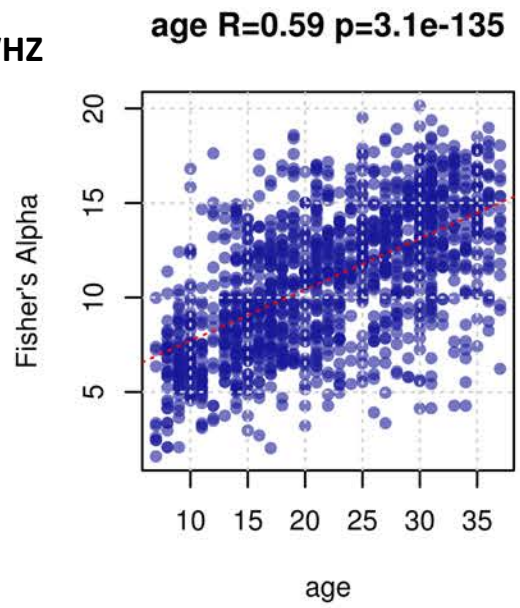
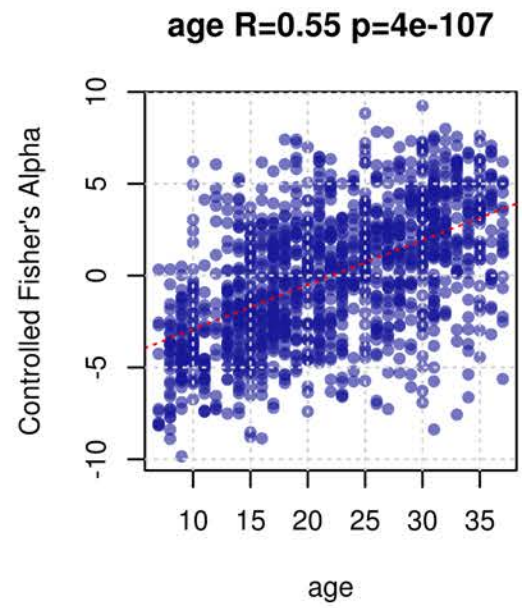
**Supplementary Figure 5.** Multivariate linear regression analysis for alpha diversity indexes with age, WAZ, HAZ, and WHZ

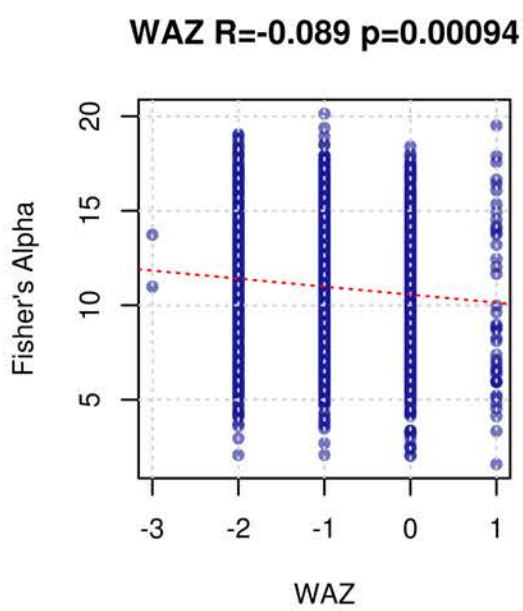
**5.a Multivariate linear regression model**

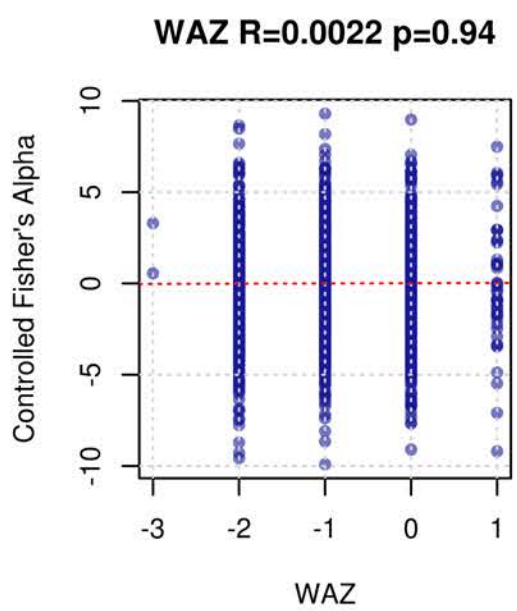
**Fisher's Alpha ~ age + WAZ + HAZ + WHZ**

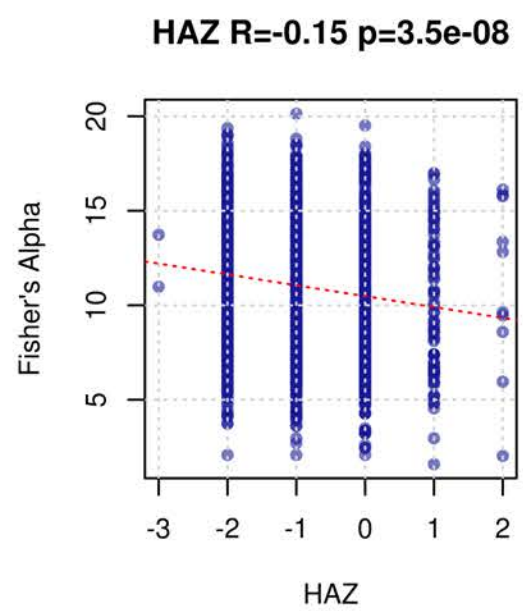
| | Coefficient | P | Signi |
|---|---|---|---|
| age | 0.27165521 | 2.26e-120 | ** |
| WAZ | 0.04246510 | 7.89e-01 | |
| HAZ | 0.03151150 | 7.83e-01 | |
| WHZ | 0.09633963 | 4.50e-01 | |

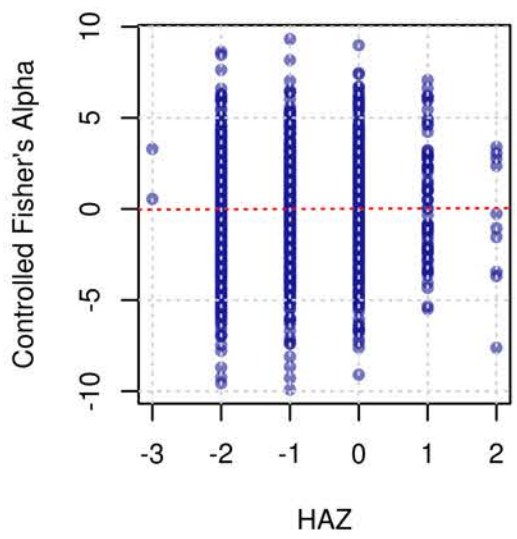


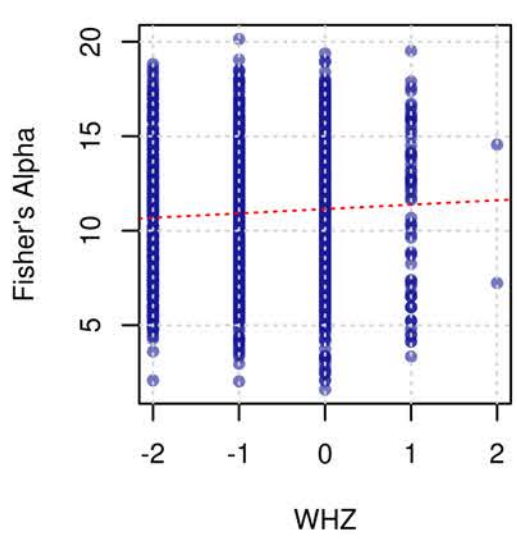



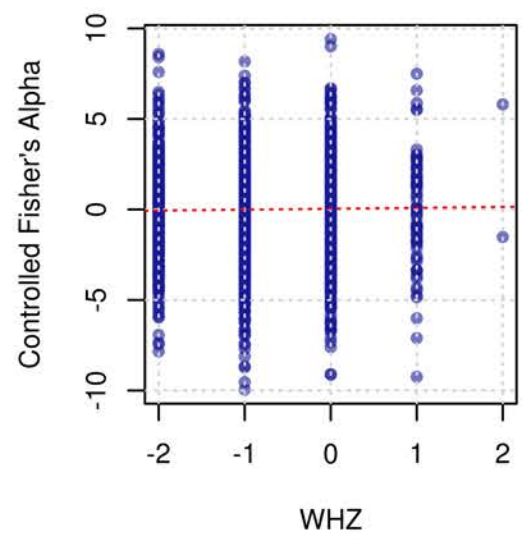



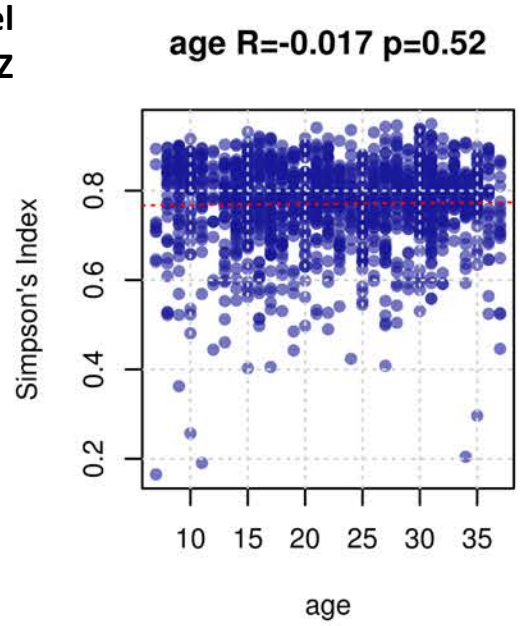



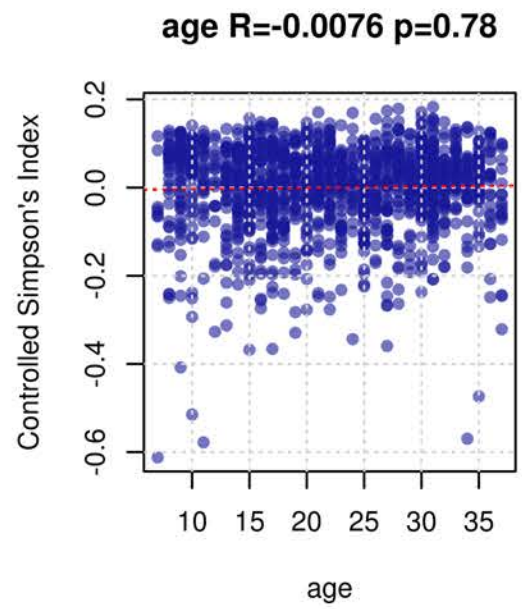



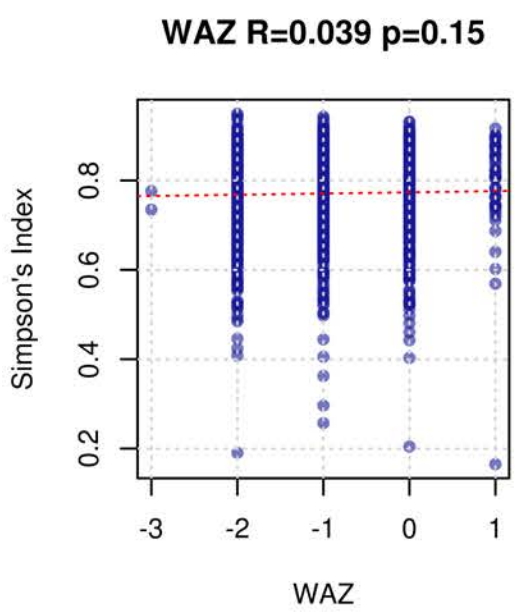
**Supplementary Figure 5.** Continued

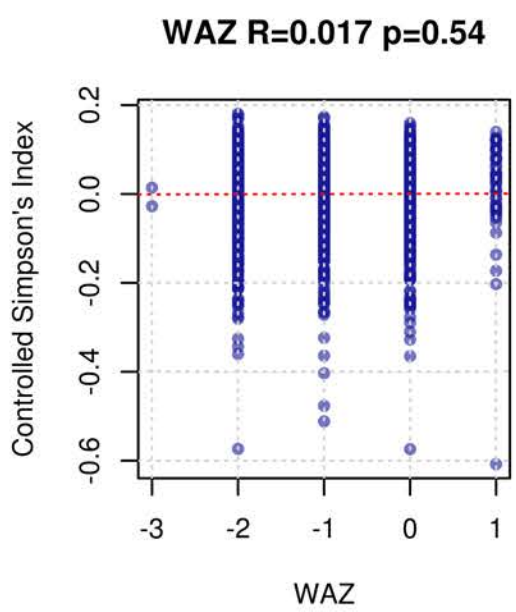
**5.b Multivariate linear regression model**
**Simpson's ~ age + WAZ + HAZ + WHZ**

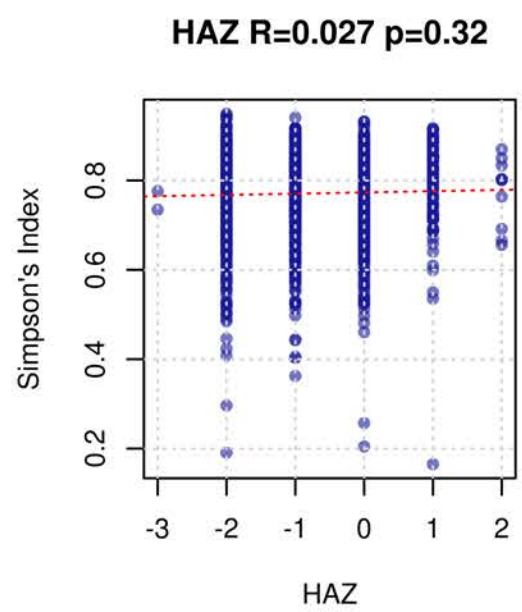
| | Coefficient | P | Signi |
|---|---|---|---|
| **age** | 0.0003491916 | 0.312 | |
| **WAZ** | 0.0012718561 | 0.808 | |
| **HAZ** | 0.0029149711 | 0.439 | |
| **WHZ** | 0.0002541838 | 0.952 | |

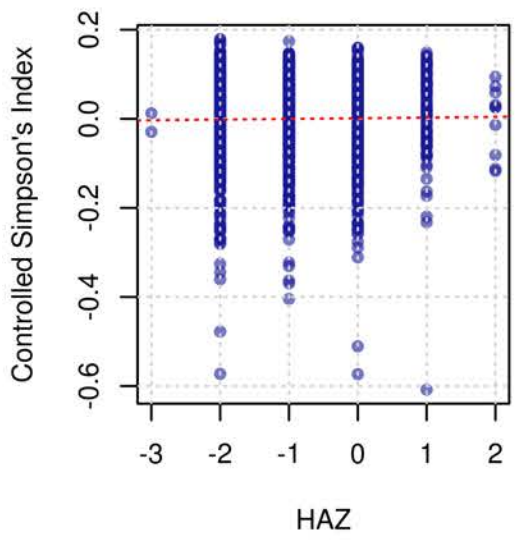


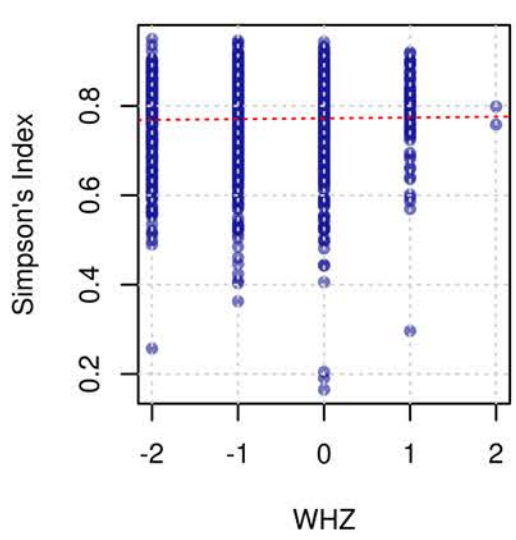



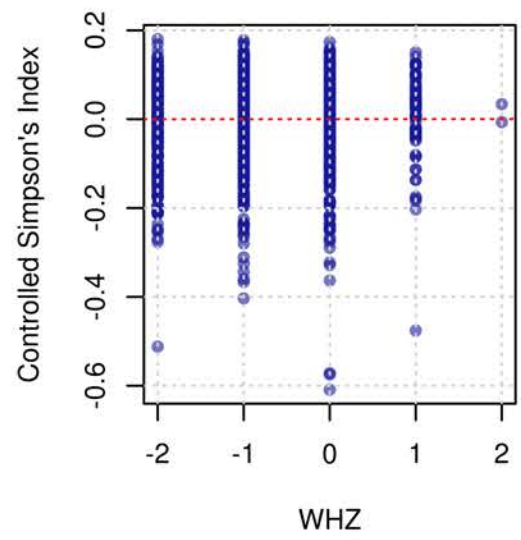



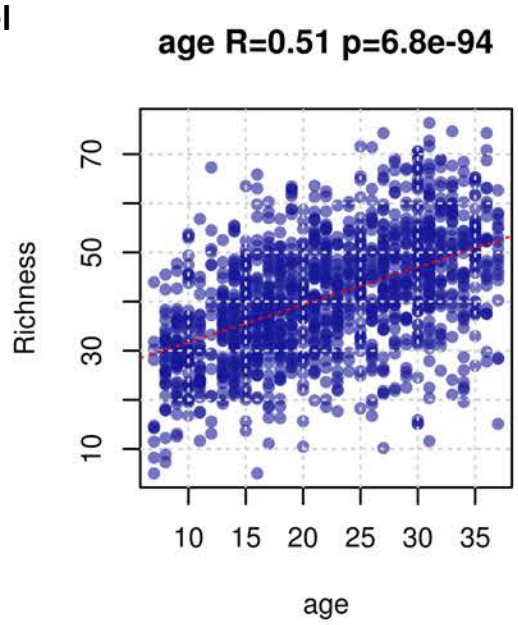



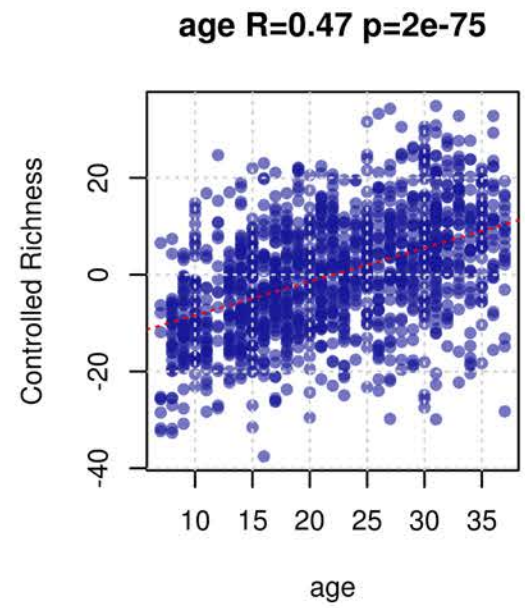



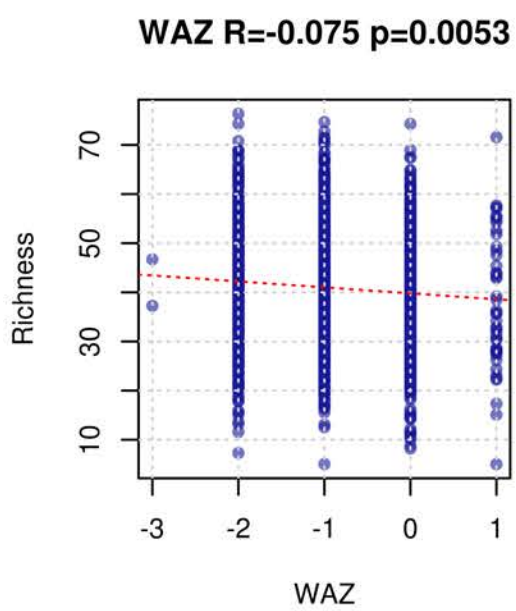
**Supplementary Figure 5.** Continued

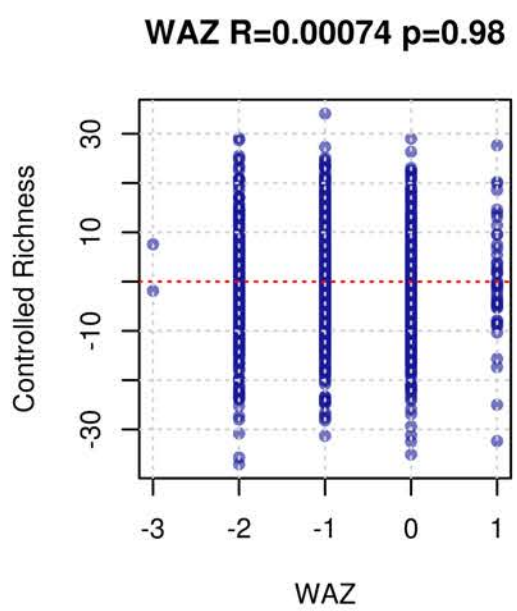
**5.c Multivariate linear regression model**
**Richness ~ age + WAZ + HAZ + WHZ**

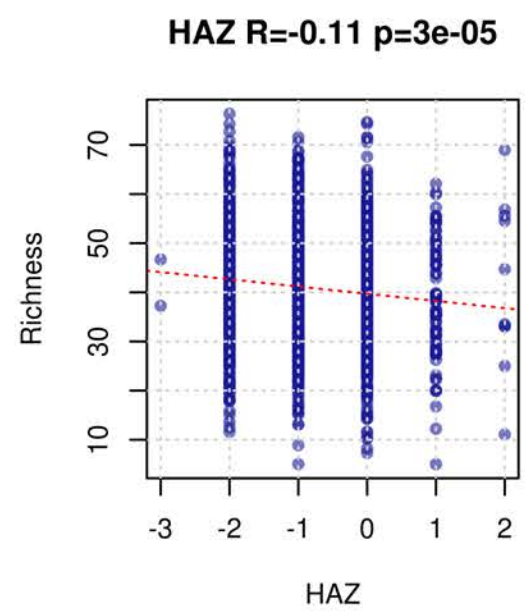
| | Coefficient | P | Sign |
|---|---|---|---|
| age | 0.77973357 | 1.65e-82 | *** |
| WAZ | -0.02865546 | 9.60e-01 | |
| HAZ | 0.36471565 | 3.77e-01 | |
| WHZ | 0.22595115 | 6.22e-01 | |

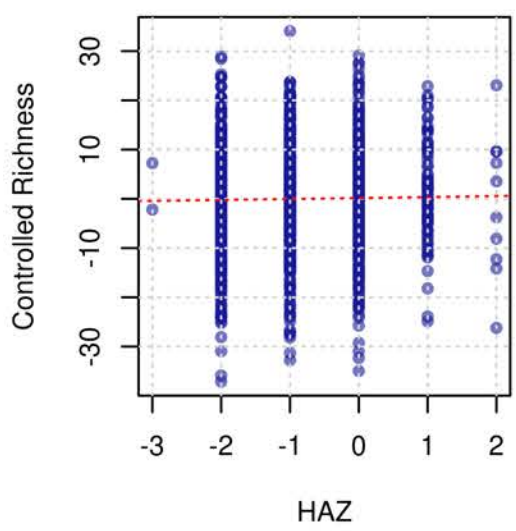


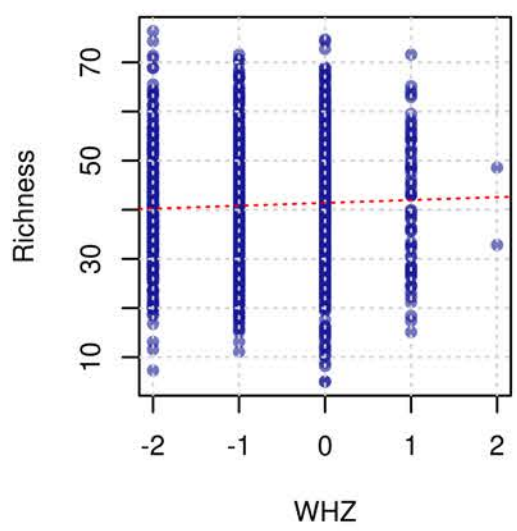



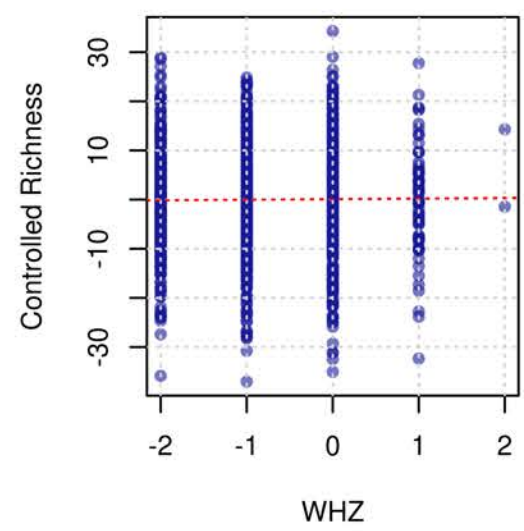



**Supplementary Figure 5.** Continued

**5.d Multivariate linear regression model**
**Chao1 ~ age + WAZ + HAZ + WHZ**

| | Coefficient | P | Signi |
|---|---|---|---|
| **age** | 1.8260444 | 1.88e-104 | ** |
| **WAZ** | 0.3934922 | 7.36e-01 | |
| **HAZ** | 0.7256428 | 3.88e-01 | |
| **WHZ** | 0.5024521 | 5.90e-01 | |