

**Table S5: The 50 most abundant ITS1 OTUs**

OTU	Number of sequences	Relative abundance (%) HT	Relative abundance (%) LT	UNITE (V8) Classification	Taxonomy (NCBI Blast), GenBank accession no., similarity (%)
OTU00001	50,275	17	8.6	<i>Pleosporales</i> MH633965 (99.6%)	<i>Microsphaeropsis arundinis</i> ; AB775571; 99%
OTU00002	25,250	0	13.2	<i>Thelebolus</i> KP714650 (100%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 100%
OTU00003	23,768	2.1	10.3	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00004	15,241	7.6	0	<i>Ascomycota</i> KP698358 (100%)	<i>Pleosporales</i> sp. 418H; HE653990; 100%
OTU00005	11,844	3.6	2.4	<i>Letendraea</i> LT796897 (99.6%)	<i>Microsphaeropsis</i> sp. JSM 06261702; KY086256; 98%
OTU00006	11,448	5.5	0.2	<i>Psilocybe</i> KJ182745 (100%)	<i>Psilocybe</i> cf. <i>subviscida/crobula</i> X-45; KC176337; 95%
OTU00007	11,030	1.1	4.6	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00008	11,003	5.5	0	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00009	9,407	0.6	4.3	<i>Pyronemataceae</i> FJ553261 (99.6%)	<i>Pyronemataceae</i> sp. F79; KT809108; 98%
OTU00010	8,690	0	4.6	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00011	7,540	1.7	2.1	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00012	7,220	2.4	1.2	<i>Letendraea</i> LT796908 (99.6%)	<i>Microsphaeropsis</i> sp. S4A1ACS; KY305064; 99%
OTU00013	6,955	0.1	3.5	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00014	4,714	1.8	0.5	<i>Orpinomyces</i> MK036695 (100%)	<i>Orpinomyces</i> sp. LT-3; JF747595; 100%
OTU00015	4,666	0	2.4	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.2%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00016	4,298	0	2.2	<i>Thelebolus</i> KP714650 (99.3%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00017	4,034	0	2.1	<i>Thelebolus</i> KP714650 (100%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 100%
OTU00018	3,593	0	1.9	<i>Thelebolus</i> KP714650 (99.3%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00019	2,790	0.8	0.7	<i>Phaeosphaeriopsis</i> (99.6%)	<i>Phaeosphaeriopsis</i> TMS-2011; HQ630983; 99%
OTU00020	2,771	1.1	0.3	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00021	2,717	1.1	0.2	<i>Pyrenochaetopsis leptospora</i> (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00022	2,679	1.1	0.3	<i>Orpinomyces</i> MK036685 (99.209%)	<i>Orpinomyces</i> sp. LT-7; JF747596; 99%
OTU00023	2,486	0.9	0.3	<i>Didymocyrtis cladoniicola</i> LT796886 (100%)	<i>Pleosporales</i> sp. MH179; FM995624; 99%
OTU00024	2,367	0.2	1	<i>Coprinopsis cothurnata</i> AY461833 (100%)	<i>Coprinopsis cothurnata</i> SFSU DEH548; AY461833; 100%

OTU00025	2,268	0.6	0.6	<i>Caecomyces</i> AB334759 (93.9%)	<i>Caecomyces</i> sp. CR4; AB334759; 94%
OTU00026	2,004	0.7	0.3	<i>Caecomyces</i> AB334759 (100%)	<i>Caecomyces</i> sp. CR4; AB334759; 100%
OTU00027	1,863	0.9	0.1	<i>Melanotus caricicola</i> (94.2%)	<i>Deconica</i> sp. PB-2016b; KX017213; 92%
OTU00028	1,669	0.4	0.5	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00029	1,664	0.8	0	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00030	1,657	0.8	0	<i>Preussia</i> KX611026 (100%)	<i>Preussia</i> sp. JJP-2009a; FJ210518; 99%
OTU00031	1,627	0.5	0.3	<i>Cyllumyces</i> GQ850314 (96%)	<i>Caecomyces</i> sp. NZB7; JF423621; 87%
OTU00032	1,622	0	0.9	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.2%)	<i>Pleosporales</i> sp. NWHC; KX148619; 100%
OTU00033	1,609	0.8	0	<i>Pyrenochaetopsis leptospora</i> MF795793 (99.6%)	<i>Pyrenochaetopsis leptospora</i> strain CBS 101635; MF795793; 99%
OTU00034	1,506	0.4	0.3	<i>Orpinomyces</i> JN560954 (98.4%)	<i>Orpinomyces</i> sp. NIANP59; EU150190; 98%
OTU00035	1,492	0.3	0.5	<i>Neocallimastigaceae</i> JF274494 (91.5%)	<i>Orpinomyces</i> sp. LT-7; JF747596; 100%
OTU00036	1,467	0.6	0.1	<i>Phaeosphaeriopsis</i> KF800186 (99.6%)	<i>Phaeosphaeriopsis</i> TMS-2011; HQ630983; 99%
OTU00037	1,438	0.1	0.7	<i>Preussia</i> FJ210520 (99.6%)	<i>Preussia</i> sp. JJP-2009a; FJ210518; 99%
OTU00038	1,414	0.5	0.2	uncultured fungi FJ758183 (100%)	<i>Pleosporales</i> sp. 1 TMS-2011; HQ631002; 92%
OTU00039	1,322	0.5	0.2	<i>Paraphaeosphaeria michotii</i> JF340243 (99.3%)	<i>Paraphaeosphaeria michotii</i> M15; JF340243; 99%
OTU00040	1,317	0	0.7	<i>Thelebolus</i> KP714650 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00041	1,298	0.6	0	<i>Preussia</i> FJ210520 (100%)	<i>Preussia</i> sp. JJP-2009a; FJ210520; 100%
OTU00042	1,288	0.3	0.3	<i>Pyrenochaetopsis</i> KF800437 (96.1%)	<i>Pyrenochaetopsis</i> sp. PG293; AB916515; 96%
OTU00043	1,257	0.5	0.2	uncultured fungi JX371448 (100%)	<i>Podospora decipiens</i> strain CBS 258.69; KX171946; 99%
OTU00044	1,225	0.6	0	<i>Preussia</i> FJ210520 (100%)	<i>Preussia</i> sp. JJP-2009a; FJ210520; 100%
OTU00045	1,168	0.3	0.3	<i>Neocallimastigaceae</i> AM690084 (98%)	<i>Caecomyces</i> sp. CR4; AB334759; 90%
OTU00046	1,152	0	0.6	<i>Thelebolus</i> MK529893 (99.6%)	<i>Thelebolus</i> sp. MKOTU58; KP714650; 99%
OTU00047	1,151	0	0.6	<i>Chaetothyriales</i> HQ607986 (100%)	<i>Podospora cochleariformis</i> strain CBS 249.71; AY999123; 97%
OTU00048	1,068	0.1	0.5	<i>Pyronemataceae</i> FJ553261 (99.3%)	<i>Pyronemataceae</i> sp. F79; KT809108; 98%
OTU00049	1,016	0.4	0.1	unclassified Ascomycota JX545197 (96.2%)	<i>Pleosporales</i> sp. 5 TMS-2011; HQ631052; 90%
OTU00050	998	0.5	0	<i>Pleosporales</i> MH633965 (99.6%)	<i>Podospora myriasporea</i> strain TJ12; EU888913; 100%