

# Description of Additional Supplementary Files

**File name:** Supplementary Data 1

**Description:** Relationships between abiotic and biotic factors and root and soil AMF richness, diversity, and ordination scores (MDS1 and MDS2) at Sutton. Shown are t-values, *p*-values, standardized regression coefficients and its associated standard errors (SE), and adjusted coefficient of determination ( $R^2$ ). Significant effects ( $p \leq 0.05$ ) are in bold. MDS stands for Multi-Dimensional Scaling.

**File name:** Supplementary Data 2

**Description:** Relationships between abiotic and biotic factors and root and soil AMF richness, diversity, and ordination scores (MDS1 and MDS2) at Mégantic. Shown are t-values, *p*-values, standardized regression coefficients and its associated standard errors (SE), and adjusted coefficient of determination ( $R^2$ ) for final models. Significant effects ( $p \leq 0.05$ ) are in bold. MDS stands for Multi-Dimensional Scaling.

**File name:** Supplementary Data 3

**Description:** Relationships between abiotic and biotic factors with fungal and bacterial richness, diversity, and ordination scores (MDS1 and MDS2) at Sutton. Shown are t-values, *p*-values, standardized regression coefficients and its associated standard errors (SE), and adjusted coefficient of determination ( $R^2$ ) for final models. Significant effects ( $p \leq 0.05$ ) are in bold. MDS stands for Multi-Dimensional Scaling.

**File name:** Supplementary Data 4

**Description:** The relationship between abiotic and biotic factors and fungal and bacterial richness, diversity, and ordination scores (MDS1 and MDS2) at Mégantic. Shown are t-values, *p*-values, standardized regression coefficients and its associated standard errors (SE), and adjusted coefficient of determination ( $R^2$ ) for final models. Significant effects ( $p \leq 0.05$ ) are in bold. MDS stands for Multi-Dimensional Scaling.

**File name:** Supplementary Data 5

**Description:** The effect of abiotic and biotic factors on community composition of soil and root AMF, fungal and bacterial communities of Sugar maple. Shown are results from PERMANOVA on Bray-Curtis dissimilarity. Models were tested with *adonis2* function from the *vegan* package

with the argument *by=margin*. Partial coefficients of determination ( $R^2$ ), sums of squares (SS) and associated significance levels ( $p$ -values) are demonstrated. Significant values ( $p \leq 0.05$ ) are shown in bold.

**File name:** Supplementary Data 6

**Description:** Root fungal ASVs, taxonomy and functional guild assignments for Sutton.

**File name:** Supplementary Data 7

**Description:** Root fungal ASVs, taxonomy and functional guild assignments for Mégantic.