

## Supplementary Material

**Tab. S1** - Ectomycorrhizal fungi recorded in mature pedunculate oak stand near Morović (NW Serbia) in spring and autumn identified based on morpho-anatomical characteristics and molecular methods (based on the similarity with the sequences from publicly available nucleotide databases (GenBank and UNITE) and their absolute and relative (%) abundance per season. (\*): Sequence was locked, e.g., not yet published thus having a limited access to available sequence-related information; (S): Spring; (A): Autumn; (\*\*): According to their relative abundance types of ectomycorrhizae were classified into six dominance classes (Engelmann, 1978): 1) numerous (100% - 32%), 2) frequent (31.99% - 10%), 3) often (9.99% - 3.2%), 4) occasional (3.1% - 1.0%), 5) scattered (0.99% - 0.32%) and 6) rare (0.31% - 0%). Engelmann HD (1978). Zur Dominanzklassifizierung von Bodenarthropoden. *Pedobiologia*, 18:378-380. [in German].

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 three best DNA based hits and the percentage of identity	Morpho-anatomical characterization	Site	Occurrence in soil samples	Absolute abundance (number of ectomycorrhiza tips)	Relative abundance in % (Classification**)
<i>Cenococcum geophilum</i> Fr.	/	/	<i>Cenococcum geophilum</i>	S and A	8/10 6/10	234 170	5.8 (often) 6.8 (often)
<i>Clavulina alpina</i>	Uncultured <i>Clavulina</i> KC455313.1 98%; <i>Clavulina alpina</i> MH456957.1 97%; <i>Clavulina alpina</i> MH456956.1 97%	<i>Clavulina</i> UDB0757488 96%; <i>Clavulina</i> UDB0768891 96%; <i>Clavulina</i> UDB037249 95%		S	1/10	35	0.9% (scattered)
<i>Clavulina cristata</i> (Fr.) J. Schroet.	<i>Clavulina cristata</i> MN649216.1 99%; <i>Clavulina cristata</i> MH040298.1 99%; <i>Clavulina</i> sp. KM522808.1 100-99%	<i>Clavulina</i> UDB025643 99%; <i>Clavulina</i> UDB005058 99%; <i>Clavulina</i> UDB002557 99%		S	4/10	81	2% (occasional)
<i>Cortinarius fuscogracilescens</i> A. Favre	<i>Cortinarius fuscogracilescens</i> 172332.1 100%; <i>Cortinarius fuscogracilescens</i> MT935079.1 100%; <i>Cortinarius fuscogracilescens</i> MT935078.1 100%	<i>Cortinarius</i> UDB013371 94%; <i>Cortinarius aureovelatus</i> UDB001768 95%; <i>Cortinarius semivestitus</i> UDB034115*	<i>Cortinarius</i> sp.	S and A	2/10 2/10	28 78	0.7% (scattered) 3.1% (occasional)

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<i>Inocybe putilla</i> Bres.	<i>Inocybe</i> sp. KM576440.1 99%;	Inocybaceae UDB053193 99%;		S and A	2/10 3/10	72 121	1.8% (occasional) 4.9% (often)
	<i>Inocybe putilla</i> FN550882.1 99%;	Inocybaceae UDB0481539 99%;					
	<i>Inocybe cf. putilla</i> AM882982.1 99%	Inocybaceae UDB0313530 99%					
<i>Lactarius quietus</i> (Fr.) Fr.	<i>Lactarius quietus</i> KT165232.1 100%;	<i>Lactarius quietus</i> UDB039175*; 100%;	<i>Lactarius</i> sp.	S and A	2/10 3/10	2119 1537	52.9% (numerous) 61.8% (numerous)
	Uncultured <i>Lactarius</i> KT334759.1 100%;	<i>Lactarius quietus</i> UDB039059*; 100%;					
	<i>Lactarius quietus</i> MZ773236.1 100%	<i>Lactarius quietus</i> UDB039048*					
<i>Lactarius subumbonatus</i> Lindgr.	<i>Lactarius subumbonatus</i> KT165292.1 99%;	<i>Lactarius serifluus</i> UDB038492*; 100%;	<i>Lactarius</i> sp.	S and A	3/10 1/10	100 185	2.5% (occasional) 7.4% (often)
	<i>Lactarius subumbonatus</i> KT165291.1 99%;	<i>Lactarius serifluus</i> UDB038493*; 100%;					
	<i>Lactarius serifluus</i> KT165293.1 99%	<i>Lactarius serifluus</i> UDB000868 99%					
<i>Pachyphlodes nemoralis</i> Hobart, Bona & Conde	<i>Pachyphlodes nemoralis</i> MN947364.1 100%;	<i>Pachyphlodes</i> UDB0778705 99%;		S	1/10	72	1.8% (occasional)
	<i>Pachyphlodes nemoralis</i> MK583521.1 100%;	<i>Pachyphlodes</i> UDB026230 99%;					
	<i>Pachyphlodes nemoralis</i> KU170604.1 100%	<i>Pachyphlodes</i> UDB007935 99%					

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 three best DNA based hits and the percentage of identity	Morpho-anatomical characterization	Site	Occurrence in soil samples	Absolute abundance (number of ectomycorrhizal tips)	Relative abundance in % (Classification**)
<i>Russula insignis</i> Qué.	<i>Russula insignis</i> MW355003.1 99%; <i>Russula insignis</i> MT005914.1 99%; Uncultured <i>Russula</i> JX625303.1 99%	<i>Russula</i> UDB000894 99%; <i>Russula hortensis</i> UDB031186 98%; <i>Russula</i> UDB014176 93%	<i>Russula</i> sp.	S	1/10	52	1.3% (occasional)
<i>Russula laeta</i> Jul.Schäff.	<i>Russula laeta</i> MG679812.1 99%; <i>Russula laeta</i> MW487982.1 99%; <i>Russula</i> sp. HE601887.1 98%	<i>Russula</i> UDB0326075 99%; <i>Russula laeta</i> UDB022529*; <i>Russula laeta</i> UDB016039 99%;	<i>Russula</i> sp.	S	2/10	273	5.9% (often)
<i>Russula melitodes</i>	<i>Russula</i> sp. KM576529.1 99%; <i>Russula melitodes</i> AY061689.1 97%; <i>Russula</i> sp. FN669241.1 97%	<i>Russula carminipes</i> UDB031170*; <i>Russula melitodes</i> UDB035883 98%; <i>Russula melitodes</i> UDB024374 98%	<i>Russula</i> sp.	S	1/10	5	0.1% (rare)
<i>Scleroderma areolatum</i> Ehrenb.	<i>Scleroderma areolatum</i> EU819518.1 100%; Uncultured <i>Scleroderma</i> MT586542.1 100%; <i>Scleroderma areolatum</i> MH040287.1 100%	<i>Scleroderma areolatum</i> UDB0781062 99%; Envir: Eukaryota UDB0786637 99%; <i>Scleroderma areolatum</i> UDB026920 99%		S and A	2/10 4/10	180 36	4.2% (often) 1.4% (occasional)

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 three best DNA based hits and the percentage of identity	Morpho-anatomical characterization	Site	Occurrence in soil samples	Absolute abundance (number of ectomycorrhizal tips)	Relative abundance in % (Classification**)
<i>Tuber foetidum</i> Vittad.	<i>Tuber</i> sp. KM576678.1 100%;	<i>Tuber foetidum</i> UDB028382 100%;	<i>Tuber</i> sp.	S and A	3/10 2/10	185 97	4.6% (often) 3.9% (often)
	<i>Tuber foetidum</i> MT621658.1 100%;	<i>Tuber</i> UDB028300 100%;					
	<i>Tuber</i> sp. FN669287.1 100%	<i>Tuber</i> UDB027966 100%					
<i>Dermocybe</i> sp.	<i>Dermocybe</i> sp. LM5132 100%;	<i>Cortinarius olivaceofuscus</i> UDB018343 99%;		S	1/10	15	0.4% (scattered)
	Uncultured <i>Dermocybe</i> EU668307.1 99%;	<i>Cortinarius olivaceofuscus</i> UDB015963 99%;					
	EU668227.1 Uncultured <i>Dermocybe</i> 99%	<i>Cortinarius</i> UDB025297 96 %					
<i>Humaria</i> sp.	Uncultured <i>Humaria</i> FR852073.1 99%;	<i>Humaria</i> UDB026414 99%;		S and A	5/10 2/10	207 65	5.2% (often) 2.6% (occasional)
	Uncultured Pyronemataceae EU816610.1 99%;	<i>Humaria</i> UDB026917 99%;					
	Uncultured <i>Humaria</i> MN970709.1 99%	<i>Humaria</i> UDB025833 99%					
<i>Hydnotrya</i> sp.	<i>Hydnotrya</i> sp. MT603173.1 99%;	<i>Hydnotrya</i> UDB0242350 99%;		A and S	1/10 1/10	15 9	0.4 (scattered) 0.4 (scattered)
	<i>Hydnotrya</i> sp. MT603172.1 99%;	<i>Hydnotrya</i> UDB0314156 99%;					
	<i>Hydnotrya</i> sp. MT603171.1 99%	<i>Hydnotrya</i> UDB0268759 99%					
<i>Inocybe</i> sp.	Uncultured <i>Inocybe</i> HF675440.1 99%;	<i>Inocybe</i> UDB0561437 99%;		A	2/10	82	3.3% (often)
	<i>Inocybe</i> sp. KM576456.1 99%;	<i>Inocybe</i> UDB0325927 99%;					
	Uncultured <i>Inocybe</i> FR750650.1 99%	<i>Inocybe</i> UDB005327 99%					

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<i>Russula</i> sp.1	<i>Russula bresadolae</i> MG687356.1 100%; <i>Russula atropurpurea</i> KX449425.1 100%; <i>Russula krombholzii</i> KT933990.1 100%	<i>Russula</i> UDB005682 99%; <i>Russula</i> UDB005685 99%; <i>Russula atropurpurea</i> UDB000313	<i>Russula</i> sp.	S and A	3/10 1/10	228 9	5.7(often) 0.4 (scattered)
<i>Tomentella</i> sp. 1	/	/	<i>Tomentella</i> sp.	S	1/10	80	2.0% (occasional)
<i>Tomentella</i> sp. 2	/	/	<i>Tomentella</i> sp.	S and A	1/10 1/10	70 63	1.7% (occasional) 2.5% (occasional)
<i>Tuber</i> sp.	<i>Tuber</i> sp. MT554447.1 100%; <i>Tuber</i> sp. MT554448.1 100%; Uncultured <i>Tuber</i> GQ219959.1 98%	<i>Tuber</i> UDB033031 99%; <i>Tuber</i> UDB033030 99%; <i>Tuber</i> UDB033029 99%	<i>Tuber</i> sp.	A	1/10	34	1.4% (occasional)

**Tab. S2** - Average number ( $\pm$  standard error) (%) of ectomycorrhizal exploration types per soil sample in the mature stand of pedunculate oak (*Quercus robur L.*) near Morović (NW Serbia) and significance of Student's *t*-test for the effect of season.

Exploration type	Spring	Autumn	<i>t</i> -test (p value)
Contact	282.6 $\pm$ 197	174.0 $\pm$ 100	0.562
Short distance	93.6 $\pm$ 26.2	63.2 $\pm$ 27.3	0.303
Medium distance	4.3 $\pm$ 2.4	9.2 $\pm$ 5.3	0.572
Long distance	16.7 $\pm$ 13.6	2.2 $\pm$ 1.6	0.329