

Supplementary Table S1: Multivariate analysis of the influence of the variables light, shade, irrigation and drought on ectomycorrhizal fungal species associated with the roots of beech (*Fagus sylvatica*) seedlings.

(a) Factor loadings of the principal component analysis in figure 1. LC = full light, well watered; LD = full light, drought; SC = shade, well watered; SD = shade, drought.

Categorical variables	PC1	PC 2	PC 3	PC 4
LC	0.3941	0.8194	0.2992	-0.2894
LD	0.4787	0.1831	-0.7756	0.3685
SC	0.5023	-0.2232	0.5543	0.625
SD	0.6027	-0.4952	-0.04156	-0.6243

(b) *P* values of multivariate analysis of variance testing the differences among groups formed by distinct ectomycorrhizal fungi. Data were logarithmically transformed. $P \leq 0.05$ are shown by bold letters.

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
MAIN EFFECTS					
A:Species	1204.55	9	133.84	60.57	0.000
B:irradiation	0.03	1	0.03	0.01	0.909
C:water	0.20	1	0.20	0.09	0.764
INTERACTIONS					
AB	53.42	9	5.94	2.69	0.005
AC	27.66	9	3.07	1.39	0.190
BC	0.09	1	0.09	0.04	0.840

	<i>Tuber</i> sp 1	<i>C. geophilum</i>	<i>Tuber</i> sp 2	<i>T. Punicea</i>	<i>T. badia</i>	<i>Telephoraceae</i>	<i>T. rufum</i>	<i>Sebacinaceae</i>	<i>Cortinarius</i> sp.
<i>C. geophilum</i>	0.903								
<i>Tuber</i> sp 2	0.180	0.205							
<i>T. punicea</i>	0.979	0.920	0.315						
<i>T. badia</i>	0.000	0.000	0.004	0.000					
<i>Telephoraceae</i>	0.000	0.000	0.002	0.000	0.862				
<i>T. rufum</i>	0.025	0.013	0.187	0.025	0.064	0.048			
<i>Sebacinaceae</i>	0.000	0.000	0.000	0.000	0.084	0.294	0.001		
<i>Cortinarius</i> like	0.000	0.000	0.000	0.000	0.005	0.024	0.000	0.340	
<i>T. viridula</i>	0.000	0.000	0.000	0.000	0.053	0.193	0.001	0.448	0.045