**Table 6** – Analysis of Shannon Diversity Index versus host factors, paired t-tests and ANOVAs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  |  |  |  |  | |
|  | <25 | >=25 | Diff 95% CI | p-value |
| BMI at 18 yrs (<25 v. BMI >=25) | 3.464 | 3.463 | 0.001 (-0.219,0.221) | 0.993 |
| BMI at enrollment | 3.57 | 3.37 | 0.2 (0.034,0.365) | 0.019 |
|  |  |  |  |  |
|  | <25 to <25 | <25 to >=25 |  |  |
| <25 to <25 vs  <25 to >=25 | 3.57 | 3.311 | 0.259 (0.041,0.476) | 0.021 |
|  |  |  |  |  |
|  | <25 to <25 | >=25 to >=25 |  |  |
| <25 to <25 vs  >= 25 to >=25 | 3.57 | 3.463 | 0.107 (-0.109,0.323) | 0.317 |
|  |  |  |  |  |
|  | <25 to >= 25 | >= 25 to >=25 |  |  |
| <25 to >= 25 vs  >= 25 to >=25 | 3.311 | 3.463 | -0.152 (-0.426,0.122) | 0.27 |
| Sub-species |  |  |  |  |
| BMI at 18 yrs (<25 v. BMI >=25) | 3.296 | 3.314 | -0.018 (-0.252,0.216) | 0.875 |
| BMI at enrollment | 3.415 | 3.198 | 0.217 (0.035,0.4) | 0.02 |
|  |  |  |  |  |
|  | <25 to <25 | <25 to >=25 |  |  |
| <25 to <25 vs  <25 to >=25 | 3.415 | 3.124 | 0.291 (0.05,0.533) | 0.019 |
|  |  |  |  |  |
|  | <25 to <25 | >=25 to >=25 |  |  |
| <25 to <25 vs  >= 25 to >=25 | 3.415 | 3.314 | 0.101 (-0.127,0.331) | 0.368 |
|  |  |  |  |  |
|  | <25 to >= 25 | >= 25 to >=25 |  |  |
| <25 to >= 25 vs  >= 25 to >=25 | 3.124 | 3.314 | -0.19 (0.486,0.106) | 0.201 |
| Function |  |  |  |  |
| BMI at 18 yrs (<25 v. BMI >=25) | 11.156 | 11.257 | -0.101 (-0.286,0.083) | 0.266 |
| BMI at enrollment | 11.241 | 11.125 | 0.116 (-0.032,0.265) | 0.122 |
|  |  |  |  |  |
|  | <25 to <25 | <25 to >=25 |  |  |
| <25 to <25 vs  <25 to >=25 | 11.241 | 11.035 | 0.206 (0.038,0.375) | 0.017 |
|  |  |  |  |  |
|  | <25 to <25 | >=25 to >=25 |  |  |
| <25 to <25 vs  >= 25 to >=25 | 11.241 | 11.257 | -0.016 (-0.209,0.177) | 0.868 |
|  |  |  |  |  |
|  | <25 to >= 25 | >= 25 to >=25 |  |  |
| <25 to >= 25 vs  >= 25 to >=25 | 11.035 | 11.257 | -0.222 (-0.429,-0.015) | 0.036 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **ANOVAs** |  | p-values | | |  |
|  |  | Species | Sub-Species | Function | Gene |
| bmi\_diff\_level |  | 0.0341 | 0.0283 | 0.0473 | 0.0206 |
| bmi18\_level |  | 0.993 | 0.881 | 0.15 | 0.739 |
| bmi\_e\_level |  | 0.022 | 0.0239 | 0.31 | 0.0257 |
|  |  |  |  |  |  |
| GERS |  | 0.179 | 0.123 | 0.629 | ?? |
|  |  |  |  |  |  |
| GRS\_level(tertiles) |  | 0.27 | 0.20 | 0.226 | 0.466 |
|  |  |  |  |  |  |
| DQS |  | 0.454 | 0.541 | 0.865 | 0.83 |