**SUPPLEMENTAL MATERIAL**

**Table S1. Pairwise Kruskal-Wallis between interior Douglas-fir (BC) samples in different Long-term Soil Productivity treatments.** OM1 = branches and stumps were left on site. OM2 = branches, but not stumps, were removed, REF = unlogged reference plots. Pairwise Kruskal-Wallis *q* > 0.05.

|  |  |  |  |
| --- | --- | --- | --- |
| **Diversity metric** | **Groups** | **H statistic** | **q-value** |
| Faith’s PD | REF vs OM1  REF vs OM2  OM1 vs OM2 | 0.884  0.640  3.206 | 0.424  0.424  0.220 |
| Pielou’s  Evenness | REF vs OM1  REF vs OM2  OM1 vs OM2 | 0.871  1.964  0.472 | 0.492  0.483  0.492 |

**Table S2. Pairwise PERMANOVA comparisons between interior Douglas-fir (BC) samples in different Long-term Soil Productivity treatments.** OM1 = branches and stumps were left on site. OM2 = branches, but not stumps, were removed, REF = unlogged reference plots. PERMANOVA *q* > 0.05.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Diversity metric** | **Groups** | **Sample size** | **F model** | **q-value** |
| Bray-Curtis | REF vs OM1  REF vs OM2  OM1 vs OM2 | 24  21  33 | 1.300  0.880  1.011 | 0.126  0.730  0.638 |
| Jaccard | REF vs OM1  REF vs OM2  OM1 vs OM2 | 24  21  33 | 1.052  0.987  1.005 | 0.069  0.618  0.582 |
| Unweighted UniFrac | REF vs OM1  REF vs OM2  OM1 vs OM2 | 24  21  33 | 1.020  1.119  1.077 | 0.330  0.153  0.189 |
| Weighted  UniFrac | REF vs OM1  REF vs OM2  OM1 vs OM2 | 24  21  33 | 1.750  1.789  1.623 | 0.083  0.083  0.083 |

**Table S3. Pairwise Kruskal-Wallis between interior Douglas-fir (BC) samples in different C:N ratio categories.** *q >* 0.05.

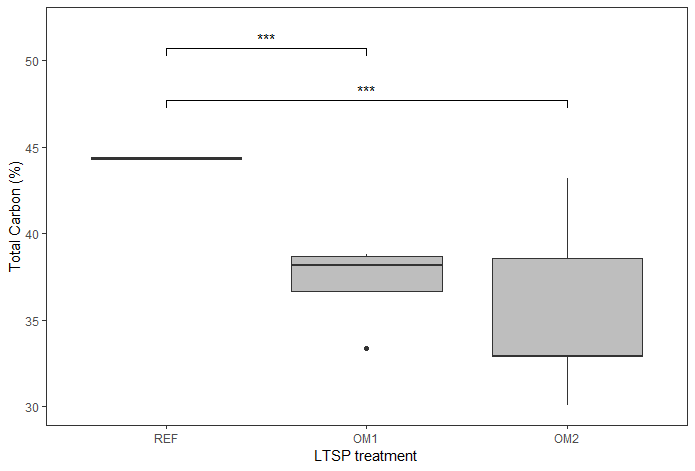
|  |  |  |  |
| --- | --- | --- | --- |
| **Diversity metric** | **Groups** | **H statistic** | **q-value** |
| Faith’s PD | Low vs Mid  Low vs High  Mid vs High | 0.402  3.203  0.952 | 0.526  0.220  0.494 |
| Pielou’s  Evenness | Low vs Mid  Low vs High  Mid vs High | 0.021  0.030  0.193 | 0.884  0.884  0.884 |

Chart, diagram, radar chart

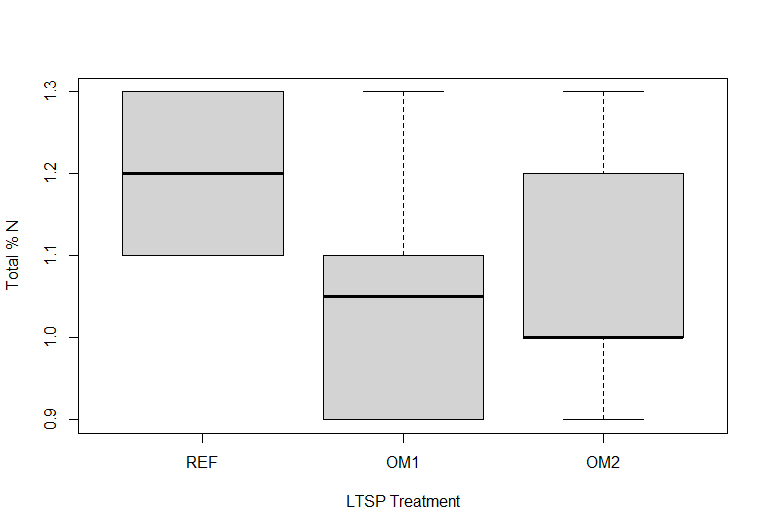
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**Figure S1. Microbial communities are distinct between sub-boreal spruce (BC) sites but not interior Douglas-fir sites.** Principal coordinate analysis showing weighted UniFrac beta diversity between sites in the organic layer of the (A) sub-boreal spruce (BC) (weighted UniFrac PERMANOVA: F19,61 = 7.953, q = 0.001) and (B) interior Douglas-fir (BC) (weighted UniFrac PERMANOVA: F17,38 = 0.989, q = 0.385) ecozones.



**Figure S2. Total % C significantly decreases with severity of Long-term Soil Productivity treatment.** One-way ANOVA: F2, 36 = 15.2, *p* < 0.001. Pairwise t-tests: REF vs OM1 *p* < 0.001, REF vs OM2 *p* < 0.001, OM1 vs OM2 *p* = 0.136.



**Figure S3. Total % N does not significantly change with severity of Long-term Soil Productivity treatment.** One-way ANOVA: F2,36 = 2.513, *p* = 0.0952.