Appendix E. Reference Metric Correlations

Spearman rho correlations between selected metrics and environmental variables in reference sites of three site classes

Table \_\_-1. Spearman *rho* correlations between reference metrics and environmental variables in the Mountain site class.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | nt\_Diat\_Cl\_2 | nt\_Diatas\_TN\_2 | pi\_Diat\_Cond\_2 | pt\_Diatas\_TN\_1 | pi\_TubeDwellers | pt\_H\_WDEQ\_34 | nt\_M\_WDEQ\_12 | pt\_O\_WDEQ\_34 | pt\_T\_WDEQ\_12 | pt\_T\_WDEQ\_56 | WA\_SAP\_USGS | WA\_Salinity\_USGS | LOW\_P.r | BC\_45.pt | O\_45.pt | Bahls\_12.pt | BC\_12.pa |
| BFIWs | 0.04 | 0.10 | 0.12 | -0.11 | -0.12 | -0.01 | 0.05 | -0.01 | 0.22 | -0.10 | 0.28 | 0.26 | 0.03 | -0.09 | -0.08 | 0.02 | -0.13 |
| Al2O3Ws | 0.18 | 0.22 | 0.10 | -0.23 | 0.02 | -0.28 | 0.15 | -0.28 | 0.23 | -0.28 | 0.07 | 0.01 | 0.20 | -0.29 | -0.08 | -0.22 | -0.01 |
| CaOWs | 0.01 | 0.04 | 0.10 | -0.16 | -0.04 | -0.11 | -0.08 | -0.11 | -0.02 | 0.00 | 0.04 | 0.01 | 0.08 | 0.03 | 0.01 | 0.04 | -0.02 |
| Fe2O3Ws | 0.00 | 0.13 | 0.11 | 0.01 | 0.10 | 0.17 | 0.10 | 0.17 | -0.05 | 0.06 | -0.08 | -0.07 | 0.03 | -0.02 | -0.01 | -0.05 | 0.21 |
| K2OWs | 0.08 | 0.07 | 0.00 | -0.28 | 0.10 | -0.34 | 0.07 | -0.34 | 0.28 | **-0.45** | 0.04 | 0.01 | 0.20 | -0.39 | -0.18 | -0.25 | -0.18 |
| MgOWs | 0.00 | 0.00 | 0.00 | 0.17 | -0.14 | 0.14 | -0.08 | 0.14 | -0.05 | 0.27 | -0.10 | -0.08 | -0.04 | 0.27 | 0.23 | 0.40 | 0.12 |
| Na2OWs | 0.19 | 0.22 | 0.12 | -0.26 | -0.04 | -0.27 | 0.15 | -0.27 | 0.28 | -0.31 | 0.07 | 0.01 | 0.18 | -0.33 | -0.08 | -0.24 | -0.01 |
| P2O5Ws | 0.13 | 0.19 | 0.20 | -0.22 | 0.03 | -0.27 | 0.03 | -0.27 | 0.01 | -0.15 | 0.09 | -0.03 | 0.11 | -0.10 | -0.03 | -0.11 | 0.02 |
| SWs | -0.08 | -0.02 | 0.03 | 0.01 | 0.05 | 0.09 | -0.11 | 0.09 | -0.02 | 0.08 | -0.15 | -0.23 | 0.10 | 0.08 | 0.22 | 0.18 | 0.13 |
| SiO2Ws | -0.02 | -0.13 | -0.20 | 0.01 | -0.15 | -0.12 | -0.09 | -0.12 | 0.09 | -0.07 | 0.04 | 0.07 | -0.07 | -0.02 | -0.03 | 0.06 | -0.29 |
| NWs | -0.05 | 0.05 | 0.08 | -0.05 | 0.17 | 0.10 | 0.06 | 0.10 | -0.08 | 0.00 | 0.04 | 0.00 | 0.08 | -0.06 | 0.01 | -0.13 | 0.17 |
| HydrlCondWs | 0.11 | 0.07 | 0.00 | 0.35 | 0.07 | **0.58** | 0.18 | **0.58** | -0.19 | **0.42** | -0.18 | -0.06 | 0.09 | 0.35 | **0.45** | **0.47** | **0.42** |
| CompStrgthWs | 0.13 | -0.01 | -0.12 | -0.02 | -0.19 | -0.10 | 0.03 | -0.10 | 0.18 | -0.11 | -0.07 | -0.05 | 0.00 | -0.09 | -0.02 | 0.09 | -0.13 |
| KffactWs | -0.05 | -0.24 | **-0.49** | **0.45** | -0.17 | 0.27 | -0.04 | 0.27 | -0.22 | 0.39 | -0.16 | -0.21 | -0.19 | 0.32 | 0.04 | 0.34 | -0.03 |
| PctOw2016Ws | 0.03 | 0.30 | 0.27 | -0.08 | 0.24 | 0.17 | 0.12 | 0.17 | 0.07 | -0.07 | -0.02 | 0.16 | 0.28 | -0.09 | 0.15 | -0.03 | 0.20 |
| PrecipWs | -0.31 | -0.34 | -0.35 | 0.26 | -0.04 | -0.03 | -0.34 | -0.03 | -0.07 | -0.01 | 0.11 | 0.13 | -0.13 | 0.06 | -0.03 | 0.01 | -0.31 |
| TmaxWs | 0.14 | -0.21 | **-0.44** | 0.36 | -0.07 | 0.18 | 0.06 | 0.18 | -0.33 | 0.31 | -0.08 | -0.15 | -0.19 | 0.37 | 0.12 | 0.36 | -0.07 |
| TmeanWs | 0.17 | -0.19 | **-0.45** | 0.35 | -0.10 | 0.14 | 0.07 | 0.14 | -0.32 | 0.33 | -0.09 | -0.18 | -0.21 | 0.38 | 0.11 | 0.36 | -0.06 |
| TminWs | 0.20 | -0.16 | -0.28 | 0.34 | -0.11 | 0.16 | 0.04 | 0.16 | -0.30 | 0.36 | 0.11 | 0.08 | -0.26 | **0.48** | 0.04 | 0.33 | -0.20 |
| MSST\_4yrAvg | 0.11 | 0.03 | -0.03 | 0.26 | 0.14 | 0.36 | 0.15 | 0.36 | -0.34 | **0.46** | -0.30 | -0.25 | -0.02 | 0.40 | 0.27 | 0.31 | 0.37 |
| RckDepWs | -0.07 | 0.03 | 0.18 | -0.33 | 0.27 | -0.35 | 0.04 | -0.35 | 0.16 | **-0.46** | 0.12 | 0.14 | 0.17 | -0.37 | -0.08 | **-0.47** | -0.06 |
| PredCond\_uScm | 0.20 | 0.25 | 0.24 | -0.14 | 0.18 | -0.10 | 0.23 | -0.10 | 0.09 | -0.11 | 0.09 | 0.03 | 0.20 | 0.00 | 0.13 | -0.02 | 0.13 |
| CatchmentArea.1 | -0.06 | 0.24 | 0.20 | -0.02 | 0.24 | 0.31 | 0.03 | 0.31 | -0.07 | 0.18 | -0.20 | -0.10 | 0.18 | 0.03 | 0.15 | 0.15 | 0.33 |
| Elevation.1 | -0.18 | -0.07 | -0.16 | -0.20 | -0.18 | -0.39 | -0.12 | -0.39 | 0.19 | -0.35 | 0.17 | 0.18 | 0.00 | -0.31 | -0.19 | -0.38 | -0.35 |
| Max.Depth..ft. | 0.10 | 0.05 | 0.09 | 0.22 | -0.14 | **0.42** | 0.16 | **0.42** | -0.06 | 0.38 | 0.17 | 0.26 | 0.02 | 0.29 | 0.27 | 0.29 | 0.29 |
| ReachwideSlopeftft | -0.19 | -0.19 | 0.19 | -0.02 | -0.15 | -0.08 | -0.28 | -0.08 | 0.03 | -0.01 | -0.13 | -0.28 | -0.24 | -0.05 | -0.29 | -0.23 | -0.06 |
| D50.Reachmm | -0.20 | -0.12 | 0.21 | -0.21 | 0.05 | -0.01 | -0.27 | -0.01 | -0.06 | 0.03 | -0.15 | -0.22 | -0.24 | -0.08 | -0.32 | -0.17 | -0.01 |

Table \_\_-2. Spearman *rho* correlations between reference metrics and environmental variables in the Mid-elevation site class.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | nt\_Diat\_Cl\_2 | nt\_Diatas\_TN\_2 | pi\_Diat\_Cond\_2 | pt\_Diatas\_TN\_1 | pi\_TubeDwellers | pt\_H\_WDEQ\_34 | nt\_M\_WDEQ\_12 | pt\_O\_WDEQ\_34 | pt\_T\_WDEQ\_12 | pt\_T\_WDEQ\_56 | WA\_SAP\_USGS | WA\_Salinity\_USGS | LOW\_P.r | BC\_45.pt | O\_45.pt | Bahls\_12.pt | BC\_12.pa |
| BFIWs | -0.17 | 0.02 | 0.25 | -0.08 | 0.32 | -0.15 | -0.39 | -0.15 | 0.15 | 0.07 | -0.08 | -0.21 | 0.00 | -0.05 | -0.09 | -0.01 | -0.01 |
| Al2O3Ws | 0.34 | 0.27 | 0.12 | 0.25 | -0.12 | 0.03 | 0.28 | 0.03 | 0.14 | -0.06 | -0.02 | 0.10 | 0.19 | 0.07 | 0.26 | 0.12 | 0.00 |
| CaOWs | -0.26 | -0.18 | 0.10 | -0.09 | 0.23 | 0.06 | -0.31 | 0.06 | -0.11 | 0.10 | 0.00 | -0.14 | -0.24 | 0.00 | -0.08 | -0.07 | -0.02 |
| Fe2O3Ws | 0.29 | 0.33 | 0.06 | -0.03 | -0.01 | -0.25 | 0.17 | -0.25 | 0.16 | -0.23 | -0.32 | -0.17 | **0.40** | -0.23 | 0.00 | -0.06 | 0.24 |
| K2OWs | 0.21 | 0.03 | -0.18 | 0.07 | -0.26 | -0.01 | 0.34 | -0.01 | 0.00 | -0.08 | -0.02 | 0.11 | 0.12 | 0.00 | 0.12 | 0.06 | 0.03 |
| MgOWs | -0.23 | -0.06 | 0.25 | 0.11 | 0.22 | 0.14 | -0.37 | 0.14 | 0.05 | 0.10 | 0.02 | -0.17 | -0.21 | 0.10 | 0.09 | 0.02 | -0.04 |
| Na2OWs | 0.31 | 0.27 | 0.18 | 0.19 | -0.02 | 0.02 | 0.23 | 0.02 | 0.15 | -0.12 | -0.04 | 0.05 | 0.20 | 0.03 | 0.17 | 0.01 | -0.02 |
| P2O5Ws | -0.05 | 0.10 | 0.28 | -0.06 | 0.31 | -0.07 | -0.22 | -0.07 | 0.20 | -0.08 | -0.17 | -0.17 | 0.08 | -0.06 | -0.07 | -0.13 | 0.07 |
| SWs | -0.31 | **-0.42** | -0.38 | -0.02 | -0.17 | 0.15 | -0.13 | 0.15 | -0.23 | 0.26 | 0.11 | -0.02 | -0.27 | 0.16 | -0.09 | 0.07 | -0.17 |
| SiO2Ws | 0.29 | 0.13 | -0.05 | 0.21 | -0.20 | 0.03 | 0.33 | 0.03 | 0.12 | -0.07 | 0.06 | 0.13 | 0.11 | 0.07 | 0.20 | 0.10 | -0.06 |
| NWs | 0.02 | -0.01 | -0.21 | -0.16 | -0.11 | -0.12 | 0.08 | -0.12 | -0.08 | -0.02 | -0.20 | -0.11 | 0.13 | -0.13 | -0.19 | -0.03 | 0.14 |
| HydrlCondWs | 0.09 | 0.25 | 0.07 | -0.29 | 0.09 | -0.26 | 0.10 | -0.26 | 0.07 | -0.18 | -0.33 | -0.16 | 0.35 | -0.25 | -0.27 | -0.19 | 0.25 |
| CompStrgthWs | 0.04 | 0.01 | 0.09 | 0.00 | 0.02 | -0.02 | 0.04 | -0.02 | 0.05 | -0.19 | 0.11 | 0.12 | -0.02 | -0.08 | 0.05 | -0.16 | -0.10 |
| KffactWs | -0.09 | -0.25 | -0.24 | 0.24 | -0.33 | 0.19 | 0.01 | 0.19 | -0.26 | 0.27 | 0.13 | 0.10 | -0.34 | 0.24 | 0.15 | 0.23 | -0.14 |
| PctOw2016Ws | 0.23 | 0.30 | -0.11 | -0.34 | -0.11 | -0.24 | 0.31 | -0.24 | 0.02 | -0.24 | -0.26 | -0.06 | **0.43** | -0.29 | -0.24 | -0.27 | 0.26 |
| PrecipWs | 0.02 | 0.28 | **0.47** | -0.17 | **0.46** | -0.25 | -0.17 | -0.25 | **0.41** | -0.15 | -0.12 | -0.18 | 0.28 | -0.19 | -0.22 | -0.13 | 0.15 |
| TmaxWs | -0.04 | **-0.43** | **-0.46** | 0.29 | **-0.40** | 0.31 | 0.19 | 0.31 | -0.35 | 0.35 | 0.33 | 0.24 | **-0.42** | 0.40 | 0.31 | 0.31 | -0.32 |
| TmeanWs | -0.10 | **-0.48** | -0.38 | 0.33 | -0.31 | 0.34 | 0.11 | 0.34 | -0.30 | 0.39 | 0.35 | 0.18 | **-0.49** | **0.44** | 0.36 | 0.29 | -0.37 |
| TminWs | -0.15 | -0.38 | -0.07 | 0.27 | 0.03 | 0.34 | -0.02 | 0.34 | -0.14 | 0.39 | 0.25 | 0.04 | **-0.41** | **0.42** | 0.27 | 0.15 | -0.29 |
| MSST\_4yrAvg | -0.07 | -0.18 | **-0.46** | -0.03 | **-0.43** | 0.25 | 0.27 | 0.25 | **-0.41** | 0.16 | -0.06 | 0.06 | -0.10 | 0.06 | 0.04 | 0.04 | 0.01 |
| RckDepWs | 0.12 | 0.13 | -0.15 | -0.17 | -0.11 | -0.25 | 0.06 | -0.25 | 0.08 | -0.14 | -0.08 | 0.03 | 0.23 | -0.12 | -0.18 | -0.04 | 0.10 |
| PredCond\_uScm | -0.27 | **-0.46** | **-0.41** | 0.07 | -0.23 | 0.26 | -0.04 | 0.26 | -0.30 | 0.29 | 0.10 | -0.03 | -0.38 | 0.24 | 0.05 | 0.13 | -0.14 |
| CatchmentArea.1 | -0.04 | 0.16 | -0.20 | -0.38 | -0.19 | -0.03 | 0.10 | -0.03 | -0.22 | -0.06 | **-0.40** | -0.14 | 0.22 | -0.34 | -0.28 | -0.21 | 0.27 |
| Elevation.1 | 0.26 | 0.14 | -0.01 | -0.14 | 0.02 | -0.20 | 0.25 | -0.20 | 0.24 | -0.27 | 0.07 | 0.07 | 0.15 | -0.11 | -0.14 | -0.03 | 0.11 |
| Max.Depth..ft. | 0.13 | 0.27 | 0.23 | -0.13 | 0.17 | -0.19 | 0.10 | -0.19 | 0.01 | -0.03 | -0.25 | -0.24 | 0.16 | -0.13 | -0.06 | -0.11 | 0.32 |
| ReachwideSlopeftft | -0.18 | -0.19 | 0.19 | 0.15 | 0.30 | 0.01 | -0.26 | 0.01 | 0.21 | -0.02 | 0.25 | 0.08 | -0.19 | 0.14 | 0.08 | -0.03 | -0.21 |
| D50.Reachmm | 0.04 | **0.42** | **0.51** | -0.26 | **0.52** | -0.17 | -0.12 | -0.17 | 0.17 | -0.27 | -0.33 | -0.16 | 0.35 | -0.32 | -0.30 | -0.31 | 0.39 |

Table \_\_-3. Spearman *rho* correlations between reference metrics and environmental variables in the Plains site class.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | nt\_Diat\_Cl\_2 | nt\_Diatas\_TN\_2 | pi\_Diat\_Cond\_2 | pt\_Diatas\_TN\_1 | pi\_TubeDwellers | pt\_H\_WDEQ\_34 | nt\_M\_WDEQ\_12 | pt\_O\_WDEQ\_34 | pt\_T\_WDEQ\_12 | pt\_T\_WDEQ\_56 | WA\_SAP\_USGS | WA\_Salinity\_USGS | LOW\_P.r | BC\_45.pt | O\_45.pt | Bahls\_12.pt | BC\_12.pa |
| BFIWs | 0.05 | 0.17 | 0.36 | **-0.72** | 0.17 | **-0.66** | -0.40 | **-0.66** | 0.02 | -0.12 | **-0.62** | **-0.55** | 0.40 | **-0.54** | -0.33 | -0.26 | 0.36 |
| Al2O3Ws | 0.39 | 0.40 | -0.01 | -0.30 | -0.39 | **-0.62** | -0.25 | **-0.62** | 0.38 | -0.32 | -0.13 | -0.02 | 0.36 | -0.30 | -0.06 | -0.24 | 0.05 |
| CaOWs | **0.42** | **0.44** | 0.10 | -0.21 | 0.10 | -0.39 | 0.21 | -0.39 | 0.21 | **-0.71** | **-0.41** | **-0.50** | **0.70** | **-0.49** | -0.22 | **-0.62** | **0.64** |
| Fe2O3Ws | 0.05 | -0.07 | -0.35 | -0.31 | -0.39 | -0.32 | -0.13 | -0.32 | 0.10 | -0.14 | **-0.45** | -0.28 | 0.11 | -0.40 | -0.08 | -0.10 | 0.01 |
| K2OWs | **0.59** | **0.54** | -0.06 | 0.12 | -0.32 | -0.35 | 0.13 | -0.35 | **0.40** | **-0.59** | 0.12 | 0.07 | **0.44** | -0.20 | 0.05 | -0.30 | 0.15 |
| MgOWs | **0.45** | **0.51** | 0.11 | -0.20 | 0.11 | **-0.43** | 0.26 | **-0.43** | 0.15 | **-0.68** | -0.32 | **-0.46** | **0.72** | **-0.48** | -0.27 | **-0.56** | **0.58** |
| Na2OWs | 0.10 | 0.33 | 0.15 | 0.40 | 0.08 | -0.02 | 0.11 | -0.02 | **0.42** | -0.39 | 0.09 | 0.08 | 0.25 | -0.21 | 0.07 | -0.22 | 0.19 |
| P2O5Ws | -0.26 | -0.26 | 0.18 | **0.70** | **0.41** | **0.72** | 0.24 | **0.72** | 0.01 | 0.11 | 0.32 | 0.20 | **-0.43** | 0.29 | 0.24 | 0.30 | -0.04 |
| SWs | -0.40 | -0.33 | 0.33 | 0.31 | **0.67** | **0.59** | 0.20 | **0.59** | -0.11 | 0.20 | 0.06 | -0.13 | -0.33 | 0.20 | -0.10 | 0.19 | 0.19 |
| SiO2Ws | 0.19 | 0.03 | 0.00 | **0.61** | -0.07 | 0.34 | 0.13 | 0.34 | 0.15 | 0.00 | **0.60** | **0.52** | -0.27 | 0.40 | **0.46** | 0.23 | -0.28 |
| NWs | **-0.58** | **-0.57** | 0.13 | 0.10 | 0.27 | **0.55** | -0.15 | **0.55** | -0.38 | **0.80** | 0.26 | 0.28 | **-0.76** | **0.52** | 0.09 | **0.62** | **-0.44** |
| HydrlCondWs | -0.25 | -0.21 | -0.12 | -0.14 | -0.05 | 0.01 | -0.24 | 0.01 | 0.00 | 0.11 | **-0.45** | -0.34 | -0.17 | -0.16 | -0.07 | -0.01 | 0.10 |
| CompStrgthWs | -0.21 | -0.08 | -0.04 | **0.78** | 0.15 | **0.52** | 0.02 | **0.52** | 0.15 | 0.04 | **0.40** | 0.26 | -0.25 | 0.34 | 0.20 | 0.09 | -0.03 |
| KffactWs | -0.16 | **-0.41** | 0.05 | 0.21 | 0.24 | **0.53** | 0.07 | **0.53** | -0.03 | 0.27 | 0.22 | 0.09 | **-0.48** | **0.52** | 0.07 | 0.21 | 0.00 |
| PctOw2016Ws | -0.02 | -0.17 | **-0.45** | **0.40** | -0.14 | **0.47** | **0.47** | **0.47** | 0.12 | -0.19 | 0.03 | 0.01 | -0.08 | 0.14 | 0.12 | -0.18 | 0.10 |
| PrecipWs | **0.69** | **0.41** | -0.17 | -0.18 | -0.29 | **-0.46** | 0.26 | **-0.46** | 0.38 | **-0.73** | -0.17 | -0.20 | **0.61** | -0.35 | 0.03 | **-0.54** | 0.37 |
| TmaxWs | 0.17 | -0.19 | -0.13 | 0.37 | -0.28 | 0.38 | 0.22 | 0.38 | -0.25 | 0.08 | **0.50** | **0.63** | -0.30 | 0.23 | **0.58** | **0.48** | **-0.57** |
| TmeanWs | 0.22 | -0.11 | -0.06 | 0.23 | -0.21 | 0.24 | 0.34 | 0.24 | -0.18 | -0.08 | 0.36 | **0.53** | -0.08 | 0.02 | **0.54** | 0.30 | **-0.44** |
| TminWs | 0.15 | 0.37 | 0.03 | -0.36 | -0.36 | **-0.61** | **-0.47** | **-0.61** | 0.23 | -0.13 | -0.19 | 0.02 | 0.37 | -0.23 | -0.06 | -0.30 | 0.04 |
| MSST\_4yrAvg | 0.07 | -0.11 | -0.22 | **0.66** | -0.04 | **0.66** | **0.48** | **0.66** | -0.05 | 0.03 | **0.50** | 0.37 | -0.37 | **0.47** | 0.32 | 0.24 | -0.22 |
| RckDepWs | **0.44** | 0.07 | -0.05 | **-0.75** | -0.25 | **-0.45** | 0.14 | **-0.45** | -0.22 | -0.03 | -0.26 | -0.08 | 0.23 | -0.15 | 0.16 | -0.17 | -0.07 |
| PredCond\_uScm | -0.09 | -0.31 | 0.02 | **0.60** | 0.18 | **0.77** | 0.35 | **0.77** | -0.23 | 0.16 | **0.46** | 0.34 | **-0.49** | **0.46** | 0.29 | **0.45** | -0.23 |
| CatchmentArea.1 | -0.01 | -0.09 | -0.14 | **0.57** | 0.05 | **0.54** | **0.41** | **0.54** | 0.18 | -0.18 | 0.09 | 0.03 | -0.20 | 0.13 | 0.16 | 0.05 | 0.08 |
| Elevation.1 | -0.15 | 0.22 | 0.02 | -0.23 | -0.23 | **-0.50** | **-0.55** | **-0.50** | 0.32 | -0.07 | -0.22 | 0.00 | 0.35 | -0.25 | -0.13 | -0.34 | 0.09 |
| Max.Depth..ft. | -0.17 | -0.19 | 0.18 | **0.70** | 0.33 | **0.58** | 0.02 | **0.58** | 0.07 | -0.02 | 0.19 | 0.05 | -0.36 | 0.14 | 0.18 | 0.31 | 0.04 |
| ReachwideSlopeftft | -0.19 | -0.13 | -0.25 | **-0.62** | **-0.52** | **-0.61** | **-0.46** | **-0.61** | 0.06 | 0.06 | -0.29 | 0.07 | 0.23 | -0.24 | -0.04 | -0.13 | -0.23 |
| D50.Reachmm | -0.09 | -0.26 | 0.04 | **-0.56** | 0.28 | -0.17 | 0.08 | -0.17 | -0.40 | 0.09 | **-0.42** | **-0.51** | 0.11 | -0.35 | -0.24 | -0.03 | 0.15 |