Interpretation and application of absolute abundance in Weighted UniFrac distance

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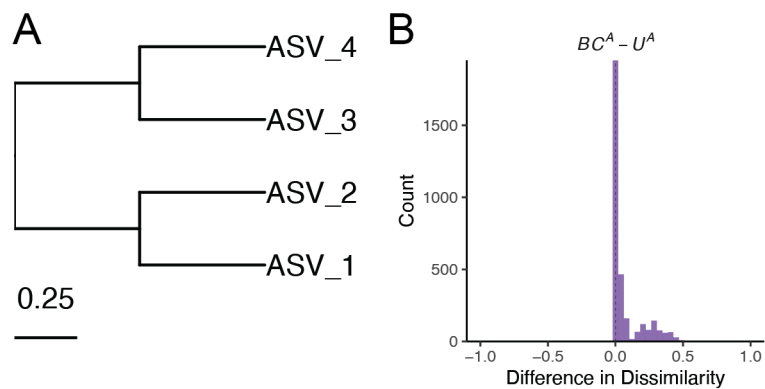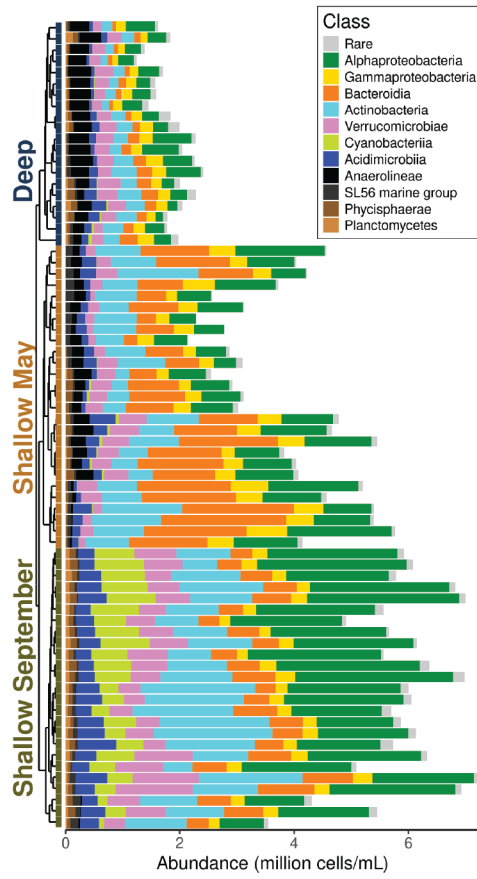
Supplemental Figures

Figure S1. U^A is always less than BC^A when branch lengths are fully symmetrical. (A) Symmetrical tree used for simulations as opposed to non-symmetrical tree in Fig. 1A. (B) Distribution of differences between BC^A and U^A. As the differences are never negative, U^A is always less than or equal to BC^A.

Deep

Shallow May

Shallow September

Class
Rare
Alphaproteobacteria
Gammaproteobacteria
Bacteroidia
Actinobacteria
Verrucomicrobiae
Cyanobacteriia
Acidimicrobiia
Anaerolineae
SL56 marine group
Phycisphaerae
Planctomycetes

Abundance (million cells/mL)

Figure S2. Taxonomic composition and absolute abundance of microbial communities from Lake Ontario.
Each bar represents a sample taken from Lake Ontario. The height of the bar represents the absolute
abundance (cells/ml) in each sample, filled at the Class level. Samples are clustered via hierarchical
clustering (in this case, using UPGMA with GU^A, $\alpha = 0.05$), reflecting both changes in composition
(e.g. Cyanobacteriia in Shallow September, Anaerolineae in Deep) and absolute abundance (Deep samples
have the fewest cell counts, follwoed by Shallow May and Shallow September).
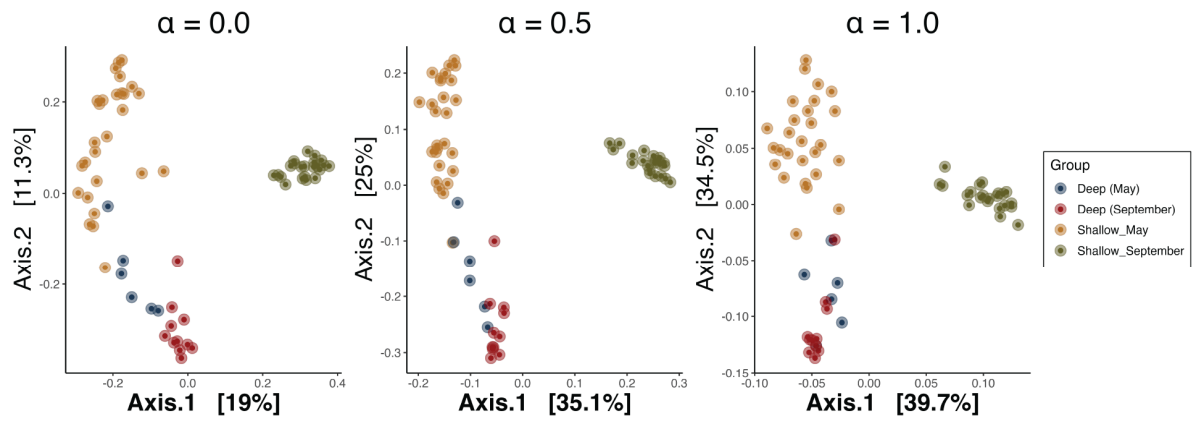
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20   *Figure S3. Principal Coordinates Analysis of Lake Ontario samples using GU^R across three α values.*