| *Table X. Results of Linear Model testing alpha diversity metrics for ITS communities* | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | covariates | p\_Sum Sq | p\_Df | p\_F value | p\_P.value | h\_Sum Sq | h\_Df | h\_F value | h\_P.value |
| Richness | (Intercept) | 1,756.53 | 1.00 | 5.93 | 0.022 | 10,585.23 | 1.00 | 64.89 | <0.001 |
| Richness | plant\_pathway\_induced | 7,188.41 | 2.00 | 12.14 | <0.001 | 2,463.21 | 2.00 | 7.55 | 0.002 |
| Richness | libsize\_after\_filtering | 3,170.92 | 1.00 | 10.71 | 0.003 | 659.26 | 1.00 | 4.04 | 0.051 |
| Richness | Residuals | 7,696.50 | 26.00 |  |  | 6,525.02 | 40.00 |  |  |
| Shannon | (Intercept) | 12.54 | 1.00 | 66.13 | <0.001 | 18.59 | 1.00 | 43.39 | <0.001 |
| Shannon | plant\_pathway\_induced | 1.70 | 2.00 | 4.49 | 0.021 | 5.91 | 2.00 | 6.90 | 0.003 |
| Shannon | libsize\_after\_filtering | 1.20 | 1.00 | 6.33 | 0.018 | 9.15 | 1.00 | 21.36 | <0.001 |
| Shannon | Residuals | 4.93 | 26.00 |  |  | 17.14 | 40.00 |  |  |
| Faith's PD | (Intercept) | 95.94 | 1.00 | 5.32 | 0.029 | 601.24 | 1.00 | 59.80 | <0.001 |
| Faith's PD | plant\_pathway\_induced | 274.43 | 2.00 | 7.61 | 0.002 | 92.77 | 2.00 | 4.61 | 0.016 |
| Faith's PD | libsize\_after\_filtering | 164.05 | 1.00 | 9.10 | 0.006 | 21.18 | 1.00 | 2.11 | 0.154 |
| Faith's PD | Residuals | 468.59 | 26.00 |  |  | 402.18 | 40.00 |  |  |