| *Table X. Results of Linear Model testing alpha diversity metrics for 16S communities* | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | covariates | p\_Sum Sq | p\_Df | p\_F values | p\_P.value | h\_Sum Sq | h\_Df | h\_F values | h\_P.value |
| Richness | plant\_pathway\_induced | 34.02 | 2.00 | 0.65 | 0.528 | 25.79 | 2.00 | 0.53 | 0.591 |
| Richness | libsize\_after\_filtering | 476.53 | 1.00 | 18.18 | <0.001 | 1,176.30 | 1.00 | 48.61 | <0.001 |
| Richness | Residuals | 969.60 | 37.00 |  |  | 967.89 | 40.00 |  |  |
| Shannon | (Intercept) | 11.71 | 1.00 | 9,870.91 | <0.001 | 11.14 | 1.00 | 10,014.30 | <0.001 |
| Shannon | plant\_pathway\_induced | 0.00 | 2.00 | 0.41 | 0.667 | 0.00 | 2.00 | 0.02 | 0.984 |
| Shannon | libsize\_after\_filtering | 0.02 | 1.00 | 13.32 | <0.001 | 0.02 | 1.00 | 17.82 | <0.001 |
| Shannon | Residuals | 0.04 | 37.00 |  |  | 0.04 | 40.00 |  |  |
| Faith's PD | plant\_pathway\_induced | 0.00 | 2.00 | 0.96 | 0.394 | 0.00 | 2.00 | 0.40 | 0.674 |
| Faith's PD | libsize\_after\_filtering | 0.00 | 1.00 | 1.46 | 0.234 | 0.18 | 1.00 | 46.44 | <0.001 |
| Faith's PD | Residuals | 0.08 | 37.00 |  |  | 0.15 | 40.00 |  |  |