Supplementary Tables

Supplementary Table 1: Identification of 50 most abundant fungal OTUs according to NCBI Blast, their relative abundance and distribution during litter degradation. Data of relative abundance are expresssed as means from three litterbags, standard errors are shown in italic. Statistically significant differences in relative abundance among litterbags from -2, 0, 2, 4, 8, 12 and 24 month (ANOVA followed by Fisher post-hoc test) are indicated by different letters. Fungal divisions: A – *Ascomycota*, B – *Basidiomycota*, G – *Glomeromycota*

OTU	Order (division)	Best identified hit (accession number)	Similarity (%)	E-value	Abundance[1] (‰)	Relative abundance in different month (‰)						
						-2	0	2	4	8	12	24
0	*Capnodiales* (A)	*Mycosphaerella punctiformis* (EU343174)	100	0.0	174.1	276.5 b *99.5*	893.3 a *39.5*	37.3 c *30.7*	6.1 c *4.2*	0.3 c *0.3*	3.1 c *2.3*	2.3 c *0.4*
1	*Helotiales* (A)	*Naevala minutissima* (AY853218)	99	0.0	123.4	25.3 b *11.3*	14.6 b *10.2*	374.2 a *142.9*	444.9 a *152.4*	3.4 b *1.4*	0.3 b *0.3*	0.9 b *0.9*
3	*Polyporales* (A)	*Troposporella fumosa* (DQ351724)	93	E-164	61.2	0.0 b *0.0*	0.0 b *0.0*	3.3 b *1.1*	1.1 b *0.5*	206.4 a *29.3*	216.3 a *36.6*	1.1 b *0.5*
2	*Tremellales* (B)	*Trichosporon porosum* (AF414694)	100	0.0	53	4.6 b *2.0*	0.0 b *0.0*	1.7 b *1.7*	0.0 b *0.0*	2.6 b *2.1*	39.5 b *39.5*	322.4 a *55.3*
4	*Atheliales* (B)	*Athelia bombacina* (DQ449026)	86	E-108	39.1	0.0 b *0.0*	0.0 b *0.0*	183.7 a *108.2*	89.4 ab *36.2*	0.3 b *0.3*	0.0 b *0.0*	0.0 b *0.0*
5	*Tremellales* (B)	*Trichosporon moniliiforme* (AF444415)	99	0.0	18.6	0.8 b *0.5*	0.0 b *0.0*	0.0 b *0.0*	0.6 b *0.6*	0.3 b *0.3*	1.5 b *1.2*	126.7 a *33.8*
11	*Polyporales* (A)	*Troposporella fumosa* (DQ351724)	94	E-167	17.1	0.0 b *0.0*	0.0 b *0.0*	0.0 b *0.0*	0.0 b *0.0*	70.4 a *14.5*	49 a *39.0*	0.3 b *0.3*
10	*Tremellales* (B)	*Cryptococcus podzolicus* (AJ581036)	99	0.0	16.9	58.6 a *20.5*	0.1 b *0.1*	26.2 b *11.0*	0.0 b *0.0*	28.1 b *8.2*	4.4 b *3.2*	0.8 b *0.5*
9	(A)	*Helminthosporium solani* (DQ865090)	84	5E-27	16	0.9 b *0.5*	0.0 b *0.0*	0.0 b *0.0*	0.0 b *0.0*	0.0 b *0.0*	20.9 b *10.6*	90.2 a *36.4*
6	(B)	*Sistotrema alboluteum* (AJ606042)	98	E-93	15.1	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	105.4 *105.4*	0.0 *0.0*
8	*Dothideales* (A)	*Aureobasidium pullulans* (GU062250)	100	0.0	14.9	69.6 a *9.5*	2.9 b *1.5*	11.5 b *2.4*	10 b *2.3*	9.7 b *7.2*	0.6 b *0.6*	0.0 b *0.0*
13	*Microascales* (A)	*Clavariopsis aquatica* (GQ152143)	94	E-159	14.7	0.0 *0.0*	0.0 *0.0*	35.5 *18.6*	7.3 *4.8*	35.7 *16.8*	23.8 *18.4*	0.6 *0.3*
14	(A)	*Guignardia mangiferae* (FJ769722)	99	3E-87	14.3	0.0 b *0.0*	0.0 b *0.0*	1.3 b *0.8*	1.7 b *1.1*	94.8 a *27.1*	1.9 b *1.3*	0.3 b *0.3*
7	*Helotiales* (A)	*Allantophomopsis lycopodina* (AB041243)	88	E-126	12.9	86.1 a *31.7*	2.8 b *1.2*	0.6 b *0.6*	0.5 b *0.5*	0.0 b *0.0*	0.0 b *0.0*	0.0 b *0.0*
25	*Agaricales* (B)	*Rhodocollybia butyracea* (AY313291)	100	0.0	10.7	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	74.9 *74.9*	0.3 *0.3*
18	(A)	*Dimelaena oreina* (AF224352)	97	E-71	10.4	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	0.0 *0.0*	4.0 *4.0*	63.2 *62.4*	5.5 *5.0*
12	*Capnodiales* (A)	*Davidiella macrospora* (AF297231)	100	0.0	10.2	36.8 a *11.5*	0.5 d *0.3*	20 b *8.6*	11.4 c *1.5*	2.5 d *1.5*	0.0 d *0.0*	0.0 d *0.0*
16	*Capnodiales* (A)	*Cladosporium chubutense* (FJ936158)	100	0.0	7.9	44.9 a *14.3*	1.1 b *0.3*	4.1 b *2.6*	2.8 b *1.4*	2.4 b *1.8*	0.0 b *0.0*	0.0 b *0.0*

22	(B)	*Clavulinopsis helvola* (EU118617)	97	4E-86	7.8	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.9 *0.5*	b	53.1 *25.8*	a	0.6 *0.6*	b	0.0 *0.0*	b
15	*Helotiales* (A)	*Holwaya mucida* (DQ257357)	91	E-148	7.8	42.4 *11.4*	a	1.8 *1.3*	b	5.4 *1.2*	b	5.1 *0.4*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b
19	(A)	*Raffaelea scolytodis* (AM267270)	87	6E-26	6.9	0.9 *0.9*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.4 *0.4*	b	47.2 *38.6*	a
17	(A)	*Polydesmia pruinosa* (AY775053)	97	E-71	6.9	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.7 *0.7*	b	41.5 *33.5*	a	5.8 *5.4*	ab
21	*Capnodiales* (A)	*Devriesia americana* (AY251068)	96	E-111	5.8	39.9 *8.8*	a	0.5 *0.5*	b	0.0 *0.0*	b	0.5 *0.5*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b
24	(A)	*Tirmania pinoyi* (GQ888695)	84	4E-93	5.5	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	38.3 *15.8*	a
27	(G)	*Gigaspora margarita* (AJ006850)	84	6E-26	5.3	0.6 *0.3*	b	0.0 *0.0*	b	0.3 *0.3*	b	0.0 *0.0*	b	2.3 *1.8*	b	9.8 *8.0*	b	24.1 *8.9*	a
31	*Cystofilobasidiales* (B)	*Mrakia frigida* (AJ866977)	99	0.0	4.9	0.0 *0.0*		0.0 *0.0*		33.7 *31.9*		0.6 *0.6*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*	
41	*Pleosporales* (A)	*Cylindrosympodium lauri* (EU035414)	97	E-178	4.8	0.0 *0.0*	b	0.0 *0.0*	b	2.0 *1.0*	b	0.6 *0.6*	b	30.1 *17.0*	a	1.1 *0.8*	b	0.0 *0.0*	b
33	*Helotiales* (A)	*Hymenoscyphus epiphyllus* (DQ431170)	99	0.0	4.6	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	6.0 *6.0*	ab	24.3 *17.1*	a	2.2 *1.8*	b	0.0 *0.0*	b
30	(G)	*Ambispora gerdemannii* (AJ012111)	89	5E-34	4.2	0.3 *0.3*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	29.2 *16.5*	a
26	*Xylariales* (A)	*Phlogicylindrium eucalyptorum* (EU040223)	88	E-128	4.1	24.4 *24.0*		4.0 *3.8*		0.4 *0.4*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*	
43	(A)	*Polyscytalum algarvense* (GQ303287)	97	0.0	3.7	0.0 *0.0*		0.0 *0.0*		1.8 *1.8*		23.5 *23.5*		0.0 *0.0*		0.0 *0.0*		0.6 *0.6*	
37	(A)	*Sympodiella acicola* (EU449953)	96	E-121	3.4	0.0 *0.0*	b	0.0 *0.0*	b	1.0 *0.6*	b	2.9 *2.2*	b	20.0 *4.2*	a	0.0 *0.0*	b	0.0 *0.0*	b
38	*Cystofilobasidiales* (B)	*Cryptococcus huempii* (AF444322)	89	E-121	3.3	0.0 *0.0*	b	0.0 *0.0*	b	8.3 *4.2*	a	13.4 *1.4*	a	1.1 *0.6*	b	0.3 *0.3*	b	0.0 *0.0*	b
42	*Pleosporales* (A)	*Epicoccum nigrum* (GQ996573)	100	0.0	3	10.2 *2.0*	a	0.3 *0.2*	b	4.3 *1.2*	b	4.7 *4.0*	ab	1.5 *1.5*	b	0.0 *0.0*	b	0.0 *0.0*	b
39	*Hypocreales* (A)	*Trichoderma asperellum* (FJ605245)	100	0.0	3	10.4 *5.8*	a	0.2 *0.2*	b	3.8 *2.6*	ab	0.0 *0.0*	b	5.8 *3.2*	ab	0.8 *0.8*	b	0.0 *0.0*	b
56	*Helotiales* (A)	*Calycina herbarum* (AM262399)	94	E-142	2.8	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b	19.3 *15.2*	a	0.0 *0.0*	b
29	*Helotiales* (A)	*Naevala minutissima* (AY853218)	99	0.0	2.7	0.8 *0.4*	bc	7.9 *3.5*	a	3.6 *1.8*	abc	6.6 *3.4*	ab	0.0 *0.0*	c	0.0 *0.0*	c	0.0 *0.0*	c
61	*Helotiales* (A)	*Naevala minutissima* (AY853218)	97	E-174	2.7	0.6 *0.6*	b	0.0 *0.0*	b	4.3 *2.3*	b	13.0 *3.9*	a	0.0 *0.0*	b	0.6 *0.6*	b	0.0 *0.0*	b
28	*Capnodiales* (A)	*Mycosphaerella punctiformis* (EU343174)	99	E-180	2.7	2.0 *1.0*	b	13.6 *2.7*	a	1.2 *1.2*	b	1.9 *1.2*	b	0.0 *0.0*	b	0.0 *0.0*	b	0.0 *0.0*	b
35	*Trechisporales* (B)	*Trechispora alnicola* (DQ411529)	96	E-180	2.6	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		18.5 *18.5*	
48	*Helotiales* (A)	*Hymenoscyphus epiphyllus* (DQ431180)	100	0.0	2.6	0.0 *0.0*	b	0.0 *0.0*	b	0.6 *0.6*	b	0.6 *0.6*	b	12.8 *7.7*	a	4.0 *2.0*	ab	0.2 *0.2*	b
36	*Cystofilobasidiales* (B)	*Trichosporon lignicola* (AF444482)	99	0.0	2.6	3.8 *1.4*	ab	0.0 *0.0*	b	5.9 *2.4*	a	0.0 *0.0*	b	5.4 *2.9*	ab	2.5 *2.5*	ab	0.7 *0.7*	ab

47	*Pleosporales* (A)	*Pseudeurotium bakeri* (FJ903285)	92	E-153	2.5	0.0	b	0.0	b	1.6	b	0.6	b	4.1	ab	11.2	a	0.0	b
						0.0		*0.0*		*0.8*		*0.6*		*1.5*		*7.0*		*0.0*	
34	*Pleosporales* (A)	*Pleurophoma cava* (GU062248)	99	0.0	2.5	11.9	a	0.1	b	3.5	b	0.5	b	0.3	b	1.0	b	0.0	b
						3.7		*0.1*		*2.1*		*0.5*		*0.3*		*1.0*		*0.0*	
139	*Pleosporales* (A)	*Venturia hystrioides* (EU035459)	97	0.0	2.5	0.0		0.0		0.3		0.0		16.7		0.0		0.3	
						0.0		*0.0*		*0.3*		*0.0*		*15.6*		*0.0*		*0.3*	
54	(A)	*Candelariella corallizoides* (EF535176)	97	6E-70	2.4	0.0	b	0.0	b	2.1	b	0.6	b	13.7	a	0.6	b	0.0	b
						0.0		*0.0*		*2.1*		*0.6*		*5.2*		*0.6*		*0.0*	
46	(A)	*Sympodiella acicola* (EU449953)	96	E-124	2.4	0.0	b	0.0	b	1.6	b	1.8	b	13.5	a	0.0	b	0.0	b
						0.0		*0.0*		*0.8*		*1.8*		*3.8*		*0.0*		*0.0*	
45	(B)	*Melanotaenium euphorbiae* (DQ875348)	81	4E-27	2.4	0.3		0.0		8.0		3.5		3.3		0.0		1.5	
						0.3		*0.0*		*6.5*		*1.2*		*3.3*		*0.0*		*0.7*	
74	(A)	*Gyoerffyella rotula* (AY729937)	97	E-179	2.2	1.3	b	0.0	b	4.9	ab	9.2	a	0.0	b	0.0	b	0.0	b
						1.3		*0.0*		*3.2*		*3.0*		*0.0*		*0.0*		*0.0*	
57	*Polyporales* (A)	*Troposporella fumosa* (DQ351724)	91	E-148	2.1	0.0	b	0.0	b	1.5	b	0.9	b	11.4	a	0.9	b	0.0	b
						0.0		*0.0*		*1.5*		*0.9*		*2.6*		*0.9*		*0.0*	

[1] Mean relative abundance in all samples.

Supplementary Table 2: Overview of 30 most abundant *cbhI* OUs with their relative abundance and distribution during litter degradation. Data of relative abundance are expresssed as means from three litterbags, standard errors are shown in italic. Statistically significant differences in relative abundance among litterbags (ANOVA followed by Fisher post-hoc test) are indicated by different letters.

		Relative abundance in different month (‰)							
OU	**Abundance[1] (‰)**	**-2**		**0**		**4**		**12**	
4	279.3	963.2 *24.5*	a	153.8 *4.3*	b	0.0 *0.0*	c	0.0 *0.0*	c
0	125.4	16.7 *16.7*	c	246.1 *10.0*	ab	237.1 *26.1*	b	1.7 *0.8*	c
1	71.5	0.0 *0.0*	c	115.8 *14.3*	ab	170.1 *45.1*	b	0.0 *0.0*	c
2	62.2	5.6 *5.6*	c	109.5 *5.1*	ab	129.4 *28.4*	b	4.3 *4.3*	c
3	40.1	0.0 *0.0*		6.4 *6.4*		41.8 *29.6*		112.4 *67.6*	
5	34.4	0.0 *0.0*	c	72.7 *7.2*	ab	63.0 *13.0*	b	1.7 *1.7*	c
7	21.3	0.0 *0.0*		1.6 *1.6*		21.7 *9.7*		61.7 *45.4*	
17	21.2	5.6 *5.6*	c	40.2 *4.4*	ab	38.9 *5.6*	b	0.0 *0.0*	c
6	21.2	0.0 *0.0*	b	3.2 *3.2*	b	80.6 *43.2*	a	0.8 *0.8*	b
12	18.8	0.0 *0.0*	b	66.3 *13.1*	a	6.4 *1.8*	b	2.3 *1.3*	b
8	13.3	0.0 *0.0*		0.0 *0.0*		0.9 *0.9*		52.2 *39.7*	
16	11.9	0.0 *0.0*	c	27.9 *7.6*	ab	19.7 *6.1*	b	0.0 *0.0*	c
10	11.8	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		47.4 *47.4*	
11	11.8	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		47.4 *47.4*	
9	11.1	0.0 *0.0*		0.0 *0.0*		4.3 *2.3*		40.2 *26.8*	
13	10.1	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		40.2 *40.2*	
14	9.7	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		38.8 *38.8*	
18	9.2	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		36.9 *36.9*	
15	8.9	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		35.7 *29.2*	
25	8.1	0.0 *0.0*	c	16.0 *2.8*	ab	16.4 *4.0*	b	0.0 *0.0*	c
19	7.8	0.0 *0.0*	b	0.0 *0.0*	b	0.7 *0.7*	ab	30.4 *18.6*	a
22	6.4	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		25.5 *19.4*	
23	6.2	0.0 *0.0*	b	0.0 *0.0*	b	2.6 *1.3*	b	22.3 *8.4*	a
24	6.1	0.0 *0.0*		0.0 *0.0*		1.9 *1.1*		22.3 *17.3*	
20	5.9	0.0 *0.0*		0.0 *0.0*		23.5 *17.3*		0.0 *0.0*	
26	5.9	0.0 *0.0*	b	0.0 *0.0*	b	0.6 *0.6*	b	22.8 *13.3*	a
27	5.0	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		20.2 *14.2*	
31	5.0	0.0 *0.0*	c	11.1 *2.6*	ab	9.0 *2.7*	b	0.0 *0.0*	c
28	4.3	0.0 *0.0*		0.0 *0.0*		0.0 *0.0*		17.1 *12.3*	
39	4.0	0.0 *0.0*	b	9.3 *5.3*	a	6.6 *1.4*	ab	0.0 *0.0*	b

[1] Mean relative abundance in all samples.