**Table S1.** Central tendencies and dispersion measures of physical, chemical, and biological soil attributes and vegetation parameters for reference environments.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | |  | **Stat** |  | **Environment** | | | | | | |
|  |  | **FRGS** |  | **FRGD** |  | **QRG** |  | **AF** |
| Rockiness | |  | Mean |  | 372.20 |  | 485.58 |  | 187.06 |  | 45.13 |
| (g kg-1) | |  | Median |  | 344.71 |  | 536.62 |  | 140.05 |  | 40.47 |
|  | |  | Minimum |  | 228.47 |  | 291.39 |  | 7.60 |  | 21.16 |
|  | |  | Maximum |  | 570.92 |  | 577.69 |  | 460.52 |  | 78.42 |
| Fine Sand | |  | Mean |  | 0.06 |  | 0.12 |  | 0.17 |  | 0.07 |
| (kg kg-1) | |  | Median |  | 0.05 |  | 0.12 |  | 0.17 |  | 0.07 |
|  | |  | Minimum |  | 0.03 |  | 0.11 |  | 0.16 |  | 0.06 |
|  | |  | Maximum |  | 0.10 |  | 0.14 |  | 0.19 |  | 0.08 |
| Fine Sand + Silt |  | | Mean |  | 0.36 |  | 0.42 |  | 0.60 |  | 0.45 |
| (kg kg-1) | |  | Median |  | 0.35 |  | 0.42 |  | 0.59 |  | 0.45 |
|  | |  | Minimum |  | 0.31 |  | 0.39 |  | 0.56 |  | 0.44 |
|  | |  | Maximum |  | 0.43 |  | 0.44 |  | 0.66 |  | 0.45 |
| Silt | |  | Mean |  | 0.31 |  | 0.30 |  | 0.43 |  | 0.38 |
| (kg kg-1) | |  | Median |  | 0.31 |  | 0.30 |  | 0.42 |  | 0.38 |
|  | |  | Minimum |  | 0.27 |  | 0.28 |  | 0.37 |  | 0.36 |
|  | |  | Maximum |  | 0.34 |  | 0.31 |  | 0.50 |  | 0.39 |
| Clay | |  | Mean |  | 0.16 |  | 0.19 |  | 0.22 |  | 0.47 |
| (kg kg-1) | |  | Median |  | 0.15 |  | 0.18 |  | 0.23 |  | 0.47 |
|  | |  | Minimum |  | 0.12 |  | 0.18 |  | 0.16 |  | 0.46 |
|  | |  | Maximum |  | 0.22 |  | 0.21 |  | 0.25 |  | 0.47 |
| Bulk density |  | | Mean |  | 1.43 |  | 1.36 |  | 1.00 |  | 0.73 |
| (g cm-3) | |  | Median |  | 1.46 |  | 1.26 |  | 0.99 |  | 0.73 |
|  | |  | Minimum |  | 1.04 |  | 1.23 |  | 0.98 |  | 0.70 |
|  | |  | Maximum |  | 1.76 |  | 1.69 |  | 1.05 |  | 0.76 |
| Particle density |  | | Mean |  | 3.18 |  | 3.35 |  | 2.43 |  | 2.05 |
| (g cm-3) | |  | Median |  | 3.17 |  | 3.26 |  | 2.44 |  | 2.07 |
|  | |  | Minimum |  | 2.85 |  | 3.14 |  | 2.34 |  | 1.90 |
|  | |  | Maximum |  | 3.52 |  | 3.71 |  | 2.49 |  | 2.18 |
| Total porosity |  | | Mean |  | 0.55 |  | 0.60 |  | 0.59 |  | 0.63 |
| (m m³) | |  | Median |  | 0.55 |  | 0.61 |  | 0.59 |  | 0.64 |
|  | |  | Minimum |  | 0.48 |  | 0.55 |  | 0.57 |  | 0.56 |
|  | |  | Maximum |  | 0.64 |  | 0.62 |  | 0.60 |  | 0.68 |
| Water content |  | | Mean |  | 0.130 |  | 0.144 |  | 0.232 |  | 0.214 |
| (kg kg-1) | |  | Median |  | 0.149 |  | 0.152 |  | 0.239 |  | 0.210 |
|  | |  | Minimum |  | 0.071 |  | 0.096 |  | 0.203 |  | 0.202 |
|  | |  | Maximum |  | 0.151 |  | 0.175 |  | 0.248 |  | 0.231 |
| pH | |  | Mean |  | 4.5 |  | 4.5 |  | 4.8 |  | 4.2 |
|  | |  | Median |  | 4.5 |  | 4.5 |  | 4.9 |  | 4.1 |
|  | |  | Minimum |  | 4.3 |  | 4.4 |  | 4.8 |  | 4.0 |
|  | |  | Maximum |  | 4.7 |  | 4.6 |  | 4.9 |  | 4.4 |
| K+ | |  | Mean |  | 35.3 |  | 59.6 |  | 96.0 |  | 77.3 |
| (mg dm-3) | |  | Median |  | 37.5 |  | 60.6 |  | 97.0 |  | 77.1 |
|  | |  | Minimum |  | 23.0 |  | 47.8 |  | 72.0 |  | 66.5 |
|  | |  | Maximum |  | 43.0 |  | 69.3 |  | 118.0 |  | 88.3 |
| Ca2+ | |  | Mean |  | 1.21 |  | 2.34 |  | 0.70 |  | 0.39 |
| (cmolc  dm-3) | |  | Median |  | 0.92 |  | 2.14 |  | 0.71 |  | 0.37 |
|  | |  | Minimum |  | 0.81 |  | 1.49 |  | 0.41 |  | 0.31 |
|  | |  | Maximum |  | 2.17 |  | 3.60 |  | 0.97 |  | 0.50 |
| Mg2+ | |  | Mean |  | 0.15 |  | 0.49 |  | 0.19 |  | 0.13 |
| (cmolc  dm-3) | |  | Median |  | 0.15 |  | 0.49 |  | 0.17 |  | 0.13 |
|  | |  | Minimum |  | 0.10 |  | 0.34 |  | 0.14 |  | 0.10 |
|  | |  | Maximum |  | 0.18 |  | 0.64 |  | 0.29 |  | 0.16 |
| Al3+ | |  | Mean |  | 0.68 |  | 0.78 |  | 1.10 |  | 2.56 |
| (cmolc  dm-3) | |  | Median |  | 0.68 |  | 0.75 |  | 1.08 |  | 2.64 |
|  | |  | Minimum |  | 0.27 |  | 0.72 |  | 0.99 |  | 2.25 |
|  | |  | Maximum |  | 1.08 |  | 0.90 |  | 1.26 |  | 2.70 |
| H+Al | |  | Mean |  | 14.4 |  | 16.5 |  | 6.6 |  | 13.8 |
| (cmolc  dm-3) | |  | Median |  | 12.7 |  | 16.5 |  | 6.8 |  | 14.0 |
|  | |  | Minimum |  | 10.1 |  | 14.1 |  | 5.8 |  | 13.0 |
|  | |  | Maximum |  | 22.1 |  | 19.0 |  | 7.1 |  | 14.3 |
| CEC | |  | Mean |  | 15.82 |  | 19.50 |  | 7.74 |  | 14.52 |
| (cmolc  dm-3) | |  | Median |  | 13.79 |  | 19.94 |  | 7.72 |  | 14.64 |
|  | |  | Minimum |  | 11.12 |  | 16.09 |  | 6.90 |  | 13.69 |
|  | |  | Maximum |  | 24.56 |  | 22.02 |  | 8.61 |  | 15.13 |
| m | |  | Mean |  | 31.05 |  | 24.16 |  | 49.70 |  | 78.10 |
| (%) | |  | Median |  | 28.70 |  | 24.25 |  | 49.15 |  | 77.90 |
|  | |  | Minimum |  | 20.90 |  | 15.90 |  | 39.60 |  | 75.83 |
|  | |  | Maximum |  | 45.90 |  | 32.25 |  | 60.90 |  | 80.78 |
| Prem | |  | Mean |  | 25.13 |  | 25.78 |  | 27.48 |  | 19.66 |
| (mg L-1) | |  | Median |  | 25.25 |  | 25.85 |  | 26.60 |  | 19.59 |
|  | |  | Minimum |  | 15.50 |  | 24.55 |  | 25.60 |  | 18.95 |
|  | |  | Maximum |  | 34.50 |  | 26.85 |  | 31.10 |  | 20.50 |
| P/Prem | |  | Mean |  | 0.12 |  | 0.11 |  | 0.10 |  | 0.12 |
|  | |  | Median |  | 0.11 |  | 0.11 |  | 0.09 |  | 0.14 |
|  | |  | Minimum |  | 0.08 |  | 0.09 |  | 0.08 |  | 0.08 |
|  | |  | Maximum |  | 0.17 |  | 0.14 |  | 0.13 |  | 0.15 |
| As | |  | Mean |  | 6.91 |  | 0.00 |  | 9.64 |  | 19.53 |
| (mg kg-1) | |  | Median |  | 7.30 |  | 0.00 |  | 10.22 |  | 20.77 |
|  | |  | Minimum |  | 0.00 |  | 0.00 |  | 6.81 |  | 13.77 |
|  | |  | Maximum |  | 13.04 |  | 0.00 |  | 11.32 |  | 22.81 |
| Co | |  | Mean |  | 5.77 |  | 5.69 |  | 0.00 |  | 9.96 |
| (mg kg-1) | |  | Median |  | 6.07 |  | 5.58 |  | 0.00 |  | 10.67 |
|  | |  | Minimum |  | 3.48 |  | 5.07 |  | 0.00 |  | 1.64 |
|  | |  | Maximum |  | 7.45 |  | 6.51 |  | 0.00 |  | 16.85 |
| Pb | |  | Mean |  | 38.35 |  | 30.28 |  | 2.69 |  | 20.54 |
| (mg kg-1) | |  | Median |  | 39.04 |  | 31.30 |  | 2.78 |  | 19.85 |
|  | |  | Minimum |  | 31.59 |  | 26.20 |  | 1.15 |  | 18.01 |
|  | |  | Maximum |  | 43.70 |  | 32.32 |  | 4.06 |  | 24.45 |
| Ni | |  | Mean |  | 2.63 |  | 1.00 |  | 2.78 |  | 90.15 |
| (mg kg-1) | |  | Median |  | 2.78 |  | 0.77 |  | 3.00 |  | 91.37 |
|  | |  | Minimum |  | 1.50 |  | 0.00 |  | 1.75 |  | 82.47 |
|  | |  | Maximum |  | 3.48 |  | 2.47 |  | 3.38 |  | 95.40 |
| Zn | |  | Mean |  | 40.94 |  | 31.62 |  | 0.00 |  | 67.28 |
| (mg kg-1) | |  | Median |  | 39.92 |  | 32.58 |  | 0.00 |  | 67.17 |
|  | |  | Minimum |  | 33.04 |  | 23.37 |  | 0.00 |  | 64.81 |
|  | |  | Maximum |  | 50.87 |  | 37.92 |  | 0.00 |  | 69.97 |
| Mn | |  | Mean |  | 628.90 |  | 391.50 |  | 48.50 |  | 450.11 |
| (mg kg-1) | |  | Median |  | 642.90 |  | 418.32 |  | 46.80 |  | 480.15 |
|  | |  | Minimum |  | 204.81 |  | 216.42 |  | 35.17 |  | 155.09 |
|  | |  | Maximum |  | 1024.99 |  | 512.93 |  | 65.21 |  | 685.05 |
| Fe | |  | Mean |  | 236.61 |  | 245.94 |  | 19.45 |  | 87.39 |
| (g kg-1) | |  | Median |  | 241.08 |  | 256.70 |  | 19.48 |  | 87.59 |
|  | |  | Minimum |  | 217.67 |  | 205.23 |  | 15.24 |  | 85.04 |
|  | |  | Maximum |  | 246.64 |  | 265.14 |  | 23.60 |  | 89.34 |
| Al | |  | Mean |  | 23.15 |  | 15.57 |  | 17.00 |  | 28.15 |
| (g kg-1) | |  | Median |  | 22.17 |  | 15.34 |  | 17.31 |  | 28.07 |
|  | |  | Minimum |  | 13.35 |  | 14.56 |  | 12.84 |  | 27.33 |
|  | |  | Maximum |  | 34.93 |  | 17.05 |  | 20.53 |  | 29.13 |
| C-CO2 | |  | Mean |  | 106.02 |  | 144.29 |  | 171.76 |  | 199.01 |
| (mg kg-1) | |  | Median |  | 86.34 |  | 160.43 |  | 168.38 |  | 208.55 |
|  | |  | Minimum |  | 54.62 |  | 60.84 |  | 114.83 |  | 150.68 |
|  | |  | Maximum |  | 196.76 |  | 195.46 |  | 235.45 |  | 228.27 |
| Basal Soil  Respiration | |  | Mean |  | 0.21 |  | 0.29 |  | 0.34 |  | 0.40 |
|  | Median |  | 0.17 |  | 0.32 |  | 0.33 |  | 0.41 |
| (mg kg-1 h-1) | |  | Minimum |  | 0.11 |  | 0.12 |  | 0.23 |  | 0.30 |
|  | |  | Maximum |  | 0.39 |  | 0.39 |  | 0.47 |  | 0.45 |
| Microbial Biomass Carbon | |  | Mean |  | 398.88 |  | 565.83 |  | 133.10 |  | 1080.92 |
| (mg kg-1) | |  | Median |  | 402.95 |  | 569.97 |  | 108.97 |  | 1020.32 |
|  | |  | Minimum |  | 329.83 |  | 452.32 |  | 12.90 |  | 998.07 |
|  | |  | Maximum |  | 459.80 |  | 671.07 |  | 301.56 |  | 1284.96 |
| Microbial Biomass Nitrogen | |  | Mean |  | 29.07 |  | 48.03 |  | 26.40 |  | 100.14 |
| (mg kg-1) | |  | Median |  | 29.46 |  | 50.36 |  | 26.42 |  | 103.43 |
|  | |  | Minimum |  | 22.00 |  | 37.92 |  | 17.01 |  | 71.76 |
|  | |  | Maximum |  | 35.36 |  | 53.49 |  | 35.75 |  | 121.96 |
| Total Organic  Carbon | |  | Mean |  | 8.81 |  | 9.79 |  | 3.57 |  | 7.41 |
|  | Median |  | 7.44 |  | 10.43 |  | 3.62 |  | 7.54 |
| (dag kg-1) | |  | Minimum |  | 6.26 |  | 6.53 |  | 2.95 |  | 6.91 |
|  | |  | Maximum |  | 14.11 |  | 11.76 |  | 4.08 |  | 7.66 |
| Microbial quotient | |  | Mean |  | 0.50 |  | 0.61 |  | 0.39 |  | 1.47 |
| (qMic) | |  | Median |  | 0.49 |  | 0.61 |  | 0.29 |  | 1.42 |
| (%) | |  | Minimum |  | 0.28 |  | 0.49 |  | 0.03 |  | 1.34 |
|  | |  | Maximum |  | 0.73 |  | 0.72 |  | 0.94 |  | 1.71 |
| Metabolic quotient |  | | Mean |  | 0.54 |  | 0.48 |  | 6.91 |  | 0.37 |
| (qCO2) | |  | Median |  | 0.47 |  | 0.51 |  | 4.22 |  | 0.41 |
| (*x10-3*) | |  | Minimum |  | 0.24 |  | 0.27 |  | 1.55 |  | 0.23 |
|  | |  | Maximum |  | 0.98 |  | 0.63 |  | 17.66 |  | 0.44 |
| Ground cover |  | | Mean |  | 30.88 |  | 97.77 |  | 86.74 |  | 100.00 |
| (%) | |  | Median |  | 31.52 |  | 97.88 |  | 87.15 |  | 100.00 |
|  | |  | Minimum |  | 17.70 |  | 95.34 |  | 83.24 |  | 100.00 |
|  | |  | Maximum |  | 42.78 |  | 100.00 |  | 89.41 |  | 100.00 |
| Vegetation  Volume | |  | Mean |  | 15.02 |  | 91.12 |  | 3.92 |  | 1922.95 |
|  | Median |  | 11.47 |  | 94.60 |  | 3.25 |  | 1933.26 |
| (m³/ plot) | |  | Minimum |  | 9.43 |  | 50.97 |  | 3.06 |  | 1849.04 |
|  | |  | Maximum |  | 27.72 |  | 124.30 |  | 6.13 |  | 1976.24 |

**Table S2.** Central tendencies and dispersion measures of physical, chemical, and biological soil attributes and vegetation parameters for sites under restoration.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Stat** | **Site** | | | | | | | |
|  | **CAVE-15** |  | **COMP-5** |  | **SP-15** |  | **SP-20** |
| Rockiness | Mean |  | 160.45 |  | 154.27 |  | 147.59 |  | 139.14 |
| (g kg-1) | Median |  | 170.12 |  | 117.20 |  | 136.90 |  | 136.22 |
|  | Minimum |  | 98.56 |  | 25.71 |  | 108.61 |  | 94.25 |
|  | Maximum |  | 203.02 |  | 356.98 |  | 207.96 |  | 189.88 |
| Fine Sand | Mean |  | 0.23 |  | 0.05 |  | 0.23 |  | 0.08 |
| (kg kg-1) | Median |  | 0.23 |  | 0.05 |  | 0.23 |  | 0.09 |
|  | Minimum |  | 0.19 |  | 0.04 |  | 0.20 |  | 0.05 |
|  | Maximum |  | 0.27 |  | 0.05 |  | 0.25 |  | 0.09 |
| Fine Sand + Silt | Mean |  | 0.80 |  | 0.64 |  | 0.75 |  | 0.67 |
| (kg kg-1) | Median |  | 0.80 |  | 0.63 |  | 0.77 |  | 0.69 |
|  | Minimum |  | 0.76 |  | 0.62 |  | 0.67 |  | 0.62 |
|  | Maximum |  | 0.85 |  | 0.66 |  | 0.82 |  | 0.71 |
| Silt | Mean |  | 0.57 |  | 0.59 |  | 0.52 |  | 0.59 |
| (kg kg-1) | Median |  | 0.57 |  | 0.59 |  | 0.54 |  | 0.60 |
|  | Minimum |  | 0.57 |  | 0.58 |  | 0.43 |  | 0.52 |
|  | Maximum |  | 0.58 |  | 0.61 |  | 0.58 |  | 0.66 |
| Clay | Mean |  | 0.04 |  | 0.30 |  | 0.06 |  | 0.16 |
| (kg kg-1) | Median |  | 0.04 |  | 0.30 |  | 0.07 |  | 0.15 |
|  | Minimum |  | 0.04 |  | 0.28 |  | 0.03 |  | 0.15 |
|  | Maximum |  | 0.04 |  | 0.32 |  | 0.09 |  | 0.17 |
| Bulk density | Mean |  | 1.91 |  | 0.91 |  | 1.69 |  | 0.88 |
| (g cm-3) | Median |  | 1.89 |  | 0.91 |  | 1.67 |  | 0.87 |
|  | Minimum |  | 1.77 |  | 0.87 |  | 1.50 |  | 0.82 |
|  | Maximum |  | 2.09 |  | 0.94 |  | 1.92 |  | 0.97 |
| Particle density | Mean |  | 3.56 |  | 2.68 |  | 3.55 |  | 2.61 |
| (g cm-3) | Median |  | 3.49 |  | 2.70 |  | 3.52 |  | 2.61 |
|  | Minimum |  | 3.40 |  | 2.48 |  | 3.40 |  | 2.40 |
|  | Maximum |  | 3.86 |  | 2.84 |  | 3.76 |  | 2.81 |
| Total porosity | Mean |  | 0.46 |  | 0.66 |  | 0.53 |  | 0.66 |
| (m m³) | Median |  | 0.46 |  | 0.66 |  | 0.53 |  | 0.66 |
|  | Minimum |  | 0.45 |  | 0.65 |  | 0.49 |  | 0.66 |
|  | Maximum |  | 0.48 |  | 0.67 |  | 0.56 |  | 0.67 |
| Water content | Mean |  | 0.174 |  | 0.239 |  | 0.180 |  | 0.245 |
| (kg kg-1) | Median |  | 0.173 |  | 0.238 |  | 0.180 |  | 0.247 |
|  | Minimum |  | 0.154 |  | 0.220 |  | 0.168 |  | 0.236 |
|  | Maximum |  | 0.195 |  | 0.261 |  | 0.191 |  | 0.253 |
| pH | Mean |  | 6.3 |  | 5.3 |  | 5.5 |  | 4.7 |
|  | Median |  | 6.4 |  | 5.4 |  | 5.4 |  | 4.7 |
|  | Minimum |  | 5.9 |  | 4.9 |  | 5.0 |  | 4.3 |
|  | Maximum |  | 6.6 |  | 5.6 |  | 5.9 |  | 5.0 |
| K+ | Mean |  | 27.0 |  | 123.6 |  | 29.6 |  | 60.6 |
| (mg dm-3) | Median |  | 28.0 |  | 118.5 |  | 31.3 |  | 61.6 |
|  | Minimum |  | 21.3 |  | 78.0 |  | 13.3 |  | 45.0 |
|  | Maximum |  | 30.8 |  | 179.3 |  | 42.5 |  | 74.0 |
| Ca2+ | Mean |  | 1.17 |  | 2.54 |  | 1.14 |  | 2.14 |
| (cmolc  dm-3) | Median |  | 1.23 |  | 2.59 |  | 1.14 |  | 2.04 |
|  | Minimum |  | 0.86 |  | 1.15 |  | 0.64 |  | 1.12 |
|  | Maximum |  | 1.36 |  | 3.81 |  | 1.65 |  | 3.35 |
| Mg2+ | Mean |  | 0.19 |  | 0.48 |  | 0.20 |  | 0.58 |
| (cmolc  dm-3) | Median |  | 0.21 |  | 0.48 |  | 0.21 |  | 0.51 |
|  | Minimum |  | 0.12 |  | 0.22 |  | 0.10 |  | 0.40 |
|  | Maximum |  | 0.23 |  | 0.77 |  | 0.30 |  | 0.92 |
| Al3+ | Mean |  | 0.00 |  | 0.49 |  | 0.03 |  | 0.25 |
| (cmolc  dm-3) | Median |  | 0.00 |  | 0.25 |  | 0.00 |  | 0.26 |
|  | Minimum |  | 0.00 |  | 0.09 |  | 0.00 |  | 0.14 |
|  | Maximum |  | 0.00 |  | 1.37 |  | 0.14 |  | 0.36 |
| H+Al | Mean |  | 1.07 |  | 6.35 |  | 2.68 |  | 6.44 |
| (cmolc  dm-3) | Median |  | 0.98 |  | 5.95 |  | 2.60 |  | 6.68 |
|  | Minimum |  | 0.55 |  | 5.30 |  | 1.13 |  | 4.93 |
|  | Maximum |  | 1.75 |  | 8.20 |  | 4.38 |  | 7.48 |
| CEC | Mean |  | 2.50 |  | 9.69 |  | 4.10 |  | 9.31 |
| (cmolc  dm-3) | Median |  | 2.35 |  | 9.60 |  | 4.02 |  | 9.26 |
|  | Minimum |  | 1.93 |  | 9.22 |  | 1.95 |  | 8.36 |
|  | Maximum |  | 3.35 |  | 10.34 |  | 6.41 |  | 10.38 |
| m | Mean |  | 0.00 |  | 16.37 |  | 1.88 |  | 10.28 |
| (%) | Median |  | 0.00 |  | 7.68 |  | 0.00 |  | 10.40 |
|  | Minimum |  | 0.00 |  | 1.78 |  | 0.00 |  | 3.23 |
|  | Maximum |  | 0.00 |  | 48.35 |  | 7.50 |  | 17.10 |
| Prem | Mean |  | 45.54 |  | 26.64 |  | 40.81 |  | 44.64 |
| (mg L-1) | Median |  | 45.26 |  | 27.46 |  | 39.90 |  | 44.15 |
|  | Minimum |  | 43.20 |  | 22.48 |  | 35.20 |  | 40.85 |
|  | Maximum |  | 48.45 |  | 29.15 |  | 48.23 |  | 49.43 |
| P/Prem | Mean |  | 0.95 |  | 0.08 |  | 0.13 |  | 0.13 |
|  | Median |  | 0.56 |  | 0.08 |  | 0.13 |  | 0.13 |
|  | Minimum |  | 0.08 |  | 0.07 |  | 0.06 |  | 0.12 |
|  | Maximum |  | 2.61 |  | 0.09 |  | 0.21 |  | 0.15 |
| As | Mean |  | 0.00 |  | 0.00 |  | 0.00 |  | 3.06 |
| (mg kg-1) | Median |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |
|  | Minimum |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |
|  | Maximum |  | 0.00 |  | 0.00 |  | 0.00 |  | 12.22 |
| Co | Mean |  | 10.59 |  | 13.92 |  | 6.37 |  | 12.32 |
| (mg kg-1) | Median |  | 10.13 |  | 14.63 |  | 6.25 |  | 13.44 |
|  | Minimum |  | 9.09 |  | 9.31 |  | 4.99 |  | 7.51 |
|  | Maximum |  | 12.99 |  | 17.13 |  | 7.98 |  | 14.90 |
| Pb | Mean |  | 30.26 |  | 24.06 |  | 26.07 |  | 22.08 |
| (mg kg-1) | Median |  | 29.65 |  | 24.05 |  | 25.14 |  | 22.34 |
|  | Minimum |  | 25.20 |  | 14.30 |  | 18.48 |  | 17.03 |
|  | Maximum |  | 36.52 |  | 33.84 |  | 35.51 |  | 26.61 |
| Ni | Mean |  | 2.31 |  | 114.80 |  | 2.23 |  | 60.09 |
| (mg kg-1) | Median |  | 1.97 |  | 116.08 |  | 0.71 |  | 52.39 |
|  | Minimum |  | 0.45 |  | 96.22 |  | 0.00 |  | 43.95 |
|  | Maximum |  | 4.84 |  | 130.80 |  | 7.49 |  | 91.65 |
| Zn | Mean |  | 32.09 |  | 67.42 |  | 19.63 |  | 35.15 |
| (mg kg-1) | Median |  | 29.42 |  | 69.07 |  | 21.54 |  | 33.56 |
|  | Minimum |  | 25.38 |  | 61.31 |  | 8.61 |  | 23.20 |
|  | Maximum |  | 44.14 |  | 70.23 |  | 26.83 |  | 50.30 |
| Mn | Mean |  | 3,573.97 |  | 681.37 |  | 3,746.98 |  | 2,782.60 |
| (mg kg-1) | Median |  | 3,631.41 |  | 727.25 |  | 3,599.85 |  | 2,380.26 |
|  | Minimum |  | 1,471.17 |  | 414.12 |  | 1,308.08 |  | 1,751.87 |
|  | Maximum |  | 5,561.90 |  | 856.84 |  | 6,480.13 |  | 4,618.01 |
| Fe | Mean |  | 265.26 |  | 88.90 |  | 242.29 |  | 143.92 |
| (g kg-1) | Median |  | 264.17 |  | 94.76 |  | 240.69 |  | 141.76 |
|  | Minimum |  | 254.02 |  | 68.80 |  | 232.33 |  | 126.80 |
|  | Maximum |  | 278.66 |  | 97.28 |  | 255.46 |  | 165.36 |
| Al-t | Mean |  | 5.05 |  | 22.26 |  | 4.85 |  | 14.77 |
| (g kg-1) | Median |  | 4.75 |  | 21.94 |  | 5.18 |  | 15.41 |
|  | Minimum |  | 4.18 |  | 19.44 |  | 1.41 |  | 11.97 |
|  | Maximum |  | 6.51 |  | 25.73 |  | 7.64 |  | 16.27 |
| C-CO2 | Mean |  | 61.04 |  | 161.98 |  | 96.32 |  | 182.19 |
| (mg kg-1) | Median |  | 55.74 |  | 163.81 |  | 104.26 |  | 153.86 |
|  | Minimum |  | 48.28 |  | 142.52 |  | 38.60 |  | 125.80 |
|  | Maximum |  | 84.40 |  | 177.79 |  | 138.15 |  | 295.26 |
| Basal Soil  Respiration | Mean |  | 0.12 |  | 0.32 |  | 0.19 |  | 0.36 |
| Median |  | 0.11 |  | 0.33 |  | 0.21 |  | 0.31 |
| (mg kg-1 h-1) | Minimum |  | 0.10 |  | 0.28 |  | 0.08 |  | 0.25 |
|  | Maximum |  | 0.17 |  | 0.35 |  | 0.27 |  | 0.59 |
| Microbial Biomass Carbon  (mg kg-1) | Mean |  | 114.28 |  | 187.44 |  | 147.27 |  | 372.78 |
| Median |  | 119.40 |  | 190.25 |  | 162.00 |  | 353.32 |
| Minimum |  | 59.97 |  | 129.26 |  | 43.24 |  | 232.96 |
|  | Maximum |  | 158.34 |  | 240.00 |  | 221.82 |  | 551.51 |
| Microbial Biomass Nitrogen  (mg kg-1) | Mean |  | 13.88 |  | 36.41 |  | 20.21 |  | 34.11 |
| Median |  | 13.88 |  | 36.80 |  | 18.49 |  | 33.14 |
| Minimum |  | 8.94 |  | 26.00 |  | 10.54 |  | 19.46 |
|  | Maximum |  | 18.81 |  | 46.04 |  | 33.32 |  | 50.71 |
| Total Organic  Carbon  (dag kg-1) | Mean |  | 0.42 |  | 3.34 |  | 0.58 |  | 3.02 |
| Median |  | 0.41 |  | 3.34 |  | 0.70 |  | 2.82 |
| Minimum |  | 0.34 |  | 3.08 |  | 0.16 |  | 2.53 |
|  | Maximum |  | 0.53 |  | 3.60 |  | 0.78 |  | 3.89 |
| Microbial quotient  (%) | Mean |  | 2.80 |  | 0.56 |  | 7.56 |  | 1.28 |
| Median |  | 2.90 |  | 0.58 |  | 1.89 |  | 1.02 |
|  | Minimum |  | 1.47 |  | 0.34 |  | 1.14 |  | 0.75 |
|  | Maximum |  | 3.92 |  | 0.76 |  | 25.33 |  | 2.34 |
| Metabolic quotient | Mean |  | 1.30 |  | 1.94 |  | 3.73 |  | 1.32 |
| (*x10-3*) | Median |  | 1.15 |  | 1.87 |  | 3.54 |  | 1.02 |
|  | Minimum |  | 0.69 |  | 1.42 |  | 1.21 |  | 0.45 |
|  | Maximum |  | 2.23 |  | 2.60 |  | 6.61 |  | 2.78 |
| Ground cover | Mean |  | 62.69 |  | 99.89 |  | 81.59 |  | 100.00 |
| (%) | Median |  | 72.65 |  | 99.88 |  | 82.36 |  | 100.00 |
|  | Minimum |  | 19.47 |  | 99.84 |  | 73.61 |  | 100.00 |
|  | Maximum |  | 85.98 |  | 99.94 |  | 88.03 |  | 100.00 |
| Vegetation  Volume | Mean |  | 29.19 |  | 73.14 |  | 14.87 |  | 1,486.06 |
| Median |  | 33.09 |  | 70.98 |  | 15.62 |  | 1,297.65 |
| (m³/ plot) | Minimum |  | 6.02 |  | 35.55 |  | 8.71 |  | 1,064.94 |
|  | Maximum |  | 44.57 |  | 115.06 |  | 19.54 |  | 2,284.00 |