**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 OM1REF vs OM2OM1 vs OM2 | 0.8840.6403.206 | 0.4240.4240.220 |
| Pielou’sEvenness | REF vs OM1REF vs OM2OM1 vs OM2 | 0.8711.9640.472 | 0.4920.4830.492 |

**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 OM1REF vs OM2OM1 vs OM2 | 242133 | 1.3000.8801.011 | 0.1260.7300.638 |
| Jaccard | REF vs OM1REF vs OM2OM1 vs OM2 | 242133 | 1.0520.9871.005 | 0.0690.6180.582 |
| Unweighted UniFrac | REF vs OM1REF vs OM2OM1 vs OM2 | 242133 | 1.0201.1191.077 | 0.3300.1530.189 |
| WeightedUniFrac | REF vs OM1REF vs OM2OM1 vs OM2 | 242133 | 1.7501.7891.623 | 0.0830.0830.083 |

**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 MidLow vs HighMid vs High | 0.4023.2030.952 | 0.5260.2200.494 |
| Pielou’sEvenness | Low vs MidLow vs HighMid vs High | 0.0210.0300.193 | 0.8840.8840.884 |



**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.