

**Table S1. Analysis of Variance for Aboveground biomass ton ha**

| Source        | Sum of Squares | Df  | Mean Square | F-Ratio | P-Value |
|---------------|----------------|-----|-------------|---------|---------|
| Model         | 1,37551E6      | 32  | 42984,8     | 2,92    | 0,0000  |
| Residual      | 1,7532E6       | 119 | 14732,8     |         |         |
| Total (Corr.) | 3,12871E6      | 151 |             |         |         |

**Type III Sums of Squares**

| Source   | Sum of Squares | Df  | Mean Square | F-Ratio | P-Value |
|--|----------------|-----|-------------|---------|---------|
| Type of Ecosystem                                | 280,114        | 1   | 280,114     | 0,02    | 0,8906  |
| Abundance  | 12,0478        | 1   | 12,0478     | 0,21    | 0,6532  |
| Aluminum   | 15736,2        | 1   | 15736,2     | 1,07    | 0,3035  |
| Calcium  | 19,7647        | 1   | 19,7647     | 0,00    | 0,9708  |
| Clay   | 8387,38        | 1   | 8387,38     | 0,57    | 0,4520  |
| Dominance  | 28723,8        | 1   | 28723,8     | 1,95    | 0,1652  |
| Magnesium  | 3438,59        | 1   | 3438,59     | 0,23    | 0,6299  |
| Nitrogen   | 39035,2        | 1   | 39035,2     | 2,65    | 0,1062  |
| Organic matter                                   | 20830,0        | 1   | 20830,0     | 1,41    | 0,2368  |
| pH   | 909,779        | 1   | 909,779     | 0,06    | 0,8042  |
| Phosphorus                                       | 23511,4        | 1   | 23511,4     | 1,60    | 0,2090  |
| Potassium  | 5046,33        | 1   | 5046,33     | 0,34    | 0,5595  |
| Richness   | 5,25004        | 1   | 5,25004     | 0,00    | 0,9850  |
| Sand   | 3567,84        | 1   | 3567,84     | 0,24    | 0,6235  |
| Shannon  | 12790,2        | 1   | 12790,2     | 0,87    | 0,3534  |
| Sucessional stage years                          | 4372,02        | 1   | 4372,02     | 0,30    | 0,5869  |
| Type of Ecosystem*Abundance                      | 15,9215        | 1   | 15,9215     | 0,00    | 0,9738  |
| Sucessional stage years *Aluminum                | 27770,9        | 1   | 27770,9     | 1,88    | 0,1724  |
| Sucessional stage years *Nitrogen                | 62843,4        | 1   | 62843,4     | 4,27    | 0,0411  |
| Sucessional stage years *Organic matter          | 87900,0        | 1   | 87900,0     | 5,97    | 0,0161  |
| Sucessional stage years *Phosphorus              | 51291,0        | 1   | 51291,0     | 3,48    | 0,0645  |
| Sucessional stage years *Richness*Organic matter | 68580,2        | 1   | 68580,2     | 4,65    | 0,0330  |
| Sucessional stage years *pH                      | 6332,96        | 1   | 6332,96     | 0,43    | 0,5133  |
| Sucessional stage years *Potassium               | 1432,46        | 1   | 1432,46     | 0,10    | 0,7557  |
| Sucessional stage years *Richness                | 333,053        | 1   | 333,053     | 0,02    | 0,8807  |
| Sucessional stage years *Shannon                 | 45299,0        | 1   | 45299,0     | 3,07    | 0,0821  |
| Sucessional stage years *Sand                    | 12516,0        | 1   | 12516,0     | 0,85    | 0,3585  |
| Sucessional stage years *Richness*Dominance      | 76806,5        | 1   | 76806,5     | 5,21    | 0,0242  |
| Aluminum*Clay                                    | 16635,0        | 1   | 16635,0     | 1,13    | 0,2901  |
| Dominance*Nitrogen                               | 26835,8        | 1   | 26835,8     | 1,82    | 0,1797  |
| Richness*Dominance                               | 1856,72        | 1   | 1856,72     | 0,13    | 0,7232  |
| Shannon*Nitrogen                                 | 52444,2        | 1   | 52444,2     | 3,56    | 0,0616  |
| Residual   | 1,7532E6       | 119 | 14732,8     |         |         |
| Total (corrected)                                | 3,12871E6      | 151 |             |         |         |

R-Squared = 43,9642 percent

R-Squared (adjusted for d.f.) = 28,8958 percent

Standard Error of Est. = 121,379

Mean absolute error = 67,5293

Durbin-Watson statistic = 1,96236 (P=0,4087)