Supplementary Material

# Supplementary Table

Table S1: Multivariate generalized linear models (MV-GLM) of ECM, endophytic, saprophytic and pathogenic root-associated genera abundances between phenologically contrasting silver fir trees based on tree age. Multivariate and unadjusted univariate P-values were obtained by Wald tests, both using 10,000 Monte Carlo permutations (P < 0.001\*\*\*, P < 0.01\*\*, P < 0.05\*).

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| --- | --- | --- | --- | --- |
| **Genus** | **Mycorrhizal status** | **Genera abundances** | | **Reference** |
| **Adult silver fir** | **Young silver fir** |
| *Acephala* | endophytic | 0.1509 | 0.1596 | Hilszczanska 2016 |
| *Amanita* | ECM | 0.0009 \*\*\* | 0.2548 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Amphinema* | ECM | 0.7222 | 0.0051 \*\* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Boletus* | ECM | 0.2374 | 0.3009 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Byssoporia* | endophytic | 0.1256 | 0.6953 | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| *Cenococcum* | ECM | 0.0355\* | 0.0082 \*\* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Clavulina* | ECM | 0.0009 \*\*\* | 0.0165 \* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Cortinarius* | ECM | 0.1 | 0.0056 \*\* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Cryptosporiopsis* | endophytic | 0.0081 \*\* | 1 | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| *Elaphomyces* | ECM | 0.4485 | 0.0106 \* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Lactarius* | ECM | 0.2084 | 0.7998 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Lactifluus* | ECM | 0.0371 \* | 1 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Lirula* | endophytic | 0.7002 | 0.6511 | Ganley et al. 2004 |
| *Luellia* | saprotrophic | 0.3964 | 0.0007 \*\*\* | Bödeker et al. 2016 |
| *Meliniomyces* | endophytic | 0.1690 | 0.0000 \*\*\* | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| *Mycena* | saprotrophic | 0.1561 | 0.5375 | Bödeker et al. 2016 |
| *Nidulariopsis* | saprotrophic | 1 | 0.5977 | Geml et al. 2005 |
| *Oidiodendron* | endophytic | 0.0491 \* | 0.0491 \* | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| *Penicilium* | saprotrophic | 0.1189 | 0.4753 | Vaz et al. 2017 |
| *Phialocephala* | endophytic | 0.0252 \* | 0.0090 \*\* | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| *Rhizoscyphus* | endophytic | 1 | 0.015 \* | Hambleton and Sigler 2005 |
| *Russula* | ECM | 0.1224 | 0.6681 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Sebacina* | ECM | 0.0003 \*\*\* | 1 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Sistotrema* | saprotrophic | 0.2971 | 0.1220 | Voriškova and Baldrian 2013 |
| *Tomentella* | ECM | 0.6737 | 0.1255 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Tylospora* | ECM | 0.0133 \* | 0.0000 \*\*\* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| *Xerocomus* | ECM | 0.8438 | 0.2686 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Atheliaceae | saprotrophic | 0.2176 | 0.1146 | Lodge et al. 2014 |
| unclassified Boletaceae | ECM | 0.3727 | 0.2845 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Entolomataceae | ECM | 0.0053 \*\* | 0.2123 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Helotiaceae | endophytic | 0.0014 \*\* | 0.0001 \*\*\* | Kernaghan and Patriquin 2011, Hilszczanska 2016 |
| unclassified Hyaloscyphaceae | saprotrophic | 0.8559 | 0.0431 \* | Voriškova and Baldrian 2013 |
| unclassified Myxotrichaceae | saprotrophic | 0.4630 | 0.00189 \*\* | Sigler et al. 2000 |
| unclassified Russulaceae | ECM | 0.5669 | 0.9059 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Thelephoraceae | ECM | 0.8268 | 0.59344 | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Tricholomataceae | ECM | 0.1120 | 0.0000 \*\*\* | Rinaldi et al. (2008), Tedersoo et al. (2010) |
| unclassified Venturiaceae | pathogenic | 0.3320 | 0.0254 \* | Crous et al. 2007 |