Table S1. Effects of vegetation communities and precipitation treatments on enzyme Vmax, FTIR litter chemistry, and CAZyme gene abundance. Cohen’s D is calculated for significant main effects (either vegetation or precipitation) while significant vegetation and precipitation interactions are denoted with an asterisk. Insignificant results have empty cells. P-values are denoted for significant main effects and their interactions as asterisks \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001, with main effects using p-values from Tukey’s pairwise comparisons and interactions using p-values from mixed effect models. P = Precipitation treatment. V = Vegetation community.

+ Not significant under mixed effect modeling but had groups that were statistically significantly different (p < 0.01) under Tukey’s pairwise comparisons

|  |  | Transformation | V | P | V x P |
| --- | --- | --- | --- | --- | --- |
| Enzyme Vmax | AG | log10 |  |  |  |
| AP | log10 |  |  |  |
| BG | reciprocal |  |  |  |
| BX | log10 |  |  |  |
| CBH | log10 | 2.9328\*\*\* |  |  |
| LAP | reciprocal |  |  |  |
| NAG | log10 | 2.4994\*\*\* |  |  |
| FTIR band | 1015 - 970 cm-1 | reciprocal | 2.0241\*\*\* |  |  |
| 1080 - 1015 cm-1 |  | 2.7182\*\*\* |  | \* |
| 1160 - 1100 cm-1 |  | 1.2610\*\*\* | 0.7146\*\* | \* |
| 1230 - 1160 cm-1 |  | 2.0109\*\*\* |  |  |
| 1475 - 1450 cm-1 | reciprocal | 2.0938\*\*\* |  |  |
| 1600 - 1545 cm-1 |  |  | 0.9759\*\*\* | + |
| 1645 - 1620 cm-1 |  |  | 0.8644\*\*\* |  |
| 1750 - 1700 cm-1 |  | 3.4802\*\*\* |  |  |
| Putative substrate CAZyme gene abundance | Cellulose |  |  |  |  |
| Chitin |  | 0.8150\*\* |  |  |
| Hemicellulose |  | 1.6573\*\*\* |  |  |
| Lignin |  | 1.0556\*\*\* | 0.7647\*\* |  |
| Oligosaccharides | reciprocal | 1.1331\*\*\* |  |  |
| Peptidoglycan |  |  |  |  |
| Polysaccharides |  |  |  |  |
| Starch |  | 1.3334\*\*\* |  |  |