## Questions that can be addressed with alpha diversity:

How many taxa are in a sample? What is the richness of my sample? Have I sequenced to a depth (coverage) that describes the diversity of my sample? Does condition X have higher phylogenetic diversity than condition Y?

## Beta Diversity

- Beta diversity measures the diversity between samples.
- The distance between each pair of samples (with respect to community composition) is calculated.
- Read depth is important here also, so rarefaction is performed
- There are many ways to calculate beta diversity;
  we will use one: UniFrac

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Does condition X have higher phylogenetic diversity than condition Y?