

# Differential Response of Wheat Rhizosphere Bacterial Community to Plant Variety and Fertilization

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## Supplementary information file

Dataset S1: Table reporting the amplicon sequence variants (ASVs) detected, their taxonomic assignment and occurrence; .csv file.

Table S1: Table containing, for each sample, the number of total input reads from fastq files and the number of reads that passed the filtering parameters; .csv file.

Table S2: Table of Good's coverage values. Good's coverage was estimated on the amplicon sequence variant (ASV) table for each sample after removing chimeras; .csv file.

Table S3: List of richness, diversity and evenness indices; .csv file.

Table S4: List of p values calculated through a Permutational Multivariate Analysis of Variance (PERMANOVA) test performed on the phyloseq object after a centered log ratio (CLR) transformation; .csv file.

Table S5: Results of DeSeq2 on ASVs mostly differing among varieties; .csv file.

Table S6: List of all identified metabolic pathways present in the taxa retrieved in the bacterial community. A total of 422 pathways, all distributed in all samples was detected; .csv file.

Table S7: Scott-Knott test based on the averages the relative gene quantification with respect to 16S rRNA gene (Ct target specific gene)/Ct 16S rRNA gene) for each gene target in relation to wheat variety and N and P treatment; .xls file

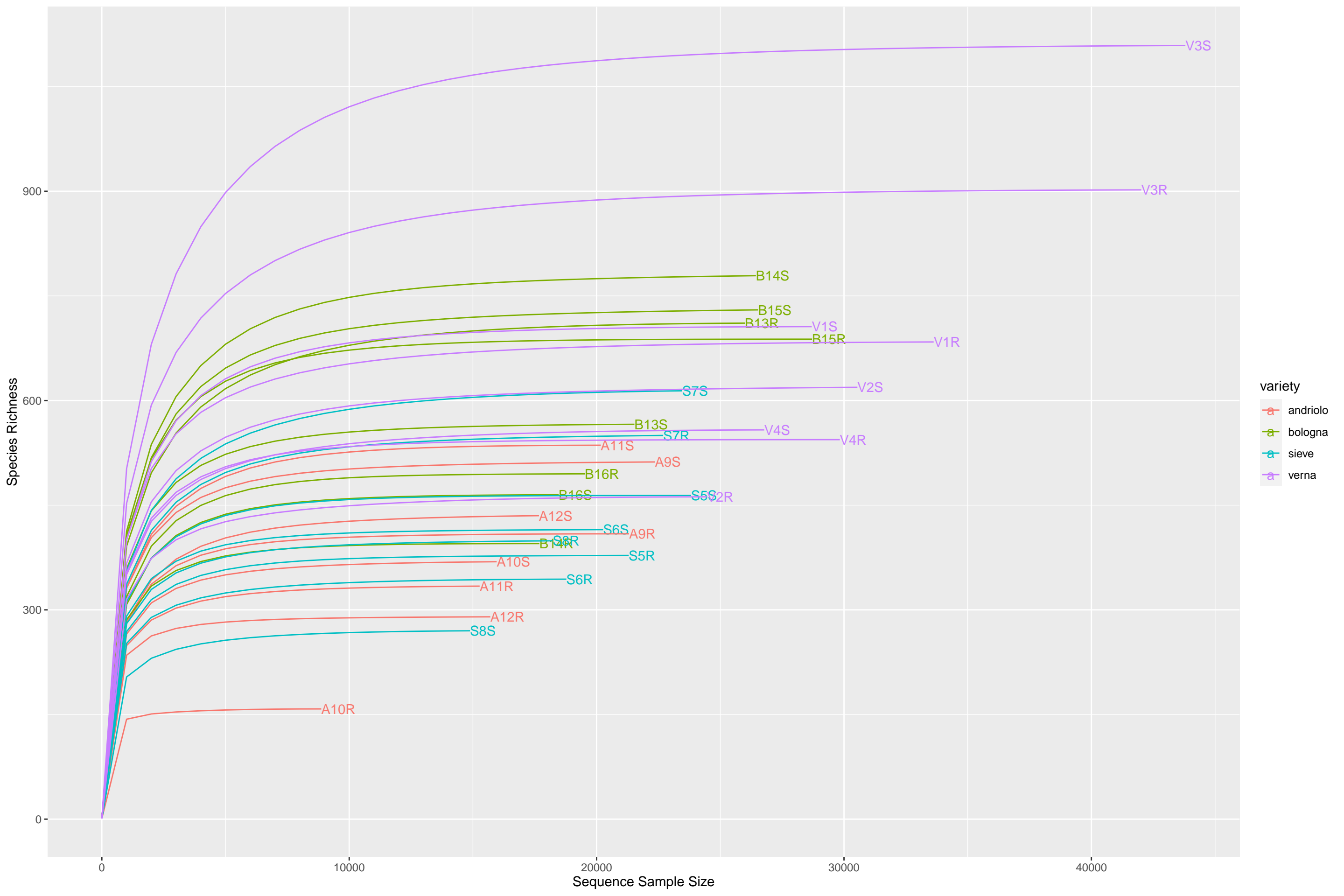
Table S8: List of primers used for the quantitative PCR on *amoA*, *nifH*, *nirK* and *nosZ* genes; .xls file

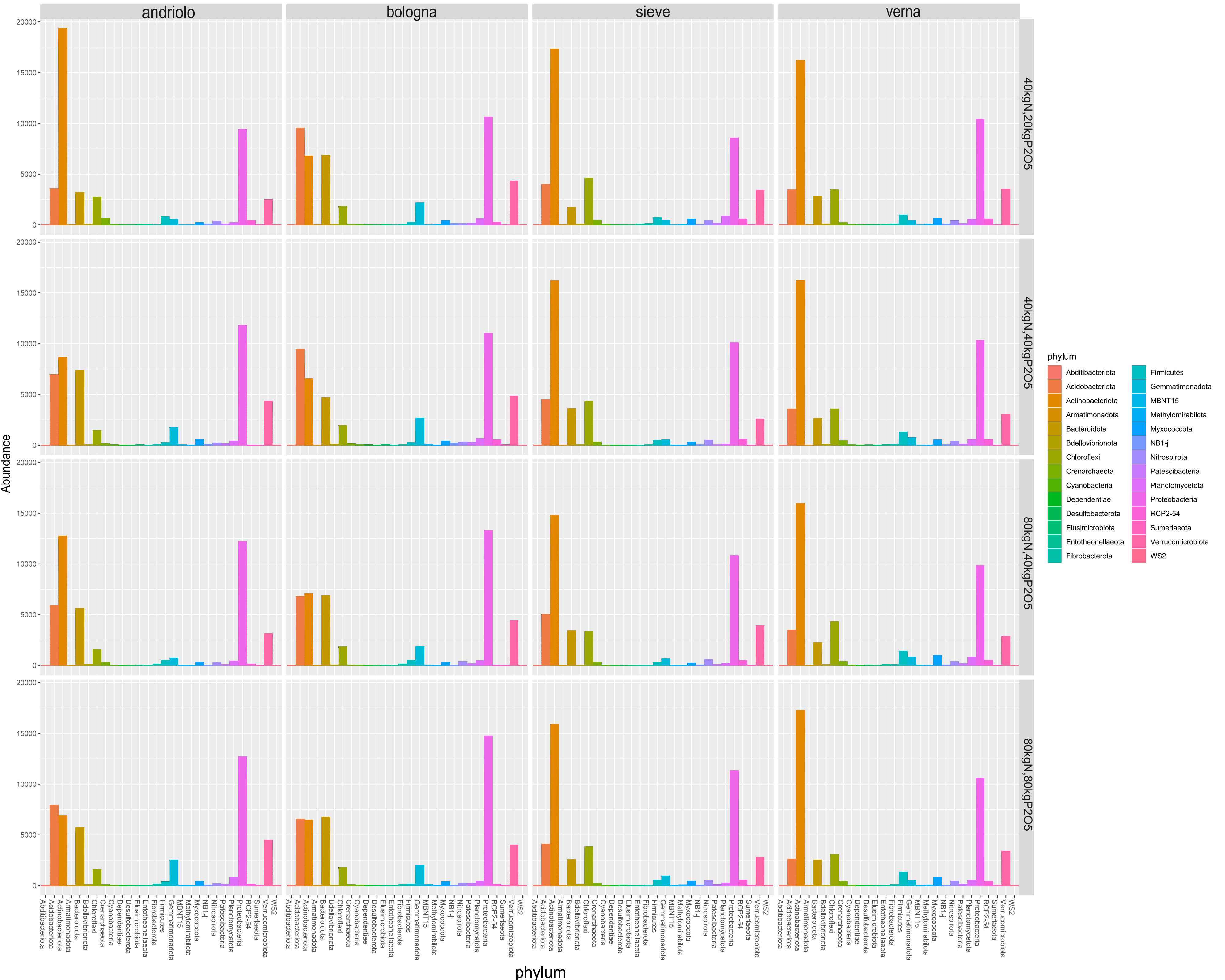
Figure S1: Rarefaction curve of all soil samples. The x axis indicates the number of sequences found for each sample, while the y axis indicates the species richness;

Figure S2: Bar plots showing the relative abundances of bacterial phyla grouped by N and P treatment in relation to (a) soil type and (b) wheat varieties;

Figure S3: Principal Coordinate Analysis (or Metric Multidimensional Scaling) to the centered log-ratio transformation;

Figure S4: Total number of reads from ASVs belonging to Blastocatellales and Pyrinomonadales.





Ordination Centroids and Dispersion Labeled: Aitchison Distance

