ST1. ASVs alpha diversity indexes grouped by enrichment type and incubation time

Enrichment type and Incubation Time	Observed	Shannon	InvSimpson	Fisher
Control_16h	🔺 804	🔺 5.97	🔺 180.29	🔺 146.29
Control_960h	🔻 714	🔺 5.92	🔺 185.84	🟰 131.28
Enriched_16h	🔺 780	🔺 5.93	🔺 180.79	🔺 143.17
Enriched_120h	🔻 682	🔻 5.79	🔻 152.72	🔻 122.26
Enriched_240h	🟰 731	🔻 5.84	🔻 150.63	🟰 132.20
Enriched_720h	🟰 752	🟰 5.88	🔻 153.05	🔺 138.68
Enriched_960h	🔺 779	🔺 5.96	🟰 174.15	🔺 142.74

 Looking closely to the incubation times per enrichment type, we observed higher richness (Observed), diversity (Shannon) and dominance of groups (InvSimpson) in samples at 16h and in the enriched-960h, however, enriched-960h the InvSimpson did not achieve the previous high rate of 16h. Interestingly, the control-960h showed high diversity with dominance of groups, but lower richness and relative abundance of rare species. For the enriched samples, the diversity and dominance decreases for the intermediate incubation times, from 120h to 720h. Finally, the large portion of rare species while the small number of abundant ones (Fisher index) was higher in samples at 16h, and in the 2TF methane-enriched (720h and 960h). The enriched-120h showed the lower diversity indices, followed by enriched-240h and enriched-720h.