**S2 Table.** Correlation between soil attributes.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Attributes  | pH | H+ | Al3+ | K | P | C | N | C/N | Clay | Sand | Silt |
| pH | **1.00**\*\*\* |  |  |  |  |  |  |  |  |  |  |
| H+ | -0.41 | **1.00**\*\*\* |  |  |  |  |  |  |  |  |  |
| Al3+ | **-0.66**\*\*\* | **0.50**\*\* | **1.00**\*\*\* |  |  |  |  |  |  |  |  |
| K | 0.17 | 0.01 | -0.16 | **1.00**\*\*\* |  |  |  |  |  |  |  |
| P | 0.30 | 0.32 | -0.06 | 0.31 | **1.00**\*\*\* |  |  |  |  |  |  |
| C | 0.07 | 0.10 | **0.59**\*\* | -0.08 | 0.01 | **1,00**\*\*\* |  |  |  |  |  |
| N | 0.08 | 0.13 | **0.52**\*\* | -0.03 | 0.13 | **0,81**\*\*\* | **1,00**\*\*\* |  |  |  |  |
| C/N | -0.09 | 0.08 | 0.13 | 0.03 | -0.19 | 0,30 | -0,24 | **1,00**\*\*\* |  |  |  |
| Clay | -0.08 | -0.17 | -**0.49**\*\* | -0.30 | -0.36 | **-0,70**\*\*\* | **-0,77**\*\*\* | 0,01 | **1,00**\*\*\* |  |  |
| Sand | 0.21 | -1.12 | 0.14 | 0.21 | 0.22 | 0,37 | 0,27 | 0,05 | **-0,54**\*\* | **1,00**\*\*\* |  |
| Silt | -0.13 | 0.31 | 0.37 | 0.10 | 0.15 | 0,37 | **0,54**\*\* | -0,07 | **-0,51**\*\* | -0,45 | **1,00**\*\*\* |
| Bulk density | 0.25 | -0.46 | **-0.72**\*\*\* | 0.10 | -0.07 | **-0,71**\*\*\* | **-0,59**\*\*\* | -0,21 | **0,53**\*\* | -0,21 | -0,35 |
| CEC | -0.15 | 0.27 | **0.59**\*\*\* | -0.09 | 0.07 | **0,74**\*\*\* | **0,65**\*\*\* | 0,19 | **-0,57**\*\*\* | 0,37 | 0,23 |
| Slope  | -0.13 | -0.16 | -0.20 | -0.02 | -0.22 | -0,23 | -0,26 | 0,14 | 0,11 | <0,01 | -0,11 |
| Species richness | 0.02 | -0.09 | **-0.48**\*\* | 0.13 | -0.11 | **-0,69**\*\*\* | **-0,48**\*\* | -0,46 | **0,54**\*\*\* | -0,20 | -0,38 |
| Stem density | 0.10 | - 0.14 | 0.16 | -0.11 | -0.39 | 0,40 | 0,47 | <0,01 | -0,22 | -0,22 | 0,45 |
| Altitude | -0.20 | 0.08 | **0.65**\*\*\* | -0.10 | -0.07 | **0,70**\*\*\* | **0,52**\*\* | 0,37 | **-0,56**\*\*\* | 0,15 | 0,44 |
| Attributes | Bulk density | CEC | Slope | Species richness | Stem density |
| Bulk density  | **1.00**\*\*\* |  |  |  |  |
| CEC | **-0.71**\*\*\* | **1.00**\*\*\* |  |  |  |
| Slope | 0.31 | -0.22 | **1.00**\*\*\* |  |  |
| Species richness | 0.48 | **-0.60**\*\*\* | 0.18 | **1.00**\*\*\* |  |
| Stem density | -0.33 | 0.29 | -0.01 | -0.25 | **1.00**\*\*\* |
| Altitude  | **-0.57**\*\*\* | **0.62**\*\*\* | -0.09 | **-0.82**\*\*\* | **0.47**\*\* |

Significant correlations at p<0.01 as \*\* and at p < 0.001 as \*\*\*. The “r” of significant Pearson correlation is shown in bold.