

You are what your fungus eats: Diet shapes the microbial garden of a fungus-growing ant

Mariana de Oliveira Barcoto; Raquel Lima de Sousa; João Gabriel da Silva Soares; Rodrigo Henrique dos Santos Garcia; Eduardo Ribeiro de Azevedo; Lucas William Mendes; Odair Correa Bueno; Andre Rodrigues

Supplementary Data

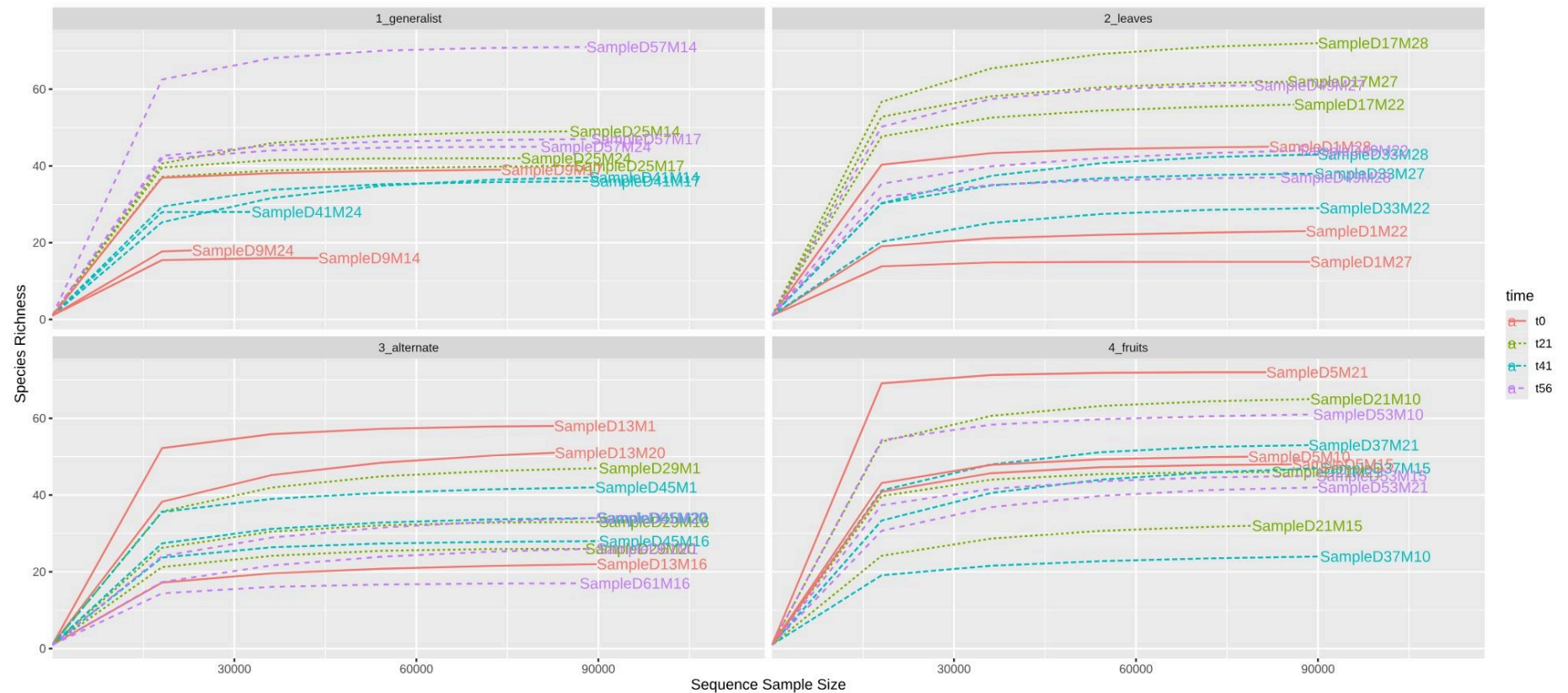


Fig. S1: Rarefaction curves of 16S rRNA sequences, from young garden regions of different diets, colored by time point time.

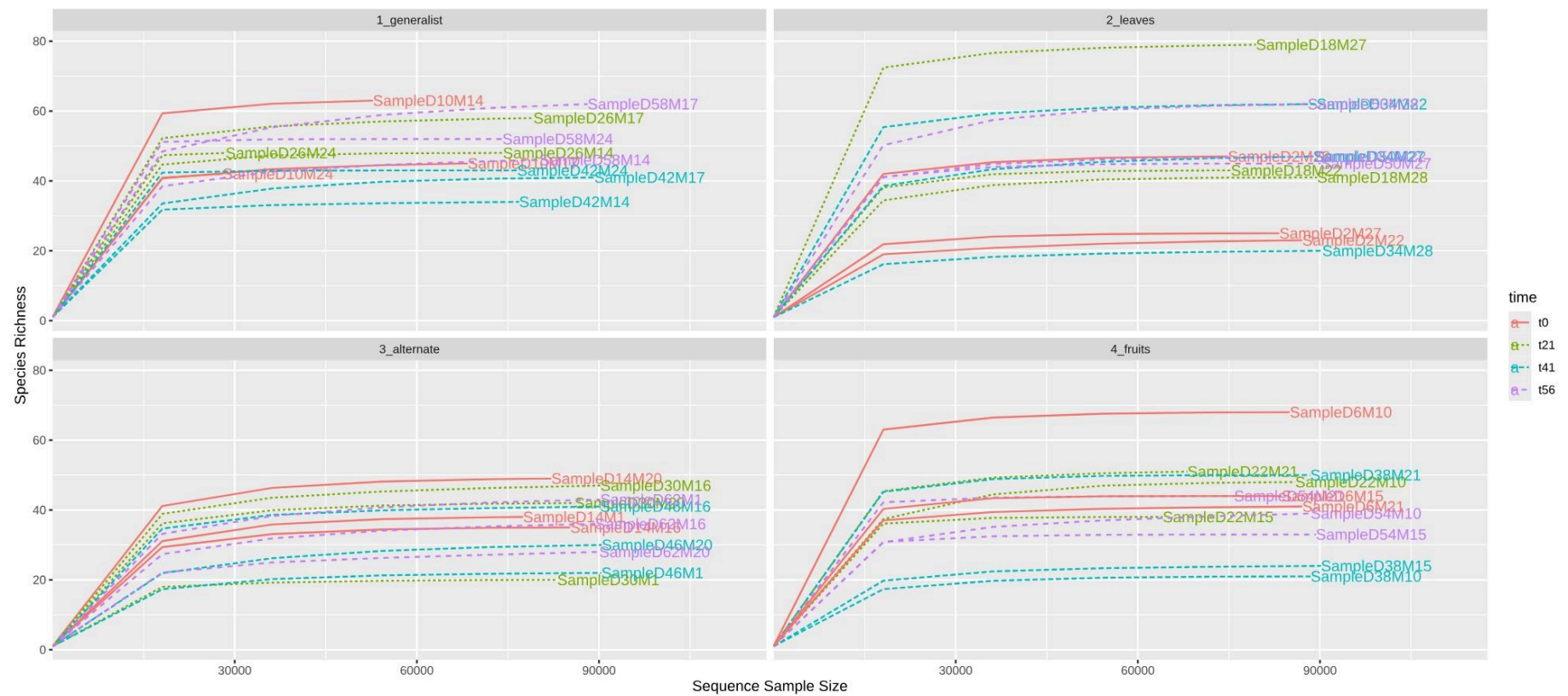


Fig. S2: Rarefaction curves of 16S rRNA sequences, from central regions of different diets, colored by time point time.

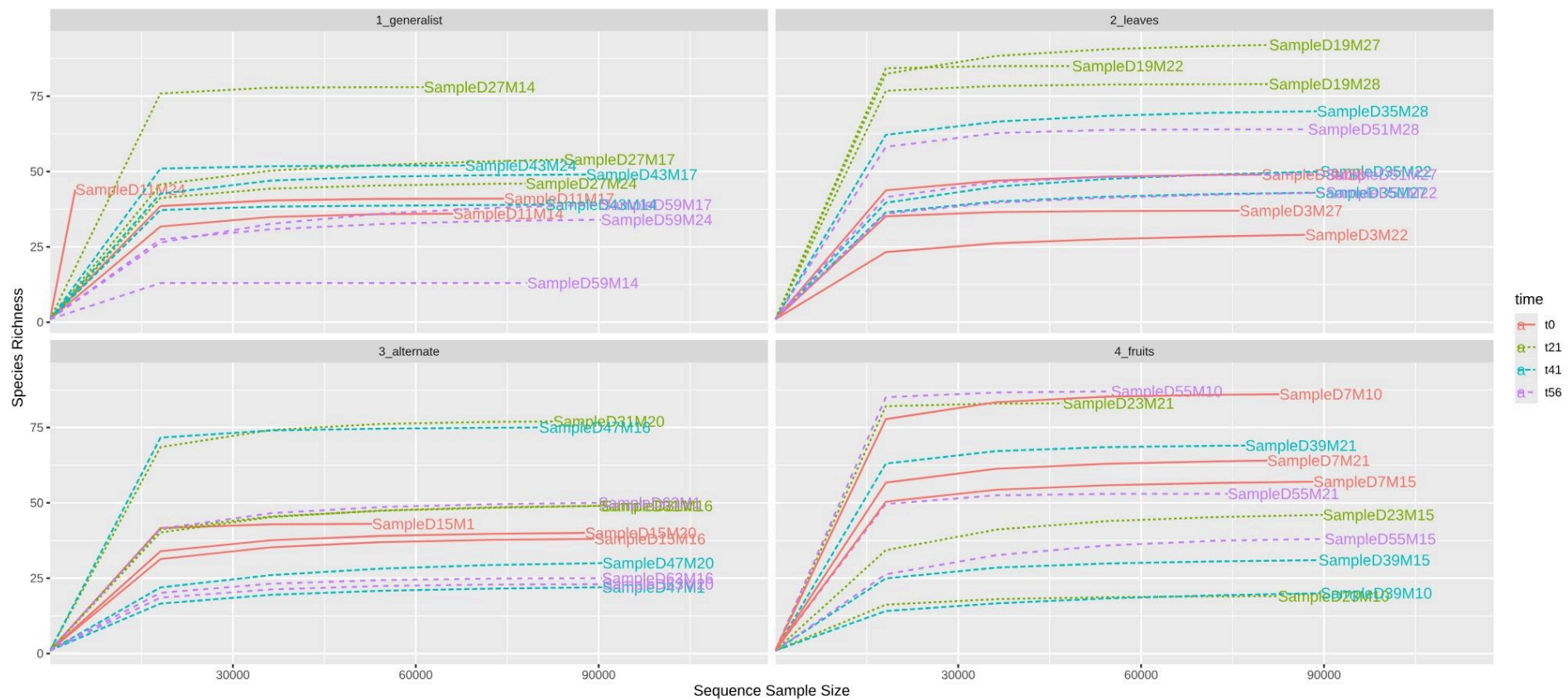


Fig. S3: Rarefaction curves of 16S rRNA sequences, from old regions of different diets, colored by time point time.

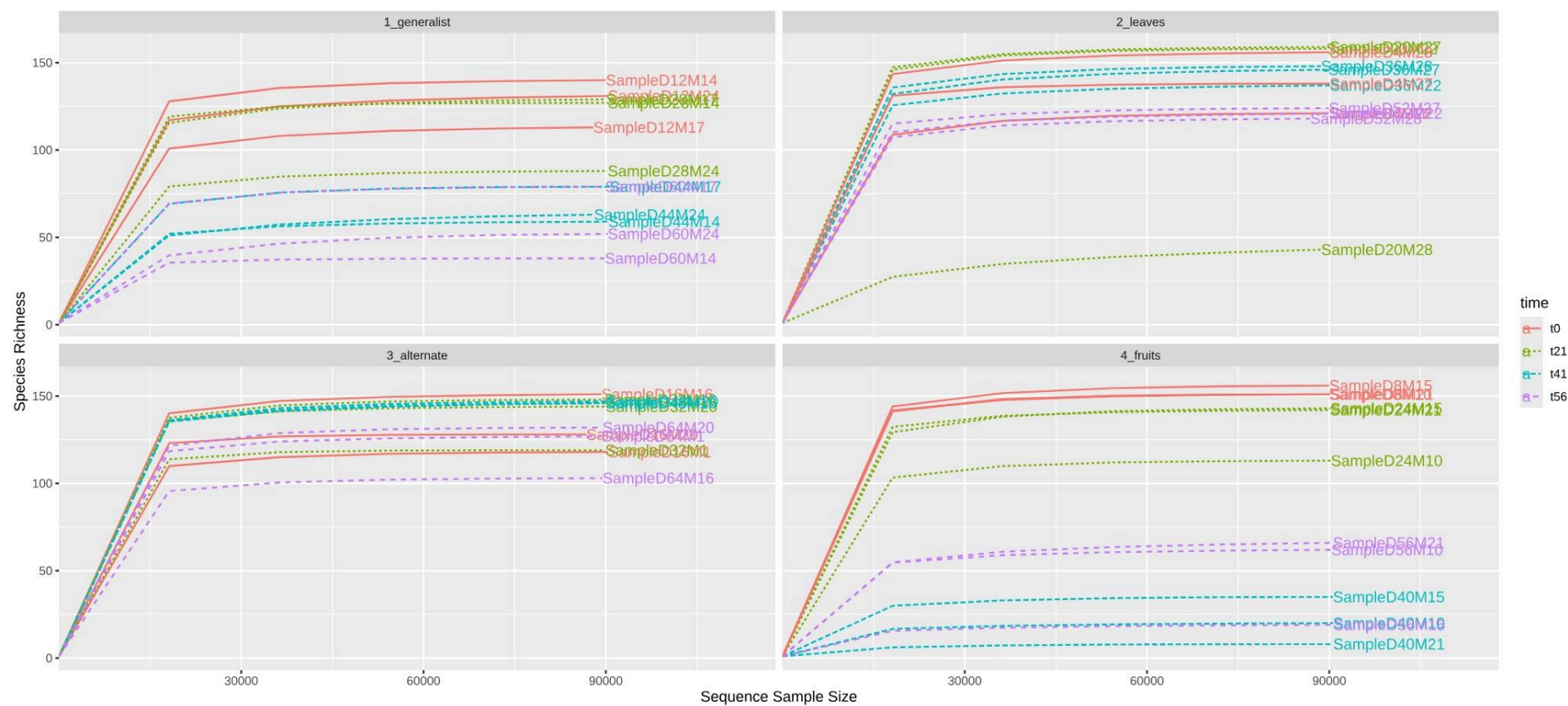


Fig. S4: Rarefaction curves of 16S rRNA sequences, from waste samples of different diets, colored by time point time.

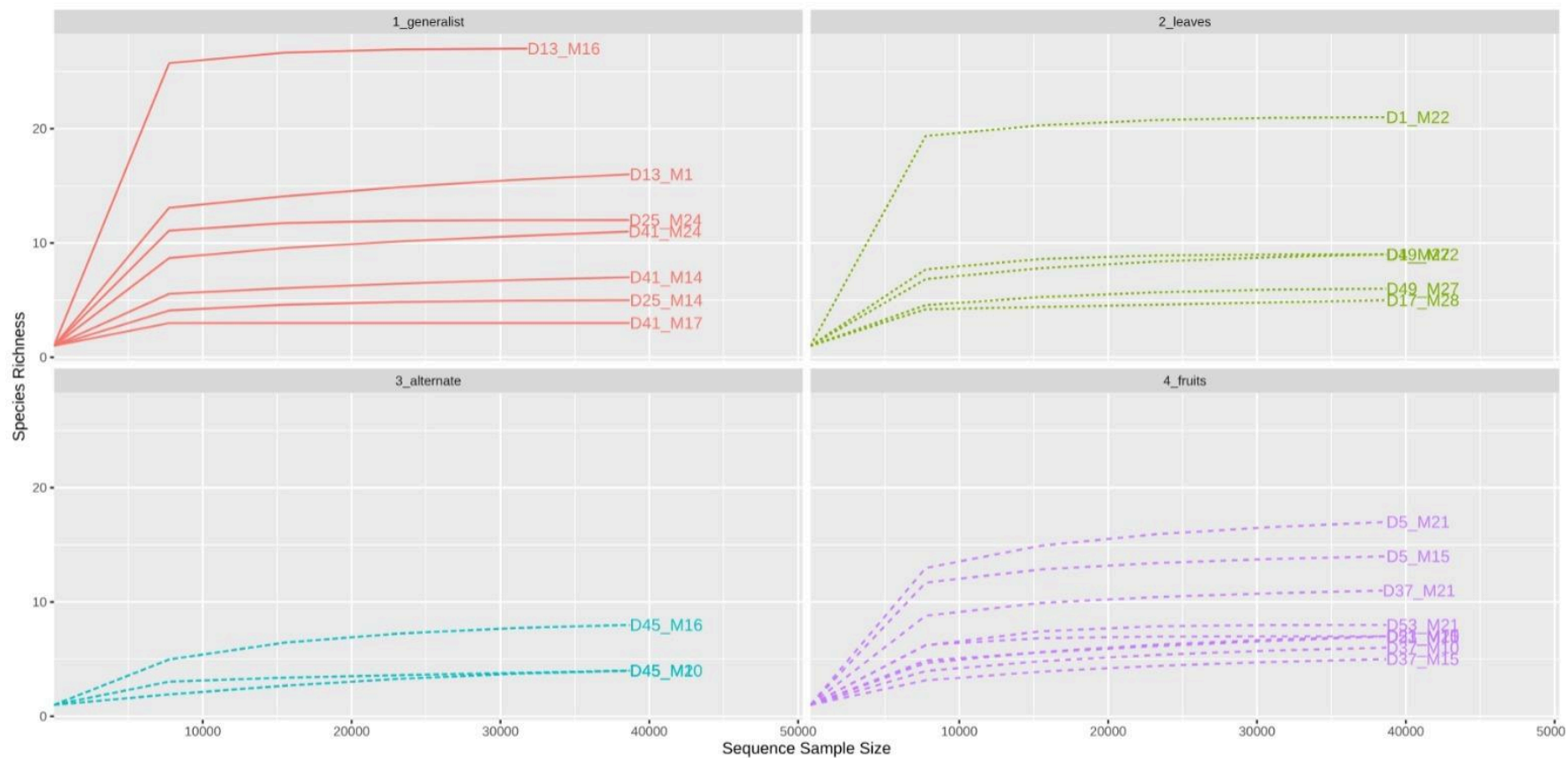


Fig. S5: Rarefaction curves of ITS sequences, from young regions of different diets; samples of all time points are gathered.

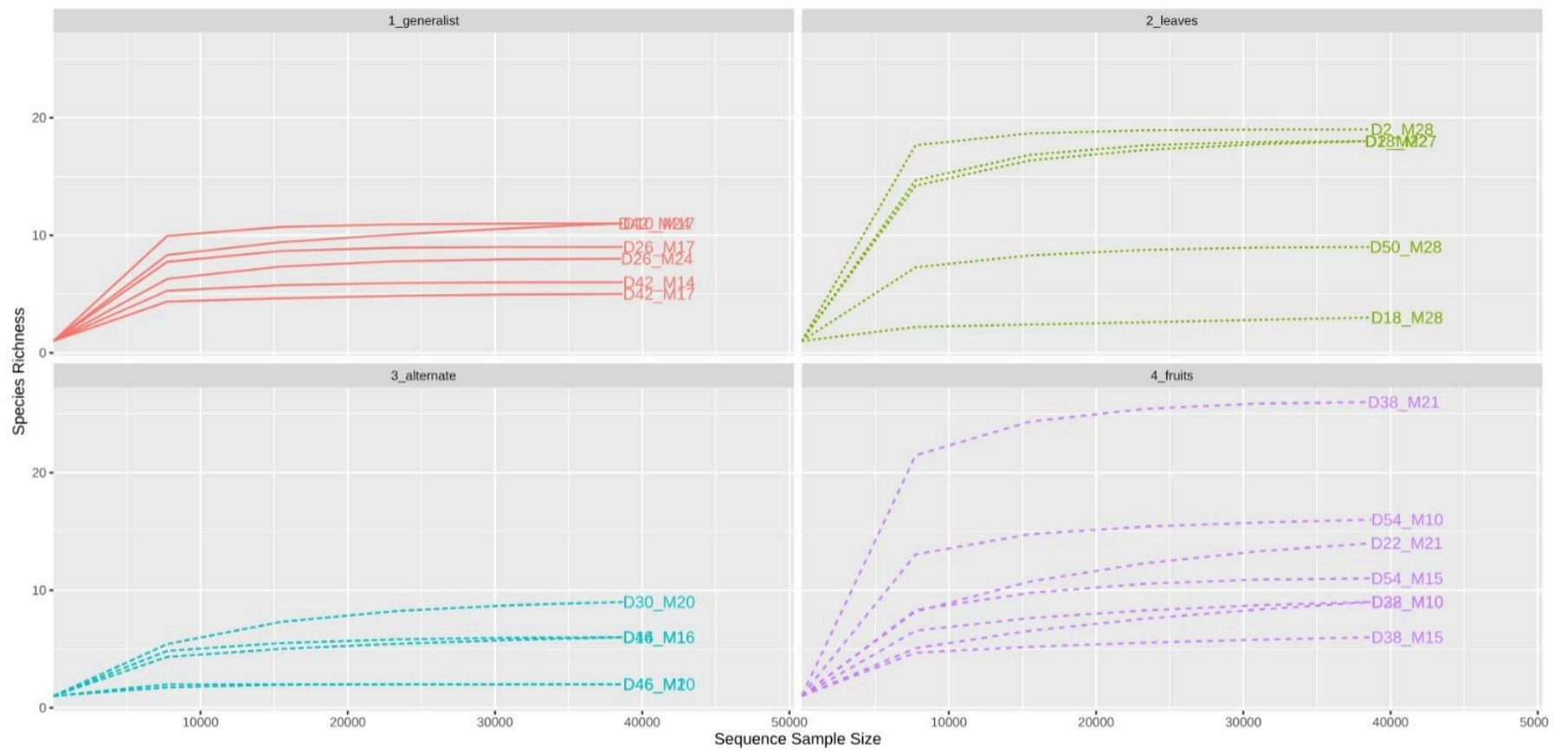


Fig. S6: Rarefaction curves of ITS sequences, from central regions of different diets; samples of all time points are gathered.

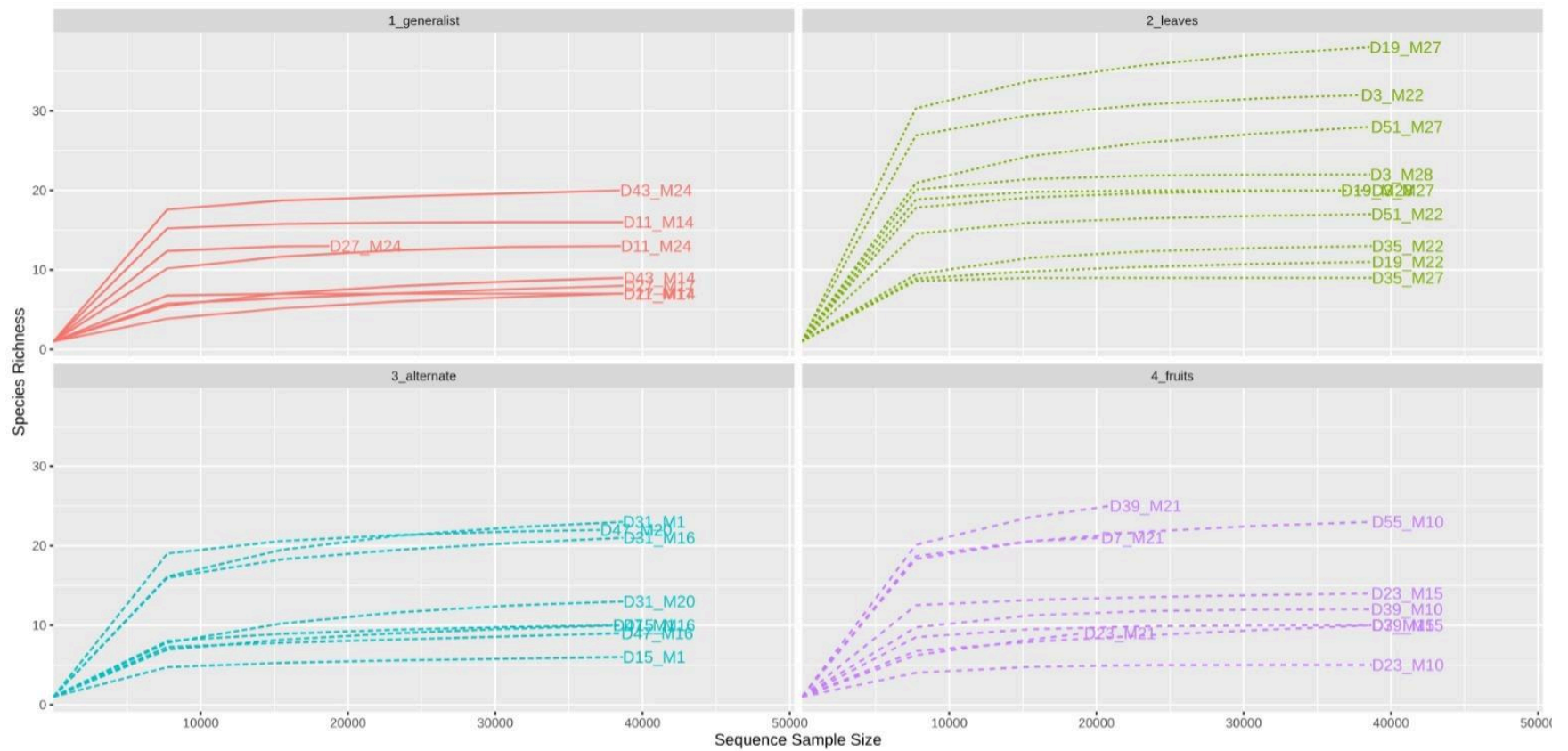


Fig. S7: Rarefaction curves of ITS sequences, from old regions of different diets; samples of all time points are gathered.

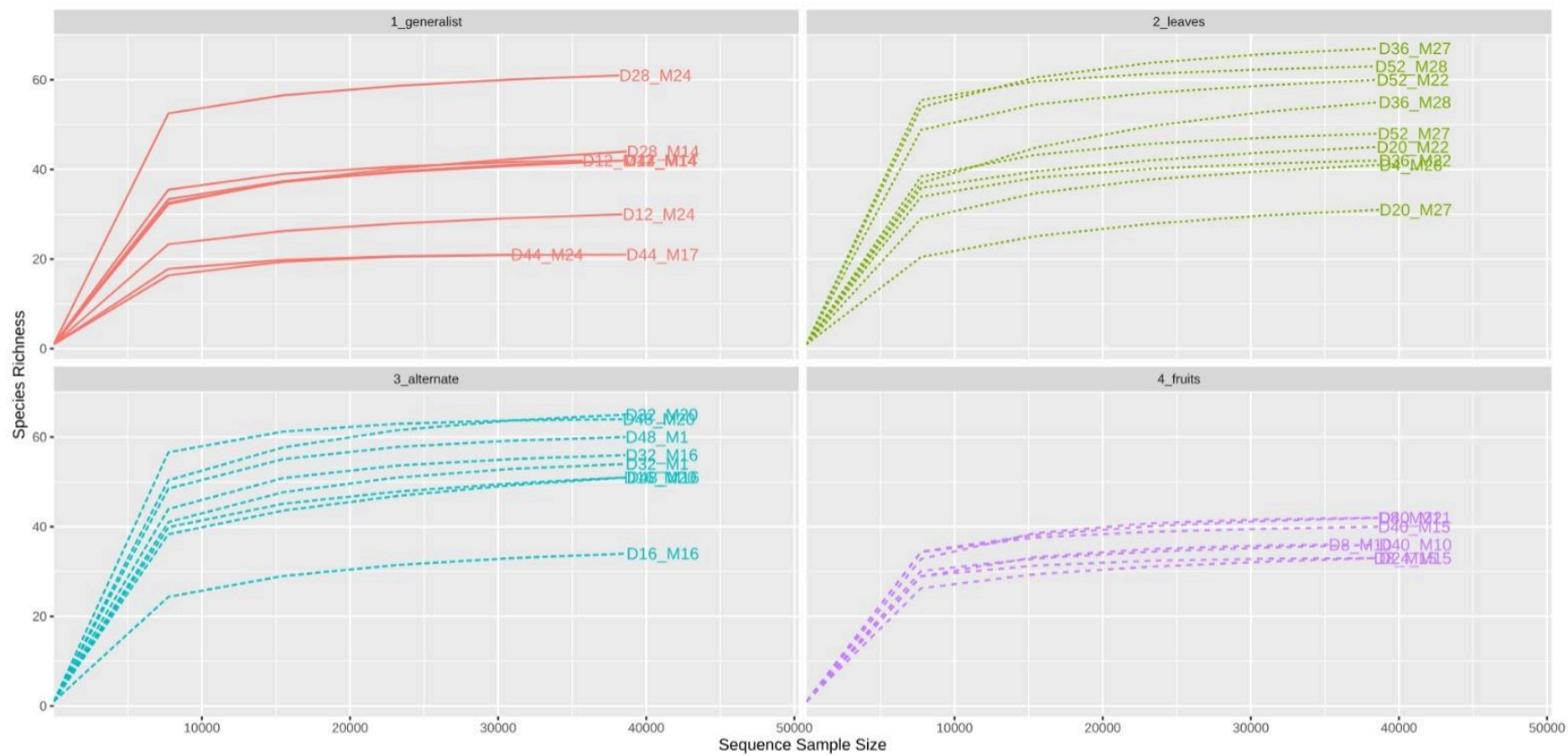


Fig. S8: Rarefaction curves of ITS sequences, from waste samples of different diets; samples of all time points are gathered.

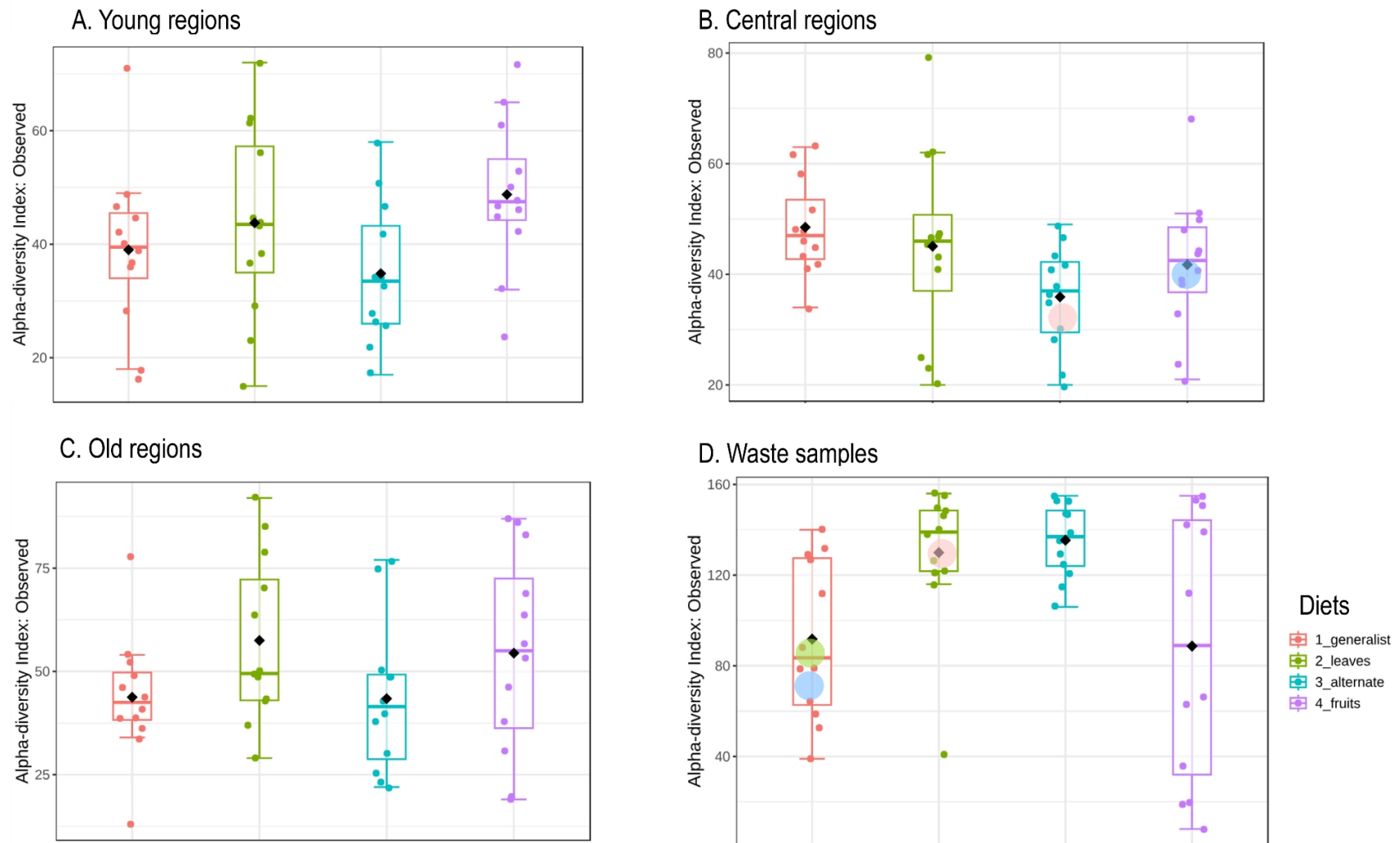


Fig. S9: Bacterial alpha-diversity at genus level, based on Observed Features (Richness), estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

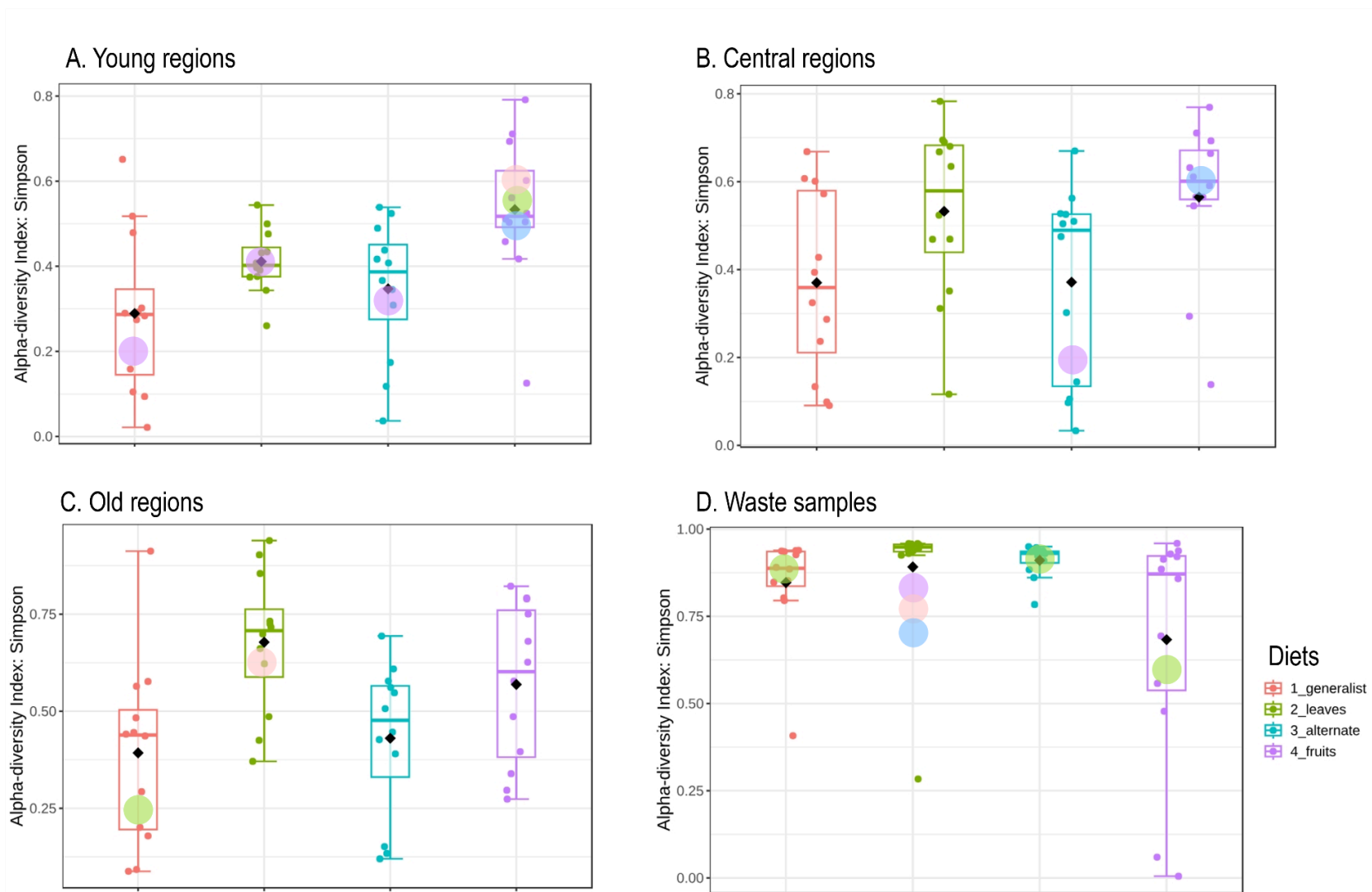


Fig. S10: Bacterial alpha-diversity at genus level, based on the Simpson Index, estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

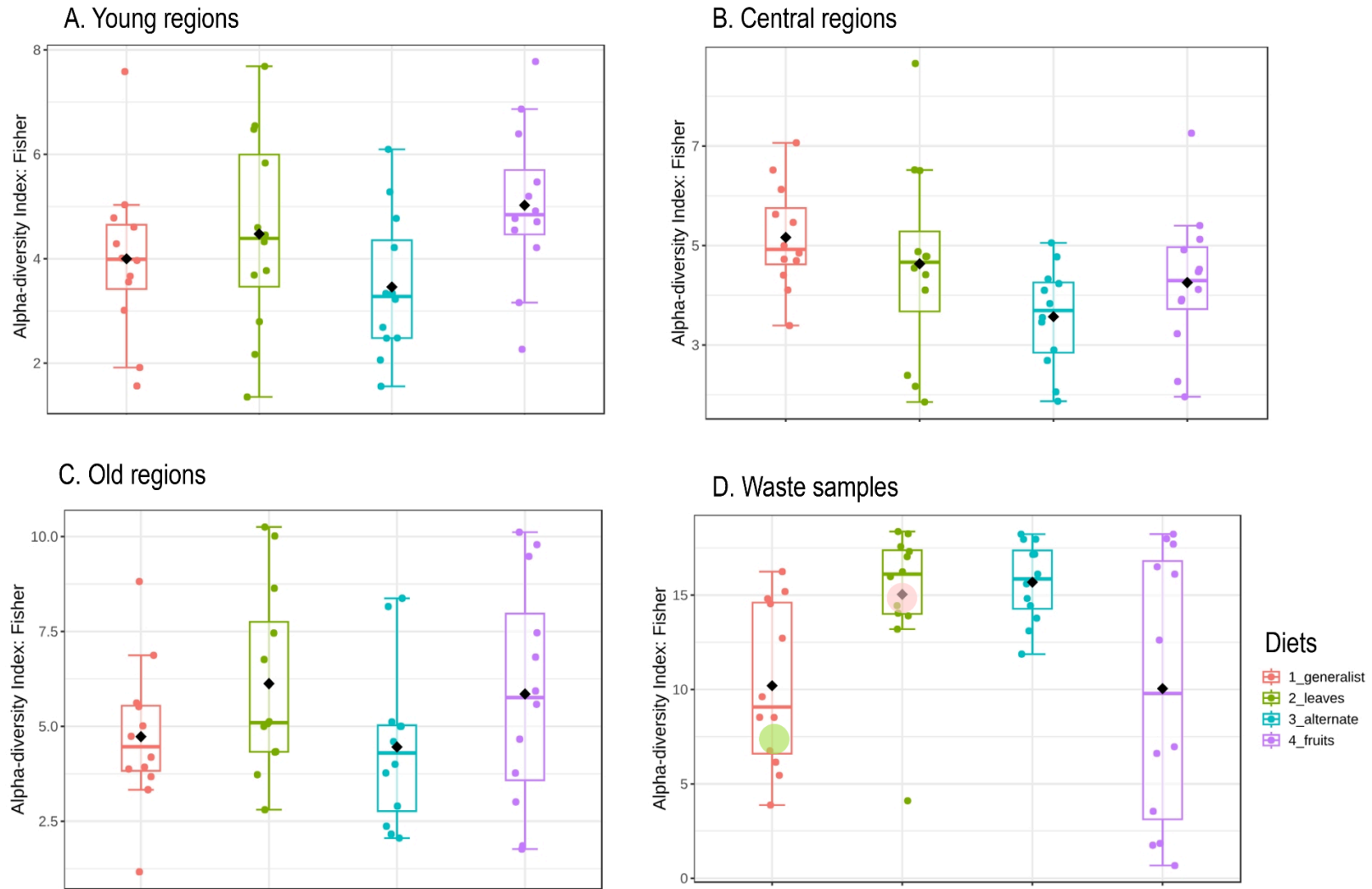


Fig. S11: Bacterial alpha-diversity at genus level, based on the Fisher Index, estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

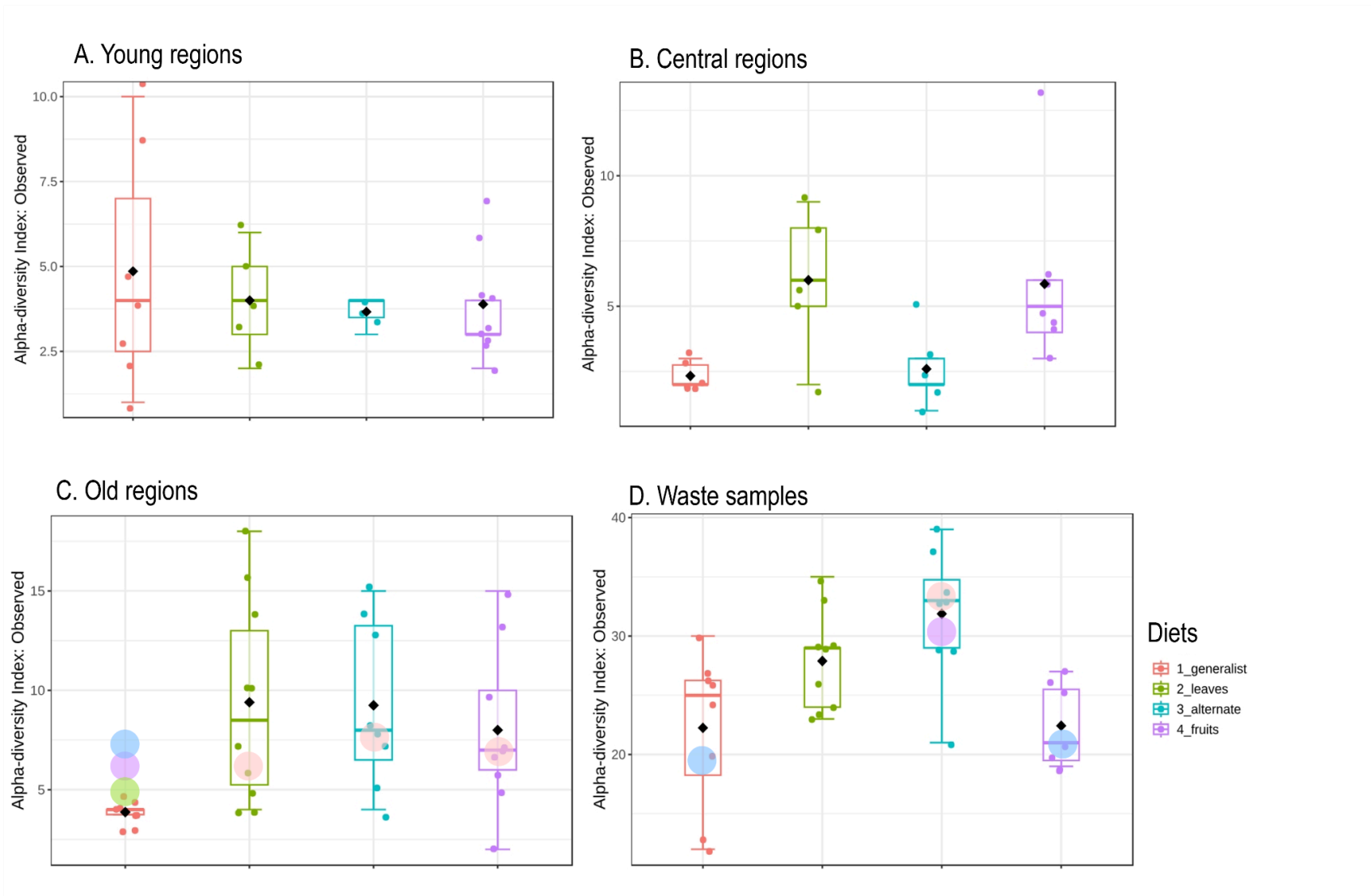


Fig. S12: Fungal alpha-diversity at genus level, based on Observed Features (Richness), estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

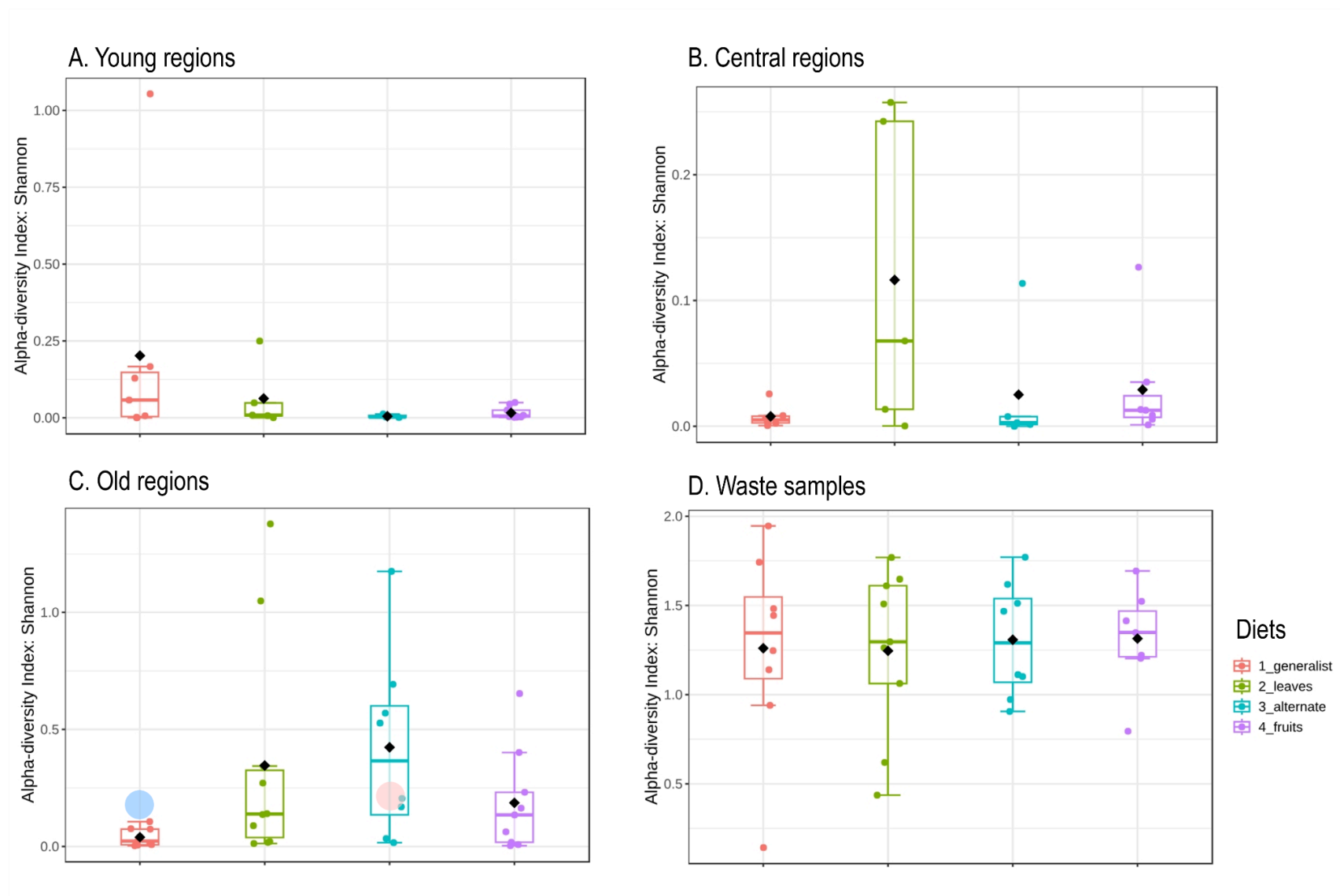


Fig. S13: Fungal alpha-diversity at genus level, based on the Shannon Index, estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

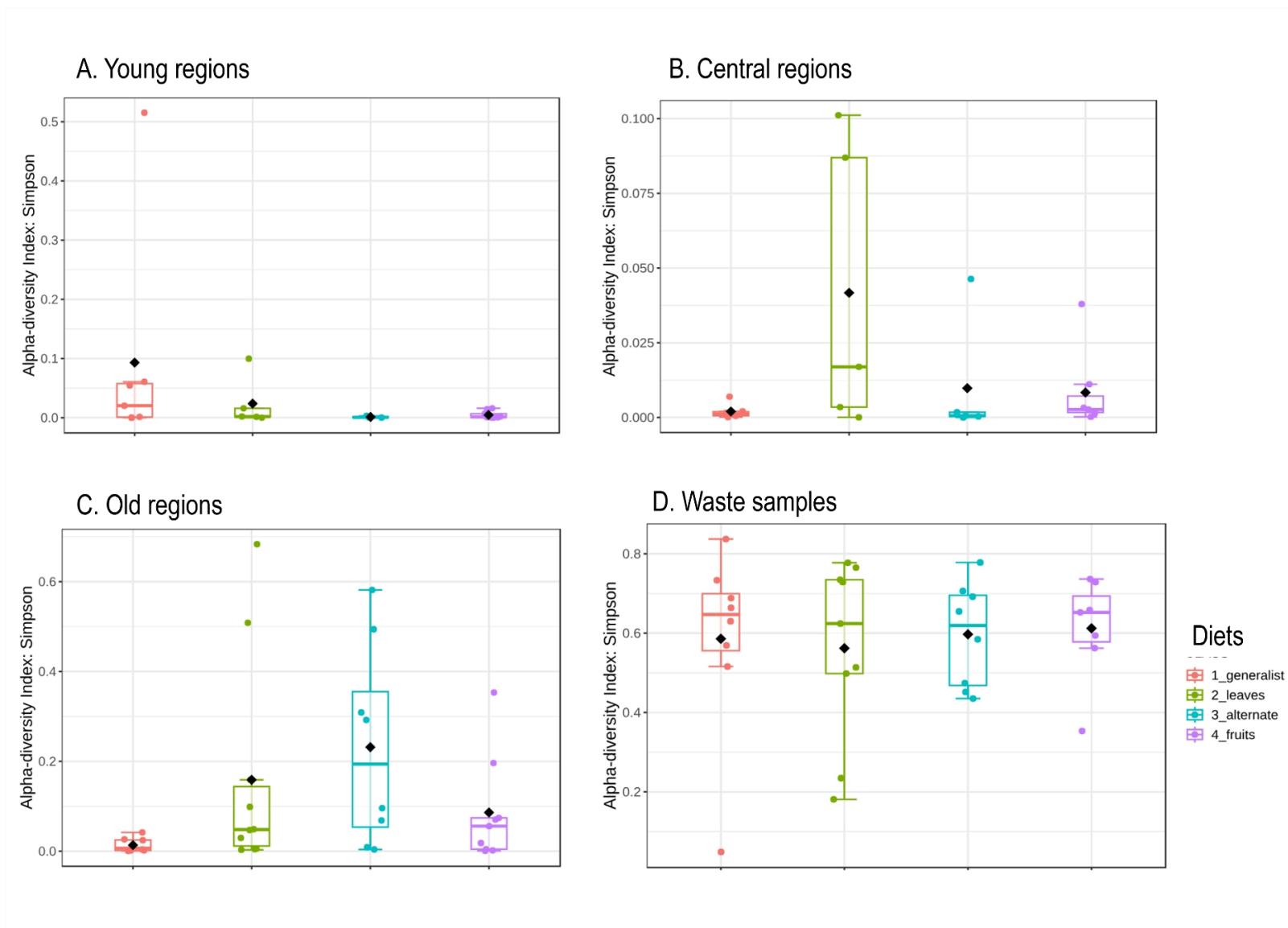
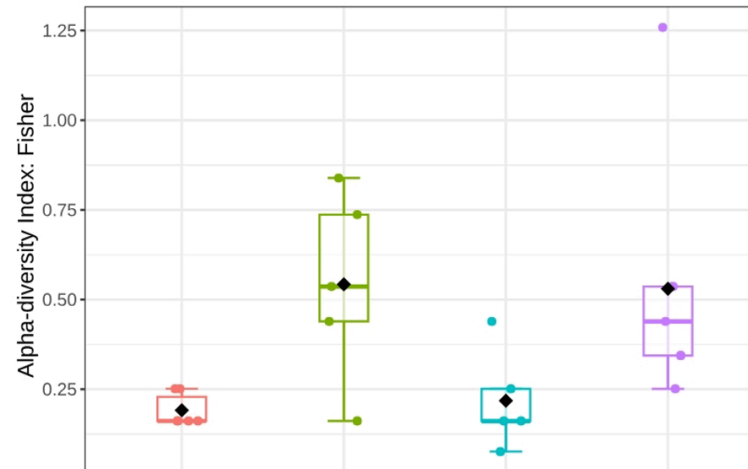
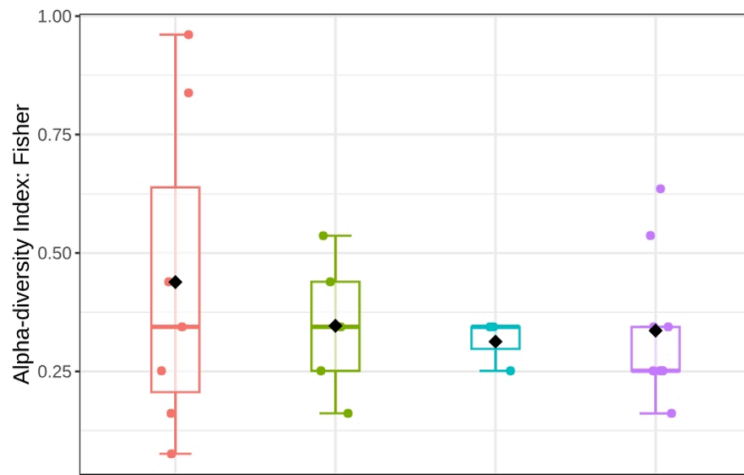
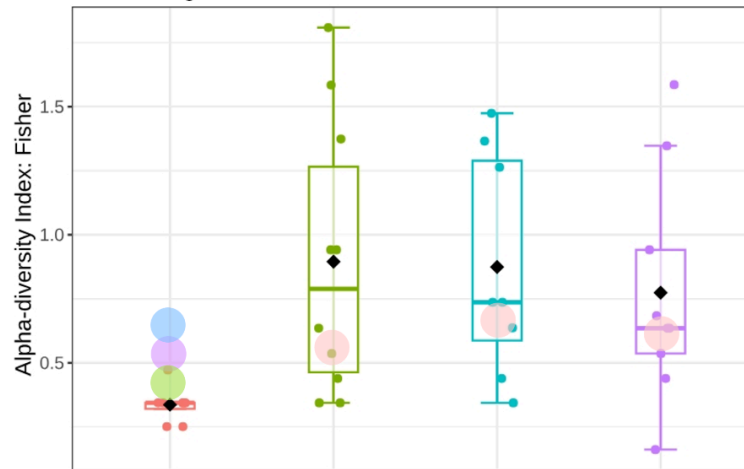


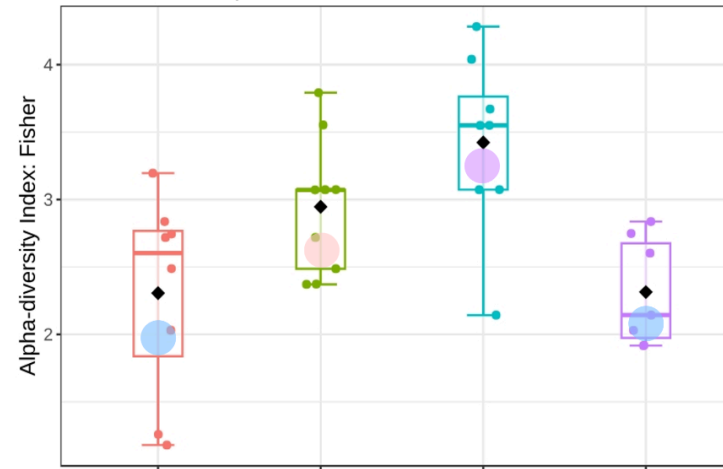
Fig. S14: Fungal alpha-diversity at genus level, based on the Simpson Index, estimated by Mann-Whitney/Kruskal-Wallis.



C. Old regions



D. Waste samples



Diets

- 1_generalist
- 2_leaves
- 3_alternate
- 4_fruits

Fig. S15: Fungal alpha-diversity at genus level, based on the Fisher Index, estimated by Mann-Whitney/Kruskal-Wallis. Significant differences between diets (Wilcoxon test, FDR-adjusted $p < 0.05$) were coloured according to the group(s) they differed from.

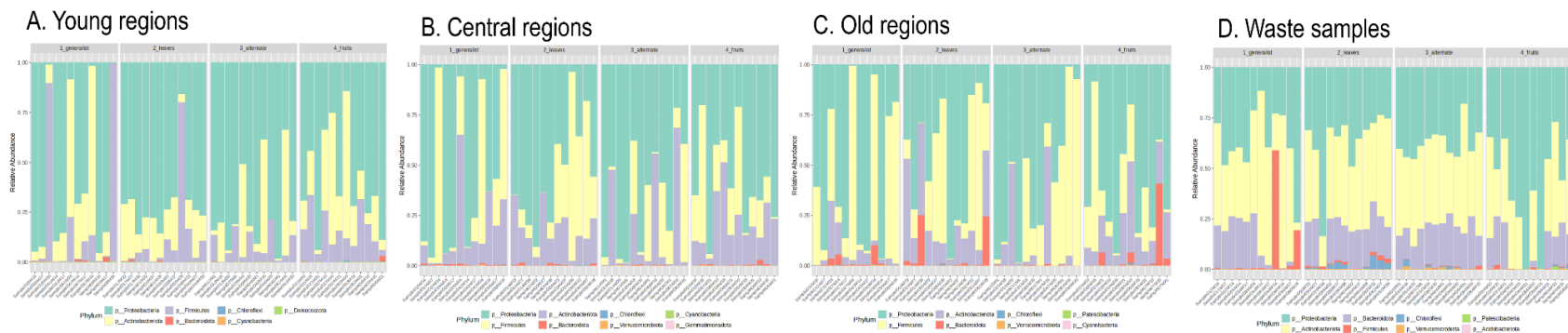


Fig. S16: Relative abundance of bacterial phylum shown across garden regions for the different diets.

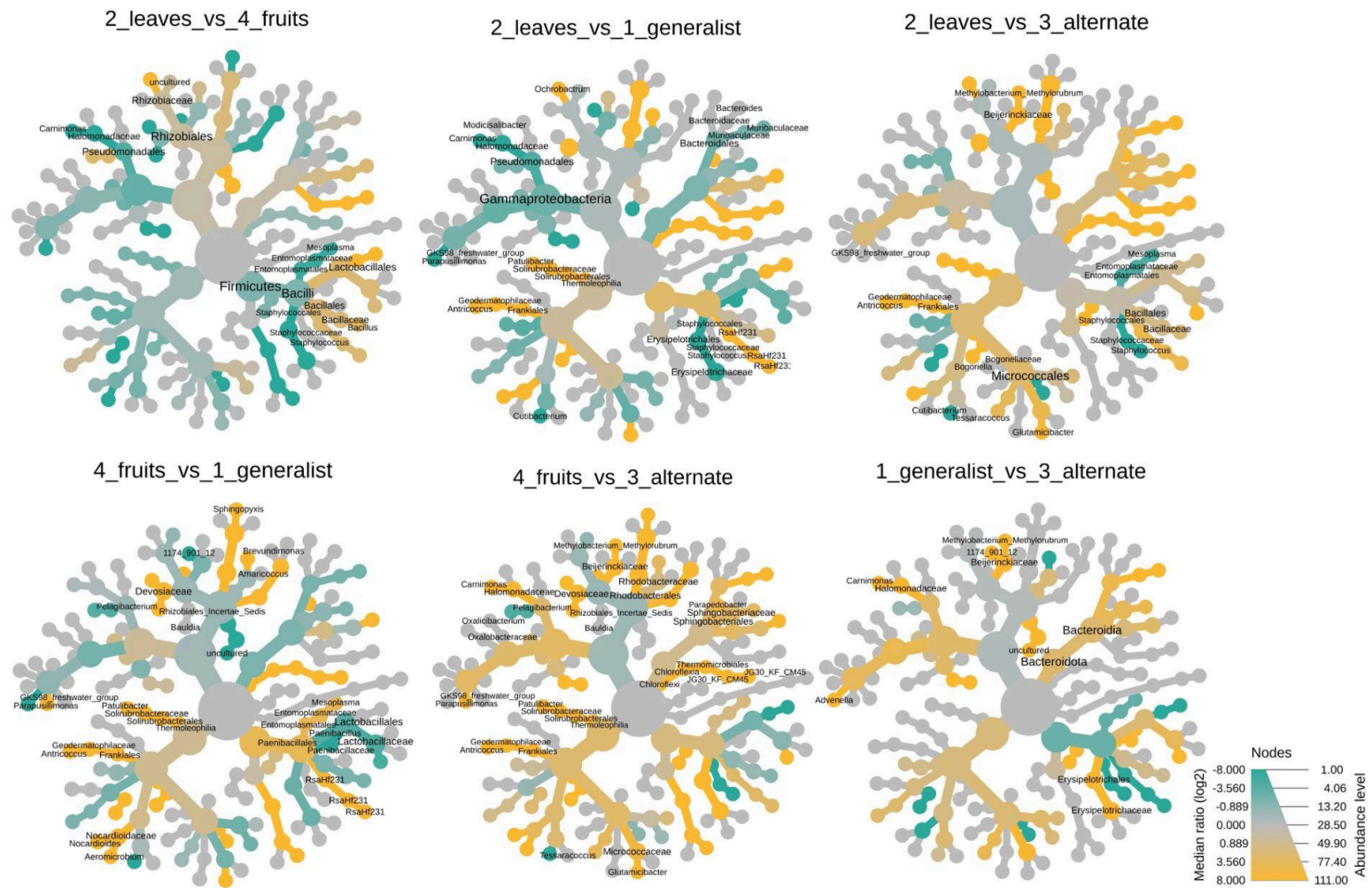


Fig. S17: Bacterial genus-level heat tree, comparing the relative abundance between diets in young gardens.

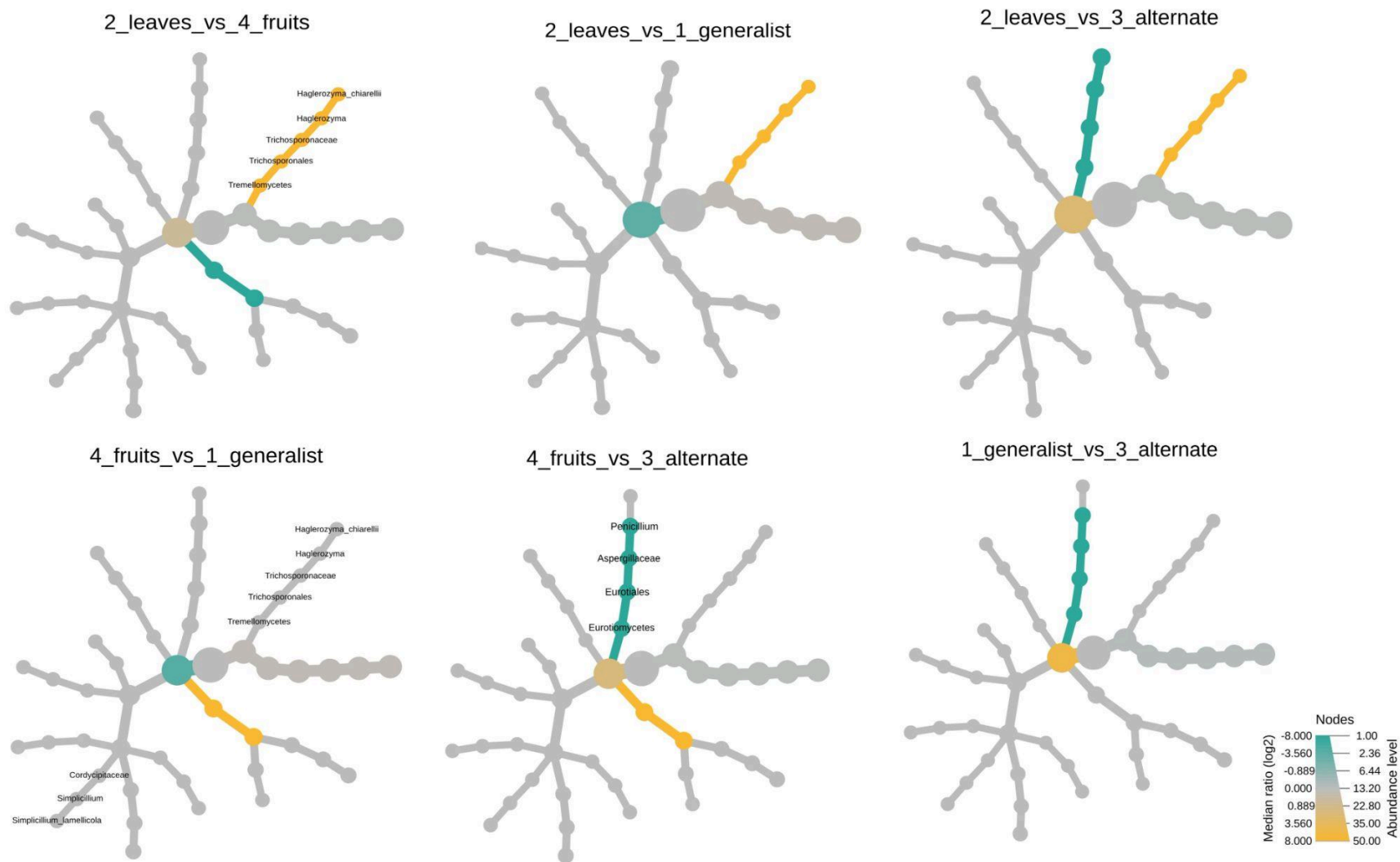


Fig. S19: Fungal genus-level heat tree, comparing the relative abundance between diets in young gardens.

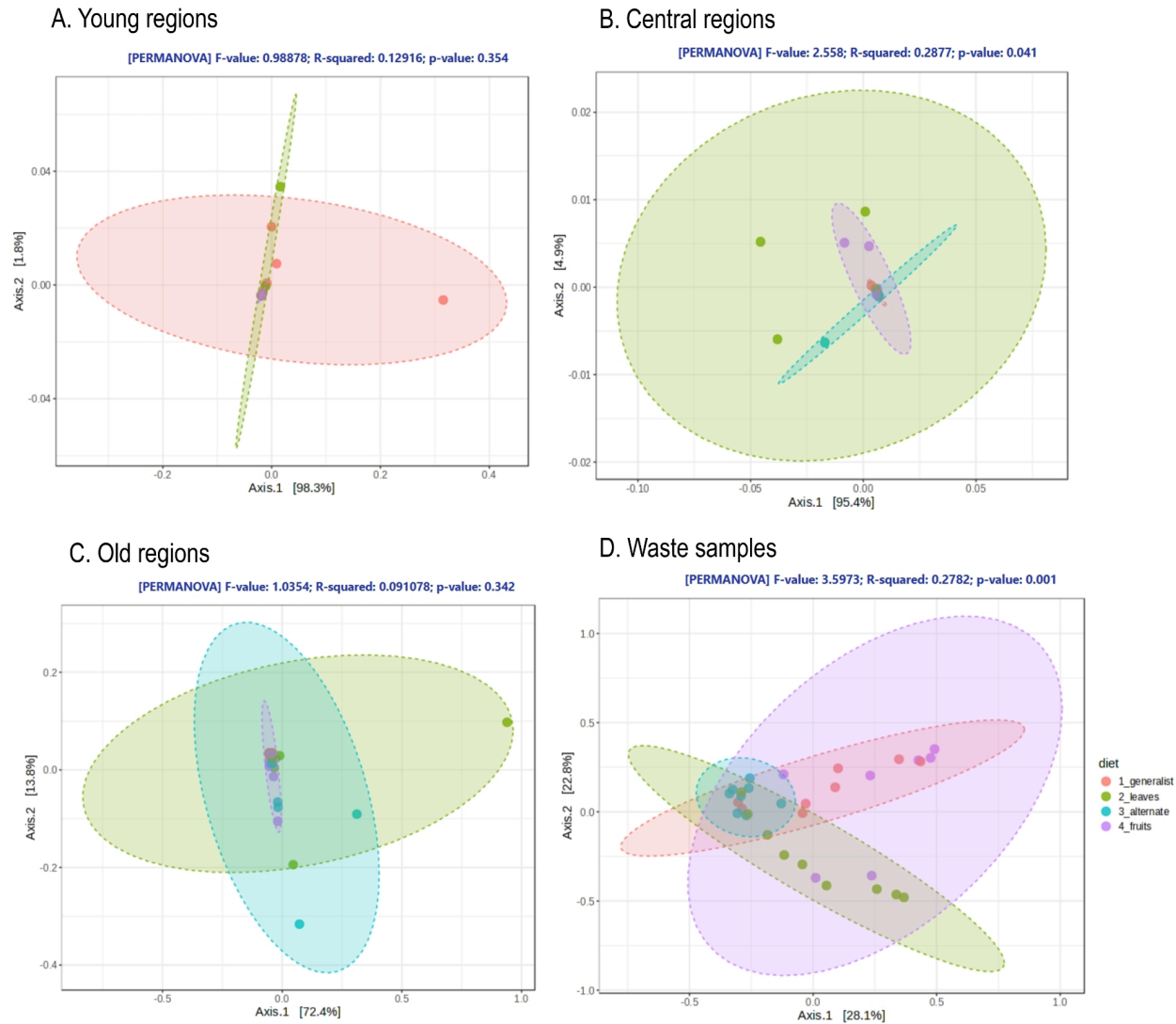


Fig. S20: Beta-Diversity estimated with Principal Coordinates Analysis (PCoA) ordination, based on Bray-Curtis distances; statistical significance of data distribution and pairwise comparisons were defined by PERMANOVA.

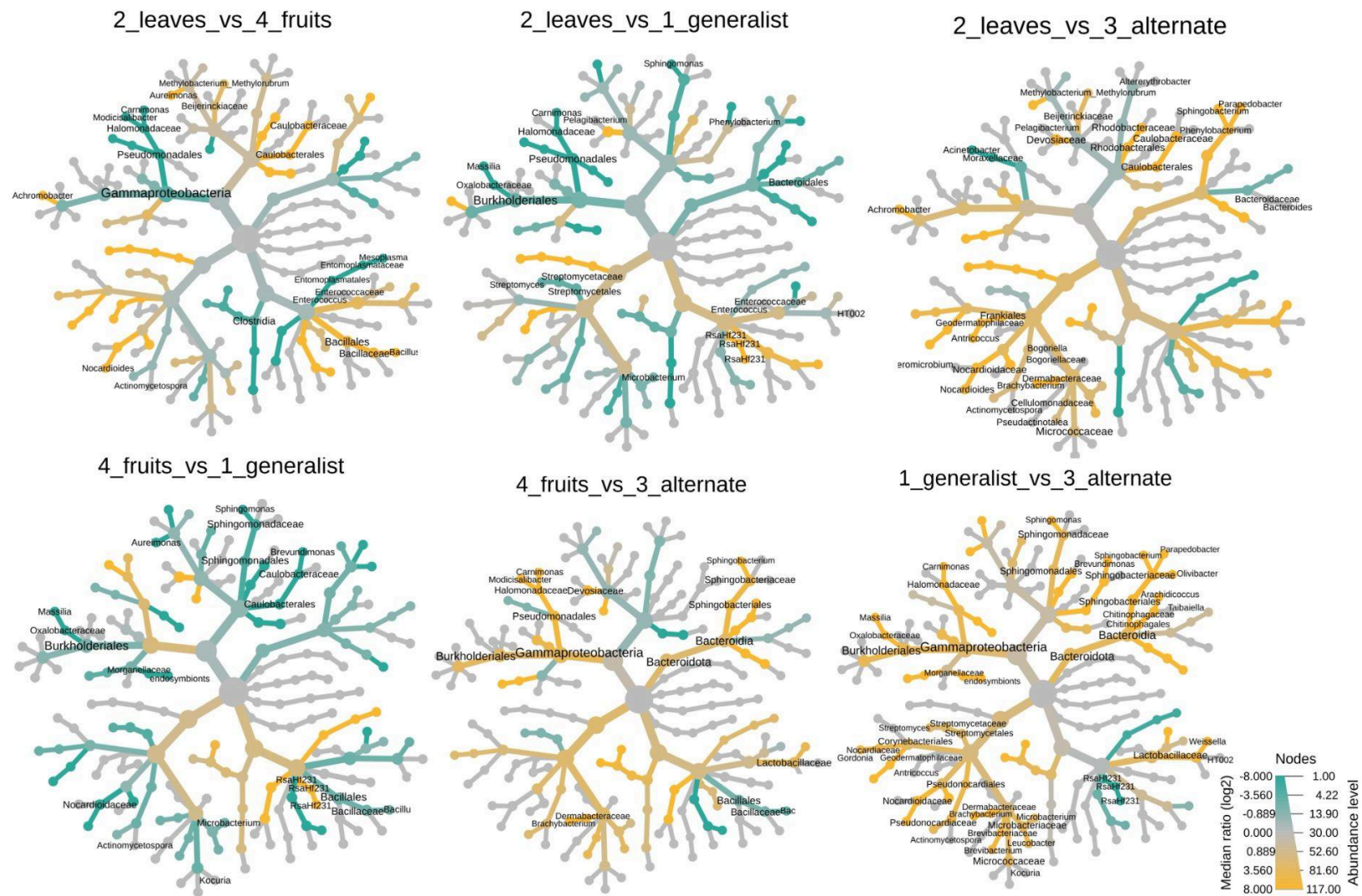


Fig. S21: Bacterial genus-level heat tree, comparing the relative abundance between diets in central gardens.

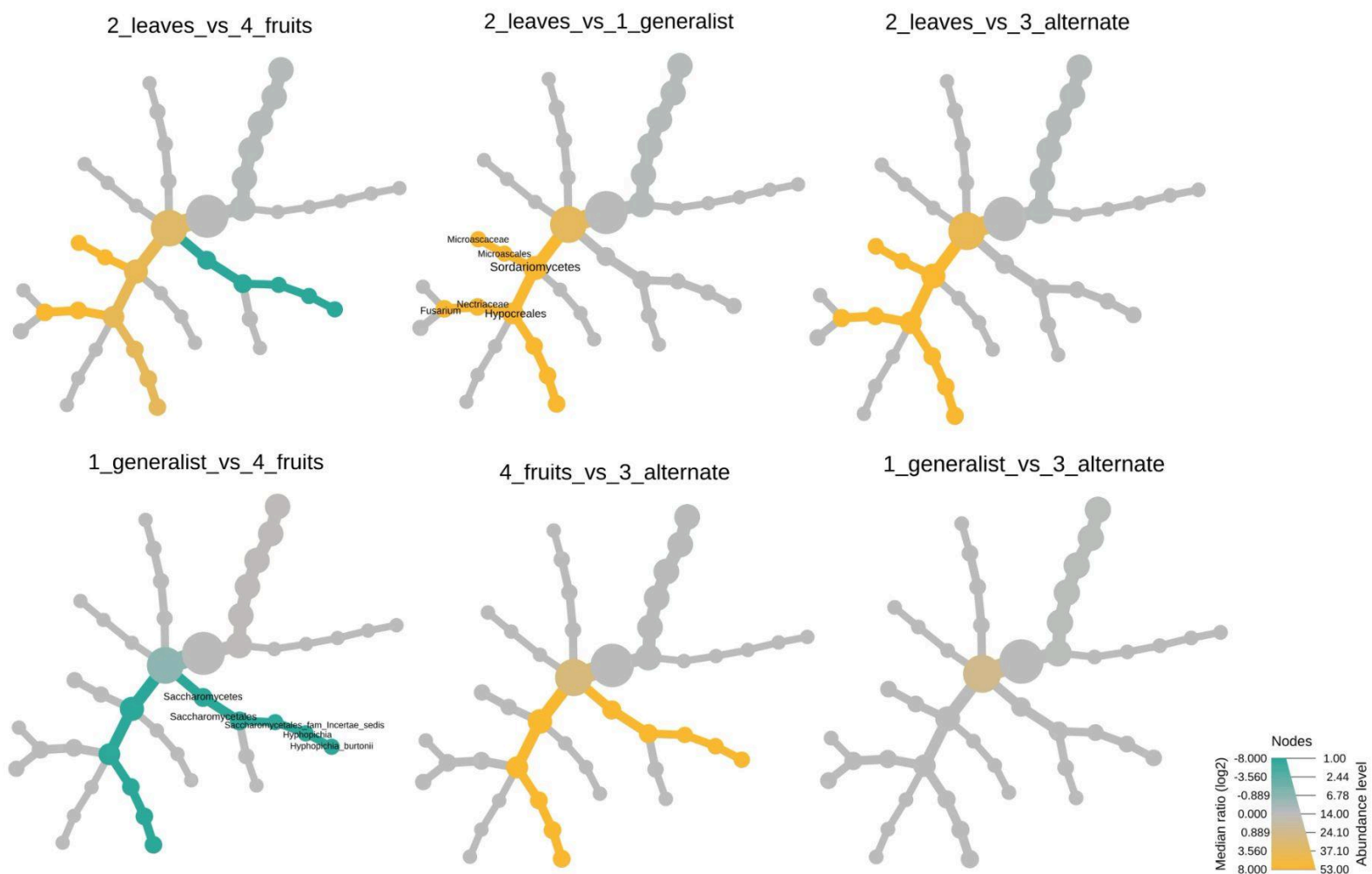


Fig. S22: Fungal genus-level heat tree, comparing the relative abundance between diets in central gardens.

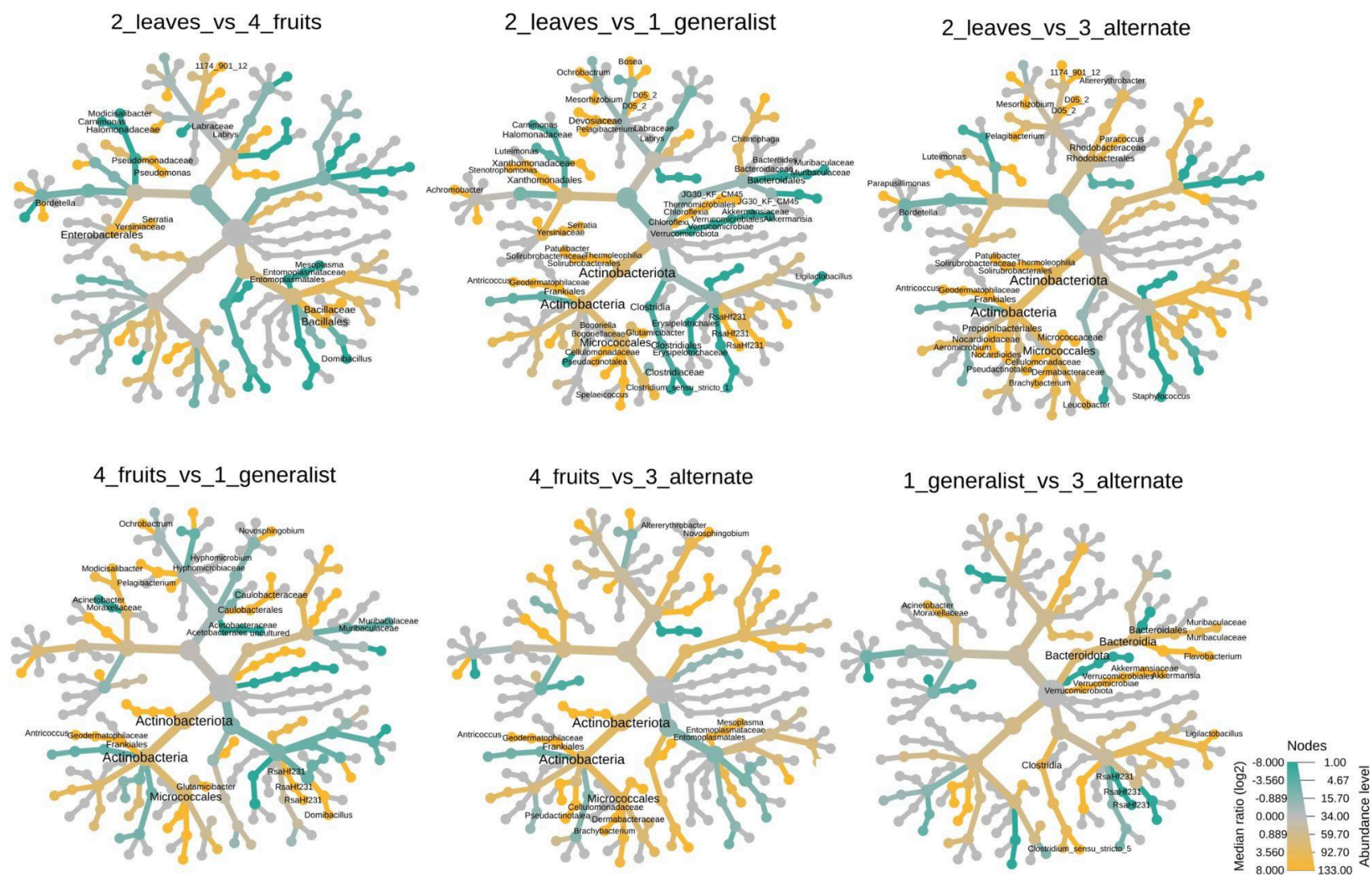


Fig. S23: Bacterial genus-level heat tree, comparing the relative abundance between diets in old gardens.

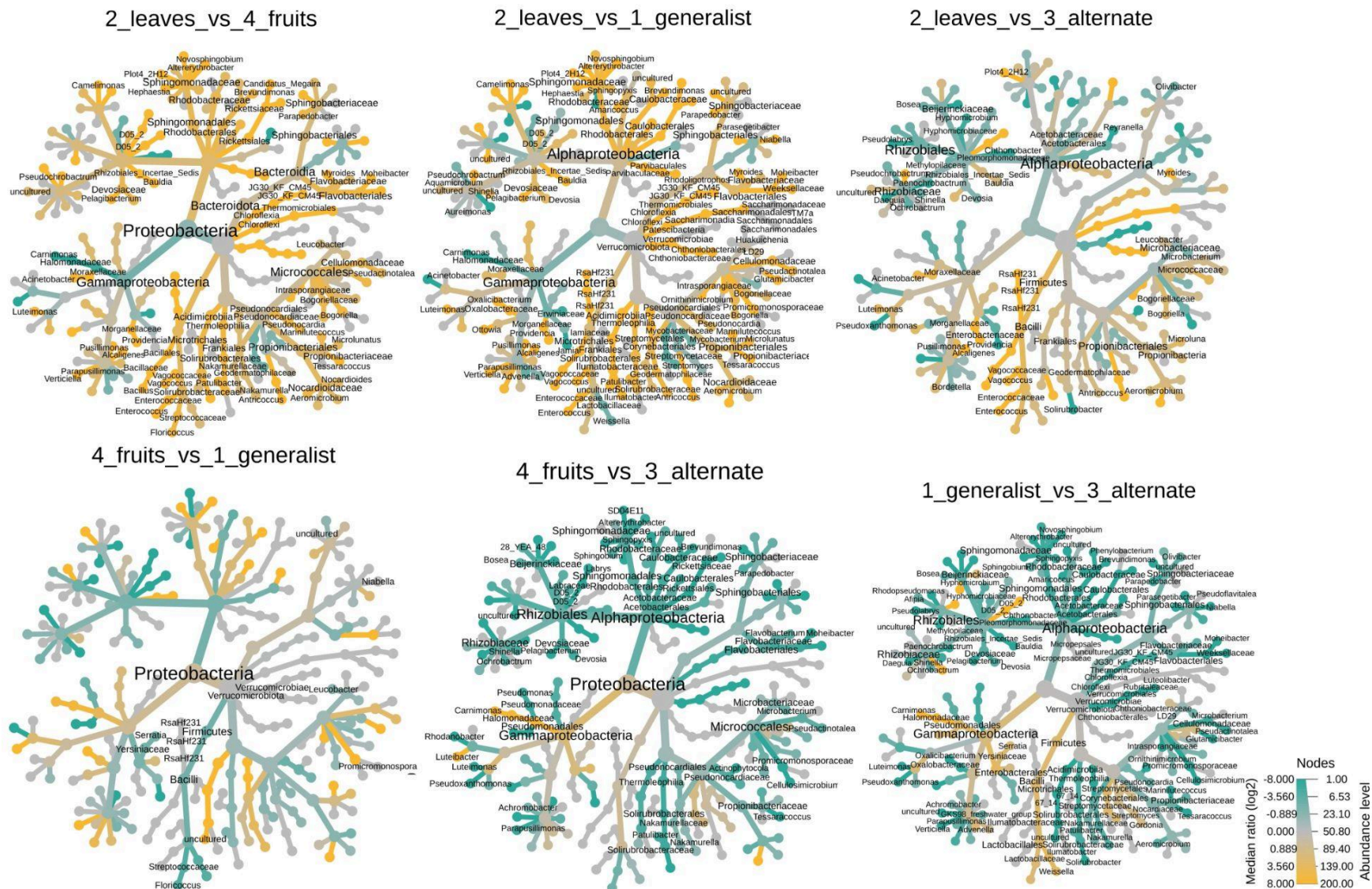


Fig. S25: Bacterial genus-level heat tree, comparing the relative abundance between diets in waste samples.

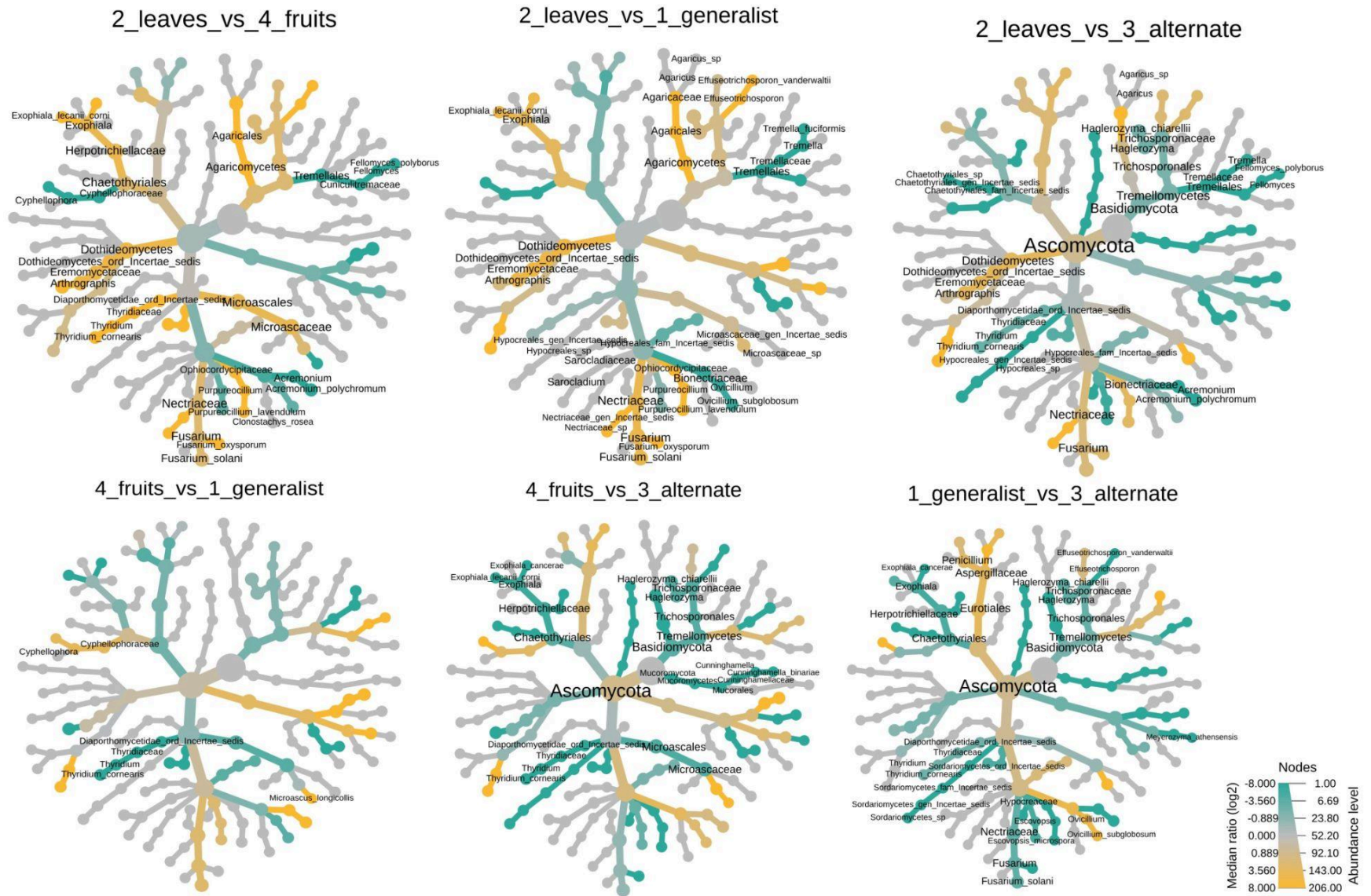


Fig. S26: Fungal genus-level heat tree, comparing the relative abundance between diets in waste samples.