

# Alpha Diversity Method 3

- **Chao1** 
$$chao1 = S_{obs} + \frac{F_1^2}{2F_2}$$
- $S_{obs}$  = total observed species
- $F_1$  = number of singletons (species observed only once in a sample)
- $F_2$  = number of doubletons

# 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? (not in this lab...)

Does condition X have higher phylogenetic diversity than condition Y?