**Table 1.** Regression coefficients for linear mixed effects model with ln *N*area as the dependent variable and soil treatment variables, climate, leaf traits, and species characteristics as fixed effects. \*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Slope** | ***p*** | **Relative Importance** |
| Soil N | n/a | **< 0.001** | 1 % |
| Soil P | n/a | 0.726 | 0.1 % |
| Soil K+ µ | n/a | 0.489 | 0.1 % |
| χ | -0.278 ± 0.121 | **0.021** | 5 % |
| Temperature | -0.028 ± 0.013 | **0.030** | 5 % |
| ln PAR | 0 ± 0 | 0.684 | 19 % |
| ln VPD | -0.060 ± 0.155 | 0.696 | 2 % |
| Elevation | 0 ± 0 | 0.327 | 3 % |
| ln LMA | 0.001 ± 0 | **< 0.001** | 53 % |
| N fixer | n/a | **< 0.001** | 5 % |
| C3/C4 | n/a | **< 0.001** | 4 % |
| Soil N x Soil P | n/a | **0.003** | 0.4 % |
| Soil N x Soil K | n/a | 0.578 |
| Soil P x Soil K | n/a | 0.767 |
| Soil N x Soil P x Soil K | n/a | 0.898 |

\* P-values < 0.05 are bolded and < 0.1 are italicized. Key: χ = ratio of intercellular to extracellular CO2 concentration, LMA = leaf mass per leaf area, n/a = not applicable, PAR = photosynthetically active radiation, *p* = p-value, VPD = vapor pressure deficit.

**Table 2.** Regression coefficients for linear mixed effects model with *N*area as the dependent variable and soil treatment variables, predicted nitrogen components, and species characteristics as fixed effects. \*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Slope** | ***p*** | **Relative Importance** |
| ln *N*photo | 0.533 ± 0.090 | **< 0.001** | 23 % |
| ln *N*structure | 0.955 ± 0.009 | **< 0.001** | 38 % |
| Soil N | n/a | **< 0.001** | 5 % |
| Soil P | n/a | 0.700 | 4 % |
| Soil K+ µ | n/a | 0.366 | 4 % |
| N fixer | n/a | **< 0.001** | 4 % |
| C3/C4 | n/a | **< 0.001** | 7 % |
| Soil N x Soil P | n/a | *0.095* | 4 % |
| Soil N x Soil P | n/a | 0.336 |
| Soil P x Soil K | n/a | 0.458 |
| Soil N x Soil P x Soil K | n/a | 0.476 |

\* P-values < 0.05 are bolded and < 0.1 are italicized. Key: n/a = not applicable, *N*photo = leaf N used for photosynthesis, *N*structure = leaf N in structural tissue, *p* = p-value.