**Principal Components: on Correlations**

**Summary Plots**



**Eigenvalues**

| **Number** | **Eigenvalue** | **Percent** | **Percent** | **Cum Percent** | **ChiSquare** | **DF** | **Prob>ChiSq** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 3.0425 | 43.464 |  | 43.464 | 1112.63 | 20.788 | <.0001\* |
| 2 | 1.4731 | 21.044 |  | 64.508 | 865.943 | 18.760 | <.0001\* |
| 3 | 0.9913 | 14.161 |  | 78.669 | 755.727 | 14.340 | <.0001\* |
| 4 | 0.9382 | 13.402 |  | 92.072 | 674.022 | 9.901 | <.0001\* |
| 5 | 0.3273 | 4.675 |  | 96.747 | 466.329 | 6.296 | <.0001\* |
| 6 | 0.2218 | 3.169 |  | 99.916 | 395.478 | 2.997 | <.0001\* |
| 7 | 0.0059 | 0.084 |  | 100.000 | 0.000 | . | . |

**Eigenvectors**

|  | **Prin1** | **Prin2** | **Prin3** | **Prin4** | **Prin5** | **Prin6** | **Prin7** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Log\_OM | 0.52351 | 0.23297 | -0.18314 | -0.10045 | 0.35189 | 0.00621 | 0.71005 |
| Log\_N | 0.52612 | 0.22472 | -0.17213 | -0.06556 | 0.37940 | 0.00804 | -0.70339 |
| Log\_P\_WB | 0.17184 | 0.04689 | 0.42873 | 0.87549 | 0.13096 | -0.00881 | 0.02753 |
| Log\_P\_SB | 0.11506 | 0.06478 | 0.86704 | -0.46649 | 0.10895 | 0.03632 | -0.00276 |
| Log\_PH | -0.49358 | 0.21470 | -0.03291 | 0.02512 | 0.55131 | 0.63603 | 0.00975 |
| Log\_CA/MG | 0.39745 | -0.50953 | -0.00979 | 0.00164 | -0.26986 | 0.71379 | -0.00066 |
| Log\_CEC | 0.06913 | 0.76362 | 0.00937 | 0.02978 | -0.57136 | 0.29065 | -0.01427 |

**Loading Matrix**

|  | **Prin1** | **Prin2** | **Prin3** | **Prin4** | **Prin5** | **Prin6** | **Prin7** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Log\_OM | 0.91314 | 0.28275 | -0.18234 | -0.09729 | 0.20131 | 0.00293 | 0.05455 |
| Log\_N | 0.91770 | 0.27274 | -0.17138 | -0.06350 | 0.21705 | 0.00378 | -0.05404 |
| Log\_P\_WB | 0.29973 | 0.05691 | 0.42685 | 0.84799 | 0.07492 | -0.00415 | 0.00212 |
| Log\_P\_SB | 0.20070 | 0.07862 | 0.86325 | -0.45183 | 0.06233 | 0.01710 | -0.00021 |
| Log\_PH | -0.86095 | 0.26058 | -0.03276 | 0.02433 | 0.31539 | 0.29955 | 0.00075 |
| Log\_CA/MG | 0.69327 | -0.61841 | -0.00974 | 0.00159 | -0.15438 | 0.33617 | -0.00005 |
| Log\_CEC | 0.12057 | 0.92680 | 0.00933 | 0.02884 | -0.32686 | 0.13689 | -0.00110 |