

Supplementary Material

1 Supplementary Figures

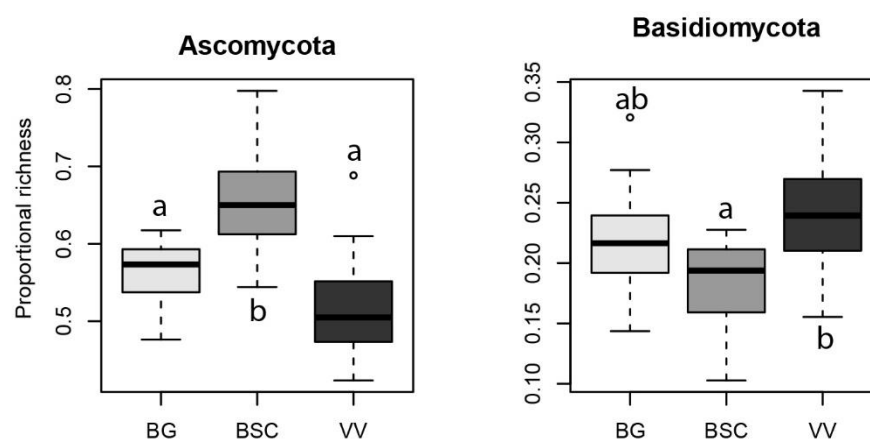


Figure S1: Proportional richness of Ascomycota and Basidiomycota in each habitat (white, Bare Ground plots; light grey, Biological Soil Crusts plots; dark grey, Vascular Vegetation plots). Letters indicate significant differences in one-way ANOVA post-hoc TukeyHSD test (significant for $p < 0.05$).

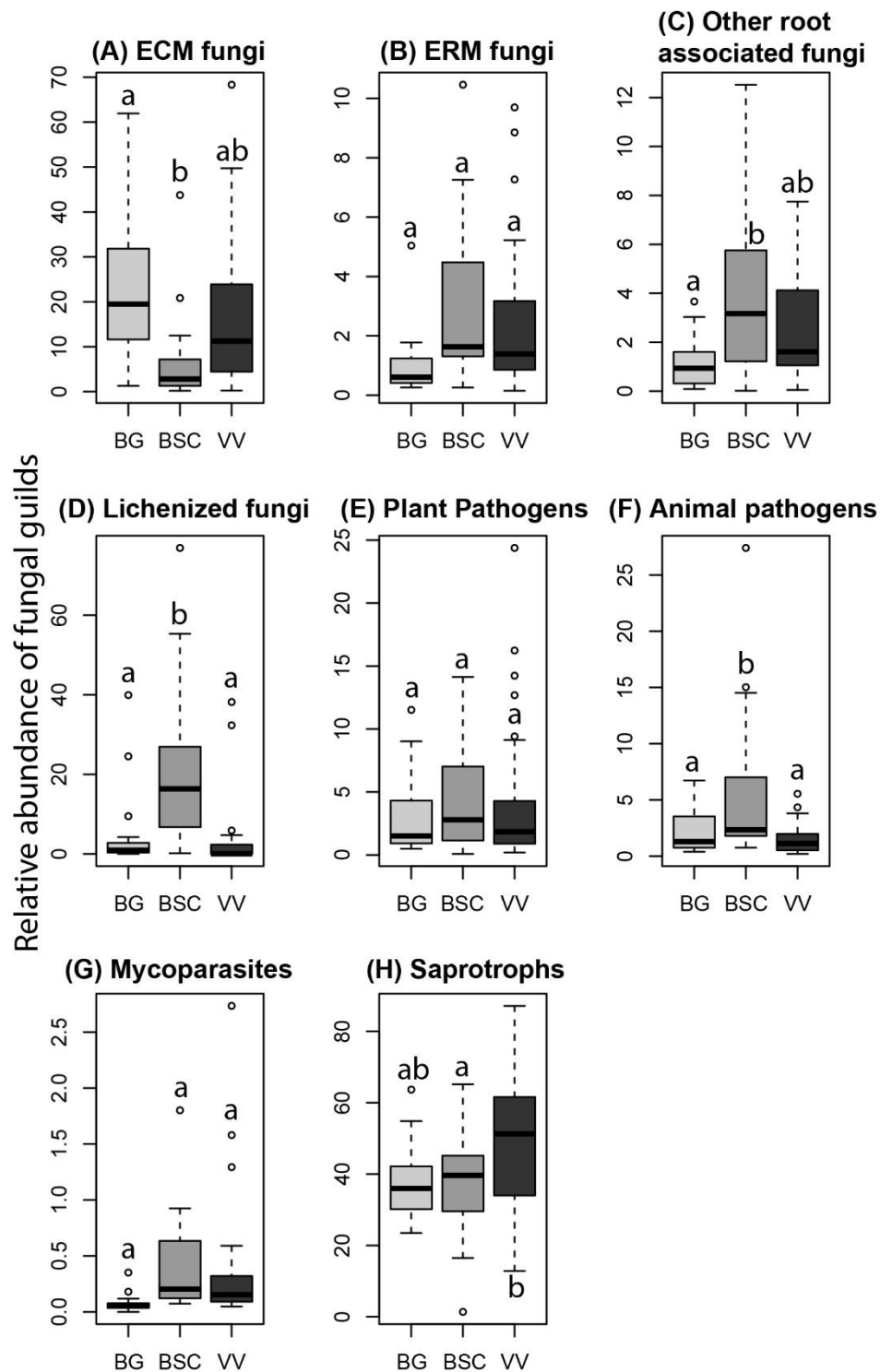


Figure S2 Relative abundance of fungal functional guilds: ectomycorrhizal (ECM), ericoid mycorrhizal (ERM), other root associated, lichenized, plant pathogenic, animal pathogenic, mycoparasites, and saprotrophic fungi in each habitat (light grey, Bare Ground plots; dark grey, Biological Soil Crusts plots; black, Vascular Vegetation plots). Letters indicate significant differences in one-way ANOVA post-hoc TukeyHSD test (significant for $p < 0.05$).

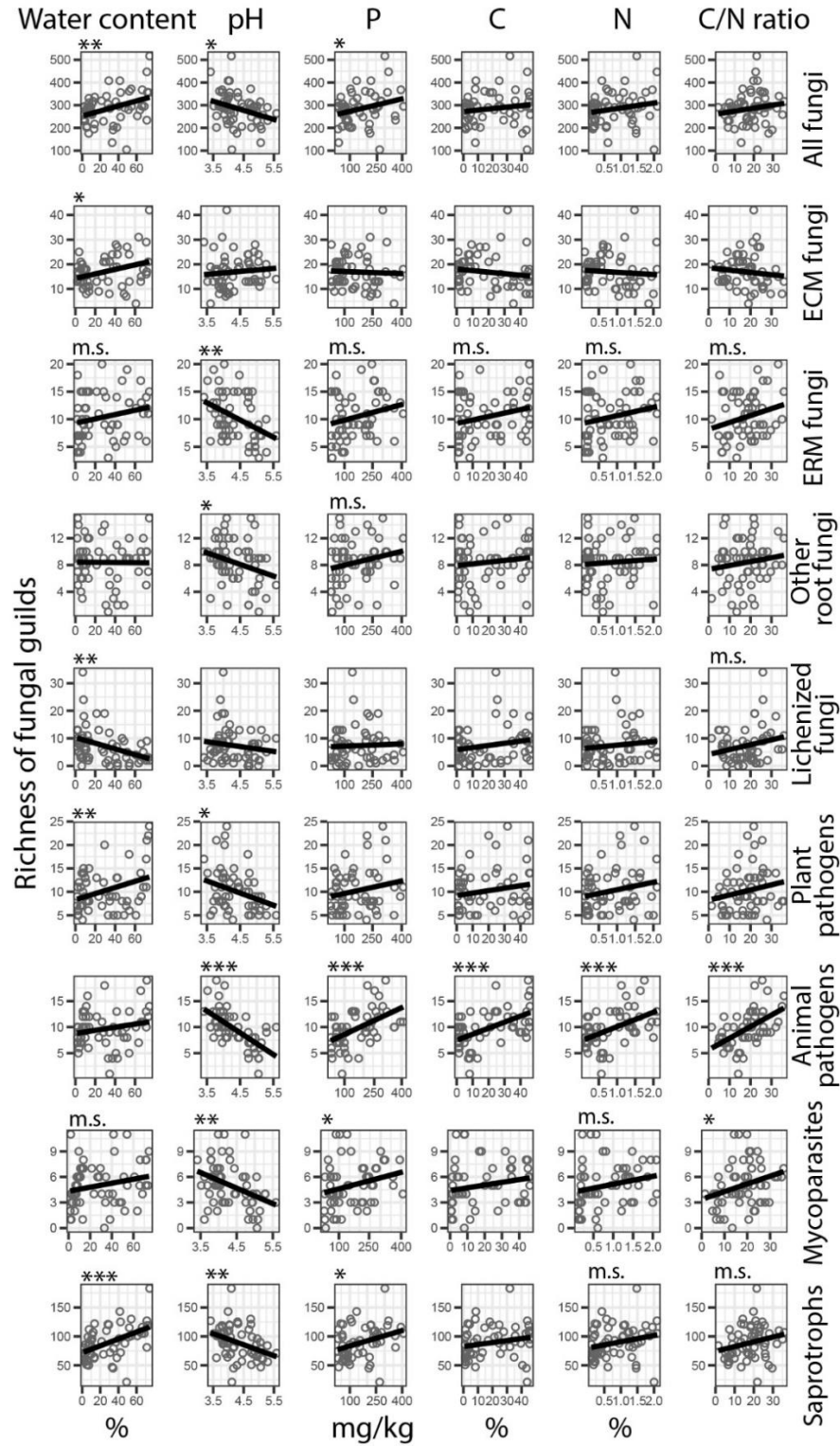


Figure S3: Scatter plots for the variation of richness (y-axis) of the total fungal community and of ectomycorrhizal (ECM), ericoid mycorrhizal (ERM), other root associated, lichenized, mycoparasites, animal pathogens, plant pathogens and saprotrophic fungi, in response to different soil parameters (water content, pH, P, C and N content, and C/N ratio; x-axis). The significance of the regressions is indicated as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, m. s. (marginally significant) $p < 0.1$. All the slopes and r^2 values for statistically significant regressions are reported in table S3.

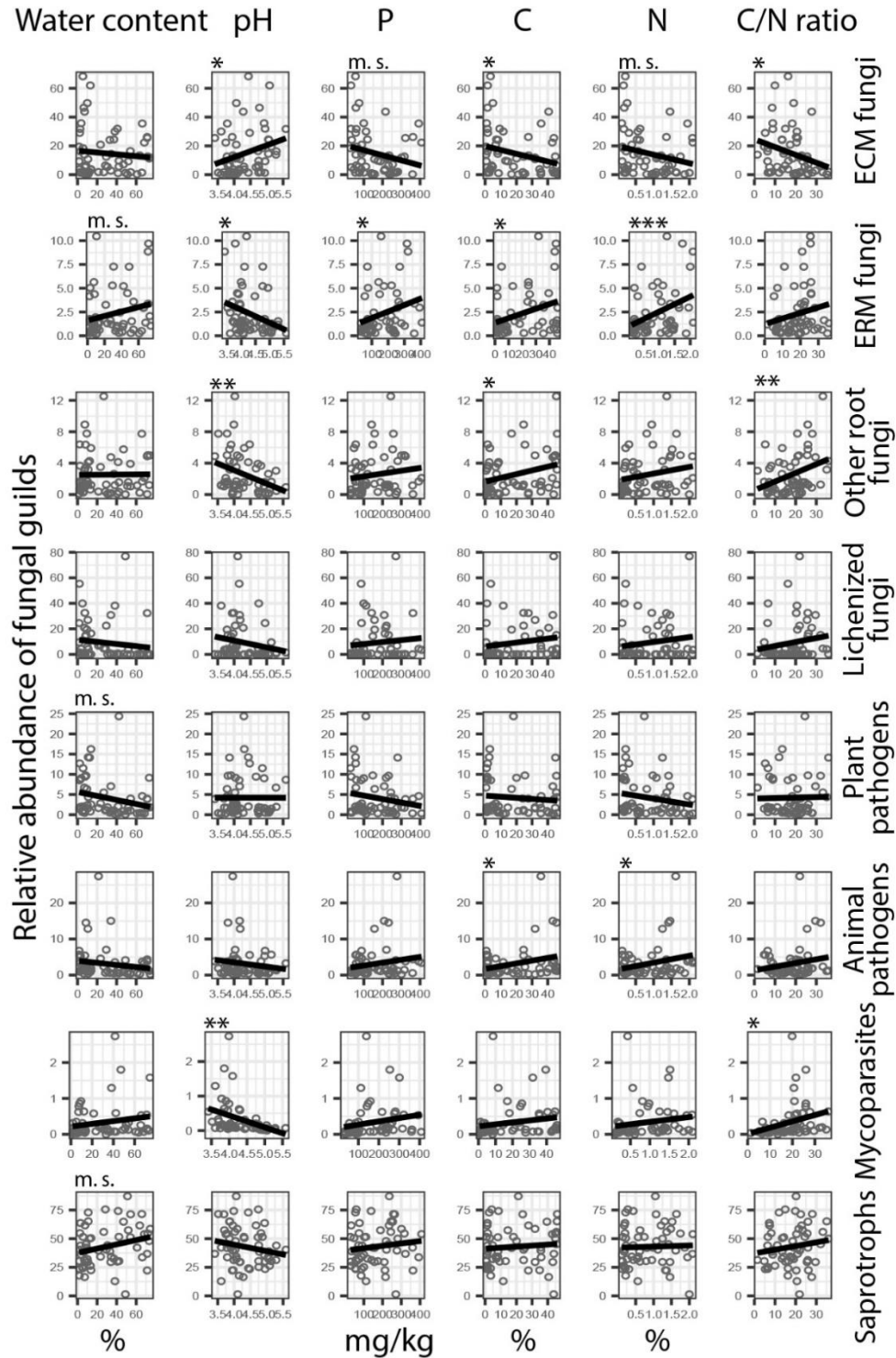


Figure S4 Scatter plots for the variation of relative abundance (y-axis) of ectomycorrhizal (ECM), ericoid mycorrhizal (ERM), other root associated, lichenized, mycoparasites, animal pathogens, plant pathogens and saprotrophic fungi, in response to different soil parameters (water content, pH, P, C and N content, and C/N ratio; x-axis). The significance of the regressions is indicated as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, m. s. (marginally significant) $p < 0.1$. All the slopes and r^2 values for statistically significant regressions are reported in table S3.

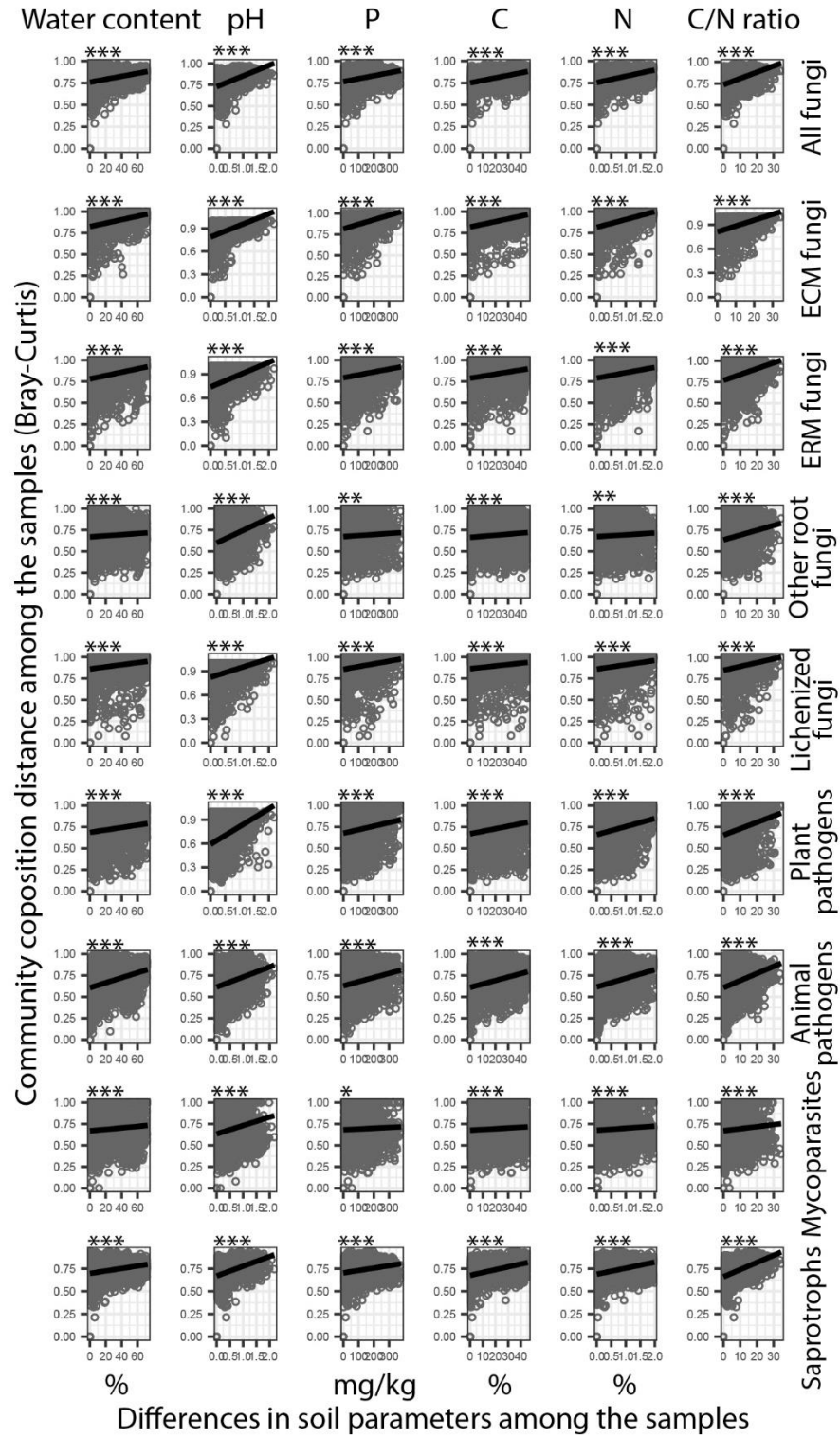


Figure S5: Scatter plots for the differences in community composition (Bray-Curtis distance; y-axis) of the total fungal community and of ectomycorrhizal (ECM), ericoid mycorrhizal (ERM), other root associated, lichenized, mycoparasites, animal pathogens, plant pathogens and saprotrophic fungi, in response to the differences in soil parameters (water content, pH, P, C and N content, and C/N ratio; x-axis) among the samples. The significance of the regressions is indicated as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

2 Supplementary Tables

Table S1: Characteristics of the 20 sampling plots (altitude and coordinates). For plots of vascular vegetation covered soils the percentage of the most abundant shrub genera are reported

Plots	Altitude (m a.s.l.)	Coordinates	<i>Salix</i>	<i>Betula</i>	<i>Vaccinium</i>	<i>Empetrum</i>
Vascular Vegetation plot 1	49	64°07'53"N 51°23'10"W	1	12	5	25
Vascular Vegetation plot 2	23	64°07'55"N 51°23'04"W	0	0	10	60
Vascular Vegetation plot 3	43	64°07'56"N 51°23'02"W	0	90	5	0
Vascular Vegetation plot 4	41	64°07'58"N 51°22'58"W	0	20	35	2
Vascular Vegetation plot 5	34	64°08'04"N 51°22'48"W	0	0	0	60
Vascular Vegetation plot 6	0	64°08'12"N 51°22'36"W	0	62	0	23
Vascular Vegetation plot 7	29	64°08'05"N 51°22'48"W	2	0	15	5
Vascular Vegetation plot 8	68	64°08'18"N 51°22'27"W	0	0	0	90
Vascular Vegetation plot 9	109	64°08'25"N 51°22'18"W	30	0	15	5
Biological Soil Crust plot 1	0	64°08'12"N 51°22'36"W				
Biological Soil Crust plot 2	23	64°07'56"N 51°23'05"W				
Biological Soil Crust plot 3	43	64°07'56"N 51°23'02"W				
Biological Soil Crust plot 4	66	64°07'53"N 51°23'12"W				
Biological Soil Crust plot 5	83	64°07'51"N 51°23'21"W				
Biological Soil Crust plot 6	107	64°07'53"N 51°23'11"W				
Bare Ground plot 1	15	64°14'48"N 51°17'45"W				
Bare Ground plot 2	25	64°10'44"N 51°22'31"W				
Bare Ground plot 3	45	64°07'59"N 51°22'43"W				
Bare Ground plot 4	77	64°07'53"N 51°23'20"W				
Bare Ground plot 5	109	64°08'25"N 51°22'17"W				

Table S2 Fungal OTUs considered as significant indicators of the three habitats (BG: Bare Ground; BSC: Biological Soil Crusts; VV: Vascular Vegetation) with corresponding p-values, assigned functional guilds, and matching Species Hypotheses, ITS1 rDNA sequence similarity (%) of the most similar matching sequence in the UNITE + INSD dynamic Species Hypotheses database

OTU	Habitat	p-value	Match	Functional guild
OTU1399	BG	0,0004	70% KF297221 SH028591.07FU	
OTU1020	BG	0,0002	70.1% FJ235869 SH175387.07FU	
OTU1722	BG	0,0004	70.3% KF618076 SH201685.07FU	
OTU525	BG	0,0154	70.4% HQ191389 SH011707.07FU	
OTU3271	BG	0,014	70.6% FN663743 SH105367.07FU	
OTU1753	BG	0,0002	70.6% KF028767 SH467878.07FU	
OTU757	BG	0,0002	70.6% KF028767 SH467878.07FU	
OTU252	BG	0,0002	70.6% KF028767 SH467878.07FU	
OTU516	BG	0,0004	70.6% KF028767 SH467878.07FU	
OTU522	BG	0,0006	70.6% KF028767 SH467878.07FU	
OTU904	BG	0,0008	70.6% KF028767 SH467878.07FU	
OTU1938	BG	0,0022	70.6% KF028767 SH467878.07FU	
OTU1271	BG	0,0028	70.6% KF028767 SH467878.07FU	
OTU1148	BG	0,0032	70.6% KF028767 SH467878.07FU	
OTU2895	BG	0,0044	70.6% KF028767 SH467878.07FU	
OTU697	BG	0,0128	70.6% KF028767 SH467878.07FU	
OTU1306	BG	0,0138	70.6% KF028767 SH467878.07FU	
OTU2104	BG	0,0144	70.6% KF028767 SH467878.07FU	
OTU2461	BG	0,0156	70.6% KF028767 SH467878.07FU	
OTU2086	BG	0,0166	70.6% KF028767 SH467878.07FU	
OTU1277	BG	0,0002	71.1% JQ003630 SH223176.07FU	
OTU1389	BG	0,0002	71.1% JQ003630 SH223176.07FU	
OTU1416	BG	0,0002	71.1% JQ003630 SH223176.07FU	
OTU671	BG	0,0002	71.1% JQ003630 SH223176.07FU	
OTU686	BG	0,0002	71.1% JQ003630 SH223176.07FU	
OTU1038	BG	0,0004	71.1% JQ003630 SH223176.07FU	
OTU2726	BG	0,0004	71.1% JQ003630 SH223176.07FU	
OTU702	BG	0,0008	71.1% JQ003630 SH223176.07FU	

OTU413	BG	0,0016	71.1% JQ003630 SH223176.07FU	
OTU363	BG	0,0018	71.1% JQ003630 SH223176.07FU	
OTU2195	BG	0,0022	71.1% JQ003630 SH223176.07FU	
OTU1856	BG	0,0036	71.1% JQ003630 SH223176.07FU	
OTU1873	BG	0,0036	71.1% JQ003630 SH223176.07FU	
OTU1759	BG	0,0036	71.1% JQ003630 SH223176.07FU	
OTU1333	BG	0,0042	71.1% JQ003630 SH223176.07FU	
OTU1097	BG	0,0048	71.1% JQ003630 SH223176.07FU	
OTU1492	BG	0,005	71.1% JQ003630 SH223176.07FU	
OTU619	BG	0,007	71.1% JQ003630 SH223176.07FU	
OTU2074	BG	0,0116	71.1% JQ003630 SH223176.07FU	
OTU1593	BG	0,0124	71.1% JQ003630 SH223176.07FU	
OTU1609	BG	0,0126	71.1% JQ003630 SH223176.07FU	
OTU1858	BG	0,0128	71.1% JQ003630 SH223176.07FU	
OTU806	BG	0,0128	71.1% JQ003630 SH223176.07FU	
OTU1235	BG	0,0132	71.1% JQ003630 SH223176.07FU	
OTU543	BG	0,0138	71.1% JQ003630 SH223176.07FU	
OTU2742	BG	0,014	71.1% JQ003630 SH223176.07FU	
OTU2975	BG	0,0156	71.1% JQ003630 SH223176.07FU	
OTU1252	BG	0,0218	71.1% JQ003630 SH223176.07FU	
OTU1322	BG	0,0278	71.1% JQ003630 SH223176.07FU	
OTU979	BG	0,0002	71.4% HQ191389 SH011707.07FU	
OTU953	BG	0,0026	71.5% KC965904 SH466422.07FU	
OTU981	BG	0,0028	71.6% KF296986 SH215255.07FU	
OTU505	BG	0,0238	71.8% KP889858 SH491074.07FU	
OTU1197	BG	0,0002	72% HQ191389 SH011707.07FU	
OTU195	BG	0,0004	72.1% JF300543 SH462390.07FU	
OTU1422	BG	0,0022	72.5% JF300413 SH467423.07FU	
OTU541	BG	0,0018	72.5% KF028767 SH467878.07FU	
OTU2019	BG	0,0026	72.5% KF028767 SH467878.07FU	
OTU1532	BG	0,0216	72.6% KP889469 SH488280.07FU	

OTU1519	BG	0,0134	72.7% KF618076 SH201685.07FU	
OTU1147	BG	0,0132	72.8% HQ191389 SH011707.07FU	
OTU1054	BG	0,0128	73% JF300543 SH462390.07FU	
OTU1954	BG	0,025	73.2% KC966225 SH479904.07FU	
OTU630	BG	0,0068	73.4% FJ903326 SH209339.07FU	
OTU936	BG	0,02	73.6% EU167587 SH016560.07FU	
OTU1604	BG	0,0052	73.6% LC095210 SH214466.07FU	
OTU1237	BG	0,0002	73.7% FN610984 SH476131.07FU	
OTU556	BG	0,0238	73.7% JX384329 SH534410.07FU	
OTU339	BG	0,0024	73.8% DQ421206 SH180898.07FU	
OTU576	BG	0,0008	74% KF296953 SH485511.07FU	
OTU1623	BG	0,001	74.5% KF028767 SH467878.07FU	
OTU2738	BG	0,019	74.5% KF618164 SH482592.07FU	
OTU2267	BG	0,014	74.6% KJ462332 SH494064.07FU	
OTU1374	BG	0,0152	75.5% HQ191359 SH192017.07FU	
OTU1692	BG	0,0152	75.5% KF617838 SH459212.07FU	
OTU471	BG	0,0002	76.4% UDB014680 SH489219.07FU	
OTU2433	BG	0,0004	76.7% FJ554329 SH208595.07FU	
OTU1420	BG	0,0248	76.7% KF573614 SH020574.07FU	
OTU1797	BG	0,028	77% KR857021 SH521434.07FU	
OTU190	BG	0,0026	77.2% KC965545 SH027987.07FU	
OTU1581	BG	0,0006	77.2% KM371464 SH533907.07FU	
OTU1184	BG	0,0012	77.2% KT160787 SH491269.07FU	
OTU917	BG	0,0176	77.6% KF297043 SH466107.07FU	
OTU249	BG	0,0002	77.8% JX036117 SH209262.07FU	
OTU1485	BG	0,0012	78.2% KU862933 SH631204.07FU	
OTU269	BG	0,0002	78.7% FJ554329 SH208595.07FU	
OTU2101	BG	0,0002	78.7% KF297056 SH019692.07FU	
OTU586	BG	0,0152	78.8% KT378114 SH489500.07FU	
OTU1124	BG	0,001	78.8% KU582498 SH524414.07FU	
OTU121	BG	0,0008	79.2% HQ211500 SH185974.07FU	
OTU50	BG	0,0002	79.3% KC965280 SH019693.07FU	

OTU66	BG	0,0008	79.3% KM371464 SH533907.07FU	
OTU1910	BG	0,014	79.4% KF297043 SH466107.07FU	
OTU49	BG	0,0002	80.3% KC965545 SH027987.07FU	
OTU2594	BG	0,0002	80.7% FJ554329 SH208595.07FU	
OTU996	BG	0,0152	81% KC966183 SH469075.07FU	
OTU579	BG	0,0152	81% KC966183 SH469075.07FU	
OTU1607	BG	0,0004	81.1% KP889623 SH493699.07FU	
OTU106	BG	0,0004	81.7% KC965145 SH029989.07FU	
OTU1435	BG	0,0156	82.2% JQ666573 SH022011.07FU	
OTU598	BG	0,0056	82.3% JN040508 SH186600.07FU	
OTU616	BG	0,0004	82.8% KF617751 SH004874.07FU	
OTU259	BG	0,0004	83% KF296938 SH463566.07FU	
OTU1293	BG	0,0128	83.5% KP889609 SH496492.07FU	
OTU1741	BG	0,0128	83.5% KP889680 SH488273.07FU	
OTU1362	BG	0,017	83.8% KF227866 SH186962.07FU	
OTU1923	BG	0,0032	83.9% KU582212 SH492309.07FU	
OTU547	BG	0,037	84.5% JQ666721 SH027463.07FU	
OTU1218	BG	0,0292	84.9% FJ645262 SH462404.07FU	
OTU2371	BG	0,0152	85.3% KF296918 SH474311.07FU	
OTU2776	BG	0,0128	85.8% AB968620 SH215930.07FU	
OTU178	BG	0,0028	85.9% FJ553008 SH215546.07FU	
OTU2502	BG	0,0138	85.9% HQ211814 SH000254.07FU	
OTU840	BG	0,0126	86.1% JX489782 SH020438.07FU	
OTU408	BG	0,0138	86.5% HM161474 SH192355.07FU	
OTU531	BG	0,0292	87.1% HQ211499 SH221757.07FU	
OTU242	BG	0,0006	87.9% KC965974 SH459702.07FU	
OTU388	BG	0,0002	88% KC965545 SH027987.07FU	
OTU168	BG	0,0226	88% KF937321 SH493044.07FU	
OTU928	BG	0,0008	88.4% GU256952 SH019741.07FU	
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OTU1633	BG	0,0138	89.4% FN610873 SH204500.07FU	

OTU736	BG	0,0236	89.6% KF617747 SH204499.07FU	
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OTU374	BG	0,0004	89.7% KP756520 SH629666.07FU	
OTU110	BG	0,0012	89.9% DQ822815 SH214854.07FU	
OTU2924	BG	0,0142	89.9% KC965434 SH004626.07FU	
OTU677	BG	0,0004	93% HQ829336 SH204501.07FU	
OTU217	BG	0,0002	93% KC965545 SH027987.07FU	
OTU500	BG	0,0028	94% HQ211503 SH031257.07FU	
OTU292	BG	0,0126	95% HQ211607 SH201713.07FU	
OTU113	BG	0,014	95% JQ666570 SH214618.07FU	
OTU929	BG	0,019	97% JN032561 SH209947.07FU	
OTU1810	BG	0,0252	97% KU176320 SH184453.07FU	
OTU424	BG	0,0024	98% KF617659 SH203524.07FU	
OTU626	BG	0,0264	99% LC131027 SH631398.07FU	
OTU1285	BG	0,0464	100% JN885548 SH200713.07FU	Saprotroph
OTU473	BG	0,014	96.8% JQ346870 SH181489.07FU	Animal Pathogen
OTU114	BG	0,0062	97.6% FJ554329 SH208595.07FU	Animal Pathogen
OTU577	BG	0,0152	93.9% KP756480 SH640122.07FU	Arbuscular Mycorrhizal
OTU2355	BG	0,0152	94.9% KP756480 SH640122.07FU	Arbuscular Mycorrhizal
OTU443	BG	0,0004	96.1% DQ400126 SH005209.07FU	Arbuscular Mycorrhizal
OTU596	BG	0,0152	96.4% KP756480 SH640122.07FU	Arbuscular Mycorrhizal
OTU866	BG	0,0046	96.6% KF206544 SH203297.07FU	Arbuscular Mycorrhizal
OTU599	BG	0,0152	96.9% KP756480 SH640122.07FU	Arbuscular Mycorrhizal
OTU649	BG	0,001	98.6% HE858428 SH194637.07FU	Arbuscular Mycorrhizal
OTU316	BG	0,0112	98.9% FJ554264 SH011124.07FU	Arbuscular Mycorrhizal
OTU307	BG	0,001	100% DQ102671 SH188476.07FU	Ectomycorrhizal
OTU152	BG	0,0006	100% JN580877 SH214853.07FU	Ectomycorrhizal
OTU34	BG	0,0002	100% JQ711860 SH188594.07FU	Ectomycorrhizal
OTU1136	BG	0,0052	93.7% AF083205 SH014937.07FU	Ectomycorrhizal
OTU115	BG	0,0002	94% AY534209 SH187320.07FU	Ectomycorrhizal
OTU2397	BG	0,0002	95.8% KF617237 SH181110.07FU	Ectomycorrhizal
OTU174	BG	0,0002	96.3% KF617717 SH201237.07FU	Ectomycorrhizal

OTU965	BG	0,0152	96.4% UDB021463 SH135196.07FU	Ectomycorrhizal
OTU8	BG	0,0006	96.6% AB354285 SH030455.07FU	Ectomycorrhizal
OTU302	BG	0,014	97.3% AM882947 SH188901.07FU	Ectomycorrhizal
OTU62	BG	0,0128	97.8% UDB012704 SH184885.07FU	Ectomycorrhizal
OTU51	BG	0,0002	98.3% KF617717 SH201237.07FU	Ectomycorrhizal
OTU39	BG	0,0004	98.7% KF007250 SH210197.07FU	Ectomycorrhizal
OTU1351	BG	0,0128	99.2% FM992957 SH219260.07FU	Ectomycorrhizal
OTU1325	BG	0,0192	99.2% GU234030 SH190354.07FU	Ectomycorrhizal
OTU314	BG	0,0128	99.2% HM488519 SH197132.07FU	Ectomycorrhizal
OTU134	BG	0,0066	99.2% HQ211814 SH000254.07FU	Ectomycorrhizal
OTU180	BG	0,0494	99.3% HM164617 SH177806.07FU	Ectomycorrhizal
OTU1599	BG	0,0002	99.6% HQ212304 SH174317.07FU	Ectomycorrhizal
OTU353	BG	0,0006	99.6% JQ003657 SH218066.07FU	Ectomycorrhizal
OTU1863	BG	0,0066	100% KY522966 SH628928.07FU	Ericoid mycorrhizal
OTU2406	BG	0,0254	93.5% FN565259 SH204995.07FU	Ericoid mycorrhizal
OTU364	BG	0,0058	96.5% JX317229 SH211410.07FU	Ericoid mycorrhizal
OTU254	BG	0,0006	97.6% KF617746 SH205746.07FU	Ericoid mycorrhizal
OTU1279	BG	0,0128	98.4% GQ223468 SH007166.07FU	Ericoid mycorrhizal
OTU882	BG	0,0086	98.6% FM997952 SH012946.07FU	Ericoid mycorrhizal
OTU1041	BG	0,0032	95.6% HQ211717 SH193767.07FU	Fungal parasite
OTU310	BG	0,0044	100% KJ462265 SH473594.07FU	Lichenized
OTU1617	BG	0,014	94% KM243179 SH533246.07FU	Lichenized
OTU568	BG	0,0002	94.7% AY756479 SH016365.07FU	Lichenized
OTU1134	BG	0,014	96.7% KM243179 SH533246.07FU	Lichenized
OTU40	BG	0,0004	97.4% HQ446017 SH027985.07FU	Lichenized
OTU2180	BG	0,0012	97.8% KJ162312 SH210524.07FU	Lichenized
OTU1165	BG	0,0002	98% AY756479 SH016365.07FU	Lichenized
OTU199	BG	0,0016	98.1% KJ162312 SH210524.07FU	Lichenized
OTU2412	BG	0,0024	99.6% GU074430 SH210507.07FU	Lichenized
OTU13	BG	0,0004	99.6% HQ446017 SH027985.07FU	Lichenized
OTU11	BG	0,0002	96.7% AJ878779 SH016893.07FU	Litter saprotrophUndefined saprotroph

OTU287	BG	0,0002	99% HQ630348 SH187868.07FU	Litter saprotrophUndefined saprotroph
OTU33	BG	0,0002	99.6% HQ021782 SH191111.07FU	Litter saprotrophUndefined saprotroph
OTU234	BG	0,003	100% HQ873705 SH183987.07FU	Plant Pathogen
OTU136	BG	0,0002	93.7% KM359781 SH523879.07FU	Plant Pathogen
OTU1112	BG	0,0146	96.3% AB968620 SH215930.07FU	Plant Pathogen
OTU279	BG	0,0264	96.3% JX857179 SH218295.07FU	Plant Pathogen
OTU1973	BG	0,0282	93.8% KC965434 SH004626.07FU	Plant saprotrophWood saprotroph
OTU2602	BG	0,0002	98.9% KC965434 SH004626.07FU	Plant saprotrophWood saprotroph
OTU931	BG	0,0044	100% UDB028015 SH494690.07FU	Root associated fungus
OTU493	BG	0,0128	99.6% AJ633124 SH187930.07FU	Root associated fungus
OTU817	BG	0,004	100% AF062818 SH183330.07FU	Undefined saprotroph
OTU191	BG	0,0002	100% AY443470 SH407688.07FU	Undefined saprotroph
OTU9	BG	0,0002	100% DQ069044 SH204986.07FU	Undefined saprotroph
OTU216	BG	0,0074	100% DQ315441 SH181342.07FU	Undefined saprotroph
OTU103	BG	0,0024	100% FJ378855 SH201605.07FU	Undefined saprotroph
OTU87	BG	0,0024	100% GQ411337 SH202969.07FU	Undefined saprotroph
OTU754	BG	0,0012	100% HG935790 SH175136.07FU	Undefined saprotroph
OTU240	BG	0,0002	100% JF300706 SH190020.07FU	Undefined saprotroph
OTU299	BG	0,0262	100% JN569102 SH184430.07FU	Undefined saprotroph
OTU593	BG	0,0292	100% JQ256426 SH174885.07FU	Undefined saprotroph
OTU1102	BG	0,0274	100% JQ668731 SH180668.07FU	Undefined saprotroph
OTU48	BG	0,0004	100% JX043061 SH029391.07FU	Undefined saprotroph
OTU715	BG	0,0042	100% LC177643 SH208860.07FU	Undefined saprotroph
OTU332	BG	0,0128	91.6% EF433966 SH029887.07FU	Undefined saprotroph
OTU459	BG	0,0004	91.6% KF617637 SH208638.07FU	Undefined saprotroph
OTU1626	BG	0,0014	92.1% AY781244 SH028081.07FU	Undefined saprotroph
OTU278	BG	0,014	92.8% HQ154328 SH003907.07FU	Undefined saprotroph
OTU127	BG	0,0138	93.1% KF617750 SH004446.07FU	Undefined saprotroph
OTU1533	BG	0,0002	93.3% LC096595 SH630111.07FU	Undefined saprotroph
OTU465	BG	0,0008	93.6% KC965981 SH028079.07FU	Undefined saprotroph
OTU377	BG	0,0132	93.8% KT160948 SH497117.07FU	Undefined saprotroph
OTU688	BG	0,016	94.8% EU917116 SH014306.07FU	Undefined saprotroph

OTU1185	BG	0,0334	95.2% GU174395 SH014257.07FU	Undefined saprotroph
OTU1052	BG	0,0498	95.3% KC965665 SH018520.07FU	Undefined saprotroph
OTU3284	BG	0,0042	96.2% EF434088 SH188392.07FU	Undefined saprotroph
OTU1220	BG	0,001	96.2% HM036653 SH180664.07FU	Undefined saprotroph
OTU1356	BG	0,0024	96.6% KC489485 SH216098.07FU	Undefined saprotroph
OTU410	BG	0,007	97.4% FJ553969 SH209863.07FU	Undefined saprotroph
OTU653	BG	0,022	97.5% JN899387 SH200696.07FU	Undefined saprotroph
OTU607	BG	0,0104	97.5% KM246506 SH497060.07FU	Undefined saprotroph
OTU1000	BG	0,0086	97.6% JX270418 SH216995.07FU	Undefined saprotroph
OTU255	BG	0,0366	97.6% KM504411 SH217025.07FU	Undefined saprotroph
OTU643	BG	0,0006	98.1% KF617609 SH479309.07FU	Undefined saprotroph
OTU488	BG	0,0002	98.3% HQ211698 SH181990.07FU	Undefined saprotroph
OTU913	BG	0,0002	98.3% KM246506 SH497060.07FU	Undefined saprotroph
OTU369	BG	0,0152	98.5% GU174419 SH025553.07FU	Undefined saprotroph
OTU88	BG	0,0002	99% JN995638 SH198656.07FU	Undefined saprotroph
OTU636	BG	0,0002	99.1% KT160948 SH497117.07FU	Undefined saprotroph
OTU73	BG	0,003	99.2% GQ120990 SH022294.07FU	Undefined saprotroph
OTU308	BG	0,0078	99.2% HM240166 SH208301.07FU	Undefined saprotroph
OTU164	BG	0,002	99.2% UDB014919 SH207730.07FU	Undefined saprotroph
OTU770	BG	0,015	99.5% KC019887 SH028064.07FU	Undefined saprotroph
OTU83	BG	0,0008	99.5% KY782284 SH220112.07FU	Undefined saprotroph
OTU491	BG	0,0028	90% JF439140 SH005211.07FU	Vesicular-arbuscular mycorrhizal
OTU260	BG	0,0026	98.3% KF618031 SH212624.07FU	Wood saprotroph
OTU1449	BG	0,0036	90.4% EF434104 SH183302.07FU	
OTU1535	BG	0,0152	91.1% KC965903 SH459100.07FU	
OTU2531	BG	0,0138	91.3% KC965545 SH027987.07FU	
OTU335	BG	0,0016	91.4% KC965545 SH027987.07FU	
OTU851	BG	0,0028	91.7% KF618198 SH474570.07FU	
OTU502	BG	0,0144	92.2% KF274396 SH019990.07FU	
OTU535	BG	0,0002	92.8% HQ212060 SH218288.07FU	
OTU342	BG	0,0002	93.6% KF617532 SH473856.07FU	

OTU737	BG	0,0014	93.8%	KF617587	SH215245.07FU	
OTU147	BG	0,0004	94.2%	HF947860	SH218294.07FU	
OTU781	BG	0,0138	94.3%	KC965284	SH464721.07FU	
OTU475	BG	0,0002	94.4%	KF617532	SH473856.07FU	
OTU573	BG	0,0002	94.4%	KF617532	SH473856.07FU	
OTU2154	BG	0,0128	94.5%	EU292461	SH218298.07FU	
OTU519	BG	0,0002	94.8%	KF617532	SH473856.07FU	
OTU805	BG	0,0016	95.6%	EF521253	SH004454.07FU	
OTU67	BG	0,0002	95.8%	KX609411	SH218810.07FU	
OTU538	BG	0,0002	95.9%	KF274302	SH020327.07FU	
OTU2936	BG	0,0022	96.4%	KC965549	SH023667.07FU	
OTU317	BG	0,0002	96.4%	KF617532	SH473856.07FU	
OTU3433	BG	0,0246	96.6%	KF617864	SH220712.07FU	
OTU631	BG	0,0026	98.4%	DQ421206	SH180898.07FU	
OTU346	BG	0,0128	98.8%	KU176283	SH497104.07FU	
OTU1894	BG	0,0288	99.1%	KF617751	SH004874.07FU	
OTU224	BG	0,0002	99.3%	FJ626929	SH460857.07FU	
OTU59	BG	0,0148	99.6%	KF617590	SH212904.07FU	
OTU1259	BSC	0,0004	70.6%	KF028767	SH467878.07FU	
OTU2835	BSC	0,0028	70.6%	KF028767	SH467878.07FU	
OTU1108	BSC	0,005	70.6%	KF028767	SH467878.07FU	
OTU2829	BSC	0,0082	70.6%	KF028767	SH467878.07FU	
OTU1751	BSC	0,0082	70.6%	KF028767	SH467878.07FU	
OTU1364	BSC	0,0142	70.6%	KF028767	SH467878.07FU	
OTU2243	BSC	0,0358	70.6%	KF028767	SH467878.07FU	
OTU1600	BSC	0,0372	70.6%	KF028767	SH467878.07FU	
OTU2207	BSC	0,0112	71.1%	JQ003630	SH223176.07FU	
OTU990	BSC	0,0146	71.1%	JQ003630	SH223176.07FU	
OTU1791	BSC	0,034	71.1%	JQ003630	SH223176.07FU	
OTU511	BSC	0,0004	71.4%	GU328524	SH015441.07FU	
OTU768	BSC	0,001	71.4%	JX109860	SH198216.07FU	
OTU433	BSC	0,02	71.8%	AM882963	SH200258.07FU	

OTU1454	BSC	0,0328	71.9%	FJ554329 SH208595.07FU	
OTU2264	BSC	0,036	72.1%	KF274449 SH474038.07FU	
OTU1404	BSC	0,026	72.1%	KP889572 SH492688.07FU	
OTU451	BSC	0,0002	72.5%	KF028767 SH467878.07FU	
OTU1040	BSC	0,0078	72.5%	KF028767 SH467878.07FU	
OTU477	BSC	0,0008	72.5%	KT328789 SH494084.07FU	
OTU1783	BSC	0,0014	73%	KC965534 SH486771.07FU	
OTU3444	BSC	0,0356	73.1%	HM240125 SH199186.07FU	
OTU427	BSC	0,0024	73.4%	FJ554329 SH208595.07FU	
OTU2219	BSC	0,0234	73.4%	FN868596 SH210044.07FU	
OTU1073	BSC	0,0078	73.5%	LT798821 SH630266.07FU	
OTU1164	BSC	0,0002	73.6%	GU721966 SH208425.07FU	
OTU1758	BSC	0,002	73.8%	KF617838 SH459212.07FU	
OTU3239	BSC	0,037	74%	KF614863 SH213331.07FU	
OTU1710	BSC	0,0086	74.5%	KF028767 SH467878.07FU	
OTU1903	BSC	0,0002	74.8%	EF016381 SH193236.07FU	
OTU108	BSC	0,0002	74.8%	KP889438 SH488681.07FU	
OTU910	BSC	0,0004	75.1%	HQ211717 SH193767.07FU	
OTU613	BSC	0,0024	75.1%	KF617838 SH459212.07FU	
OTU1819	BSC	0,0012	75.3%	KF297043 SH466107.07FU	
OTU347	BSC	0,0002	75.5%	KU141266 SH494194.07FU	
OTU210	BSC	0,0002	75.6%	KP889649 SH495466.07FU	
OTU232	BSC	0,0102	75.9%	KC965874 SH201099.07FU	
OTU1104	BSC	0,0302	76.4%	KT328828 SH491141.07FU	
OTU746	BSC	0,0214	76.4%	KX273438 SH640165.07FU	
OTU985	BSC	0,0018	76.7%	KF297043 SH466107.07FU	
OTU366	BSC	0,0026	77.2%	DQ248314 SH021199.07FU	
OTU1234	BSC	0,0004	77.5%	HQ211717 SH193767.07FU	
OTU684	BSC	0,0026	77.6%	JX857221 SH203320.07FU	
OTU406	BSC	0,0004	77.7%	FJ553822 SH470720.07FU	
OTU897	BSC	0,0004	77.7%	HQ211717 SH193767.07FU	

OTU1349	BSC	0,0002	77.8% FJ553238 SH193764.07FU	
OTU1012	BSC	0,0284	77.9% KU863000 SH205887.07FU	
OTU3161	BSC	0,009	78% UDB024206 SH210017.07FU	
OTU352	BSC	0,0032	78.1% FJ554329 SH208595.07FU	
OTU1151	BSC	0,0004	78.5% GU721966 SH208425.07FU	
OTU1015	BSC	0,0008	78.8% KF617838 SH459212.07FU	
OTU273	BSC	0,0002	79% HQ211717 SH193767.07FU	
OTU1245	BSC	0,0096	79% JF300564 SH012950.07FU	
OTU1026	BSC	0,033	80% FJ553396 SH208590.07FU	
OTU1531	BSC	0,0082	80% KF274277 SH025617.07FU	
OTU923	BSC	0,0002	80.8% AM901817 SH023176.07FU	
OTU214	BSC	0,0002	80.9% DQ054542 SH005081.07FU	
OTU812	BSC	0,044	81.6% JQ768940 SH215449.07FU	
OTU2687	BSC	0,0078	81.9% KP889623 SH493699.07FU	
OTU3159	BSC	0,0018	82.5% KC965900 SH183192.07FU	
OTU1834	BSC	0,0052	82.5% KM246219 SH495771.07FU	
OTU1403	BSC	0,0104	83.5% AM260819 SH208594.07FU	
OTU228	BSC	0,0188	83.9% HQ211499 SH221757.07FU	
OTU455	BSC	0,0202	84.1% KP889390 SH496500.07FU	
OTU294	BSC	0,0002	84.2% KC965900 SH183192.07FU	
OTU1426	BSC	0,0002	84.7% AM260819 SH208594.07FU	
OTU248	BSC	0,0042	84.8% KF618021 SH023175.07FU	
OTU1198	BSC	0,0168	84.9% FJ827709 SH210200.07FU	
OTU1200	BSC	0,0026	84.9% KJ462279 SH527325.07FU	
OTU2547	BSC	0,0342	85% JN863281 SH210018.07FU	
OTU708	BSC	0,0004	85% KC965361 SH025708.07FU	
OTU758	BSC	0,0004	85.4% KC884701 SH027203.07FU	
OTU1456	BSC	0,0364	85.7% KF274410 SH014522.07FU	
OTU404	BSC	0,0004	85.7% KP986517 SH496367.07FU	
OTU1095	BSC	0,0328	86.5% JN863281 SH210018.07FU	
OTU1438	BSC	0,0484	86.6% KC966354 SH023345.07FU	
OTU681	BSC	0,0228	86.7% HQ212020 SH182087.07FU	

OTU665	BSC	0,0048	86.8% KJ462276 SH527328.07FU	
OTU776	BSC	0,0358	87.1% KP889526 SH204558.07FU	
OTU226	BSC	0,0066	87.2% KP889390 SH496500.07FU	
OTU450	BSC	0,0436	87.8% GU187531 SH472365.07FU	
OTU2310	BSC	0,0014	87.9% FJ013066 SH184510.07FU	
OTU594	BSC	0,0002	88.4% FJ008692 SH023343.07FU	
OTU367	BSC	0,0002	88.8% JN032542 SH183189.07FU	
OTU499	BSC	0,0004	88.8% KP889976 SH496541.07FU	
OTU1236	BSC	0,0328	89.1% JX857179 SH218295.07FU	
OTU701	BSC	0,0014	89.8% FN565212 SH217841.07FU	
OTU266	BSC	0,0058	90% EF373563 SH005236.07FU	
OTU1013	BSC	0,004	90% KC966354 SH023345.07FU	
OTU818	BSC	0,0032	96% KC965669 SH027346.07FU	
OTU321	BSC	0,0002	98% AM260819 SH208594.07FU	
OTU1513	BSC	0,0062	99% AM999674 SH205434.07FU	
OTU1516	BSC	0,0456	99% KF274414 SH020335.07FU	
OTU19	BSC	0,0002	100% FM997929 SH208599.07FU	Animal Pathogen
OTU1465	BSC	0,0118	100% KF297148 SH193260.07FU	Animal Pathogen
OTU2470	BSC	0,0342	92.4% HQ267956 SH029166.07FU	Animal Pathogen
OTU1265	BSC	0,0056	92.5% FN555433 SH012598.07FU	Animal Pathogen
OTU157	BSC	0,0002	95.7% FJ554329 SH208595.07FU	Animal Pathogen
OTU167	BSC	0,0024	96.3% KF225793 SH474367.07FU	Animal pathogen
OTU85	BSC	0,0002	97.6% FJ554329 SH208595.07FU	Animal Pathogen
OTU1250	BSC	0,0464	100% HE605213 SH199199.07FU	Animal PathogenUndefined saprotroph
OTU970	BSC	0,0048	96.3% JX984761 SH205856.07FU	Dung saprotrophPlant saprotroph
OTU1206	BSC	0,0008	99.2% KC254096 SH253710.07FU	Dung saprotrophWood saprotroph
OTU510	BSC	0,0002	100% FJ475663 SH214269.07FU	Ectomycorrhizal
OTU2177	BSC	0,0252	100% KM504406 SH203693.07FU	Ectomycorrhizal
OTU504	BSC	0,0404	100% KX423754 SH631462.07FU	Ectomycorrhizal
OTU407	BSC	0,0416	100% KY522914 SH630271.07FU	Ectomycorrhizal
OTU10	BSC	0,0228	97.6% FJ013066 SH184510.07FU	Ectomycorrhizal

OTU38	BSC	0,0002	98.4% FJ475673 SH461592.07FU	Ectomycorrhizal
OTU1006	BSC	0,0184	100% AB476488 SH208582.07FU	Ericoid mycorrhizal
OTU546	BSC	0,0002	90.1% HQ260285 SH014523.07FU	Ericoid mycorrhizal
OTU3251	BSC	0,0082	92.1% AM260819 SH208594.07FU	Ericoid mycorrhizal
OTU3305	BSC	0,0348	92.1% AM260819 SH208594.07FU	Ericoid mycorrhizal
OTU464	BSC	0,0008	95.5% DQ309140 SH019516.07FU	Ericoid mycorrhizal
OTU3219	BSC	0,0002	96.8% AM260819 SH208594.07FU	Ericoid mycorrhizal
OTU139	BSC	0,0002	98.4% AM260819 SH208594.07FU	Ericoid mycorrhizal
OTU45	BSC	0,0172	99.6% KC966311 SH201642.07FU	Ericoid mycorrhizal
OTU992	BSC	0,0374	100% KF274145 SH025132.07FU	Fungal Parasite
OTU3419	BSC	0,0006	97.4% KF274139 SH013369.07FU	Fungal Parasite
OTU783	BSC	0,0028	98.9% HQ211619 SH182180.07FU	Fungal Parasite
OTU2952	BSC	0,0074	90.5% JN863281 SH210018.07FU	Lichenized
OTU1694	BSC	0,0324	91% FM205913 SH212241.07FU	Lichenized
OTU15	BSC	0,0002	91.2% JN863281 SH210018.07FU	Lichenized
OTU2875	BSC	0,0014	91.5% FN868596 SH210044.07FU	Lichenized
OTU1191	BSC	0,0002	92.1% FM205913 SH212241.07FU	Lichenized
OTU1065	BSC	0,0002	92.4% KC965805 SH005235.07FU	Lichenized
OTU532	BSC	0,0016	92.5% JN863281 SH210018.07FU	Lichenized
OTU1505	BSC	0,0002	93.1% UDB024202 SH210064.07FU	Lichenized
OTU137	BSC	0,0018	93.4% FN868596 SH210044.07FU	Lichenized
OTU738	BSC	0,001	96.2% FN868596 SH210044.07FU	Lichenized
OTU518	BSC	0,003	96.5% KM245922 SH212345.07FU	Lichenized
OTU591	BSC	0,0288	97.3% KC592271 SH212261.07FU	Lichenized
OTU1072	BSC	0,005	97.6% HM624020 SH210034.07FU	Lichenized
OTU2	BSC	0,0004	97.8% KR017059 SH204744.07FU	Lichenized
OTU468	BSC	0,0366	97.8% KR017117 SH522867.07FU	Lichenized
OTU1521	BSC	0,049	98% AY170792 SH210013.07FU	Lichenized
OTU223	BSC	0,0014	98.4% AF455251 SH210057.07FU	Lichenized
OTU432	BSC	0,0004	98.4% FJ536348 SH210027.07FU	Lichenized
OTU288	BSC	0,0008	98.6% KF274213 SH200320.07FU	Lichenized
OTU2621	BSC	0,0006	99.3% UDB024202 SH210064.07FU	Lichenized

OTU1107	BSC	0,01	99.6% AF455243 SH032306.07FU	Lichenized
OTU467	BSC	0,0474	94.2% JQ666431 SH016137.07FU	Litter saprotrophWood saprotroph
OTU1806	BSC	0,031	100% JX322104 SH490836.07FU	Plant Pathogen
OTU303	BSC	0,0178	97.9% KM186815 SH521472.07FU	Plant Pathogen
OTU1133	BSC	0,0002	98.8% KF297266 SH462915.07FU	Plant pathogen
OTU523	BSC	0,0266	99.1% KU687397 SH630073.07FU	Plant pathogen
OTU2633	BSC	0,036	90.2% KC965434 SH004626.07FU	Plant saprotrophWood saprotroph
OTU97	BSC	0,0002	98.8% HQ611327 SH004610.07FU	Plant saprotrophWood saprotroph
OTU29	BSC	0,002	99.6% HQ211567 SH027387.07FU	PlantsaprotrophWood saprotroph
OTU28	BSC	0,0024	100% KC965524 SH201645.07FU	Root associated fungus
OTU2838	BSC	0,0002	97.1% KP889660 SH496534.07FU	Root associated fungus
OTU777	BSC	0,0026	99.6% KC965515 SH205759.07FU	Root associated fungus
OTU247	BSC	0,0002	99.6% KM504438 SH203237.07FU	Root associated fungus
OTU116	BSC	0,0042	100% FJ475686 SH179956.07FU	Undefined saprotroph
OTU58	BSC	0,0424	100% GQ907105 SH180000.07FU	Undefined saprotroph
OTU868	BSC	0,0462	100% KM231845 SH182802.07FU	Undefined saprotroph
OTU587	BSC	0,0006	90.5% HQ211764 SH181101.07FU	Undefined saprotroph
OTU2463	BSC	0,0064	90.5% HQ211764 SH181101.07FU	Undefined saprotroph
OTU1187	BSC	0,0328	90.6% AY394892 SH196478.07FU	Undefined saprotroph
OTU2480	BSC	0,037	91.1% JF300498 SH219602.07FU	Undefined saprotroph
OTU2928	BSC	0,0048	91.4% HQ611282 SH205752.07FU	Undefined saprotroph
OTU2149	BSC	0,038	91.7% GU174404 SH020703.07FU	Undefined saprotroph
OTU700	BSC	0,0002	91.8% KF274342 SH023354.07FU	Undefined saprotroph
OTU129	BSC	0,003	92.1% HQ211650 SH181108.07FU	Undefined saprotroph
OTU148	BSC	0,0108	92.5% HQ211764 SH181101.07FU	Undefined saprotroph
OTU1182	BSC	0,049	92.5% JF449506 SH194265.07FU	Undefined saprotroph
OTU215	BSC	0,0002	92.7% KC965292 SH006780.07FU	Undefined saprotroph
OTU647	BSC	0,0328	93.2% KC966055 SH193298.07FU	Undefined saprotroph
OTU709	BSC	0,0336	93.3% EF016381 SH193236.07FU	Undefined saprotroph
OTU2076	BSC	0,0314	93.5% HQ611282 SH205752.07FU	Undefined saprotroph
OTU2157	BSC	0,0348	93.6% EF016381 SH193236.07FU	Undefined saprotroph

OTU1017	BSC	0,033	94% EF016381 SH193236.07FU	Undefined saprotroph
OTU458	BSC	0,0486	94.3% JX857225 SH196236.07FU	Undefined saprotroph
OTU733	BSC	0,033	94.8% EF016381 SH193236.07FU	Undefined saprotroph
OTU1099	BSC	0,0174	95.2% KC966055 SH193298.07FU	Undefined saprotroph
OTU276	BSC	0,0036	95.3% EF016381 SH193236.07FU	Undefined saprotroph
OTU76	BSC	0,005	96.2% KP889343 SH493692.07FU	Undefined saprotroph
OTU3283	BSC	0,0146	96.3% AY394892 SH196478.07FU	Undefined saprotroph
OTU109	BSC	0,0004	96.3% FJ553668 SH201667.07FU	Undefined saprotroph
OTU140	BSC	0,0002	96.3% KF274460 SH014744.07FU	Undefined saprotroph
OTU16	BSC	0,0072	96.3% KT965054 SH522830.07FU	Undefined saprotroph
OTU96	BSC	0,0002	96.4% EF016381 SH193236.07FU	Undefined saprotroph
OTU529	BSC	0,0128	96.6% KF274317 SH181117.07FU	Undefined saprotroph
OTU1033	BSC	0,0356	96.6% KP889978 SH493666.07FU	Undefined saprotroph
OTU582	BSC	0,0186	96.8% GQ907105 SH180000.07FU	Undefined saprotroph
OTU250	BSC	0,0404	96.9% EU292536 SH203866.07FU	Undefined saprotroph
OTU1068	BSC	0,0012	97.0% FJ553294 SH193233.07FU	Undefined saprotroph
OTU6	BSC	0,0008	97.1% KT965054 SH522830.07FU	Undefined saprotroph
OTU7	BSC	0,0012	97.4% HQ260288 SH219619.07FU	Undefined saprotroph
OTU2811	BSC	0,03	97.5% AB854726 SH196476.07FU	Undefined saprotroph
OTU641	BSC	0,0002	97.5% FJ008679 SH193253.07FU	Undefined saprotroph
OTU327	BSC	0,0008	97.8% HQ335299 SH223448.07FU	Undefined saprotroph
OTU1248	BSC	0,0002	98.1% EF373581 SH193240.07FU	Undefined saprotroph
OTU2332	BSC	0,0004	98.8% LC085188 SH193233.07FU	Undefined saprotroph
OTU386	BSC	0,0258	99.1% KC965430 SH031254.07FU	Undefined saprotroph
OTU1762	BSC	0,0028	99.2% HQ211764 SH181101.07FU	Undefined saprotroph
OTU629	BSC	0,0096	91.7% HG937127 SH487800.07FU	
OTU727	BSC	0,002	91.9% KF274293 SH017403.07FU	
OTU2360	BSC	0,033	92.1% KF617587 SH215245.07FU	
OTU672	BSC	0,0004	92.4% KF617295 SH456951.07FU	
OTU456	BSC	0,0004	93.3% KP889786 SH208682.07FU	
OTU772	BSC	0,039	93.8% KF274251 SH474472.07FU	
OTU125	BSC	0,0002	94.1% KP889786 SH208682.07FU	

OTU117	BSC	0,004	94.7%	KF274293 SH017403.07FU	
OTU1915	BSC	0,0214	95.2%	KP889676 SH495465.07FU	
OTU256	BSC	0,0122	95.3%	JF300533 SH205580.07FU	
OTU663	BSC	0,0262	95.3%	KP889643 SH488454.07FU	
OTU236	BSC	0,0054	95.7%	KF274251 SH474472.07FU	
OTU595	BSC	0,0034	96.5%	KF617747 SH204499.07FU	
OTU60	BSC	0,0018	97.5%	DQ309156 SH202429.07FU	
OTU265	BSC	0,04	97.6%	GU174283 SH216436.07FU	
OTU486	BSC	0,0118	97.7%	JX998699 SH019200.07FU	
OTU567	BSC	0,0496	98.3%	KF617797 SH203042.07FU	
OTU64	BSC	0,014	98.8%	KF617982 SH027017.07FU	
OTU402	BSC	0,0192	99.5%	EF373561 SH200318.07FU	
OTU872	VV	0,0208	70.6%	KF028767 SH467878.07FU	
OTU2943	VV	0,049	70.9%	JQ666438 SH471875.07FU	
OTU390	VV	0,0476	71%	KF733464 SH494353.07FU	
OTU384	VV	0,0012	71.1%	JQ003630 SH223176.07FU	
OTU1221	VV	0,0014	71.1%	JQ003630 SH223176.07FU	
OTU798	VV	0,0054	71.1%	JQ003630 SH223176.07FU	
OTU1814	VV	0,0068	71.1%	JQ003630 SH223176.07FU	
OTU977	VV	0,009	71.1%	JQ003630 SH223176.07FU	
OTU1129	VV	0,0196	71.1%	JQ003630 SH223176.07FU	
OTU1088	VV	0,0294	71.1%	JQ003630 SH223176.07FU	
OTU482	VV	0,0424	71.1%	JQ003630 SH223176.07FU	
OTU2060	VV	0,0436	71.1%	JQ003630 SH223176.07FU	
OTU621	VV	0,0448	71.1%	JQ003630 SH223176.07FU	
OTU850	VV	0,0458	71.1%	JQ003630 SH223176.07FU	
OTU132	VV	0,0472	71.1%	JQ003630 SH223176.07FU	
OTU1162	VV	0,0034	72.3%	KF296953 SH485511.07FU	
OTU966	VV	0,0006	73.6%	JF300543 SH462390.07FU	
OTU442	VV	0,011	73.7%	AY219390 SH007649.07FU	
OTU1598	VV	0,0118	73.8%	KF297121 SH032388.07FU	

OTU1301	VV	0,0368	74.1% EU002899 SH194513.07FU	
OTU960	VV	0,009	74.9% JF300543 SH462390.07FU	
OTU438	VV	0,0124	75.5% HG937143 SH497382.07FU	
OTU1371	VV	0,018	76% JX456924 SH028220.07FU	
OTU1897	VV	0,034	76% KF297121 SH032388.07FU	
OTU1635	VV	0,0154	76% KF618164 SH482592.07FU	
OTU833	VV	0,0318	76.4% KF800172 SH021105.07FU	
OTU123	VV	0,022	77.3% KX228256 SH629393.07FU	
OTU1299	VV	0,0476	78.4% UDB014634 SH217612.07FU	
OTU831	VV	0,0196	79.6% FJ528734 SH001663.07FU	
OTU357	VV	0,001	80.2% JF300543 SH462390.07FU	
OTU1004	VV	0,0464	80.3% JX987750 SH474136.07FU	
OTU131	VV	0,0252	82.7% HQ212111 SH190009.07FU	
OTU305	VV	0,0014	84.3% KU534817 SH631256.07FU	
OTU1018	VV	0,042	86.8% FN565212 SH217841.07FU	
OTU1889	VV	0,0064	87% KC222820 SH180900.07FU	
OTU704	VV	0,0454	87.3% LT799727 SH631030.07FU	
OTU183	VV	0,0482	87.9% HM030614 SH000651.07FU	
OTU196	VV	0,002	89.2% KC222820 SH180900.07FU	
OTU1142	VV	0,0496	89.3% KP192607 SH524098.07FU	
OTU211	VV	0,0284	89.7% KF617637 SH208638.07FU	
OTU2727	VV	0,044	89.8% JQ761327 SH020836.07FU	
OTU514	VV	0,0218	90% EF434092 SH467192.07FU	
OTU283	VV	0,0012	94% KP889666 SH493700.07FU	
OTU112	VV	0,02	95% JQ420967 SH179997.07FU	
OTU485	VV	0,0016	95% JQ666464 SH001662.07FU	
OTU879	VV	0,0346	96% KF296822 SH016383.07FU	
OTU2425	VV	0,0084	97% HQ829336 SH204501.07FU	
OTU42	VV	0,0004	100% JN049844 SH184933.07FU	Animal Pathogen
OTU899	VV	0,0432	97.8% KF309965 SH206048.07FU	Animal Pathogen
OTU788	VV	0,036	98.8% JX981910 SH183188.07FU	Animal Pathogen
OTU1025	VV	0,0268	98.7% HQ211494 SH201714.07FU	Ectomycorrhiza

OTU70	VV	0,0014	100% KC702643 SH214657.07FU	Ectomycorrhizal
OTU1902	VV	0,0422	100% LN850503 SH181005.07FU	Ectomycorrhizal
OTU154	VV	0,026	90.8% UDB002308 SH194441.07FU	Ectomycorrhizal
OTU3151	VV	0,0468	92.9% AY078145 SH275913.07FU	Ectomycorrhizal
OTU2436	VV	0,0492	95.6% AY078145 SH275913.07FU	Ectomycorrhizal
OTU819	VV	0,0056	98.2% UDB017965 SH227199.07FU	Ectomycorrhizal
OTU229	VV	0,0382	98.4% JN032545 SH028720.07FU	Ectomycorrhizal
OTU861	VV	0,0064	98.9% UDB000350 SH176549.07FU	Ectomycorrhizal
OTU1219	VV	0,0386	99.2% KC965984 SH214290.07FU	Ectomycorrhizal
OTU2014	VV	0,0296	96.4% DQ309187 SH221487.07FU	Ericoid mycorrhizal
OTU1023	VV	0,0046	99.2% FJ554384 SH174320.07FU	Ericoid mycorrhizal
OTU501	VV	0,0012	99.2% KF617682 SH012952.07FU	Ericoid mycorrhizal
OTU919	VV	0,0176	99.5% KC019909 SH183303.07FU	Ericoid mycorrhizal
OTU590	VV	0,0202	94.9% AF444362 SH206653.07FU	Fungal parasite
OTU539	VV	0,0032	99.6% HQ211717 SH193767.07FU	Fungal parasite
OTU381	VV	0,0002	100% HM589383 SH185977.07FU	Litter saprotrophUndefined saprotroph
OTU30	VV	0,0002	100% HQ211581 SH187862.07FU	Litter saprotrophUndefined saprotroph
OTU77	VV	0,014	100% HQ212268 SH180114.07FU	Litter saprotrophUndefined saprotroph
OTU296	VV	0,0144	100% HQ445990 SH180130.07FU	Litter saprotrophUndefined saprotroph
OTU944	VV	0,0064	92.1% KP889624 SH198290.07FU	Litter saprotrophUndefined saprotroph
OTU1548	VV	0,0364	95.1% EF152531 SH187874.07FU	Litter saprotrophUndefined saprotroph
OTU526	VV	0,0008	95.4% HQ211500 SH185974.07FU	Litter saprotrophUndefined saprotroph
OTU337	VV	0,0254	96.4% EF152531 SH187874.07FU	Litter saprotrophUndefined saprotroph
OTU628	VV	0,0002	97% HQ211581 SH187862.07FU	Litter saprotrophUndefined saprotroph
OTU2141	VV	0,0412	97% HQ211581 SH187862.07FU	Litter saprotrophUndefined saprotroph
OTU1255	VV	0,0402	99.1% HQ212285 SH003974.07FU	Litter saprotrophUndefined saprotroph
OTU1	VV	0,034	99.1% KJ735026 SH495966.07FU	Litter saprotrophUndefined saprotroph
OTU32	VV	0,0002	99.6% HQ211515 SH185973.07FU	Litter saprotrophUndefined saprotroph
OTU620	VV	0,01	99.6% JF300755 SH185976.07FU	Litter saprotrophUndefined saprotroph
OTU661	VV	0,0006	91.9% AY626983 SH200714.07FU	Plant pathogen
OTU155	VV	0,0042	99.5% KM186810 SH524027.07FU	Plant Pathogen

OTU65	VV	0,0008	100% FJ475732 SH196224.07FU	Plant saprotrophWood saprotroph
OTU261	VV	0,0076	100% HQ211754 SH004617.07FU	Plant saprotrophWood saprotroph
OTU379	VV	0,0288	100% KC876277 SH214271.07FU	Plant saprotrophWood saprotroph
OTU135	VV	0,001	99.6% KF617352 SH214273.07FU	Plant saprotrophWood saprotroph
OTU268	VV	0,0026	94.3% KP866123 SH201717.07FU	Root associated fungus
OTU55	VV	0,003	95.1% KP889660 SH496534.07FU	Root associated fungus
OTU3102	VV	0,0352	95.5% KP889660 SH496534.07FU	Root associated fungus
OTU991	VV	0,0066	100% AB476491 SH005167.07FU	Undefined saprotroph
OTU37	VV	0,0102	100% AF444350 SH190017.07FU	Undefined saprotroph
OTU204	VV	0,0004	100% FJ553238 SH193764.07FU	Undefined saprotroph
OTU396	VV	0,0106	100% HM069375 SH024117.07FU	Undefined saprotroph
OTU284	VV	0,0046	100% KC965124 SH219520.07FU	Undefined saprotroph
OTU2013	VV	0,008	100% KF296912 SH205446.07FU	Undefined saprotroph
OTU171	VV	0,0002	100% KT923624 SH201431.07FU	Undefined saprotroph
OTU1656	VV	0,0474	91.6% HQ211529 SH005170.07FU	Undefined saprotroph
OTU220	VV	0,0188	92.1% FN663743 SH105367.07FU	Undefined saprotroph
OTU843	VV	0,0056	94.1% KF618164 SH482592.07FU	Undefined saprotroph
OTU2450	VV	0,0014	94.5% JN032572 SH203828.07FU	Undefined saprotroph
OTU2757	VV	0,04	94.7% GU062199 SH018514.07FU	Undefined saprotroph
OTU82	VV	0,0152	95.3% KC965670 SH193252.07FU	Undefined saprotroph
OTU218	VV	0,007	95.4% DQ309141 SH179085.07FU	Undefined saprotroph
OTU156	VV	0,004	95.6% KF823592 SH208055.07FU	Undefined saprotroph
OTU1227	VV	0,011	96.6% HM036653 SH180664.07FU	Undefined saprotroph
OTU1482	VV	0,0206	96.6% HM230874 SH181130.07FU	Undefined saprotroph
OTU858	VV	0,0014	96.8% KM504451 SH494719.07FU	Undefined saprotroph
OTU93	VV	0,027	97.5% AB854709 SH496664.07FU	Undefined saprotroph
OTU2349	VV	0,02	97.5% JX981884 SH110708.07FU	Undefined saprotroph
OTU447	VV	0,024	97.6% KF285997 SH207163.07FU	Undefined saprotroph
OTU401	VV	0,0016	97.8% AB854709 SH496664.07FU	Undefined saprotroph
OTU1385	VV	0,0394	97.8% HM230874 SH181130.07FU	Undefined saprotroph
OTU506	VV	0,0002	98.4% HQ611282 SH205752.07FU	Undefined saprotroph
OTU4	VV	0,0002	98.5% EU292507 SH203829.07FU	Undefined saprotroph

OTU857	VV	0,0416	98.6% KC411730 SH207159.07FU	Undefined saprotroph
OTU1677	VV	0,0444	98.8% HM069367 SH192597.07FU	Undefined saprotroph
OTU54	VV	0,0028	98.8% KM504451 SH494719.07FU	Undefined saprotroph
OTU186	VV	0,0012	98.9% KF617378 SH005082.07FU	Undefined saprotroph
OTU143	VV	0,0002	99.6% HQ211812 SH213411.07FU	Undefined saprotroph
OTU1273	VV	0,0262	99.7% KP889727 SH488438.07FU	Undefined saprotroph
OTU92	VV	0,0318	99.5% JN021035 SH208316.07FU	Undefined saprotrophUndefined Biotroph
OTU1764	VV	0,0454	100% KP814424 SH202375.07FU	Wood saprotroph
OTU699	VV	0,0242	100% EF521253 SH004454.07FU	
OTU201	VV	0,0018	100% KF617492 SH006003.07FU	
OTU176	VV	0,028	90.7% KF617628 SH023327.07FU	
OTU551	VV	0,0142	91.2% HG937127 SH487800.07FU	
OTU1730	VV	0,0174	92.8% KF617532 SH473856.07FU	
OTU1499	VV	0,0122	93.2% KF617532 SH473856.07FU	
OTU614	VV	0,0004	95.6% JX981914 SH463853.07FU	
OTU251	VV	0,001	95.7% EU292495 SH208584.07FU	
OTU2760	VV	0,0476	95.9% JQ666464 SH001662.07FU	
OTU862	VV	0,0074	95.9% JX363263 SH526435.07FU	
OTU445	VV	0,0002	96.4% JQ666464 SH001662.07FU	
OTU711	VV	0,004	96.4% KF660575 SH487547.07FU	
OTU1715	VV	0,0002	96.5% FJ475780 SH204497.07FU	
OTU56	VV	0,0002	96.9% EU292495 SH208584.07FU	
OTU440	VV	0,007	97.2% EU292495 SH208584.07FU	
OTU1144	VV	0,049	97.6% UDB014664 SH531926.07FU	
OTU1207	VV	0,0234	98.1% KF617295 SH456951.07FU	
OTU611	VV	0,0092	98.4% KC222820 SH180900.07FU	
OTU478	VV	0,0056	98.5% EU292330 SH204504.07FU	
OTU1595	VV	0,0102	98.5% KP889572 SH492688.07FU	
OTU555	VV	0,0004	98.6% JQ666464 SH001662.07FU	
OTU766	VV	0,0018	99.1% KX609411 SH218810.07FU	
OTU742	VV	0,0024	99.5% JN032559 SH219501.07FU	

OTU1740	VV	0,0194	99.7%	KP889455 SH495473.07FU	
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Table S3 Regression slopes and r^2 for the variation of relative richness and abundance of the total fungal community and eight functional guilds in response to soil physicochemical properties (significant for $p < 0.05$; § marginally significant, $p < 0.1$; n. s. non-significant).

		Water content (%)		pH		P content (mg/kg)		C content (%)		N content (%)		C/N ratio	
		slope	r^2	slope	r^2	slope	r^2	slope	r^2	slope	r^2	slope	r^2
All fungi	Richness	1.1083	0.1259	-40.19	0.0745	0.1834	0.0557	n. s.		n. s.		n. s.	
ECM fungi	Richness	0.0918	0.0892	n. s.		n. s.		n. s.		n. s.		n. s.	
	Abundance	n. s.		8.272	0.0600	-0.035 §	0.0362	-0.2665	0.0611	-5.949 §	0.0350	-0.5419	0.0619
ERM fungi	Richness	0.0389 §	0.0347	-3.1287	0.1471	0.0094 §	0.0394	0.0629 §	0.0474	1.5113 §	0.0328	0.1254 §	0.0457
	Abundance	0.0232 §	0.0350	-1.357	0.0702	0.0068	0.0675	0.0491	0.0949	1.5762	0.1376	n. s.	
Other root associated fungi	Richness	n. s.		-1.7431	0.0635	0.0069 §	0.0313	n. s.		n. s.		n. s.	
	Abundance	n. s.		-1.7180	0.108	n. s.		0.0477	0.0771	n. s.		0.1105	0.1065
Lichenized fungi	Richness	-0.1034	0.1387	n. s.		n. s.		n. s.		n. s.		0.1776 §	0.0362
	Abundance	n. s.		n. s.		n. s.		n. s.		n. s.		n. s.	
Plant pathogens	Richness	0.0654	0.1026	-2.602	0.0752	n. s.		n. s.		n. s.		n. s.	
	Abundance	-0.0497 §	0.0425	n. s.		n. s.		n. s.		n. s.		n. s.	
Animal pathogens	Richness	n. s.		-4.1856	0.3929	0.0172	0.2468	0.1157	0.2888	2.7649	0.2171	0.2231	0.2611
	Abundance	n. s.		n. s.		n. s.		0.0760	0.0626	1.9074	0.0502	n. s.	
Mycoparasites	Richness	0.0234 §	0.0309	-1.8274	0.1261	0.0064	0.0508	n. s.		0.9206 §	0.0302	0.0905	0.0665
	Abundance	n. s.		-0.3437	0.1252	n. s.		n. s.		n. s.		0.0176	0.0719
Saprotrophs	Richness	0.5974	0.2467	-19.081	0.1141	0.0890	0.0920	n. s.		10.970	0.0394	0.8194 §	0.0404
	Abundance	0.1862 §	0.0481	n. s.		n. s.		n. s.		n. s.		n. s.	

Table S4 Regression r^2 and significance of each variable fitted in the NMDS analyses (fig. 5).

Variables	All fungi		ECM fungi		ERM fungi		Other root associated fungi		Lichenized fungi	
	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p
pH	0.6865	0.001	0.7359	0.001	0.3998	0.001	0.3626	0.001	0.2952	0.001
Water content	0.4767	0.001	0.1867	0.005	0.2726	0.002	0.1716	0.008	0.0796	0.109
C	0.5326	0.001	0.5603	0.001	0.2493	0.001	0.2634	0.001	0.1406	0.019
N	0.4577	0.001	0.4943	0.001	0.1811	0.006	0.2071	0.001	0.1212	0.034
C/N ratio	0.6042	0.001	0.6029	0.001	0.3840	0.001	0.3134	0.001	0.1761	0.013
P	0.3728	0.001	0.5017	0.001	0.1629	0.007	0.1807	0.004	0.1400	0.019
<i>Salix</i>	0.2190	0.002	0.1446	0.008	0.1841	0.007	0.0871	0.078	0.1674	0.008
<i>Betula</i>	0.0508	0.248	0.3246	0.001	0.0355	0.351	0.0100	0.748	0.0207	0.595
<i>Vaccinium</i>	0.2784	0.001	0.0529	0.211	0.0817	0.083	0.0356	0.378	0.0483	0.261
<i>Empetrum</i>	0.0679	0.136	0.0597	0.162	0.1141	0.031	0.0833	0.100	0.1428	0.020
Variables	Plant pathogens		Animal pathogens		Mycoparasites		Saprotrophs			
	r^2	p	r^2	p	r^2	p	r^2	p		
pH	0.5607	0.001	0.4356	0.001	0.1049	0.046	0.6276	0.001		
Water content	0.2351	0.002	0.4195	0.001	0.1059	0.051	0.3656	0.001		
C	0.4804	0.001	0.4460	0.001	0.0755	0.106	0.5499	0.001		
N	0.4713	0.001	0.3734	0.001	0.0708	0.119	0.4351	0.001		
C/N ratio	0.4630	0.001	0.4641	0.001	0.1290	0.021	0.6324	0.001		
P	0.3553	0.001	0.3439	0.001	0.0100	0.745	0.3322	0.001		
<i>Salix</i>	0.2009	0.006	0.1719	0.001	0.1100	0.060	0.1767	0.001		
<i>Betula</i>	0.0506	0.233	0.0107	0.716	0.0148	0.660	0.0325	0.355		
<i>Vaccinium</i>	0.2631	0.001	0.2909	0.001	0.0884	0.083	0.1653	0.004		
<i>Empetrum</i>	0.0113	0.738	0.0818	0.095	0.0016	0.947	0.0842	0.081		