
Proteobacteria	Ferrovibrio	0.406	0.0651	0.5289	0.00031	4.97E-05	0.000403843
Deinococcus-Thermus	Truepera	0	1	0	0	1.24E-05	0
Nitrospirae	Nitrospira	0.3223	0.4213	0.2565	0.00446	0.005829	0.00354892
Gemmatimonadetes	uncultured_bacterium_f_Longimicrobiaceae	0.0211	0.0894	0.8895	0.000167	0.000708	0.007048889
Chloroflexi	uncultured_bacterium_c_JG37-AG-4	0.1631	0	0.8369	4.77E-05	0	0.000244753
Proteobacteria	Klebsiella	0.091	0.0294	0.8795	0.000346	0.000112	0.00334088
Chloroflexi	uncultured_bacterium_c_TK10	0.2714	0.4634	0.2653	0.001252	0.002138	0.001223766
Proteobacteria	Nannocystis	0.234	0.7248	0.0412	0.000417	0.001293	7.34E-05
Tectomicrobia	uncultured_bacterium_p_Tectomicrobia	0.0484	0.5545	0.3971	1.19E-05	0.000137	9.79E-05
Planctomycetes	uncultured_bacterium_c_Pla3_lineage	0.2071	0.4102	0.3826	0.000119	0.000236	0.000220278
Gemmatimonadetes	Gemmatirosa	0.0155	0.2902	0.6944	4.77E-05	0.000895	0.00214159
Actinobacteria	Pseudonocardia	0.2352	0.5125	0.2523	0.000262	0.000572	0.000281466
Firmicutes	Enterococcus	0.1722	0.0382	0.7896	0.00056	0.000124	0.002569908
Firmicutes	Ruminococcaceae_UCG-009	0.7443	0.0665	0.1892	0.001252	0.000112	0.000318179



Actinobacteria	Nocardioidea	0.1737	0.2949	0.5314	0.001252	0.002125	0.003830386
Bacteroidetes	Hymenobacter	0.5105	0.1901	0.2994	0.000167	6.21E-05	9.79E-05
Cyanobacteria	uncultured_bacterium_o_Gastranaerophilales	0.8467	0	0.1533	0.000405	0	7.34E-05
Acidobacteria	uncultured_Acidobacteria_bacterium	0.2502	0.3957	0.3541	0.00595	0.009409	0.008419507
Elusimicrobia	uncultured_bacterium_o_Lineage_IIb	0.2613	0.4705	0.2682	0.000131	0.000236	0.000134614
Parcubacteria	uncultured_bacterium_c_Candidatus_Magasanikbacteria	0.7933	0.2067	0	0.000429	0.000112	0
Fibrobacteres	uncultured_bacterium_f_Fibrobacteraceae	0	0.0212	0.9788	0	1.24E-05	0.00057517
Proteobacteria	uncultured_bacterium_f_DA111	0.2885	0.3351	0.3764	0.000835	0.000969	0.001089151
Firmicutes	Anaerostipes	0.093	0.0484	0.8586	2.38E-05	1.24E-05	0.000220278
Bacteroidetes	uncultured_bacterium_c_Bacteroidetes_VC2.1_Bac22	0.1461	0.2842	0.5697	0.000179	0.000348	0.000697546
Proteobacteria	uncultured_bacterium_o_Alphaproteobacteria_Incertae_Sedis	0.1793	0.6663	0.1544	0.000739	0.002747	0.000636358
Actinobacteria	uncultured_bacterium_c_MB-A2-108	0.1865	0.4771	0.3364	0.000393	0.001007	0.000709784
Acidobacteria	uncultured_bacterium_c_Subgroup_5	0.0507	0.767	0.1823	2.38E-05	0.00036	8.57E-05
Euryarchaeota	uncultured_archaeon	0.2058	0.6434	0.1508	8.35E-05	0.000261	6.12E-05
Elusimicrobia	uncultured_bacterium_o_MVP-88	0.1946	0.4154	0.39	0.000501	0.001069	0.001003488
Proteobacteria	Massilia	0.1514	0.2298	0.6188	0.00068	0.001032	0.002777948
Proteobacteria	uncultured_bacterium_o_X35	0.438	0	0.562	9.54E-05	0	0.000122377
Proteobacteria	Roseomonas	0.0035	0.9965	0	1.19E-05	0.003406	0
Spirochaetae	Treponema_2	0	0	1	0	0	0.000403843
Gemmatimonadetes	uncultured_bacterium_c_S0134_terrestrial_group	0.4896	0.5104	0	0.000119	0.000124	0
Firmicutes	[Eubacterium]_ruminantium_group	0.2588	0.5009	0.2403	0.00025	0.000485	0.000232515
Firmicutes	Lachnospiraceae_NC2004_group	0.8163	0.0619	0.1219	0.000656	4.97E-05	9.79E-05
Actinobacteria	Microbacterium	0.1358	0.5257	0.3385	8.35E-05	0.000323	0.00020804
Bacteroidetes	uncultured_bacterium_f_AKYH767	0.1513	0.6401	0.2086	0.000835	0.00353	0.00115034
Proteobacteria	Paucibacter	0.0834	0.2318	0.6848	3.58E-05	9.94E-05	0.000293704
Bacteroidetes	Prevotella_9	0.0271	0.0282	0.9447	1.19E-05	1.24E-05	0.00041608
Proteobacteria	uncultured_bacterium_f_I-10	0.32	0.2716	0.4084	0.00186	0.001579	0.002374105
Proteobacteria	Arenimonas	0.4222	0.2979	0.28	0.00155	0.001094	0.001027963

Acidobacteria	PAUC26f	1	0	0	0.00025	0	0
Firmicutes	Anaerotruncus	0.152	0.0679	0.7801	8.35E-05	3.73E-05	0.000428318
Chloroflexi	uncultured_bacterium_o_JG30-KF-CM45	0	0	1	0	0	0.000318179
Firmicutes	Veillonella	0.3276	0	0.6724	4.77E-05	0	9.79E-05
Firmicutes	Clostridium_sensu_stricto_3	0	0	1	0	0	0.000281466
Proteobacteria	uncultured_bacterium_o_SC-I-84	0.3288	0.3889	0.2823	0.00248	0.002933	0.002129352
Firmicutes	Lactobacillus	0.5941	0.0977	0.3082	0.089227	0.014666	0.04629505
Proteobacteria	Desulfovibrio	0.2576	0.1289	0.6135	0.000298	0.000149	0.000709784
Proteobacteria	Serratia	0.6009	0	0.3991	0.000203	0	0.000134614
Cyanobacteria	uncultured_bacterium_c_Chloroplast	0.068	0.912	0.02	8.35E-05	0.001119	2.45E-05
Firmicutes	[Clostridium]_innocuum_group	0	0.1193	0.8807	0	2.49E-05	0.000183565
Chlamydiae	Neochlamydia	0.2037	0.7963	0	4.77E-05	0.000186	0
Bacteroidetes	uncultured_bacterium_o_Sphingobacteriales	0.3543	0.1401	0.5057	0.001037	0.00041	0.001480756
Actinobacteria	uncultured_bacterium_f_Coriobacteriaceae	0.4365	0.2275	0.336	9.54E-05	4.97E-05	7.34E-05
Planctomycetes	uncultured_bacterium_c_OM190	0.2338	0.4295	0.3367	0.002456	0.004512	0.003536682
Acidobacteria	uncultured_bacterium_f_Acidobacteriaceae_[Sub group_1]	0.1774	0.2081	0.6145	9.54E-05	0.000112	0.000330417
Elusimicrobia	uncultured_bacterium_o_Lineage_Ila	0.694	0.0517	0.2544	0.000167	1.24E-05	6.12E-05
Proteobacteria	uncultured_bacterium_f_TK34	0.2023	0.7606	0.0371	0.000334	0.001255	6.12E-05
Bacteroidetes	uncultured_bacterium_c_Bacteroidetes_vadinHA 17	0	1	0	0	4.97E-05	0
Nitrospirae	Unclassified	0.2438	0.363	0.3932	8.35E-05	0.000124	0.000134614
Actinobacteria	Quadrisphaera	0	0.1322	0.8678	0	3.73E-05	0.000244753
Proteobacteria	uncultured_bacterium_f_Thiotrichaceae	1	0	0	0.00031	0	0
Firmicutes	Roseburia	0.6803	0.084	0.2358	0.002719	0.000336	0.000942299
Firmicutes	Coprococcus_1	0.3615	0.1615	0.477	8.35E-05	3.73E-05	0.000110139
Firmicutes	Ruminococcus_1	0.6912	0.0497	0.2591	0.007607	0.000547	0.002851374
Proteobacteria	Comamonas	0	0.2889	0.7111	0	2.49E-05	6.12E-05
Gemmatimonadetes	uncultured_bacterium_f_Gemmatimonadaceae	0.2579	0.3893	0.3529	0.009122	0.013772	0.012482408
Proteobacteria	uncultured_bacterium_o_Rhizobiales	0.7439	0.1034	0.1527	0.000358	4.97E-05	7.34E-05

Proteobacteria	Inquilinus	0.4649	0.3231	0.2121	0.000215	0.000149	9.79E-05
Firmicutes	Marvinbryantia	0.2616	0	0.7384	9.54E-05	0	0.000269228
Proteobacteria	Polyangium	0.374	0.1462	0.4798	9.54E-05	3.73E-05	0.000122377
Proteobacteria	Escherichia-Shigella	0.2678	0.0756	0.6566	0.001717	0.000485	0.004209753
Bacteroidetes	uncultured_bacterium_f_Bacteroidales_S24-7_group	0.5481	0.0743	0.3776	0.040327	0.005469	0.027779477
Proteobacteria	uncultured_bacterium_f_Xanthomonadales_Incertae_Sedis	0.3324	0.3494	0.3181	0.014118	0.01484	0.013510371
Chlorobi	uncultured_bacterium_f_OPB56	0.2998	0.2963	0.4039	0.001145	0.001131	0.001541945
Spirochaetae	uncultured_bacterium_f_Leptospiraceae	0.0173	0.4505	0.5322	1.19E-05	0.000311	0.00036713
Actinobacteria	uncultured_bacterium_f_Euzebyaceae	0.2339	0.7661	0	8.35E-05	0.000273	0
Acidobacteria	uncultured_bacterium_f_ABS-19	0.3478	0.3821	0.2701	0.000441	0.000485	0.000342654
Proteobacteria	Hirschia	0.2331	0.3855	0.3814	0.004615	0.007632	0.007550633
Bacteroidetes	Unclassified	0.1797	0.4435	0.3768	0.002242	0.005531	0.00469926
Actinobacteria	Micrococcus	0	0.1561	0.8439	0	0.000783	0.004234229
Cyanobacteria	Unclassified	0	0.0366	0.9634	0	8.70E-05	0.002288442
Proteobacteria	Candidatus_Odyssella	0.1492	0.3608	0.49	0.000298	0.000721	0.000979012
Proteobacteria	uncultured_organism	0.2446	0.153	0.6024	5.96E-05	3.73E-05	0.000146852
Bacteroidetes	Chryseolinea	0.3663	0.3577	0.276	0.000942	0.00092	0.000709784
Acidobacteria		0.3363	0.2254	0.4383	0.001502	0.001007	0.001958025
Tenericutes	uncultured_bacterium_o_Mollicutes_RF9	0.5564	0.0964	0.3472	0.00502	0.00087	0.00313284
Acidobacteria	Paludibaculum	0.2976	0.5937	0.1087	0.00124	0.002473	0.000452793
Bacteroidetes	uncultured_bacterium_f_NS11-12_marine_group	0.483	0.3724	0.1446	0.001145	0.000882	0.000342654
Proteobacteria	Bosea	0.433	0.3406	0.2264	0.000632	0.000497	0.000330417
Spirochaetae	Brevinema	0	0	1	0	0	0.000477269
Firmicutes	Staphylococcus	0.0742	0.041	0.8848	0.000405	0.000224	0.004833874
Chloroflexi	uncultured_bacterium_c_Ardenticatenia	0.3033	0.3667	0.33	0.000596	0.000721	0.000648596
Bacteroidetes	uncultured_bacterium_f_env.OPS_17	0.2299	0.5115	0.2586	0.00062	0.00138	0.000697546
Chloroflexi	uncultured_Chloroflexi_bacterium	0.5493	0.3196	0.1311	0.000513	0.000298	0.000122377
Proteobacteria	uncultured_bacterium_f_KD3-10	0.3073	0.1802	0.5125	0.000191	0.000112	0.000318179

Firmicutes	Trichococcus	0	0.1014	0.8986	0	1.24E-05	0.000110139
Proteobacteria	Azoarcus	0.0181	0.9819	0	1.19E-05	0.000646	0
Bacteroidetes	Ferruginibacter	0.7543	0.2457	0	0.000191	6.21E-05	0
Proteobacteria	Candidatus_Alysiosphaera	0.1723	0.4014	0.4264	0.000203	0.000472	0.000501744
Armatimonadetes	uncultured_bacterium_o_Armatimonadales	0.0139	0	0.9861	1.19E-05	0	0.000844398
Firmicutes	Peptoniphilus	0	0	1	0	0	0.001040201
Proteobacteria	Pseudomonas	0.5702	0.2671	0.1628	0.008359	0.003915	0.002386343
Chloroflexi	uncultured_bacterium_c_KD4-96	0.489	0.3524	0.1586	0.003208	0.002312	0.001040201
Omnitrophica	uncultured_bacterium_p_Omnitrophica	0.1581	0.6797	0.1622	9.54E-05	0.00041	9.79E-05
Microgenomates	uncultured_bacterium_c_Candidatus_Levybacteria	0.6638	0.2838	0.0524	0.000465	0.000199	3.67E-05
Proteobacteria	uncultured_bacterium_f_Hyphomicrobiaceae	0.1859	0.226	0.5881	0.000859	0.001044	0.002716759
Proteobacteria	Rhodobacter	0	0.9936	0.0064	0	0.001889	1.22E-05
Firmicutes	uncultured_bacterium_f_Ruminococcaceae	0.5238	0.1079	0.3683	0.001932	0.000398	0.00135838
Proteobacteria	Rhodovarius	0	1	0	0	0.000423	0
Acidobacteria	uncultured_bacterium_c_Subgroup_11	0.4825	0.3053	0.2122	0.000334	0.000211	0.000146852
Actinobacteria	uncultured_bacterium_f_Sporichthyaceae	0.4724	0.5276	0	0.000167	0.000186	0
Actinobacteria	Rhodococcus	0.1132	0.0916	0.7952	0.00967	0.00783	0.0679557
Proteobacteria	Ralstonia	0.6189	0	0.3811	5.96E-05	0	3.67E-05
Acidobacteria	uncultured_bacterium_c_Subgroup_22	0.1152	0.6484	0.2364	5.96E-05	0.000336	0.000122377
Proteobacteria	Methylobacterium	0	0.0427	0.9573	0	4.97E-05	0.001113627
Bacteroidetes	Niastella	0.4489	0.2477	0.3034	0.007297	0.004027	0.004931775
Actinobacteria	Blastococcus	0.1782	0.5984	0.2235	0.000107	0.00036	0.000134614
Proteobacteria	uncultured_bacterium_o_HTA4	0.7271	0.2729	0	0.000298	0.000112	0
Bacteroidetes	Rikenellaceae_RC9_gut_group	0	0.2623	0.7377	0	8.70E-05	0.000244753
Acidobacteria	Unclassified	0.3095	0.3791	0.3114	0.035998	0.044099	0.03622346
Proteobacteria	Phaselicystis	0.3214	0.4697	0.2089	0.002373	0.003468	0.001541945
Proteobacteria	uncultured_bacterium_f_Rhodospirillaceae	0.2381	0.4576	0.3043	0.005497	0.010565	0.007024414
Chloroflexi	uncultured_bacterium_o_Ardenticatenales	0.4027	0.4497	0.1476	0.000167	0.000186	6.12E-05
Actinobacteria	Solirubrobacter	0.1214	0.4218	0.4568	0.000358	0.001243	0.001346142

Proteobacteria	Pasteurella	0.9488	0	0.0512	0.000227	0	1.22E-05
Bacteroidetes	Alloprevotella	0.5453	0	0.4547	0.000191	0	0.00015909
Proteobacteria	uncultured_bacterium_f_Rhodobiaceae	0.2503	0.7337	0.0161	0.000191	0.000559	1.22E-05
Fusobacteria	Cetobacterium	0	0.4037	0.5963	0	4.97E-05	7.34E-05
Proteobacteria	uncultured_bacterium_o_TRA3-20	0.3851	0.3706	0.2443	0.010553	0.010155	0.006693997
Actinobacteria	Virgisporangium	0.4052	0.4969	0.0979	0.000203	0.000249	4.90E-05
Proteobacteria	uncultured_bacterium_f_Sandaracinaceae	0.3971	0.457	0.1459	0.008359	0.00962	0.003071651
Acidobacteria	uncultured_bacterium_c_Subgroup_18	0	0.0943	0.9057	0	4.97E-05	0.000477269
Verrucomicrobia	Terrimicrobium	0.5191	0.4809	0	0.000215	0.000199	0
Acidobacteria	uncultured_bacterium_f_Blastocatellaceae [Subgroup_4]	0.548	0.2242	0.2278	0.002886	0.001181	0.00119929
Firmicutes	Ruminiclostridium_9	0.4837	0.0435	0.4729	0.002766	0.000249	0.002704522
Proteobacteria	uncultured_bacterium_f_Alcaligenaceae	0.1602	0.3817	0.4581	0.000167	0.000398	0.000477269
Proteobacteria	uncultured_bacterium_f_Oligoflexaceae	1	0	0	0.000215	0	0
Actinobacteria	Dietzia	0	0.152	0.848	0	3.73E-05	0.00020804
Proteobacteria	uncultured_bacterium_o_SAR324_clade[Marine_group_B]	0.9138	0.0577	0.0284	0.000393	2.49E-05	1.22E-05
Cyanobacteria	uncultured_bacterium_o_Vampirovibrionales	1	0	0	0.000107	0	0
Actinobacteria	Coriobacteriaceae_UCG-002	0.4144	0.1306	0.455	0.000513	0.000162	0.000562932
Elusimicrobia	Unclassified	0.3314	0.1583	0.5102	0.000286	0.000137	0.000440556
Proteobacteria	Aquicella	0.4054	0.1397	0.4549	0.001407	0.000485	0.001578658
Acidobacteria	Stenotrophobacter	0.9169	0.0831	0	0.000549	4.97E-05	0
Chlamydiae	Unclassified	1	0	0	0.000227	0	0
Proteobacteria	uncultured_bacterium_o_Rickettsiales	0	0	1	0	0	0.000660833
Firmicutes	Subdoligranulum	0.1142	0.4168	0.469	2.38E-05	8.70E-05	9.79E-05
Proteobacteria	Hydrogenophaga	0.0348	0	0.9652	1.19E-05	0	0.000330417
Bacteroidetes	uncultured_bacterium_f_NS9_marine_group	0.2366	0.1818	0.5816	0.000453	0.000348	0.001113627
Firmicutes	Ruminococcaceae_UCG-010	0.8741	0	0.1259	0.001359	0	0.000195802
Planctomycetes	Unclassified	0.2071	0.5544	0.2385	0.001657	0.004437	0.001909074
Proteobacteria	uncultured_bacterium_f_Nitrosomonadaceae	0.3015	0.4773	0.2212	0.022405	0.03546	0.016435171

Chloroflexi	uncultured_bacterium_c_JG30-KF-CM66	0.1184	0.4565	0.4252	0.000119	0.00046	0.000428318
Proteobacteria	Haliea	0.509	0.379	0.112	0.000167	0.000124	3.67E-05
Planctomycetes	SM1A02	0.127	0.4657	0.4073	0.000668	0.002449	0.00214159
Actinobacteria	Unclassified	0.2029	0.4326	0.3645	0.002385	0.005084	0.004283179
Verrucomicrobia	Chthoniobacter	0.2199	0.2937	0.4864	0.00161	0.00215	0.003561158
Proteobacteria	Devosia	0.3706	0.2756	0.3538	0.001705	0.001268	0.001627608
Candidatus_Berkelbacteria	uncultured_bacterium_p_Candidatus_Berkelbacteria	0.6771	0.219	0.1038	0.001037	0.000336	0.00015909
Verrucomicrobia	Akkermansia	0.0198	0.3096	0.6706	1.19E-05	0.000186	0.000403843
Proteobacteria	Lautropia	0.1777	0.7615	0.0608	0.000107	0.00046	3.67E-05
Proteobacteria	Polycyclovorans	0.4132	0.3616	0.2251	0.000966	0.000845	0.000526219
Parcubacteria	Unclassified	0.3814	0.2272	0.3914	8.35E-05	4.97E-05	8.57E-05
Firmicutes	Ruminococcaceae_NK4A214_group	0.5553	0.0881	0.3565	0.002898	0.00046	0.001860124
Bacteroidetes	Sediminibacterium	0.0304	0.2216	0.748	2.38E-05	0.000174	0.000587407
Bacteroidetes	Fluviicola	0.0942	0.4912	0.4145	8.35E-05	0.000435	0.00036713
Chloroflexi	uncultured_bacterium_c_S085	0.3359	0.4644	0.1996	0.001133	0.001566	0.000673071
Cyanobacteria	Solanum_torvum	0	1	0	0	0.000112	0
Actinobacteria	Sporichthya	0.3362	0.4522	0.2115	0.00037	0.000497	0.000232515
Cyanobacteria	Nicotiana_otophora	0.0198	0.6718	0.3084	0.000727	0.024635	0.011307593
Actinobacteria	Asaccharobacter	0.1702	0	0.8298	4.77E-05	0	0.000232515
Bacteroidetes	Flavisolibacter	0.258	0.7042	0.0378	0.000501	0.001367	7.34E-05
Verrucomicrobia	Unclassified	0.4022	0.0932	0.5046	0.000107	2.49E-05	0.000134614
Proteobacteria	Paracoccus	0	0.5957	0.4043	0	0.001641	0.001113627
Proteobacteria	uncultured_bacterium_f_Comamonadaceae	0.3215	0.4737	0.2048	0.000346	0.00051	0.000220278
Bacteroidetes	Solitalea	0.0902	0.823	0.0868	0.000191	0.00174	0.000183565
Firmicutes	Faecalibaculum	0.5201	0.0909	0.389	0.011733	0.002051	0.008774399
Firmicutes	Turicibacter	0.571	0.0815	0.3475	0.003398	0.000485	0.002068164
Proteobacteria	Sphingobium	0.4847	0.2746	0.2407	0.007393	0.004189	0.003671297
Firmicutes	Ruminiclostridium_5	0.53	0.0552	0.4148	0.000954	9.94E-05	0.000746497
Bacteroidetes	uncultured_Bacteroidetes_bacterium	0.2741	0.1633	0.5626	8.35E-05	4.97E-05	0.000171327

Proteobacteria	Agaricicola	0.9573	0	0.0427	0.000274	0	1.22E-05
Firmicutes	Bacillus	0.0226	0.1964	0.781	3.58E-05	0.000311	0.001236003
Firmicutes	Kurthia	0.1166	0.0456	0.8378	9.54E-05	3.73E-05	0.000685309
Proteobacteria	Variovorax	0.5359	0.3724	0.0917	0.000358	0.000249	6.12E-05
Gemmatimonadetes	uncultured_bacterium_c_BD2-11_terrestrial_group	0.1209	0.6841	0.195	8.35E-05	0.000472	0.000134614
Proteobacteria	Acidibacter	0.1723	0.426	0.4017	0.008323	0.020583	0.019408921
Proteobacteria	Desulfatiglans	1	0	0	0.000346	0	0
Verrucomicrobia	uncultured_bacterium_f_Verrucomicrobiaceae	0.366	0.2462	0.3878	0.00037	0.000249	0.000391605
Proteobacteria	Candidatus_Xenohalictis	0	1	0	0	0.000286	0
Firmicutes	Ruminococcaceae_UCG-004	0.9785	0.0154	0.0061	0.003947	6.21E-05	2.45E-05
Actinobacteria	uncultured_bacterium_o_Acidimicrobiales	0.368	0.3469	0.2851	0.01134	0.010689	0.008786636
Bacteroidetes	uncultured_bacterium_c_SM1A07	0.2172	0.1698	0.613	9.54E-05	7.46E-05	0.000269228
Actinobacteria	Promicromonospora	0.5332	0.1112	0.3557	0.000238	4.97E-05	0.00015909
Proteobacteria	Delftia	0	0	1	0	0	0.000354892
Acidobacteria	uncultured_bacterium_c_Subgroup_17	0.2727	0.3188	0.4085	0.000882	0.001032	0.001321667
Actinobacteria	Enterorhabdus	0.9056	0.0944	0	0.000119	1.24E-05	0
Proteobacteria	Aeromonas	0.1024	0.2882	0.6095	0.000119	0.000336	0.000709784
Bacteroidetes	Chryseobacterium	0.0032	0.9693	0.0275	7.15E-05	0.021987	0.00062412
Actinobacteria	Ilumatobacter	0.3638	0.4029	0.2333	0.000763	0.000845	0.000489506
Cyanobacteria	Microcystis	0.0001	0.9999	0	1.19E-05	0.086296	0
Bacteroidetes	uncultured_bacterium_f_PHOS-HE51	0.3661	0.454	0.1799	0.002516	0.00312	0.001236003
Spirochaetae	Turneriella	0.104	0.2266	0.6694	0.000131	0.000286	0.000844398
Actinobacteria	Actinophytocola	0.2448	0.0911	0.664	0.000167	6.21E-05	0.000452793
Proteobacteria	Noviherbaspirillum	0.4068	0.3612	0.232	0.000322	0.000286	0.000183565
Planctomycetes	uncultured_bacterium_f_Planctomycetaceae	0.0801	0.3444	0.5755	9.54E-05	0.00041	0.000685309
Proteobacteria	Alicyclophilus	0	0	1	0	0	0.000244753
Firmicutes	Dialister	0	0	1	0	0	0.000477269
Proteobacteria	Porphyrobacter	0.0496	0.8842	0.0662	0.000119	0.002125	0.00015909
Proteobacteria	uncultured_bacterium_f_Coxiellaceae	0	0	1	0	0	0.000599645

GAL15	uncultured_bacterium_p_GAL15	0.0509	0.5309	0.4182	1.19E-05	0.000124	9.79E-05
Proteobacteria	Raoultella	0.9555	0.0179	0.0265	0.001324	2.49E-05	3.67E-05
Proteobacteria	Sorangium	0.367	0.397	0.236	0.001884	0.002038	0.001211528
Saccharibacteria	Candidatus_Saccharimonas	0.726	0.0711	0.2029	0.00254	0.000249	0.000709784
Proteobacteria	uncultured_bacterium_f_MNC12	0.3609	0.2687	0.3704	8.35E-05	6.21E-05	8.57E-05
Armatimonadetes	uncultured_bacterium_p_Armatimonadetes	0.2404	0.3827	0.3768	0.000656	0.001044	0.001027963
Actinobacteria	Corynebacterium_1	0.1989	0.084	0.7171	0.000441	0.000186	0.001590895
Firmicutes	Finegoldia	0	0.0132	0.9868	0	1.24E-05	0.000930062
Proteobacteria	Enhydrobacter	0.0504	0.8116	0.138	0.000107	0.001728	0.000293704
Proteobacteria	uncultured_bacterium_f_Moraxellaceae	0.0194	0.424	0.5566	1.19E-05	0.000261	0.000342654
Proteobacteria	Skermanella	0.2881	0.1501	0.5618	0.000119	6.21E-05	0.000232515
Actinobacteria	CL500-29_marine_group	0.4096	0.3853	0.2051	0.000489	0.00046	0.000244753
Firmicutes	Ruminococcaceae_UCG-014	0.84	0.0247	0.1353	0.049782	0.001467	0.008015664
Firmicutes	Unclassified	0.6569	0.0602	0.2829	0.016538	0.001516	0.007122315
Proteobacteria	Dongia	0.2928	0.5823	0.1248	0.002325	0.004624	0.00099125
Verrucomicrobia	Candidatus_Methylococcoides	1	0	0	0.000215	0	0
Acidobacteria	uncultured_bacterium_c_AT-s3-28	0	0.2131	0.7869	0	4.97E-05	0.000183565
Actinobacteria	Glutamicibacter	0.3882	0.4079	0.2039	0.001514	0.001591	0.000795448
Bacteroidetes	uncultured_bacterium_f_Cytophagaceae	0.3475	0.4917	0.1608	0.033673	0.047641	0.015578535
Firmicutes	uncultured_bacterium_f_Eubacteriaceae	0	0.0564	0.9436	0	1.24E-05	0.00020804
Bacteroidetes	Chitinophaga	0.6055	0.3945	0	0.000286	0.000186	0
Proteobacteria	Lysobacter	0.2742	0.5206	0.2052	0.004269	0.008104	0.003194028
Firmicutes	Anaerovorax	0.7955	0.0276	0.1769	0.000715	2.49E-05	0.00015909
Proteobacteria	Amaricoccus	0	0	1	0	0	0.00062412
Planctomycetes	CL500-3	0.003	0.001	0.996	3.58E-05	1.24E-05	0.011943952
Bacteroidetes	Prevotella_1	0	0.1688	0.8312	0	6.21E-05	0.000305941
Chloroflexi	uncultured_bacterium_c_P2-11E	0.1614	0.673	0.1656	3.58E-05	0.000149	3.67E-05
Proteobacteria	G55	0.2419	0.4202	0.3379	0.000429	0.000746	0.000599645
Proteobacteria	uncultured_bacterium_o_KI89A_clade	0.2312	0.6026	0.1661	0.000119	0.000311	8.57E-05



Proteobacteria	Acinetobacter	0.0316	0.5357	0.4326	0.000298	0.005046	0.004075139
Chloroflexi	Unclassified	0.3295	0.3392	0.3312	0.002898	0.002983	0.002912562
Actinobacteria	Bifidobacterium	0.3481	0.0972	0.5547	0.004185	0.001168	0.006669522
Saccharibacteria	uncultured_Candidatus_Saccharibacteria_bacterium	0.413	0.4532	0.1339	0.000227	0.000249	7.34E-05
Proteobacteria	uncultured_bacterium_f_B79	0.4184	0.5816	0	0.000107	0.000149	0
Firmicutes	Listeria	0	0	1	0	0	0.000562932
Gemmatimonadetes	Unclassified	0.2561	0.5161	0.2278	0.000179	0.00036	0.00015909
Proteobacteria	Wolbachia	0.0514	0	0.9486	1.19E-05	0	0.000220278
Candidatus_Berkelbacteria	Unclassified	0.435	0.4534	0.1116	9.54E-05	9.94E-05	2.45E-05
Acidobacteria	Vicinamibacter	0.234	0.2673	0.4987	0.00124	0.001417	0.002643334
Proteobacteria	Methylobacter	0.2449	0.3112	0.4439	0.000763	0.000969	0.001382855
Firmicutes	Ruminococcaceae_UCG-003	0.4529	0.3147	0.2324	7.15E-05	4.97E-05	3.67E-05
Proteobacteria	uncultured_bacterium_f_Methylobacteriaceae	0.1982	0.3773	0.4245	0.000274	0.000522	0.000587407
Tenericutes	Mycoplasma	0.99	0.01	0	0.001228	1.24E-05	0
Planctomycetes	AKYG587	0.1942	0.5667	0.2391	5.96E-05	0.000174	7.34E-05
Fusobacteria	Fusobacterium	0	0.0913	0.9087	0	0.000112	0.001113627
Firmicutes	Weissella	0.7728	0.0531	0.1741	0.005974	0.00041	0.001346142
Firmicutes	Allobaculum	0.6601	0.0506	0.2893	0.031777	0.002436	0.013926452
Actinobacteria	Agromyces	0.0823	0.0889	0.8288	0.000322	0.000348	0.003242979
Actinobacteria	Streptomyces	0.392	0.3891	0.2189	0.001753	0.00174	0.000979012
Verrucomicrobia	uncultured_bacterium_f_DA101_soil_group	0.3297	0.4537	0.2166	0.000298	0.00041	0.000195802
Proteobacteria	uncultured_bacterium_f_Xanthobacteraceae	0.1795	0.3074	0.5132	0.000167	0.000286	0.000477269
Firmicutes	Ezakiella	0	0	1	0	0	0.000256991
Acidobacteria	Candidatus_Solibacter	0.3597	0.3718	0.2685	0.001443	0.001491	0.001076914
Proteobacteria	uncultured_bacterium_f_JG34-KF-361	0.0312	0.4882	0.4806	1.19E-05	0.000186	0.000183565
Proteobacteria	Nordella	0.4	0.2021	0.3979	0.001944	0.000982	0.00193355
Proteobacteria	Pseudoxanthomonas	0.6136	0.3101	0.0763	0.000393	0.000199	4.90E-05
Proteobacteria	uncultured_bacterium_f_Bradyrhizobiaceae	0.3238	0.3069	0.3693	0.00118	0.001119	0.001346142
Firmicutes	Oscillibacter	0.5304	0.1974	0.2722	0.000167	6.21E-05	8.57E-05

Chloroflexi	uncultured_bacterium_f_AKIW781	0.0302	0.6136	0.3563	2.38E-05	0.000485	0.000281466
Proteobacteria	uncultured_bacterium_f_Acetobacteraceae	0.1128	0.7642	0.123	0.000191	0.001293	0.00020804
Acidobacteria	RB41	0.361	0.3234	0.3156	0.0062	0.005556	0.005421281
Proteobacteria	Azohydromonas	0.2112	0.2817	0.507	0.001407	0.001877	0.003377593
Acidobacteria	uncultured_bacterium_c_Subgroup_15	0.4167	0.1862	0.3971	0.000167	7.46E-05	0.00015909
Firmicutes	[Eubacterium]_coprostanoligenes_group	0.711	0.0488	0.2402	0.007786	0.000534	0.002631096
Proteobacteria	uncultured_bacterium_f_DUNssu044	0.0459	0.7183	0.2357	1.19E-05	0.000186	6.12E-05
Proteobacteria	Sandaracinus	0.3552	0.3249	0.3199	0.000584	0.000534	0.000526219
Actinobacteria	uncultured_bacterium_f_Acidimicrobiaceae	0.3307	0.3718	0.2975	0.001061	0.001193	0.000954537
Bacteroidetes	Sporocytophaga	0.1426	0.4459	0.4116	0.000191	0.000597	0.000550694
Armatimonadetes	uncultured_bacterium_f_Fimbriimonadaceae	0.4177	0.3199	0.2625	0.000584	0.000447	0.00036713
Tenericutes	Anaeroplasma	0.556	0.0059	0.4381	0.00118	1.24E-05	0.000930062
Proteobacteria	Brevundimonas	0.1877	0.2152	0.5971	0.000119	0.000137	0.000379367
Proteobacteria	Thiobacillus	0.9947	0	0.0053	0.002301	0	1.22E-05
Proteobacteria	Chelatococcus	0	0	1	0	0	2.45E-05
Bacteroidetes	Alistipes	0.261	0.033	0.7061	0.000393	4.97E-05	0.001064676
Firmicutes	Christensenellaceae_R-7_group	0.2571	0.1443	0.5987	0.00031	0.000174	0.000722022
Actinobacteria	Luedemannella	0.0971	0.367	0.5358	9.54E-05	0.00036	0.000526219
Proteobacteria	Bradyrhizobium	0.2544	0.2902	0.4554	0.00378	0.004313	0.006767423
Actinobacteria	Actinoplanes	0.1795	0.2941	0.5264	8.35E-05	0.000137	0.000244753
Firmicutes	Tyzzereella	0.5829	0.0927	0.3245	0.000704	0.000112	0.000391605
Fibrobacteres	possible_genus_04	0.1181	0.1847	0.6972	9.54E-05	0.000149	0.000562932
Proteobacteria	Rhodoplanes	0.4257	0.3359	0.2383	0.006427	0.005071	0.003597871
Proteobacteria	uncultured_bacterium_f_Nannocystaceae	0.0631	0.8639	0.0729	9.54E-05	0.001305	0.000110139
Proteobacteria	Hyphomicrobium	0.2574	0.4312	0.3114	0.000334	0.000559	0.000403843
Gemmatimonadetes	Gemmatimonas	0.161	0.403	0.436	0.001812	0.004537	0.0049073
Bacteroidetes	Prevotella	0	0.152	0.848	0	3.73E-05	0.00020804
Proteobacteria	uncultured_bacterium_f_SM2D12	0.6044	0.0573	0.3383	0.000262	2.49E-05	0.000146852
Acidobacteria	Blastocatella	0.1442	0.0334	0.8224	0.000107	2.49E-05	0.000611883

Bacteroidetes	Crocinitomix	0.2081	0.5784	0.2135	7.15E-05	0.000199	7.34E-05
Bacteroidetes	Parabacteroides	0.4581	0.0081	0.5339	0.000704	1.24E-05	0.000819923
Bacteroidetes	Dyadobacter	0.145	0.7558	0.0992	3.58E-05	0.000186	2.45E-05
Actinobacteria	Nonomuraea	0.8962	0.1038	0	0.000429	4.97E-05	0
Proteobacteria	Psychrobacter	0	0.0989	0.9011	0	4.97E-05	0.000452793
Bacteroidetes	Prevotellaceae_NK3B31_group	0	0	1	0	0	0.000440556
Firmicutes	Ruminiclostridium_6	0.4475	0.1774	0.3752	0.000847	0.000336	0.000709784
Elusimicrobia	uncultured_bacterium_o_Lineage_IIc	0.0781	0.0407	0.8813	2.38E-05	1.24E-05	0.000269228
Proteobacteria	uncultured_bacterium_o_NB1-j	0.1455	0.6411	0.2135	0.001359	0.005991	0.001994738
Acidobacteria	uncultured_bacterium_o_Subgroup_7	0.3842	0.3298	0.286	0.000608	0.000522	0.000452793
Proteobacteria	Enhygromyxa	0.226	0.5653	0.2087	0.000238	0.000597	0.000220278
FCPU426	uncultured_bacterium_p_FCPU426	0.1727	0.3438	0.4835	0.000131	0.000261	0.00036713
Tenericutes	Unclassified	0.7034	0.0713	0.2253	0.003553	0.00036	0.001138102
Acidobacteria	uncultured_bacterium_c_Subgroup_6	0.3299	0.3928	0.2774	0.025219	0.030029	0.021207857
Proteobacteria	Silanimonas	0	1	0	0	0.000957	0
Bacteroidetes	uncultured_bacterium_f_Saprospiraceae	0.4406	0.1847	0.3747	0.00341	0.001429	0.002900324
Firmicutes	Lachnoclostridium	0.2472	0.0892	0.6636	0.00031	0.000112	0.000832161
Proteobacteria	Falsirhodobacter	0	0.0922	0.9078	0	1.24E-05	0.000122377
Proteobacteria	uncultured_bacterium_f_Polyangiaceae	0.1211	0.5556	0.3233	0.000477	0.002188	0.001272716
Bacteroidetes	Cloacibacterium	0.0263	0.0549	0.9188	1.19E-05	2.49E-05	0.00041608
Proteobacteria	uncultured_bacterium_f_Hyphomonadaceae	0.1608	0.8297	0.0095	0.001657	0.008551	9.79E-05
Armatimonadetes	uncultured_bacterium_o_Chthonomonadales	0.3572	0.4717	0.1711	0.000179	0.000236	8.57E-05
Bacteroidetes	uncultured_bacterium_f_Chitinophagaceae	0.3301	0.4625	0.2074	0.015251	0.021366	0.009582084
Acidobacteria	Bryobacter	0.3285	0.447	0.2245	0.005425	0.007383	0.00370801
Firmicutes	Lachnospiraceae_NK4A136_group	0.7501	0.0519	0.198	0.014368	0.000994	0.003793673
Microgenomates	uncultured_bacterium_c_Candidatus_Woesebacteria	0.8365	0.1635	0	0.000191	3.73E-05	0
Firmicutes	Ruminiclostridium_1	0	0	1	0	0	0.000293704
Proteobacteria	Sulfurifustis	0.449	0.1634	0.3876	0.000751	0.000273	0.000648596
Firmicutes	uncultured_bacterium_f_Erysipelotrichaceae	0.5245	0.0954	0.3801	0.015298	0.002784	0.011087316

Armatimonadetes	Unclassified	0.1817	0.6629	0.1554	0.000143	0.000522	0.000122377
Bacteroidetes	Ohtaekwangia	0.2221	0.6755	0.1024	0.003053	0.009285	0.00140733
Actinobacteria	Brevibacterium	0.1924	0.1543	0.6533	0.000155	0.000124	0.000526219
Cyanobacteria	Microcoleus	0	0	1	0	0	0.003720247
Proteobacteria	Rhodomicrobium	0.3231	0.279	0.3979	0.000417	0.00036	0.000513982
Chloroflexi	uncultured_bacterium_c_SBR2076	0.2197	0.4581	0.3222	0.000167	0.000348	0.000244753
Proteobacteria	uncultured_bacterium_f_BIrii41	0.2797	0.4542	0.2661	0.007202	0.011696	0.006853087
Proteobacteria	H16	0.3448	0.3947	0.2605	0.003887	0.00445	0.002937037
Bacteroidetes	Adhaeribacter	0.354	0.5422	0.1038	0.000584	0.000895	0.000171327
Bacteroidetes	Odoribacter	0.1028	0	0.8972	2.38E-05	0	0.00020804
Proteobacteria	Parasutterella	0.5159	0.0232	0.4609	0.001657	7.46E-05	0.001480756
Bacteroidetes	Barnesiella	0.3276	0	0.6724	1.19E-05	0	2.45E-05
Acidobacteria	DS-100	0.2405	0.2802	0.4792	0.000203	0.000236	0.000403843
Proteobacteria	uncultured_bacterium_f_Methylophilaceae	0.6932	0.2575	0.0493	0.001204	0.000447	8.57E-05
Cloacimonetes	Unclassified	0	0	1	0	0	1.22E-05
Actinobacteria	Lawsonella	0.1376	0.1304	0.7319	0.000131	0.000124	0.000697546
Proteobacteria	Rubellimicrobium	0.1954	0.1697	0.6349	7.15E-05	6.21E-05	0.000232515
Firmicutes	Streptococcus	0.2342	0.1436	0.6222	0.000203	0.000124	0.000538457
Proteobacteria	Cellvibrio	0.3364	0.2869	0.3767	0.000131	0.000112	0.000146852
Planctomycetes	uncultured_bacterium_c_BD7-11	0.4342	0.5658	0	9.54E-05	0.000124	0
BRC1	uncultured_bacterium_p_BRC1	0.4923	0.1579	0.3498	0.000155	4.97E-05	0.000110139
Acidobacteria	Aridibacter	0.2744	0.2503	0.4753	0.000191	0.000174	0.000330417
Proteobacteria	Burkholderia-Paraburkholderia	0.6089	0.1145	0.2766	0.002909	0.000547	0.001321667
Planctomycetes	uncultured_bacterium_f_Phycisphaeraceae	0.3307	0.6128	0.0566	0.000215	0.000398	3.67E-05
Firmicutes	uncultured_bacterium_f_Clostridiales_vadinBB60_group	1	0	0	0.000119	0	0
Proteobacteria	Undibacterium	0	1	0	0	0.000447	0
Actinobacteria	uncultured_bacterium_o_Gaiellales	0.2528	0.4865	0.2608	0.002325	0.004474	0.00239858
Actinobacteria	Jatrophihabitans	0.0727	0.4547	0.4726	3.58E-05	0.000224	0.000232515
Proteobacteria	uncultured_bacterium_f_Xanthomonadaceae	0.3687	0.1824	0.4489	0.000704	0.000348	0.000856636

Bacteroidetes	Terrimonas	0.2302	0.3547	0.4151	0.003637	0.005606	0.006559383
Proteobacteria	uncultured_bacterium_f_Caulobacteraceae	0.2471	0.1442	0.6087	0.000298	0.000174	0.000734259
Actinobacteria	Amycolatopsis	0.359	0.3061	0.3349	0.000131	0.000112	0.000122377
Spirochaetae	uncultured_Spirochaetales_bacterium	0.0709	0.0555	0.8736	4.77E-05	3.73E-05	0.000587407
Cyanobacteria	Chroococcidiopsis	0	0	1	0	0	0.037887781
Proteobacteria	Pseudolabrys	0.2953	0.3848	0.3199	0.000429	0.000559	0.000465031
Proteobacteria	Rhizobacter	0.412	0.4294	0.1586	0.000191	0.000199	7.34E-05
Proteobacteria	Campylobacter	0	0	1	0	0	0.000403843
WS6	uncultured_bacterium_p_WS6	0.0301	0.1302	0.8397	8.35E-05	0.00036	0.002325155
Bacteroidetes	vadinBC27_wastewater-sludge_group	0	0	1	0	0	0.000269228
Proteobacteria	Tahibacter	0.7184	0.1291	0.1525	0.000346	6.21E-05	7.34E-05
Firmicutes	Blautia	0.0464	0.0161	0.9374	3.58E-05	1.24E-05	0.000722022
Firmicutes	[Eubacterium]_nodatum_group	0.5848	0.1084	0.3068	0.000537	9.94E-05	0.000281466
Proteobacteria	BD1-7_clade	0.0584	0.8518	0.0899	2.38E-05	0.000348	3.67E-05
Actinobacteria	uncultured_bacterium_f_Micromonosporaceae	0.1818	0.417	0.4012	0.000954	0.002188	0.002104877
Actinobacteria	Janibacter	0.2335	0.3772	0.3894	0.000477	0.000771	0.000795448
Firmicutes	Planomicrobium	0	0	1	0	0	0.000673071
Deferribacteres	Mucispirillum	0.1028	0.0536	0.8437	7.15E-05	3.73E-05	0.000587407
Verrucomicrobia	Roseimicrobium	0.0827	0.1857	0.7315	0.000155	0.000348	0.001370617
Firmicutes	uncultured_bacterium_f_Lachnospiraceae	0.5253	0.2134	0.2613	0.003518	0.001429	0.001749985
Proteobacteria	uncultured_bacterium_o_Xanthomonadales	0.2723	0.3802	0.3475	0.022572	0.03152	0.02880744
Chloroflexi	uncultured_bacterium_f_Caldilineaceae	0.624	0.3111	0.065	0.000823	0.00041	8.57E-05
Firmicutes	Ruminococcus_2	0.6234	0.0706	0.306	0.000549	6.21E-05	0.000269228
Parcubacteria	uncultured_bacterium_p_Parcubacteria	0.2557	0.2417	0.5026	0.001407	0.00133	0.00276571
Actinobacteria	Mycobacterium	0.1943	0.5065	0.2992	0.000119	0.000311	0.000183565
Nitrospirae	uncultured_bacterium_f_Nitrospiraceae	1	0	0	0.00025	0	0
Proteobacteria	Rhizomicrobium	0.2379	0.3712	0.3909	0.002063	0.003219	0.003389831
Actinobacteria	Paenarthrobacter	0.0663	0.1435	0.7902	0.000155	0.000336	0.001847886
Chlorobi	uncultured_bacterium_f_SJA-28	0.6039	0.1144	0.2817	0.000131	2.49E-05	6.12E-05

Proteobacteria	uncultured_bacterium_f_RB446	0.033	0.2061	0.761	2.38E-05	0.000149	0.000550694
Proteobacteria	Phenylobacterium	0.2283	0.4492	0.3225	0.003172	0.006239	0.004478982
Acidobacteria	uncultured_bacterium_f_Sva0725	0.3389	0.4225	0.2387	0.000608	0.000758	0.000428318
Firmicutes	Fusicatenibacter	0.0813	0.0424	0.8763	2.38E-05	1.24E-05	0.000256991
Proteobacteria	Rhizobium	0.4046	0.3984	0.197	0.00279	0.002747	0.00135838
Firmicutes	Eisenbergiella	0.8656	0.017	0.1173	0.000632	1.24E-05	8.57E-05
Proteobacteria	Altererythrobacter	0.29	0.342	0.368	0.005902	0.00696	0.007489445
Proteobacteria	Sphingopyxis	0.6248	0.1452	0.2301	0.005616	0.001305	0.002068164
Proteobacteria	Ensifer	0.2584	0.1243	0.6172	0.00062	0.000298	0.001480756
Proteobacteria	Caenimonas	0.1572	0.6591	0.1838	0.001025	0.0043	0.00119929
Firmicutes	[Ruminococcus]_torques_group	0.2027	0	0.7973	7.15E-05	0	0.000281466
Acidobacteria	Elev-16S-1166	0.2431	0.549	0.2079	7.15E-05	0.000162	6.12E-05
Actinobacteria	Rhizocola	0.2923	0.5044	0.2033	0.001073	0.001852	0.000746497
Proteobacteria	Woodsholea	0.2872	0.4224	0.2903	0.004758	0.006998	0.004809399
Actinobacteria	Iamia	0.4403	0.4074	0.1522	0.00223	0.002063	0.000770972
SR1_[Absconditabacteria]	Unclassified	1	0	0	0.000942	0	0
Cyanobacteria	uncultured_bacterium_o_Obscuribacterales	0.4114	0.4612	0.1275	0.000632	0.000708	0.000195802
Bacteroidetes	Mucilaginibacter	1	0	0	0.000417	0	0
Proteobacteria	Helicobacter	0.1461	0.0842	0.7697	0.000453	0.000261	0.002386343
Microgenomates	Unclassified	0.4439	0.2454	0.3107	0.000787	0.000435	0.000550694
Proteobacteria	uncultured_bacterium_f_Sneathiellaceae	0	0.3089	0.6911	0	0.000137	0.000305941
Proteobacteria	Reyranella	0.3365	0.4982	0.1653	0.003887	0.005755	0.001909074
Microgenomates	uncultured_Microgenomates_group_bacterium	0.703	0.1166	0.1804	0.000525	8.70E-05	0.000134614
Proteobacteria	Variibacter	0.215	0.3705	0.4145	0.002754	0.004748	0.005311142
Proteobacteria	Polaromonas	0.3696	0.2	0.4304	0.00062	0.000336	0.000722022
Proteobacteria	OM27_clade	0.124	0.3716	0.5044	0.000668	0.002001	0.002716759
Firmicutes	Erysipelotrichaceae_UCG-007	0	0	1	0	0	0.000281466
Proteobacteria	Unclassified	0.2349	0.373	0.392	0.020342	0.032303	0.033947256
Latescibacteria	Unclassified	0.1546	0.6588	0.1867	0.000405	0.001728	0.000489506

Proteobacteria	Pedomicrobium	0.2761	0.3647	0.3591	0.002587	0.003418	0.003365355
Proteobacteria	Craurococcus	0	0.109	0.891	0	0.000124	0.001015725
Proteobacteria	Vibrio	0.0616	0.0642	0.8742	7.15E-05	7.46E-05	0.001015725
TM6_[Dependentiae]	Unclassified	0.5922	0.1715	0.2364	0.000215	6.21E-05	8.57E-05
Proteobacteria	Acidovorax	0.039	0.1015	0.8595	2.38E-05	6.21E-05	0.000526219
Microgenomates	uncultured_bacterium_c_Candidatus_Pacebacteria	0	0	1	0	0	0.000428318
Firmicutes	Ruminococcaceae_UCG-013	0.3928	0.1638	0.4434	0.000596	0.000249	0.000673071
Proteobacteria	uncultured_bacterium_o_Myxococcales	0.3195	0.2789	0.4016	0.000954	0.000833	0.00119929
Verrucomicrobia	Opitutus	0.367	0.3461	0.2869	0.003756	0.003542	0.002937037
Proteobacteria	Pseudohongiella	0.1427	0.2998	0.5575	0.000799	0.001678	0.003120602
Proteobacteria	Stenotrophomonas	0.6024	0.0149	0.3827	0.000501	1.24E-05	0.000318179
Firmicutes	Ruminiclostridium	0	0	1	0	0	7.34E-05
Firmicutes	Faecalibacterium	0.072	0.2814	0.6466	4.77E-05	0.000186	0.000428318
Actinobacteria	Propionibacterium	0.0658	0.1016	0.8326	0.000322	0.000497	0.004075139
Firmicutes	Lachnospiraceae_UCG-006	0.8806	0.0602	0.0593	0.000727	4.97E-05	4.90E-05
Proteobacteria	Mesorhizobium	0.2097	0.2676	0.5227	0.000584	0.000746	0.001456281
Firmicutes	[Eubacterium]_xylanophilum_group	0.6042	0.1121	0.2838	0.001407	0.000261	0.000660833
Proteobacteria	Haliangium	0.267	0.3319	0.4011	0.011519	0.014318	0.017304045

**Supplemental Table S6** Fungal Statistics of sample sequencing data processing results.

Treatments	PE Reads	Raw Tags	Clean Tags	Effective Tags	AvgLen (bp)	GC(%)	Q20(%)	Q30(%)	Effective(%)
CK	78104	50066	44379	44247	256	49.62	98.11	95.47	56.65
J1F1	119474	91681	81275	78004	266	45.6	97.55	94.63	65.29
J1F2	79973	68360	60769	60398	244	48.44	99.08	97.6	75.52
J2F1	105266	75704	66668	66667	278	53.13	97.41	94.01	63.33
J2F2	63524	43187	37869	37862	262	48.97	97.68	94.75	59.6
J3F1	80198	68273	60854	60473	240	48.69	99.17	97.75	75.4
J3F2	197798	147285	132121	131842	235	48.54	98.76	96.67	66.65
Summation				479493					



**Supplemental Table S7** Fungal Principal Component Analysis.

Treatments	PC1	PC2	PC3
CK	-0.00269	-0.00577	0.016874
J1F1	-0.00664	0.023305	-0.00144
J1F2	-0.00333	-0.00275	0.00993
J2F1	-0.00421	-0.00675	-0.01654
J2F2	-0.00401	-0.00735	-0.00611
J3F1	-0.00345	-0.0032	-0.00147
J3F2	0.024329	0.00251	-0.00124
Loading	73.9104247	22.55023525	1.836721057

**Supplemental Table S8** Fungal microbial community.**a. phylum**

phylum	CK	J1F1	J1F2	J2F1	J2F2	J3F1	J3F2
Ascomycota	0.57598	0.402135	0.662929	0.320805	0.499204	0.614473	0.717329
Unclassified	0.086975	0.138458	0.126753	0.128178	0.29495	0.156851	0.044007
Basidiomycota	0.074855	0.25203	0.121127	0.047727	0.079167	0.129293	0.223941
Mortierellomycota	0.031746	0.180018	0.066434	0.019115	0.023449	0.05662	0.004599
Cercozoa	0.008608	0.006391	0.00125	0.00695	0.059124	0.001561	0
Glomeromycota	0.015885	0.001729	0.000469	0.012457	0.019736	0.002717	0.001146
Chytridiomycota	0	0.008471	0.003868	0.014728	0.002792	0.003045	0.001123
Anthophyta	0	0	0	0	0	0.016978	0
Rotifera	0.011156	0.000419	0	0.000936	0.001898	0.001677	0
Olpidiomycota	0	0.004229	0.000566	0	0	3.85E-05	0
Rozellomycota	0	0	0.004317	0	0	0.000501	0
Aphelidiomycota	0	0	0.001778	0	0	0.001985	0
Mucoromycota	0	0	0	0	0	0.001214	0.001436
Unknown	0.194794	0.00612	0.010509	0.449105	0.01968	0.013047	0.006418

**b. genus**

genus	CK	J1F1	J1F2	J2F1	J2F2	J3F1	J3F2
Unclassified	0.242884	0.38657	0.390417	0.313395	0.591157	0.460301	0.299564
Mortierella	0.031746	0.180018	0.065183	0.015694	0.023449	0.05504	0.004599
Cladosporium	0.08445	0.007485	0.075399	0.019668	0.090026	0.035787	0.031042
Aspergillus	0.060555	0.042829	0.043697	0.005799	0.005583	0.029023	0.05261
Fusarium	0.033652	0.003418	0.011935	0.000445	0.007007	0.017113	0.107826
Rhodotorula	0	1.35E-05	0.004551	6.14E-05	5.58E-05	0.007304	0.144384
Penicillium	0.029635	0.018253	0.030961	0.013823	0.014209	0.018347	0.015227
Melanophyllum	0	0.090144	0	0	0.001284	0	0
Alternaria	0.014393	9.46E-05	0.012111	0.008192	0.021774	0.010503	0.007312
Candida	0.042329	0	0.005294	1.53E-05	0.00321	0.008826	0.010689
Malassezia	0.007644	0.000446	0.016154	0.012488	0.001619	0.007265	0.021026
Verticillium	0.013543	0.010106	0.013459	0.008422	0.004885	0.012006	0.003438
Plectosphaerella	0.008287	0.016402	0.004395	0	0.010999	0.00397	0.010918
Gibberella	0.014301	0.004053	0.014963	0	0.001647	0.014762	0.004447
Colletotrichum	0	0.000838	0.004063	0.003007	0.001256	0.000424	0.040287
Lindtneria	0	0.048315	0	0	0.000698	0	0
Chaetomium	0.016137	0.005256	0.014455	0	2.79E-05	0.011813	0
Myrothecium	0.024585	0	0.003692	0	0	0.002968	0.005211
Didymella	0.007414	0.000797	0.004395	0.010923	0.004383	0.005627	0.001879
Trichoderma	0.004293	0.005418	0.006055	3.07E-05	0.007342	0.006205	0.005753
Others	0.16936	0.173424	0.268313	0.138932	0.189711	0.279669	0.227372
Unknown	0.194794	0.00612	0.010509	0.449105	0.01968	0.013047	0.006418

**Supplemental Table S9** Ternary diagram, CK, J1 and J2 groups in the fungal phylum level.

Phylum	Genus	CK_ratio	F1_ratio	F2_ratio	CK_reabundance	F1_reabundance	F2_reabundance
Basidiomycota	Clavulina	0	1	0	0	0.000691	0
Ascomycota	Lulwoana	0	0	1	0	0	0.000972905
Ascomycota	Dekkera	0	1	0	0	0.001779	0
Ascomycota	Stilbella	0	0.443	0.557	0	0.000989	0.001243667
Ascomycota	Aspergillus	0.4666	0.2038	0.3297	0.060555	0.026449	0.042784896
Ascomycota	Debaryomyces	0	0	1	0	0	0.00022487
Ascomycota	Arthrographis	0.9787	0	0.0213	0.008838	0	0.000192745
Chytridiomycota	Unclassified	0	0.791	0.209	0	0.004464	0.001179418
Ascomycota	Graphium	0	1	0	0	0.000157	0
Basidiomycota	Rhodotorula	0	0.0224	0.9776	0	0.00201	0.087804721
Ascomycota	Pochonia	0	0.5128	0.4872	0	0.000126	0.000119319
Ascomycota	Didymella	0.4675	0.3508	0.1817	0.007414	0.005563	0.002882003
Ascomycota	Cyphellophora	0	0.8422	0.1578	0	0.001298	0.000243226
Ascomycota	Clonostachys	0.0307	0.487	0.4823	6.89E-05	0.001094	0.001083046
Ascomycota	Epicoccum	0	0.2329	0.7671	0	0.000644	0.0021202
Ascomycota	Paraphoma	0	0.3898	0.6102	0	0.001413	0.002211983
Ascomycota	Trichocladium	0.1189	0.786	0.0951	2.30E-05	0.000152	1.84E-05
Ascomycota	Articulospora	0	0.809	0.191	0	0.000136	3.21E-05
Ascomycota	Mycothermus	0	0.0935	0.9065	0	0.000194	0.001876973
Ascomycota	Volutella	0	0.1515	0.8485	0	6.80E-05	0.000380902
Basidiomycota	Cyathus	0	1	0	0	0.000958	0
Basidiomycota	Coprinellus	0	0.6091	0.3909	0	0.000429	0.000275351
Basidiomycota	Russula	0	0.9511	0.0489	0	0.006248	0.000321242
Ascomycota	Lectera	0	0.091	0.909	0	0.000408	0.004079778
Ascomycota	Staphylotrichum	0	0.7113	0.2887	0	0.005552	0.002253286
Ascomycota	Sarocladium	0.0127	0.4565	0.5308	4.59E-05	0.001654	0.001922865
Ascomycota	Chrysosporium	0	1	0	0	0.000188	0

Basidiomycota	Aporpium	0	1	0	0	0.000126	0
Basidiomycota	Erythrobasidium	0	0.488	0.512	0	0.00269	0.002822344
Basidiomycota	Entoloma	0	0.3631	0.6369	0	0.000167	0.000293707
Glomeromycota	Funneliformis	0	1	0	0	0.000502	0
Ascomycota	Minutisphaera	0	0.0428	0.9572	0	3.14E-05	0.000702144
Mortierellomycota	Unclassified	0	0.8446	0.1554	0	0.001596	0.000293707
Ascomycota	Pseudochaetosphaeronema	0	0	1	0	0	0.000619539
Ascomycota	Verticillium	0.4572	0.3392	0.2036	0.013543	0.010048	0.006030178
Mortierellomycota	Mortierella	0.2209	0.6265	0.1526	0.031746	0.090027	0.021931676
Basidiomycota	Tomentella	0	0.5043	0.4957	0	0.001083	0.001064689
Ascomycota	Myrothecium	0.8366	0.0274	0.136	0.024585	0.000806	0.003997173
Ascomycota	Hyaloseta	0	0.6258	0.3742	0	0.000115	6.88E-05
Ascomycota	Daldinia	0	1	0	0	0.000173	0
Basidiomycota	Solicoccozyma	0	0.3251	0.6749	0	0.001225	0.002542404
Basidiomycota	Craterellus	0	0.8763	0.1237	0	0.000911	0.000128497
Ascomycota	Malbranchea	0	0.5273	0.4727	0	0.000235	0.000211102
Basidiomycota	Vishniacozyma	0	0.5604	0.4396	0	0.003077	0.002413907
Ascomycota	Taphrina	0	1	0	0	0.000204	0
Ascomycota	Savoryella	0	0.1331	0.8669	0	3.66E-05	0.000238637
Basidiomycota	Melanophyllum	0	0.994	0.006	0	0.034916	0.000211102
Basidiomycota	Auricularia	0	0	1	0	0	0.000729679
Basidiomycota	Schizophyllum	0	0.0834	0.9166	0	6.80E-05	0.000748036
Ascomycota	Robillarda	0	1	0	0	0.000204	0
Ascomycota	Trichothecium	0	0.7767	0.2233	0	0.001612	0.000463507
Basidiomycota	Leucosporidium	0	0	1	0	0	0.000211102
Ascomycota	Colletotrichum	0	0.0546	0.9454	0	0.001465	0.025359791
Basidiomycota	Sebacina	0	0.3107	0.6893	0	8.90E-05	0.000197335
Ascomycota	Lecanicillium	0.7433	0.1341	0.1226	0.002755	0.000497	0.000454329
Basidiomycota	Flammulina	0	0	1	0	0	0.000715912

Basidiomycota	Gliophorus	0	0.0119	0.9881	0	6.80E-05	0.005672223
Ascomycota	Ustilaginoidea	0.126	0.3448	0.5292	2.30E-05	6.28E-05	9.64E-05
Ascomycota	Exophiala	0.747	0.1262	0.1268	0.008516	0.001439	0.001445591
Ascomycota	Capronia	0	1	0	0	0.000387	0
Ascomycota	Beltrania	0	1	0	0	0.000147	0
Basidiomycota	Grammothele	0	0	1	0	0	0.000192745
Basidiomycota	Naganishia	0	0.2952	0.7048	0	0.000188	0.000449739
Ascomycota	Wallrothiella	0	0.5391	0.4609	0	0.000209	0.000178978
Ascomycota	Aporospora	0	0	1	0	0	0.000596593
Ascomycota	Rhinocladiella	0	0.2404	0.7596	0	0.00078	0.002464388
Ascomycota	Trichoglossum	0	0.2698	0.7302	0	0.000487	0.001317094
Ascomycota	Devriesia	0	0.8887	0.1113	0	0.00011	1.38E-05
Ascomycota	Cladophialophora	0	0.8871	0.1129	0	0.001696	0.000215691
Basidiomycota	Guehomyces	0.6191	0.1583	0.2226	0.007759	0.001983	0.00279022
Ascomycota	Thyrostroma	0	0.1125	0.8875	0	3.66E-05	0.000289118
Ascomycota	Engyodontium	0	0.7558	0.2442	0	9.94E-05	3.21E-05
Ascomycota	Vertexicola	0	1	0	0	0.000136	0
Basidiomycota	Gymnopilus	0	0	1	0	0	0.000119319
Ascomycota	Calycina	0	0.5328	0.4672	0	7.33E-05	6.42E-05
Ascomycota	Cenococcum	0	0	1	0	0	0.004690139
Basidiomycota	Typhula	0	0.3689	0.6311	0	0.000215	0.000367134
Ascomycota	Ochroconis	0	0	1	0	0	0.000119319
Ascomycota	Chaetomium	0.6512	0.2116	0.1372	0.016137	0.005244	0.00340058
Basidiomycota	Clavaria	0	0	1	0	0	0.0008903
Ascomycota	Strelitziana	0	1	0	0	0.000335	0
Ascomycota	Xeromyces	0	0.1659	0.8341	0	0.000591	0.002973787
Ascomycota	Chaetomidium	0	0.4353	0.5647	0	0.000754	0.000977495
Basidiomycota	Cystofilobasidium	0	0.9791	0.0209	0	0.000215	4.59E-06
Rotifera	Unclassified	0.8993	0.0755	0.0252	0.011156	0.000937	0.000312064

Ascomycota	Purpureocillium	0	0.8846	0.1154	0	0.002392	0.000312064
Unassigned	Unassigned	0.5359	0.4378	0.0263	0.194794	0.15911	0.009559255
Ascomycota	Botrytis	0	0.5187	0.4813	0	0.000361	0.00033501
Ascomycota	Myrmecridium	0.0807	0.8242	0.0951	0.000207	0.002109	0.000243226
Basidiomycota	Filobasidium	0	0.1068	0.8932	0	0.000408	0.003414348
Ascomycota	Ruhlandiella	0	1	0	0	0.000173	0
Ascomycota	Cladorrhinum	0	0.2954	0.7046	0	0.000131	0.000312064
Ascomycota	Magnaporthe	0	0.5446	0.4554	0	0.000225	0.000188156
Basidiomycota	Micropsalliota	0.9273	0.0701	0.0026	0.004912	0.000372	1.38E-05
Basidiomycota	Gyroporus	0	1	0	0	0.000147	0
Ascomycota	Crocicreas	0	0.9641	0.0359	0	0.001601	5.97E-05
Ascomycota	Gliocladiopsis	0	0.0623	0.9377	0	0.000696	0.010467912
Ascomycota	Saccharomycopsis	0	0.1805	0.8195	0	8.90E-05	0.000403848
Ascomycota	Paraphaeosphaeria	0	1	0	0	0.000476	0
Ascomycota	Acremonium	0	0.4375	0.5625	0	0.000775	0.000995851
Chytridiomycota	Spizellomyces	0	0.9143	0.0857	0	0.004359	0.000408437
Ascomycota	Codinaea	0	0.0432	0.9568	0	3.66E-05	0.000812284
Ascomycota	Gibberella	0.543	0.2118	0.2452	0.014301	0.005579	0.006456972
Ascomycota	Cladosporium	0.5451	0.1247	0.3302	0.08445	0.019326	0.051160144
Basidiomycota	Saitozyma	0	0.2637	0.7363	0	0.000879	0.00245521
Ascomycota	Pyrenochaetopsis	0.7908	0.0798	0.1295	0.007988	0.000806	0.001307915
Ascomycota	Cercospora	0	0.8168	0.1832	0	0.001146	0.000256994
Ascomycota	Zopfiella	0	0.7938	0.2062	0	0.000141	3.67E-05
Ascomycota	Paraboeremia	0	0.4632	0.5368	0	0.000147	0.0001698
Ascomycota	Leptospora	0	1	0	0	0.000126	0
Ascomycota	Kazachstania	0.7	0.1111	0.1889	0.007024	0.001115	0.00189533
Ascomycota	Phialemonium	0	0	1	0	0	0.000123908
Ascomycota	Aphanoascus	0	0.9386	0.0614	0	0.000351	2.29E-05
Basidiomycota	Cuphophyllus	0	0.0531	0.9469	0	1.57E-05	0.00027994

Ascomycota	Diaporthe	0	0.0109	0.9891	0	9.94E-05	0.009059035
Basidiomycota	Ceratobasidium	0.8094	0.1097	0.0809	0.00606	0.000822	0.000605771
Basidiomycota	Disciseda	0	0	1	0	0	0.000183567
Ascomycota	Circinotrichum	0	1	0	0	0.000194	0
Ascomycota	Thermomyces	0.9255	0.043	0.0315	0.007552	0.000351	0.000256994
Ascomycota	Wickerhamomyces	0	0.0081	0.9919	0	3.66E-05	0.00446068
Ascomycota	Alternaria	0.4659	0.184	0.3501	0.014393	0.005683	0.01081669
Ascomycota	Neodevriesia	0	1	0	0	0.000147	0
Basidiomycota	Scleroderma	0	0.6707	0.3293	0	0.000523	0.000256994
Ascomycota	Sporothrix	0	1	0	0	0.000141	0
Basidiomycota	Phlebia	0	0	1	0	0	0.000247816
Ascomycota	Coniochaeta	0	0.9625	0.0375	0	0.003177	0.000123908
Ascomycota	Dictyosporium	0	1	0	0	0.000141	0
Ascomycota	Pleurotheciella	0	1	0	0	0.000131	0
Ascomycota	Podospora	0	0.9978	0.0022	0	0.004087	9.18E-06
Ascomycota	Isaria	0	1	0	0	0.000209	0
Basidiomycota	Hygrophorus	1	0	0	0.008264	0	0
Anthophyta	Quercus	0	1	0	0	0.00461	0
Ascomycota	Stemphylium	0	0.8272	0.1728	0	0.002109	0.000440561
Ascomycota	Auxarthron	0	0	1	0	0	0.000123908
Ascomycota	Hymenoscyphus	0	0.0237	0.9763	0	2.09E-05	0.000862765
Ascomycota	Melanocarpus	0	0.622	0.378	0	0.001125	0.000683787
Ascomycota	Ciboria	0	1	0	0	0.00033	0
Ascomycota	Sagenomella	0	0	1	0	0	0.000142264
Basidiomycota	Cystobasidium	0	1	0	0	0.000167	0
Basidiomycota	Mrakiella	0	0.4963	0.5037	0	0.000565	0.000573647
Ascomycota	Oidiodendron	0	0.8308	0.1692	0	0.003177	0.000647074
Ascomycota	Mycosphaerella	0	0.5854	0.4146	0	0.004893	0.003464829
Basidiomycota	Leucoagaricus	0	0.5921	0.4079	0	7.33E-05	5.05E-05



Ascomycota	Pseudopithomyces	0	0.0504	0.9496	0	3.14E-05	0.000592004
Ascomycota	Conlarium	0	0	1	0	0	0.000885711
Ascomycota	Saccharomyces	0	0.5507	0.4493	0	0.000225	0.000183567
Ascomycota	Penicillium	0.4548	0.2573	0.2879	0.029635	0.016767	0.018755966
Basidiomycota	Wallemia	0	0.5932	0.4068	0	0.001392	0.000954549
Ascomycota	Bipolaris	0	0.5526	0.4474	0	6.80E-05	5.51E-05
Basidiomycota	Mrakia	0	0.2293	0.7707	0	3.14E-05	0.000105551
Ascomycota	Neobulgaria	0	0.3631	0.6369	0	0.000256	0.000449739
Ascomycota	Lophiostoma	0	0.8119	0.1881	0	0.00315	0.000729679
Ascomycota	Meyerozyma	0	0.1607	0.8393	0	0.00012	0.000628717
Basidiomycota	Psathyrella	0	0.0386	0.9614	0	3.66E-05	0.000913246
Basidiomycota	Dioszegia	0	0.0129	0.9871	0	5.23E-06	0.000399258
Ascomycota	Metarhizium	0	0.8228	0.1772	0	0.010252	0.002207394
Ascomycota	Neoascochyta	0	1	0	0	0.000178	0
Ascomycota	Scopulariopsis	0	0.6454	0.3546	0	0.000434	0.000238637
Ascomycota	Hydropisphaera	0	0.638	0.362	0	0.000267	0.000151443
Ascomycota	Millerozyma	0	0.0861	0.9139	0	4.71E-05	0.00050022
Basidiomycota	Porothelium	0	0.1695	0.8305	0	0.000152	0.000743447
Ascomycota	Ilyonectria	0	0.4665	0.5335	0	0.002873	0.003285851
Basidiomycota	Mycenella	0	0	1	0	0	0.000256994
Ascomycota	Pseudeurotium	0	0.5744	0.4256	0	0.000372	0.000275351
Ascomycota	Phoma	0	0.1111	0.8889	0	4.19E-05	0.00033501
Ascomycota	Microdochium	0	0.1578	0.8422	0	0.000183	0.000977495
Basidiomycota	Golubevia	0	0.5144	0.4856	0	0.00089	0.000839819
Basidiomycota	Lycoperdon	0	0.0952	0.9048	0	3.14E-05	0.000298296
Basidiomycota	Conocybe	0	0.7385	0.2615	0	0.003564	0.001262024
Ascomycota	Podosphaera	0	0.192	0.808	0	2.62E-05	0.00011014
Basidiomycota	Lindtneria	0	0.9939	0.0061	0	0.018714	0.000114729
Ascomycota	Sphaerosporella	0	0.3956	0.6044	0	0.000874	0.00133545

Ascomycota	Toxicocladosporium	0	0.0252	0.9748	0	8.37E-05	0.00323537
Cercozoa	Unclassified	0.3603	0.2206	0.4191	0.008608	0.00527	0.010013584
Ascomycota	Marssonina	0.9137	0	0.0863	0.000826	0	7.80E-05
Ascomycota	Mycocentrospora	0	0.3932	0.6068	0	0.000262	0.000403848
Basidiomycota	Unclassified	0.2338	0.5727	0.1935	0.016987	0.041604	0.014056649
Ascomycota	Cordyceps	0	0.8859	0.1141	0	0.002957	0.000380902
Ascomycota	Hirsutella	0	0.2648	0.7352	0	3.14E-05	8.72E-05
Ascomycota	Chaetosphaeria	0	0.6017	0.3983	0	0.000277	0.000183567
Ascomycota	Ophiocordyceps	0	0.0301	0.9699	0	2.62E-05	0.000844409
Ascomycota	Talaromyces	0	0.2857	0.7143	0	0.001512	0.003781482
Ascomycota	Pyrenochaeta	0	0	1	0	0	0.000133086
Ascomycota	Ascobolus	0	0.4029	0.5971	0	0.000152	0.00022487
Chytridiomycota	Rhizophlyctis	0	0.3334	0.6666	0	0.000131	0.000261583
Glomeromycota	Glomus	0.9927	0.0047	0.0026	0.008792	4.19E-05	2.29E-05
Glomeromycota	Unclassified	0	0.2521	0.7479	0	0.000382	0.001133527
Ascomycota	Phaeoisaria	0	0.5515	0.4485	0	0.000288	0.000234048
Ascomycota	Chloridium	0	0.866	0.134	0	0.001068	0.00016521
Ascomycota	Geoglossum	0	0	1	0	0	0.000440561
Ascomycota	Helicoma	0	1	0	0	0.000136	0
Ascomycota	Coniosporium	0	0.0972	0.9028	0	0.000115	0.001069278
Ascomycota	Phaeobotryon	0	0	1	0	0	0.000137675
Basidiomycota	Tubaria	0	0.1445	0.8555	0	2.09E-05	0.000123908
Basidiomycota	Thelephora	0	0	1	0	0	0.000302886
Ascomycota	Pseudocoleophoma	0	0	1	0	0	0.00122531
Ascomycota	Exserohilum	0	0.3507	0.6493	0	4.71E-05	8.72E-05
Ascomycota	Stachybotrys	0	0.7996	0.2004	0	0.00011	2.75E-05
Ascomycota	Subramaniula	0	0	1	0	0	0.000137675
Basidiomycota	Malassezia	0.2487	0.2084	0.543	0.007644	0.006405	0.016690836
Ascomycota	Chaetosphaeronema	0	0.3423	0.6577	0	0.000246	0.000472685

Ascomycota	Kernia	0	0.8281	0.1719	0	0.001371	0.000284529
Ascomycota	Harposporium	0	1	0	0	0.000194	0
Ascomycota	Zasmidium	0	0.0196	0.9804	0	5.23E-06	0.000261583
Ascomycota	Candida	0.7998	0.0454	0.1548	0.042329	0.002402	0.008191681
Ascomycota	Phyllosticta	0	0.0232	0.9768	0	4.71E-05	0.001982524
Ascomycota	Fusidium	0	1	0	0	0.000147	0
Glomeromycota	Rhizophagus	0	0.6211	0.3789	0	0.004731	0.002886592
Basidiomycota	Panaeolus	0	0	1	0	0	0.000692966
Ascomycota	Minimelanolocus	0.1906	0.8094	0	0.001813	0.007703	0
Basidiomycota	Coprinus	0	0.4776	0.5224	0	0.000529	0.000578236
Ascomycota	Hawksworthiomyces	0	0.0614	0.9386	0	4.71E-05	0.000720501
Ascomycota	Tolypocladium	0	0.4689	0.5311	0	0.000126	0.000142264
Aphelidiomycota	Unclassified	0	0.5635	0.4365	0	0.000539	0.000417615
Ascomycota	Periconia	0	0.1125	0.8875	0	1.57E-05	0.000123908
Ascomycota	Trichaleurina	0	0	1	0	0	0.000481864
Ascomycota	Latorua	0	0.4246	0.5754	0	0.000115	0.000156032
Ascomycota	Humicola	0.0028	0.6393	0.3579	2.30E-05	0.005238	0.002932484
Ascomycota	Mycoleptodiscus	0	0	1	0	0	0.000174389
Basidiomycota	Pleurotus	0	0	1	0	0	0.000174389
Ascomycota	Remersonia	0	0	1	0	0	0.000321242
Basidiomycota	Cortinarius	0.9928	0	0.0072	0.018433	0	0.000133086
Basidiomycota	Rhodosporidiobolus	0	1	0	0	0.000178	0
Basidiomycota	Coprinopsis	0	0.2662	0.7338	0	0.00011	0.000302886
Ascomycota	Unclassified	0.22	0.3448	0.4352	0.119158	0.186757	0.235723071
Basidiomycota	Sporobolomyces	0	0.7001	0.2999	0	0.000225	9.64E-05
Basidiomycota	Piloderma	0	1	0	0	0.000183	0
Ascomycota	Trichoderma	0.3029	0.2677	0.4294	0.004293	0.003794	0.006085249
Ascomycota	Cadophora	0.9796	0.0171	0.0033	0.005394	9.42E-05	1.84E-05
Ascomycota	Thielavia	0.0045	0.4253	0.5702	2.30E-05	0.002167	0.002904949

Basidiomycota	Mycena	0	1	0	0	0.000131	0
Olpidiomycota	Olpidium	0	0.9253	0.0747	0	0.001648	0.000133086
Ascomycota	Acrostalagmus	0	0.6876	0.3124	0	0.000434	0.000197335
Ascomycota	Pichia	0	0.3913	0.6087	0	0.000162	0.000252405
Unclassified	Unclassified	0.2623	0.422	0.3157	0.086975	0.139946	0.104702071
Basidiomycota	Fomitopsis	0	0	1	0	0	0.000573647
Rozellomycota	Unclassified	0	0.1183	0.8817	0	0.000136	0.001014208
Ascomycota	Beauveria	0	0.3195	0.6805	0	7.33E-05	0.000156032
Ascomycota	Stagonosporopsis	0	0.1066	0.8934	0	9.42E-05	0.000789338
Basidiomycota	Cutaneotrichosporon	0	0.6038	0.3962	0	0.003637	0.002386372
Basidiomycota	Lepiota	0	0.1703	0.8297	0	4.71E-05	0.000229459
Basidiomycota	Trichosporon	0	0.2715	0.7285	0	0.000523	0.001404288
Mucoromycota	Rhizomucor	0	0	1	0	0	0.000862765
Basidiomycota	Phallus	0	0.9985	0.0015	0	0.003077	4.59E-06
Ascomycota	Acaulium	0	1	0	0	0.000351	0
Ascomycota	Simplicillium	0	1	0	0	0.00707	0
Ascomycota	Gliomastix	0	0.4029	0.5971	0	0.000152	0.00022487
Mucoromycota	Umbelopsis	0	1	0	0	0.000194	0
Basidiomycota	Peniophorella	0	0	1	0	0	0.000229459
Basidiomycota	Symmetrospora	0	0	1	0	0	0.000146854
Ascomycota	Myceliophthora	0	0.2587	0.7413	0	0.000607	0.001739298
Ascomycota	Archaeorhizomyces	0	0.4483	0.5517	0	0.001272	0.001564909
Ascomycota	Curvularia	0.8985	0.0422	0.0593	0.007024	0.00033	0.000463507
Ascomycota	Pseudocercospora	0	0.0158	0.9842	0	0.000298	0.018531096
Ascomycota	Uwebraunia	0	0	1	0	0	0.00011014
Ascomycota	Knufia	0	0.7156	0.2844	0	0.00201	0.000798517
Ascomycota	Fusicolla	0	0.6072	0.3928	0	0.000319	0.000206513
Basidiomycota	Gymnopus	0	0	1	0	0	0.000137675
Basidiomycota	Hygrocybe	0	0.0469	0.9531	0	0.000377	0.007650158

Ascomycota	Leptosphaeria	0	0.7222	0.2778	0	0.000298	0.000114729
Basidiomycota	Apiotrichum	0	0.9155	0.0845	0	0.000199	1.84E-05
Ascomycota	Leohumicola	0	0.192	0.808	0	2.62E-05	0.00011014
Basidiomycota	Papiliotrema	0	0.5533	0.4467	0	0.00033	0.000266172
Ascomycota	Cephalotrichum	0	0.8009	0.1991	0	0.000665	0.00016521
Basidiomycota	Sterigmatomyces	0.7757	0.0262	0.1981	0.004798	0.000162	0.00122531
Basidiomycota	Subulicystidium	0	0.849	0.151	0	0.004956	0.000881122
Ascomycota	Acephala	0	0.0678	0.9322	0	4.71E-05	0.000647074
Chytridiomycota	Rhizophydium	0	0.8022	0.1978	0	0.000167	4.13E-05
Ascomycota	Fusarium	0.3102	0.0564	0.6334	0.033652	0.006123	0.068722924
Ascomycota	Monascus	0	0	1	0	0	0.000573647
Ascomycota	Preussia	0	0.8793	0.1207	0	0.002407	0.000330421
Chytridiomycota	Powellomyces	0	0.0646	0.9354	0	1.05E-05	0.000151443
Ascomycota	Lasiodiplodia	0	0.0181	0.9819	0	0.000251	0.013597731
Ascomycota	Nigrospora	0.8885	0.0343	0.0772	0.008401	0.000324	0.000729679
Mucoromycota	Rhizopus	0	1	0	0	0.000136	0
Ascomycota	Schwanniomyces	0.9754	0	0.0246	0.004912	0	0.000123908
Ascomycota	Geomyces	0.7911	0.1256	0.0832	0.007414	0.001177	0.00078016
Ascomycota	Scytalidium	0.9437	0.0563	0	0.008424	0.000502	0
Ascomycota	Pseudallescheria	0	1	0	0	0.000283	0
Ascomycota	Sphaerulina	0	0	1	0	0	0.002716793
Ascomycota	Zymoseptoria	1	0	0	0.008769	0	0
Ascomycota	Dimorphospora	0.9772	0	0.0228	0.007093	0	0.00016521
Ascomycota	Peziza	0	0	1	0	0	0.000458918
Ascomycota	Neocamarosporium	0	1	0	0	0.000199	0
Ascomycota	Nadsonia	0	0.0138	0.9862	0	1.57E-05	0.001119759
Ascomycota	Schizothecium	0	0.0429	0.9571	0	6.28E-05	0.001399699
Ascomycota	Pithoascus	0	0	1	0	0	0.000706733
Ascomycota	Tetracladium	0	0.3172	0.6828	0	0.001094	0.002354248

Ascomycota	Dendrosporium	0	0.3195	0.6805	0	0.00011	0.000234048
Basidiomycota	Camarophylloopsis	0	0.1597	0.8403	0	3.14E-05	0.00016521
Basidiomycota	Hannaella	0	0.0614	0.9386	0	0.000141	0.002161502
Glomeromycota	Diversispora	1	0	0	0.007093	0	0
Ascomycota	Dichotomopilus	0	1	0	0	0.000612	0
Ascomycota	Microascus	0	0.0061	0.9939	0	5.23E-06	0.000858176
Ascomycota	Gamsia	0	0	1	0	0	0.000114729
Ascomycota	Poaceascoma	0	1	0	0	0.000733	0
Ascomycota	Gaeumannomyces	0.256	0.744	0	9.18E-05	0.000267	0
Basidiomycota	Tulostoma	0	0	1	0	0	0.000417615
Ascomycota	Plectosphaerella	0.3299	0.2959	0.3742	0.008287	0.007431	0.009398634
Ascomycota	Teichospora	0	0	1	0	0	0.000380902
Ascomycota	Zygosaccharomyces	0	0.1283	0.8717	0	2.09E-05	0.000142264
Ascomycota	Wardomyces	0	0	1	0	0	0.00033501
Ascomycota	Darksidea	0	0.5804	0.4196	0	0.000298	0.000215691
Ascomycota	Aureobasidium	0	0.443	0.557	0	0.002413	0.003033446
Ascomycota	Apodus	0	0.2572	0.7428	0	8.90E-05	0.000256994

**Supplemental Table S10** Ternary diagram, F1, F2 and F3 groups in the fungal phylum level.

Phylum	Genus	J1 ratio	J2 ratio	J3 ratio	J1 reabundance	J2 reabundance	J3 reabundance
Basidiomycota	Clavulina	0	0	1	0	0	0.000722192
Ascomycota	Lulwoana	0.2711	0.1716	0.5572	0.000375	0.000238	0.000771432
Ascomycota	Dekkera	0	0.9902	0.0098	0	0.003307	3.28E-05
Ascomycota	Stilbella	0.4057	0.5823	0.012	0.001669	0.002396	4.92E-05
Ascomycota	Aspergillus	0.4554	0.0604	0.4842	0.043184	0.005722	0.045913873
Ascomycota	Debaryomyces	0.2217	0	0.7783	6.39E-05	0	0.000224317
Ascomycota	Arthrographis	1	0	0	0.000335	0	0
Chytridiomycota	Unclassified	0.5066	0.3186	0.1748	0.004409	0.002772	0.001520979
Ascomycota	Graphium	0	0	1	0	0	0.000164134
Basidiomycota	Rhodotorula	0.0174	0.0006	0.982	0.001869	5.94E-05	0.105467318
Ascomycota	Pochonia	0.7896	0	0.2104	0.000288	0	7.66E-05
Ascomycota	Didymella	0.1642	0.6228	0.2131	0.002268	0.008603	0.002943478
Ascomycota	Cyphellophora	0.7785	0.2105	0.011	0.001941	0.000525	2.74E-05
Ascomycota	Clonostachys	0.2043	0.562	0.2337	0.000727	0.002	0.000831614
Ascomycota	Epicoccum	0.2501	0.2525	0.4974	0.00099	0.001	0.001969613
Ascomycota	Paraphoma	0.6327	0.2783	0.089	0.00385	0.001693	0.000541644
Ascomycota	Trichocladium	0.1676	0	0.8324	3.19E-05	0	0.000158663
Ascomycota	Articulospora	0.2821	0	0.7179	5.59E-05	0	0.00014225
Ascomycota	Mycothermus	0.0324	0	0.9676	7.99E-05	0	0.00238542
Ascomycota	Volutella	0.2263	0.6897	0.084	0.000192	0.000584	7.11E-05
Basidiomycota	Cyathus	0	1	0	0	0.001812	0
Basidiomycota	Coprinellus	0.7707	0	0.2293	0.000791	0	0.000235259
Basidiomycota	Russula	0.0011	0.0959	0.903	7.99E-06	0.000693	0.006527079
Ascomycota	Lectera	0.0643	0.0744	0.8613	0.000359	0.000416	0.00481461
Ascomycota	Staphylotrichum	0.1756	0.7995	0.025	0.00254	0.011564	0.000361096
Ascomycota	Sarocladium	0.3757	0.3123	0.3119	0.002037	0.001693	0.001690585
Ascomycota	Chrysosporium	0	0	1	0	0	0.000196961

Basidiomycota	Aporpium	0	0	1	0	0	0.000131308
Basidiomycota	Erythrobasidium	0.5574	0.0845	0.3581	0.004377	0.000663	0.00281217
Basidiomycota	Entoloma	0.7449	0	0.2551	0.000511	0	0.000175077
Glomeromycota	Funneliformis	0.5211	0	0.4789	0.000327	0	0.000300913
Ascomycota	Minutisphaera	0.198	0	0.802	0.000184	0	0.000744076
Mortierellomycota	Unclassified	0.1614	0.697	0.1416	0.000511	0.002208	0.000448634
Ascomycota	Pseudochaetosphaeronema	0	0	1	0	0	0.000738605
Ascomycota	Verticillium	0.4681	0.2924	0.2395	0.011477	0.007168	0.005870542
Mortierellomycota	Mortierella	0.7808	0.1082	0.111	0.133066	0.018444	0.018919229
Basidiomycota	Tomentella	0.1818	0	0.8182	0.000463	0	0.002084507
Ascomycota	Myrothecium	0.2481	0	0.7519	0.001509	0	0.00457388
Ascomycota	Hyaloseta	0.4988	0	0.5012	0.00012	0	0.000120365
Ascomycota	Daldinia	1	0	0	0.000264	0	0
Basidiomycota	Solicoccozyma	0.214	0.0021	0.7839	0.00099	9.90E-06	0.003627371
Basidiomycota	Craterellus	0.1831	0.0084	0.8085	0.000216	9.90E-06	0.00095198
Ascomycota	Malbranchea	0.5988	0	0.4012	0.000367	0	0.000246202
Basidiomycota	Vishniacozyma	0.0882	0.4245	0.4874	0.000687	0.003307	0.003796977
Ascomycota	Taphrina	1	0	0	0.000311	0	0
Ascomycota	Savoryella	0.9156	0	0.0844	0.000415	0	3.83E-05
Basidiomycota	Melanophyllum	0.9915	0.0085	0	0.053287	0.000455	0
Basidiomycota	Auricularia	0.0805	0	0.9195	7.19E-05	0	0.000820672
Basidiomycota	Schizophyllum	0.4752	0.4778	0.047	0.000719	0.000723	7.11E-05
Ascomycota	Robillarda	0	0	1	0	0	0.000213375
Ascomycota	Trichothecium	0.1152	0.8175	0.0673	0.000431	0.003059	0.000251673
Basidiomycota	Leucosporidium	0	1	0	0	0.000455	0
Ascomycota	Colletotrichum	0.0643	0.0712	0.8645	0.002156	0.002386	0.028969728
Basidiomycota	Sebacina	0.7869	0	0.2131	0.000343	0	9.30E-05
Ascomycota	Lecanicillium	0.9714	0	0.0286	0.001486	0	4.38E-05
Basidiomycota	Flammulina	0.242	0	0.758	0.000224	0	0.000700307



Basidiomycota	Gliophorus	0.395	0	0.605	0.003083	0	0.004721601
Ascomycota	Ustilaginoidea	0.7187	0	0.2813	0.000168	0	6.57E-05
Ascomycota	Exophiala	0.5783	0.2206	0.2011	0.002596	0.00099	0.000902739
Ascomycota	Capronia	1	0	0	0.000591	0	0
Ascomycota	Beltrania	1	0	0	0.000224	0	0
Basidiomycota	Grammothele	1	0	0	0.000335	0	0
Basidiomycota	Naganishia	0.4807	0.3311	0.1882	0.000503	0.000347	0.000196961
Ascomycota	Wallrothiella	0.5873	0	0.4127	0.000311	0	0.000218846
Ascomycota	Aporospora	0	0	1	0	0	0.000711249
Ascomycota	Rhinocladiella	0.2784	0.063	0.6586	0.001182	0.000267	0.002795757
Ascomycota	Trichoglossum	0.8599	0	0.1401	0.002452	0	0.000399394
Ascomycota	Devriesia	1	0	0	0.000192	0	0
Ascomycota	Cladophialophora	0.7904	0.1409	0.0686	0.002332	0.000416	0.000202432
Basidiomycota	Guehomyces	0.3603	0.3214	0.3183	0.00262	0.002336	0.002314296
Ascomycota	Thyrostroma	0.9293	0	0.0707	0.000503	0	3.83E-05
Ascomycota	Engyodontium	0.3497	0	0.6503	5.59E-05	0	0.000103952
Ascomycota	Vertexicola	0	0	1	0	0	0.00014225
Basidiomycota	Gymnopilus	1	0	0	0.000208	0	0
Ascomycota	Calycina	0.5935	0	0.4065	0.000112	0	7.66E-05
Ascomycota	Cenococcum	0.01	0	0.99	5.59E-05	0	0.005553215
Basidiomycota	Typhula	0.7401	0	0.2599	0.000639	0	0.000224317
Ascomycota	Ochroconis	0	1	0	0	0.000257	0
Ascomycota	Chaetomium	0.7283	0.0008	0.2709	0.009017	9.90E-06	0.003353814
Basidiomycota	Clavaria	0.1505	0	0.8495	0.000168	0	0.000946509
Ascomycota	Strelitziana	1	0	0	0.000511	0	0
Ascomycota	Xeromyces	0.4166	0	0.5834	0.001997	0	0.002795757
Ascomycota	Chaetomidium	0.6823	0.004	0.3138	0.001701	9.90E-06	0.000782374
Basidiomycota	Cystofilobasidium	0.0344	0	0.9656	7.99E-06	0	0.000224317
Rotifera	Unclassified	0.1237	0.6383	0.2379	0.000248	0.001277	0.00047599

Ascomycota	Purpureocillium	0.407	0.5199	0.0731	0.001829	0.002336	0.000328269
Unassigned	Unassigned	0.0253	0.9482	0.0265	0.007915	0.296804	0.008299731
Ascomycota	Botrytis	0.4961	0.2516	0.2523	0.000527	0.000267	0.000268086
Ascomycota	Myrmecridium	0.1053	0.7999	0.0948	0.000431	0.003277	0.000388452
Basidiomycota	Filobasidium	0.1233	0.1838	0.6929	0.000631	0.000941	0.003545304
Ascomycota	Ruhlandiella	1	0	0	0.000264	0	0
Ascomycota	Cladorrhinum	0.7988	0	0.2012	0.000543	0	0.000136779
Ascomycota	Magnaporthe	0.5819	0	0.4181	0.000327	0	0.000235259
Basidiomycota	Micropsalliota	0.0581	0	0.9419	2.40E-05	0	0.000388452
Basidiomycota	Gyroporus	0	0	1	0	0	0.000153192
Ascomycota	Crocicreas	0.0331	0.9669	0	0.000104	0.00303	0
Ascomycota	Gliocladiopsis	0.1218	0.065	0.8132	0.001725	0.000921	0.011516766
Ascomycota	Saccharomycopsis	0.8831	0	0.1169	0.000703	0	9.30E-05
Ascomycota	Paraphaeosphaeria	1	0	0	0.000727	0	0
Ascomycota	Acremonium	0.808	0	0.192	0.002164	0	0.000514288
Chytridiomycota	Spizellomyces	0.1364	0.8636	0	0.001206	0.007633	0
Ascomycota	Codinaea	0.1294	0	0.8706	0.000136	0	0.000913682
Ascomycota	Gibberella	0.5168	0.0355	0.4477	0.008514	0.000584	0.007375107
Ascomycota	Cladosporium	0.314	0.3975	0.2885	0.035253	0.044621	0.032389196
Basidiomycota	Saitozyma	0.2275	0	0.7725	0.000942	0	0.003200622
Ascomycota	Pyrenochaetopsis	0.3385	0.3239	0.3376	0.001086	0.00104	0.001083287
Ascomycota	Cercospora	0.9127	0.0047	0.0827	0.001933	9.90E-06	0.000175077
Ascomycota	Zopfiella	0.2618	0.0464	0.6918	5.59E-05	9.90E-06	0.000147721
Ascomycota	Paraboeremia	0.9123	0	0.0877	0.000455	0	4.38E-05
Ascomycota	Leptospora	0	0	1	0	0	0.000131308
Ascomycota	Kazachstania	0.341	0.3852	0.2738	0.001621	0.001832	0.001302133
Ascomycota	Phialemonium	1	0	0	0.000216	0	0
Ascomycota	Aphanoascus	0.5387	0	0.4613	0.000256	0	0.000218846
Basidiomycota	Cuphophyllus	0.5629	0	0.4371	0.00024	0	0.000186019

Ascomycota	Diaporthe	0.0189	0	0.9811	0.000208	0	0.010761748
Basidiomycota	Ceratobasidium	0.4134	0.1507	0.4359	0.000815	0.000297	0.00085897
Basidiomycota	Disciseda	1	0	0	0.000319	0	0
Ascomycota	Circinotrichum	1	0	0	0.000296	0	0
Ascomycota	Thermomyces	0.9545	0	0.0455	0.000918	0	4.38E-05
Ascomycota	Wickerhamomyces	0.1824	0.0964	0.7212	0.001086	0.000574	0.004294851
Ascomycota	Alternaria	0.1909	0.4959	0.3132	0.005008	0.013009	0.008217664
Ascomycota	Neodevriesia	1	0	0	0.000224	0	0
Basidiomycota	Scleroderma	0.0052	0.9948	0	7.99E-06	0.001535	0
Ascomycota	Sporothrix	1	0	0	0.000216	0	0
Basidiomycota	Phlebia	0	1	0	0	0.000535	0
Ascomycota	Coniochaeta	0.0698	0.8581	0.0722	0.000407	0.00501	0.000421278
Ascomycota	Dictyosporium	1	0	0	0.000216	0	0
Ascomycota	Pleurotheciella	1	0	0	0.0002	0	0
Ascomycota	Podospora	0.86	0.0034	0.1366	0.005064	1.98E-05	0.000804259
Ascomycota	Isaria	1	0	0	0.000319	0	0
Anthophyta	Quercus	0	0	1	0	0	0.004820081
Ascomycota	Stemphylium	0.258	0	0.742	0.000767	0	0.002204873
Ascomycota	Auxarthron	1	0	0	0.000216	0	0
Ascomycota	Hymenoscyphus	0.1172	0	0.8828	0.000128	0	0.000962922
Ascomycota	Melanocarpus	0.0966	0.6294	0.2741	0.00028	0.001822	0.000793316
Ascomycota	Ciboria	0	0	1	0	0	0.000344682
Ascomycota	Sagenomella	0	1	0	0	0.000307	0
Basidiomycota	Cystobasidium	0	0	1	0	0	0.000175077
Basidiomycota	Mrakiella	0.6282	0	0.3718	0.000998	0	0.000590884
Ascomycota	Oidiodendron	0.1812	0.7333	0.0855	0.001206	0.004881	0.000568999
Ascomycota	Mycosphaerella	0.1625	0.5343	0.3032	0.002116	0.00696	0.003950169
Basidiomycota	Leucoagaricus	0.5342	0	0.4658	8.79E-05	0	7.66E-05
Ascomycota	Pseudopithomyces	0.5058	0.4661	0.0281	0.000591	0.000545	3.28E-05

Ascomycota	Conlarium	0.1025	0	0.8975	0.000112	0	0.000979335
Ascomycota	Saccharomyces	0.2112	0.4091	0.3798	0.000128	0.000248	0.000229788
Ascomycota	Penicillium	0.4381	0.2608	0.3011	0.023449	0.01396	0.016112531
Basidiomycota	Wallemia	0.6096	0	0.3904	0.001957	0	0.001252893
Ascomycota	Bipolaris	0.574	0	0.426	9.58E-05	0	7.11E-05
Basidiomycota	Mrakia	0.8484	0	0.1516	0.000184	0	3.28E-05
Ascomycota	Neobulgaria	0.4901	0.268	0.2419	0.000543	0.000297	0.000268086
Ascomycota	Lophiostoma	0.0172	0.9718	0.011	0.000128	0.007227	8.21E-05
Ascomycota	Meyerozyma	0.4801	0	0.5199	0.000495	0	0.000536172
Basidiomycota	Psathyrella	0.1883	0.8117	0	0.000367	0.001584	0
Basidiomycota	Dioszegia	0.0165	0	0.9835	7.99E-06	0	0.00047599
Ascomycota	Metarhizium	0.809	0.0467	0.1443	0.014911	0.000861	0.002658978
Ascomycota	Neosascochyta	0	0	1	0	0	0.000186019
Ascomycota	Scopulariopsis	0.8126	0	0.1874	0.000807	0	0.000186019
Ascomycota	Hydropisphaera	0.4857	0	0.5143	0.000264	0	0.000279029
Ascomycota	Millerozyma	0.9942	0	0.0058	0.000934	0	5.47E-06
Basidiomycota	Porothelium	0.8841	0.0068	0.1091	0.001286	9.90E-06	0.000158663
Ascomycota	Ilyonectria	0.4642	0.4073	0.1285	0.004784	0.004198	0.001324018
Basidiomycota	Mycenella	1	0	0	0.000447	0	0
Ascomycota	Pseudeurotium	0.0577	0.5415	0.4008	5.59E-05	0.000525	0.000388452
Ascomycota	Phoma	0	0.9429	0.0571	0	0.000723	4.38E-05
Ascomycota	Microdochium	0.2594	0	0.7406	0.000383	0	0.00109423
Basidiomycota	Golubevia	0.4367	0.5633	0	0.001382	0.001782	0
Basidiomycota	Lycoperdon	0.0406	0	0.9594	1.60E-05	0	0.000377509
Basidiomycota	Conocybe	0.7378	0.2622	0	0.005934	0.002109	0
Ascomycota	Podospaera	0.8751	0	0.1249	0.000192	0	2.74E-05
Basidiomycota	Lindtneria	0.9914	0.0086	0	0.02856	0.000248	0
Ascomycota	Sphaerospora	0.7178	0	0.2822	0.002324	0	0.000913682
Ascomycota	Toxicocladosporium	0	0.1927	0.8073	0	0.000832	0.003485121

Cercozoa	Unclassified	0.1421	0.8432	0.0147	0.004289	0.025454	0.000443163
Ascomycota	Marssonina	1	0	0	0.000136	0	0
Ascomycota	Mycocentrospora	0.236	0.6023	0.1617	0.000272	0.000693	0.000186019
Basidiomycota	Unclassified	0.6619	0.2415	0.0966	0.05835	0.021286	0.008518577
Ascomycota	Cordyceps	0.8526	0.1051	0.0422	0.004417	0.000545	0.000218846
Ascomycota	Hirsutella	0.8221	0	0.1779	0.000152	0	3.28E-05
Ascomycota	Chaetosphaeria	0.5242	0	0.4758	0.000319	0	0.000289971
Ascomycota	Ophiocordyceps	0.4392	0	0.5608	0.000527	0	0.000672951
Ascomycota	Talaromyces	0.3179	0.0485	0.6336	0.002204	0.000337	0.004393332
Ascomycota	Pyrenochaeta	1	0	0	0.000232	0	0
Ascomycota	Ascobolus	0.6946	0.0179	0.2875	0.000383	9.90E-06	0.000158663
Chytridiomycota	Rhizophlyctis	0.769	0	0.231	0.000455	0	0.000136779
Glomeromycota	Glomus	0.4771	0	0.5229	3.99E-05	0	4.38E-05
Glomeromycota	Unclassified	0.1371	0.3712	0.4918	0.000303	0.000822	0.001088758
Ascomycota	Phaeoisaria	0.3602	0.5555	0.0843	0.000327	0.000505	7.66E-05
Ascomycota	Chloridium	0.1304	0.8126	0.0571	0.000288	0.001792	0.000125836
Ascomycota	Geoglossum	0	0	1	0	0	0.00052523
Ascomycota	Helicoma	0	0	1	0	0	0.00014225
Ascomycota	Coniosporium	0.3051	0.2427	0.4523	0.000535	0.000426	0.000793316
Ascomycota	Phaeobotryon	1	0	0	0.00024	0	0
Basidiomycota	Tubaria	0.9079	0	0.0921	0.000216	0	2.19E-05
Basidiomycota	Thelephora	0.3883	0	0.6117	0.00016	0	0.000251673
Ascomycota	Pseudocoleophoma	0	1	0	0	0.002643	0
Ascomycota	Exserohilum	0.7231	0.0944	0.1825	0.000152	1.98E-05	3.83E-05
Ascomycota	Stachybotrys	0.2943	0	0.7057	4.79E-05	0	0.000114894
Ascomycota	Subramaniula	1	0	0	0.00024	0	0
Basidiomycota	Malassezia	0.2106	0.2647	0.5248	0.006869	0.008633	0.017119222
Ascomycota	Chaetosphaeronema	0.7619	0	0.2381	0.000823	0	0.000257144
Ascomycota	Kernia	0.0632	0.9368	0	0.0002	0.00296	0

Ascomycota	Harposporium	0	0	1	0	0	0.000202432
Ascomycota	Zasmidium	0	0.9904	0.0096	0	0.000564	5.47E-06
Ascomycota	Candida	0.1606	0.0852	0.7541	0.002164	0.001148	0.010159922
Ascomycota	Phyllosticta	0.5387	0	0.4613	0.001565	0	0.001340431
Ascomycota	Fusidium	0	0	1	0	0	0.000153192
Glomeromycota	Rhizophagus	0.0364	0.953	0.0106	0.000543	0.014217	0.000158663
Basidiomycota	Panaeolus	0	0.1561	0.8439	0	0.000139	0.000749547
Ascomycota	Minimelanolocus	1	0	0	0.011756	0	0
Basidiomycota	Coprinus	0.6455	0	0.3545	0.001006	0	0.000552586
Ascomycota	Hawksworthiomyces	0.0772	0	0.9228	7.19E-05	0	0.00085897
Ascomycota	Tolypocladium	1	0	0	0.000439	0	0
Aphelidiomycota	Unclassified	0.5633	0	0.4367	0.000727	0	0.000563528
Ascomycota	Periconia	0.9293	0	0.0707	0.000216	0	1.64E-05
Ascomycota	Trichaleurina	0	0	1	0	0	0.000574471
Ascomycota	Latorua	0.6929	0	0.3071	0.000272	0	0.000120365
Ascomycota	Humicola	0.1612	0.5027	0.3361	0.001997	0.006227	0.004163544
Ascomycota	Mycoleptodiscus	1	0	0	0.000303	0	0
Basidiomycota	Pleurotus	1	0	0	0.000303	0	0
Ascomycota	Remersonia	1	0	0	0.000559	0	0
Basidiomycota	Cortinarius	0.9761	0	0.0239	0.000224	0	5.47E-06
Basidiomycota	Rhodosporidiobolus	0	0	1	0	0	0.000186019
Basidiomycota	Coprinopsis	0.821	0	0.179	0.000527	0	0.000114894
Ascomycota	Unclassified	0.3011	0.2797	0.4192	0.183869	0.170762	0.255951241
Basidiomycota	Sporobolomyces	0.4162	0	0.5838	0.000168	0	0.000235259
Basidiomycota	Piloderma	0	0	1	0	0	0.00019149
Ascomycota	Trichoderma	0.4004	0.185	0.4147	0.005679	0.002624	0.005881484
Ascomycota	Cadophora	0.2449	0	0.7551	3.19E-05	0	9.85E-05
Ascomycota	Thielavia	0.3681	0.0848	0.5471	0.002492	0.000574	0.003703967
Basidiomycota	Mycena	0	0	1	0	0	0.000136779

Olpidiomycota	Olpidium	0.996	0	0.004	0.002731	0	1.09E-05
Ascomycota	Acrostalagmus	0.6533	0	0.3467	0.000567	0	0.000300913
Ascomycota	Pichia	0.7214	0	0.2786	0.000439	0	0.000169606
Unclassified	Unclassified	0.3367	0.4718	0.1915	0.133672	0.187326	0.076043485
Basidiomycota	Fomitopsis	0.1126	0	0.8874	7.99E-05	0	0.000629182
Rozellomycota	Unclassified	0.9254	0	0.0746	0.001765	0	0.00014225
Ascomycota	Beauveria	0.78	0	0.22	0.000272	0	7.66E-05
Ascomycota	Stagonosporopsis	0.1466	0	0.8534	0.00016	0	0.000930095
Basidiomycota	Cutaneotrichosporon	0.1141	0.0532	0.8327	0.000807	0.000376	0.005886955
Basidiomycota	Lepiota	0.8902	0	0.1098	0.000399	0	4.92E-05
Basidiomycota	Trichosporon	0.455	0.0038	0.5412	0.001182	9.90E-06	0.001406085
Mucoromycota	Rhizomucor	0	0	1	0	0	0.001028576
Basidiomycota	Phallus	0	1	0	0	0.005831	0
Ascomycota	Acaulium	0	0	1	0	0	0.000366567
Ascomycota	Simplicillium	0.9119	0	0.0881	0.009456	0	0.000913682
Ascomycota	Gliomastix	0.7115	0	0.2885	0.000391	0	0.000158663
Mucoromycota	Umbelopsis	0	0	1	0	0	0.000202432
Basidiomycota	Peniophorella	1	0	0	0.000399	0	0
Basidiomycota	Symmetrospora	0	1	0	0	0.000317	0
Ascomycota	Myceliophthora	0.3746	0	0.6254	0.00115	0	0.001920373
Ascomycota	Archaeorhizomyces	0.6199	0.0556	0.3245	0.00254	0.000228	0.001329489
Ascomycota	Curvularia	0.0787	0.6602	0.2612	0.000104	0.000871	0.000344682
Ascomycota	Pseudocercospora	0.0121	0	0.9879	0.000272	0	0.022218332
Ascomycota	Uwebraunia	1	0	0	0.000192	0	0
Ascomycota	Knufia	0.7995	0.1339	0.0666	0.003546	0.000594	0.000295442
Ascomycota	Fusicolla	0.5185	0	0.4815	0.000359	0	0.00033374
Basidiomycota	Gymnopus	0	1	0	0	0.000297	0
Basidiomycota	Hygrocybe	0.2622	0.0329	0.7049	0.002763	0.000347	0.007429819
Ascomycota	Leptosphaeria	0.3903	0	0.6097	0.0002	0	0.000311855

Basidiomycota	Apiotrichum	0.1332	0	0.8668	3.19E-05	0	0.000207904
Ascomycota	Leohumicola	0.8751	0	0.1249	0.000192	0	2.74E-05
Basidiomycota	Papiliotrema	0.2389	0.3645	0.3966	0.000208	0.000317	0.000344682
Ascomycota	Cephalotrichum	0.3	0	0.7	0.000296	0	0.000689365
Basidiomycota	Sterigmatomyces	0.4678	0	0.5322	0.000895	0	0.001017634
Basidiomycota	Subulicystidium	0.8145	0.0852	0.1003	0.007196	0.000752	0.000886326
Ascomycota	Acephala	0.2176	0	0.7824	0.000192	0	0.000689365
Chytridiomycota	Rhizophydium	0.7415	0.2585	0	0.000256	8.91E-05	0
Ascomycota	Fusarium	0.0752	0.0302	0.8946	0.0069	0.002772	0.08207269
Ascomycota	Monascus	0	0	1	0	0	0.000683893
Ascomycota	Preussia	0.8762	0	0.1238	0.003522	0	0.000497874
Chytridiomycota	Powellomyces	0.9601	0	0.0399	0.000264	0	1.09E-05
Ascomycota	Lasiodiplodia	0.0524	0.0222	0.9254	0.000887	0.000376	0.015658425
Ascomycota	Nigrospora	0.8639	0.0118	0.1242	0.001446	1.98E-05	0.000207904
Mucoromycota	Rhizopus	0	0	1	0	0	0.00014225
Ascomycota	Schwanniomyces	1	0	0	0.000216	0	0
Ascomycota	Geomyces	0.521	0.0038	0.4752	0.00135	9.90E-06	0.001231008
Ascomycota	Scytalidium	0	0	1	0	0	0.00052523
Ascomycota	Pseudallescheria	0.6964	0	0.3036	0.000264	0	0.000114894
Ascomycota	Sphaerulina	0	0	1	0	0	0.00323892
Ascomycota	Dimorphospora	1	0	0	0.000288	0	0
Ascomycota	Peziza	0	1	0	0	0.00099	0
Ascomycota	Neocamarosporium	0	0	1	0	0	0.000207904
Ascomycota	Nadsonia	0.0293	0	0.9707	3.99E-05	0	0.001324018
Ascomycota	Schizothecium	0.306	0.3319	0.3621	0.000703	0.000762	0.000831614
Ascomycota	Pithoascus	0	0	1	0	0	0.000842557
Ascomycota	Tetracladium	0.194	0.6293	0.1766	0.001166	0.003782	0.001061403
Ascomycota	Dendrosporium	0.0259	0.7875	0.1865	1.60E-05	0.000485	0.000114894
Basidiomycota	Camarophylloopsis	0.8975	0	0.1025	0.000288	0	3.28E-05



Basidiomycota	Hannaella	0.0366	0.217	0.7464	0.000112	0.000663	0.002281469
Ascomycota	Dichotomopilus	0.9643	0	0.0357	0.000887	0	3.28E-05
Ascomycota	Microascus	0.2818	0.0087	0.7095	0.000319	9.90E-06	0.000804259
Ascomycota	Gamsia	1	0	0	0.0002	0	0
Ascomycota	Poaceascoma	1	0	0	0.001118	0	0
Ascomycota	Gaeumannomyces	0	0.1016	0.8984	0	2.97E-05	0.000262615
Basidiomycota	Tulostoma	0	0	1	0	0	0.000497874
Ascomycota	Plectosphaerella	0.4722	0.1603	0.3675	0.011493	0.003901	0.008945327
Ascomycota	Teichospora	0	0	1	0	0	0.000454105
Ascomycota	Zygosaccharomyces	0.9188	0	0.0812	0.000248	0	2.19E-05
Ascomycota	Wardomyces	1	0	0	0.000583	0	0
Ascomycota	Darksidea	0.4183	0.1402	0.4415	0.000296	9.90E-05	0.000311855
Ascomycota	Aureobasidium	0.1878	0.3864	0.4257	0.001501	0.003089	0.003403054
Ascomycota	Apodus	0.8278	0	0.1722	0.000447	0	9.30E-05