

Supplementary Material

Tab. S1 - Ectomycorrhizal fungal taxa recorded on white poplars (*Populus alba* L.) in poplar plantation identified on the basis of morpho-anatomical characteristics and molecular methods (based on the similarity with the sequences from publicly available nucleotide databases GenBank and UNITE) and their absolute / relative (%) abundance per season. Sequences were last compared to nucleotide databases on 8th June 2020. (*): No exact sequence similarity value available, as sequence was locked or had a limited access.

Fungal partner in ectomycorrhiza based on morpho-anatomical and molecular characterization	GenBank accession number of three best DNA based hits and the percentage of identity	UNITE accession number of best DNA based hit with the percentage of identity	Morpho-anatomical characterization	Absolute / relative (%) abundance			
				Autumn	Winter	Spring	Summer
<i>Genabea fragilis</i> Tul. & C. Tul.	<i>Genabea fragilis</i> , KX905050, 100%; <i>Genabea fragilis</i> , KX905021, 100%; <i>Genabea fragilis</i> , KJ938785, 99%	<i>Genabea fragilis</i> , UDB028302, 98%; <i>Otidea alutacea</i> , UDB031551, 89%; <i>Otidea alutacea</i> , UDB031549, 89%	/	0	0	0	7/0.2%
<i>Hebeloma rostratum</i> Beker, Vesterh. & U. Eberh.	<i>Hebeloma rostratum</i> , KT217532, 99%; <i>Hebeloma rostratum</i> , KT217472, 99%; <i>Hebeloma rostratum</i> , KT217358, 99%	<i>Hebeloma crustuliniforme</i> , UDB011897, 98%; <i>Hebeloma alpinum</i> , UDB037470, 98%; <i>Hebeloma alpinum</i> , UDB037194, 98%	<i>Hebeloma</i> sp.	0	25/0.5%	376/6.5%	0
<i>Hymenogaster olivaceus</i> Vittad.	<i>Hymenogaster olivaceus</i> , GU479316, 100%; <i>Hymenogaster</i> sp., JX559775, 99%; <i>Hymenogaster olivaceus</i> , GU479296, 99%	<i>Hymenogaster</i> , UDB027502, 99%; <i>Hymenogaster</i> , UDB025670, 99%; <i>Hymenogaster</i> , UDB025464, 99%	/	0	0	155/2.7%	0
<i>Inocybe cincinnata</i> (Fr.) Quél.	<i>Inocybe cincinnata</i> , FJ 908155, 99%; <i>Inocybe cincinnata</i> , FN550923, 94%; <i>Inocybe cincinnata</i> , FN550922, 94%	<i>Inocybe cincinnata</i> , UDB032068*; <i>Inocybe cincinnata</i> , UDB022346*; <i>Inocybe cincinnata</i> , UDB015296, 93 %	<i>Inocybe</i> sp.	156/5.7%	175/3.8%	430/7.4%	941/22.4%
<i>Inocybe furfurea</i> Kühner	<i>Inocybe furfurea</i> , MG012472, 100%; Uncultured <i>Inocybe</i> , FJ210736, 100%; <i>Inocybe rufotacta</i> , MG012467, 100%	<i>Inocybe</i> , UDB011621, 82%; <i>Inocybe muricellata</i> , UDB024657, 80%; <i>Inocybe suecica</i> , UDB025135, 82%	<i>Inocybe</i> sp.	0	6/0.1%	30/0.5%	12/0.3%
<i>Inocybe griseovelata</i> Kühner	Uncultured <i>Inocybe</i> , JX474819, 99%; <i>Inocybe griseovelata</i> , FN550931, 99%; <i>Inocybe griseovelata</i> , MT006041, 99%	<i>Inocybe aeruginascens</i> , UDB022311*; <i>Inocybe sindonia</i> , UDB024767, 85%; <i>Inocybe flocculosa</i> , UDB028352, 85%	<i>Inocybe</i> sp.	344/17.9%	710/15.4%	132/2.3%	1275/30.3%

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				Autumn	Winter	Spring	Summer
<i>Inocybe obsoleta</i> Romagn.	<i>Inocybe obsoleta</i> , JF908256, 100%; <i>Pseudosperma aff. perlatum</i> , MT072905, 99%; <i>Inocybe obsoleta</i> , MG367270, 99%	<i>Inocybe obsoleta</i> , UDB032064*; <i>Inocybe obsoleta</i> , UDB022388*; <i>Inocybe</i> , UDB027482, 99%	<i>Inocybe sp.</i>	0	59/1.3%	0	75/1.8%
<i>Inocybe splendens</i> R. Heim	<i>Inocybe alluvionis</i> , MH807260, 100%; <i>Inocybe splendens</i> , KJ399959, 100%; Uncultured <i>Inocybe</i> , KT630089, 100%	<i>Inocybe splendens</i> , UDB0754143, 100%; <i>Inocybe</i> , UDB025523, 97%; <i>Inocybe splendens</i> , UDB0778602, 95%	<i>Inocybe sp.</i>	553/20.3%	390/8.5%	816/14.1%	157/3.7%
<i>Inocybe squamata</i> J.E. Lange	<i>Inocybe squamata</i> , JF908162, 100%; <i>Inocybe squamata</i> , AM882780, 100%; <i>Inocybe squamata</i> , KX897412, 99%	<i>Inocybe flavella</i> , UDB022354*; <i>Inocybe</i> , UDB027926, 95%; <i>Inocybe</i> , UDB027445, 95%	<i>Inocybe sp.</i>	19/0.7%	15/0.3%	0	0
<i>Inocybe umbrinella</i> Bres.	<i>Inocybe umbrinella</i> , JF908116, 99%; <i>Inocybe umbrinella</i> , FJ904165, 99%; <i>Inocybe umbrinella</i> , FJ904163, 99%	<i>Inocybe bulbosissima</i> , UDB027569, 91%; <i>Inocybe rimosa</i> , UDB000103, 89%; <i>Inocybe rimosa</i> , UDB011839, 89%	<i>Inocybe sp.</i>	0	110/2.4%	205/3.5%	0
<i>Peziza depressa</i> Pers.	<i>Peziza depressa</i> , JQ724014, 100%; <i>Peziza depressa</i> , DQ200837, 100%; Pezizaceae, AJ879640, 100%	<i>Peziza phyllogena</i> , UDB024369, 95%; <i>Peziza</i> , UDB018584, 90%; <i>Peziza</i> , UDB018077, 91%	<i>Peziza sp.</i>	0	0	0	22/0.5%
<i>Peziza succosa</i> Berk.	<i>Peziza succosa</i> , MT373985, 100%; <i>Peziza succosa</i> , MT373984, 100%; <i>Peziza succosa</i> , MT373979, 100%	<i>Peziza succosa</i> , UDB0778593, 96%; <i>Peziza succosa</i> , UDB025697, 96%; <i>Peziza succosa</i> , UDB025631, 96%	<i>Peziza sp.</i>	49/1.8%	0	0	0
<i>Scleroderma bovista</i> Fr.	<i>Scleroderma bovista</i> , MF161249, 99%; <i>Scleroderma bovista</i> , MH718214, 99%; <i>Scleroderma bovista</i> , FM213340, 98%	<i>Scleroderma</i> , UDB027996, 99%; <i>Scleroderma bovista</i> , UDB031995, 99%; <i>Scleroderma bovista</i> , UDB031441, 99%	<i>Scleroderma sp.</i>	179/6.6%	8/0.2%	60/1.0%	0
<i>Tuber maculatum</i> Vittad.	<i>Tuber maculatum</i> , FM205645, 100%; <i>Tuber sp.</i> , AM900428, 100%; Uncultured <i>Tuber</i> ; DQ355251, 99%	Tuberaceae, UDB0778694, 100%; ; <i>Tuber</i> , UDB033021, 100%; <i>Tuber</i> , UDB033019, 100%	<i>Tuber sp.</i>	175/6.4%	24/0.5%	198/3.4%	655/15.8%

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				Autumn	Winter	Spring	Summer
<i>Tuber rufum</i> Pollini	<i>Tuber rufum</i> , MT351075, 100%; <i>Tuber rufum</i> f. <i>rufum</i> , FM205672, 100%; <i>Tuber rufum</i> , EF362475 100%	<i>Tuber</i> , UDB035704, 100%; <i>Tuber</i> , UDB035702, 100%; <i>Tuber rufum</i> , UDB033119, 100%	<i>Tuber</i> sp.	542/19.9%	946/20.6%	984/17%	150/3.6%
<i>Entoloma</i> sp.	/	/	<i>Entoloma</i> sp.		115/2.5%		
<i>Geopora</i> sp.	Uncultured <i>Geopora</i> , GU327417, 99%; <i>Geopora</i> sp., MH794934, 99%; Pezizales, FJ21074, 99%	<i>Geopora</i> , UDB025653, 90%; <i>Geopora cervina</i> , UDB016155, 92%; <i>Geopora tenuis</i> , UDB011013, 90 %	/	52/1.9%	238/5.2%	36/0.6%	10/0.2%
<i>Peziza</i> sp.	<i>Peziza</i> , EU668247, 99%; <i>Peziza depressa</i> , JF908539, 99%; <i>Peziza succosa</i> , JF908556, 99%	<i>Peziza succosa</i> , UDB0778613, 100%; <i>Peziza succosa</i> , UDB025631, 99%; <i>Peziza succosa</i> , UDB015873, 99%	<i>Peziza</i> sp.	0	364/7.9%	412/7.1%	73/1.7%
<i>Sebacina</i> sp.	<i>Sebacina</i> , HE687125, 96%; <i>Helvellosebacina conrescens</i> , MG844991, 95%; <i>Helvellosebacina conrescens</i> , JQ665516, 95%	<i>Helvellosebacina</i> , UDB016423, 88%; <i>Helvellosebacina</i> , UDB013037, 86%; <i>Sebacina</i> , UDB033194, 85%	/	0	18/0.4%	110/1.9%	0
<i>Tarzetia</i> sp.	<i>Tarzetia catinus</i> , FM206478, 99%; <i>Tarzetia</i> sp., MN712297, 99 %; <i>Tarzetia cf. catinus</i> , MN712303, 99%	<i>Tarzetia cupularis</i> , UDB031340*; <i>Tarzetia catinus</i> , UDB019752, 99%; <i>Tarzetia cupularis</i> , UDB018074, 99%	/	0	0	93/1.6	0
<i>Tomentella</i> sp. 1	<i>Tomentella</i> sp., MH79498, 100%; <i>Tomentella</i> , AJ879644, 99%; <i>Tomentella</i> sp., KX438355, 100%	Thelephoraceae, UDB023403, 97%; Thelephoraceae, UDB023402, 97%; <i>Tomentella</i> , UDB016494, 95%	<i>Tomentella</i> sp.	30/1.1%	111/2.4%	0	0
<i>Tomentella</i> sp. 2	<i>Tomentella</i> , AJ879666, 99%; <i>Tomentella</i> , AJ879692, 99%; <i>Tomentella</i> , JX474810, 99%	<i>Tomentella</i> , UDB025137, 95%; <i>Tomentella</i> , UDB014977, 95%; <i>Tomentella fuscocinerea</i> , UDB003300, 95%	<i>Tomentella</i> sp.	120/4.4%	530/11.5%	670/11.6%	212/5.0%
<i>Tomentella</i> sp. 3	<i>Tomentella</i> sp., KX438351, 99%; <i>Tomentella</i> , KM403047, 98%; <i>Tomentella</i> sp., FJ827245, 96%	<i>Tomentella viridula</i> , UDB016192, 95%; <i>Tomentella subtestacea</i> UDB018509 95%; <i>Tomentella</i> UDB004960 95%	<i>Tomentella</i> sp.	119/4.4%	481/10.5%	240/4.2%	122/2.9%

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<i>Tomentella</i> sp. 4	Thelephoraceae, KY684589, 99%; <i>Tomentella</i> , FR852137, 98%; <i>Tomentella</i> , JX474812, 99%	<i>Tomentella</i> , UDB0778609, 92%; <i>Tomentella</i> , UDB0778605, 92%; <i>Tomentella coerulea</i> , UDB018457, 92%	<i>Tomentella</i> sp.	34/1.2%	8/0.2%	263/4.6%	0
<i>Tomentella</i> sp. 5	<i>Tomentella</i> , HM370463, 99%; <i>Tomentella</i> , KX641922, 99%; <i>Tomentella</i> , AJ879642, 100%	<i>Tomentella</i> , UDB017843, 94%; <i>Tomentella coerulea</i> , UDB011598, 94%; <i>Tomentella coerulea</i> , UDB003329, 94%	<i>Tomentella</i> sp.	196/7.2%	203/4.4%	0	15/0.4%
<i>Tomentella</i> sp. 6	Thelephoraceae, FJ197002, 97%; <i>Tomentella</i> , KM464682, 97%; <i>Tomentella</i> , JF506816, 97%	<i>Tomentella</i> , UDB028183, 97%; <i>Tomentella fuscocinerea</i> , UDB018554*; <i>Tomentella</i> , UDB004969, 96%	<i>Tomentella</i> sp.	86/3.2%	5/0.1%	450/7.8%	356/8.5%
<i>Wilcoxina</i> sp.	<i>Wilcoxina</i> sp., KT182911, 100%; <i>Wilcoxina</i> , DQ069002, 100%; <i>Wilcoxina</i> , JX898977, 99%	<i>Trichophaea</i> , UDB024236, 99%; <i>Trichophaea</i> , UDB016153, 98%; <i>Trichophaea</i> , UDB000989, 98%	/	0	55/1.2%	0	0
Cortinariaceae sp.	<i>Inocybe</i> , KM402940, 89%; <i>Inocybe nitidiuscula</i> , HQ604468, 89%; <i>Inocybe glabrescens</i> , HQ604465, 89%	<i>Inocybe aeruginascens</i> *, UDB022311; <i>Inocybe flocculosa</i> , UDB028352, 88%; <i>Inocybe auricoma</i> , UDB022331*	/	0	0	0	3/0.1%
<i>Thelephoraceae</i> sp.	Thelephoraceae, LC003269, 97%; Thelephoraceae, HQ667930, 97%; Thelephoraceae, AY940642, 95%	Thelephoraceae, UDB023403, 97%; Thelephoraceae, UDB023402, 97%; <i>Tomentella</i> , UDB016494, 95%	/	6/0.2%	0	109/1.9%	109/2.6%
Unknown type R			/	104/3.8%	0	0	0