**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 | - | **< 0.001** | 1% |
| Soil P | - | 0.726 | 0.1% |
| Soil K+ µ | - | 0.489 | 0.1% |
| χ | -0.278 ± 0.121 | **0.021** | 5% |
| Temperature | -0.028 ± 0.013 | **0.030** | 5% |
| ln PAR | -0.115 ± 0.286 | 0.684 | 19% |
| ln VPD | -0.033 ± 0.086 | 0.696 | 2% |
| Elevation | 0.0001 ± 0.0001 | 0.327 | 3% |
| ln LMA | 0.936 ± 0.009 | **< 0.001** | 53% |
| N fixer | - | **< 0.001** | 5% |
| C3/C4 | - | **< 0.001** | 4% |
| Soil N x Soil P | - | **0.003** | 0.1% |
| Soil N x Soil K | - | 0.578 | 0.1% |
| Soil P x Soil K | - | 0.767 | 0.05% |
| Soil N x Soil P x Soil K | - | 0.898 | 0.1% |

\* 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, 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 | - | **< 0.001** | 5% |
| Soil P | - | 0.700 | 4% |
| Soil K+ µ | - | 0.366 | 4% |
| N fixer | - | **< 0.001** | 4% |
| C3/C4 | - | **< 0.001** | 7% |
| Soil N x Soil P | - | *0.095* | 1% |
| Soil N x Soil P | - | 0.336 | 1% |
| Soil P x Soil K | - | 0.458 | 1% |
| Soil N x Soil P x Soil K | - | 0.476 | 1% |

\* P-values < 0.05 are bolded and < 0.1 are italicized. Key: *N*photo = leaf N used for photosynthesis, *N*structure = leaf N in structural tissue, *p* = p-value.