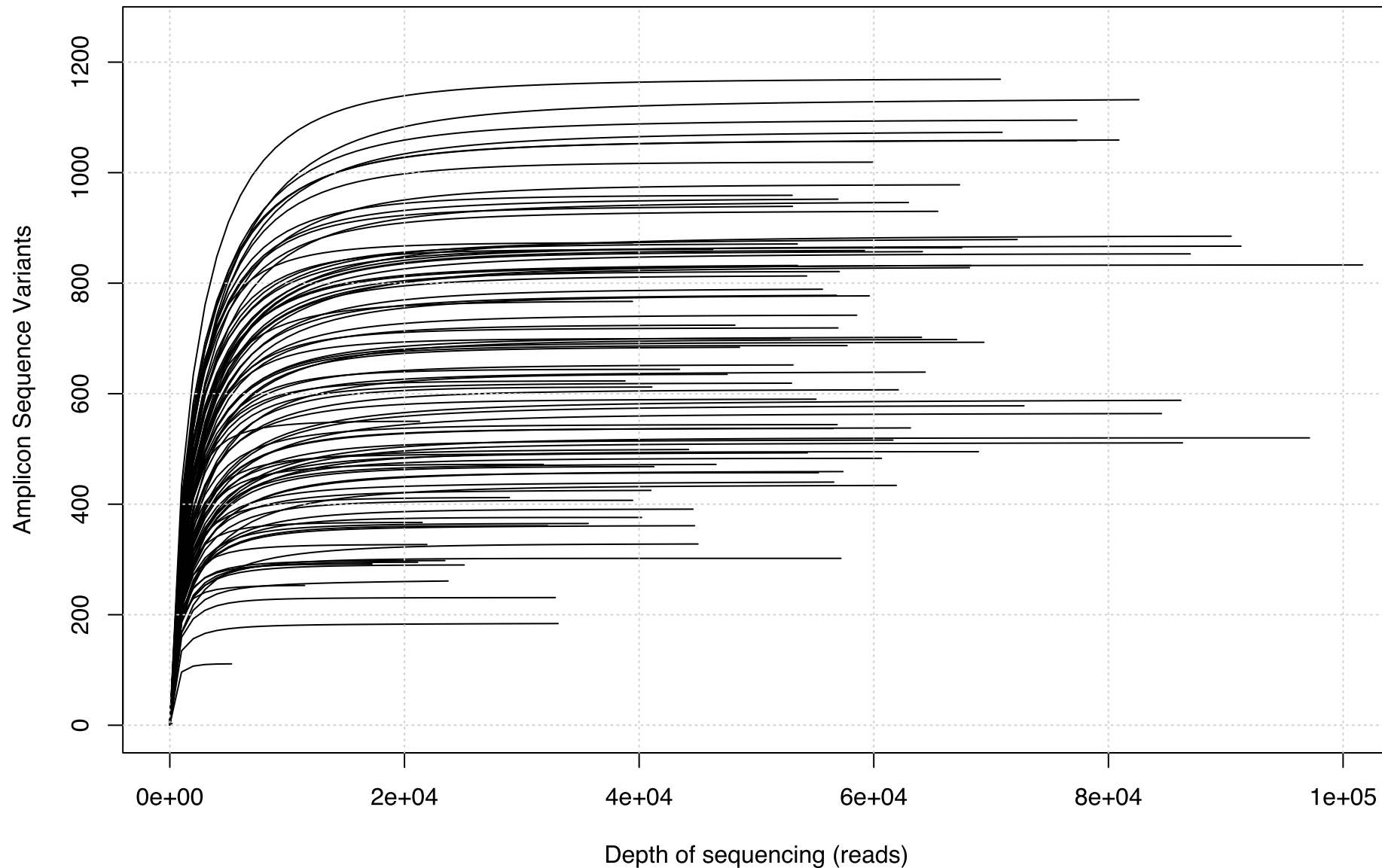
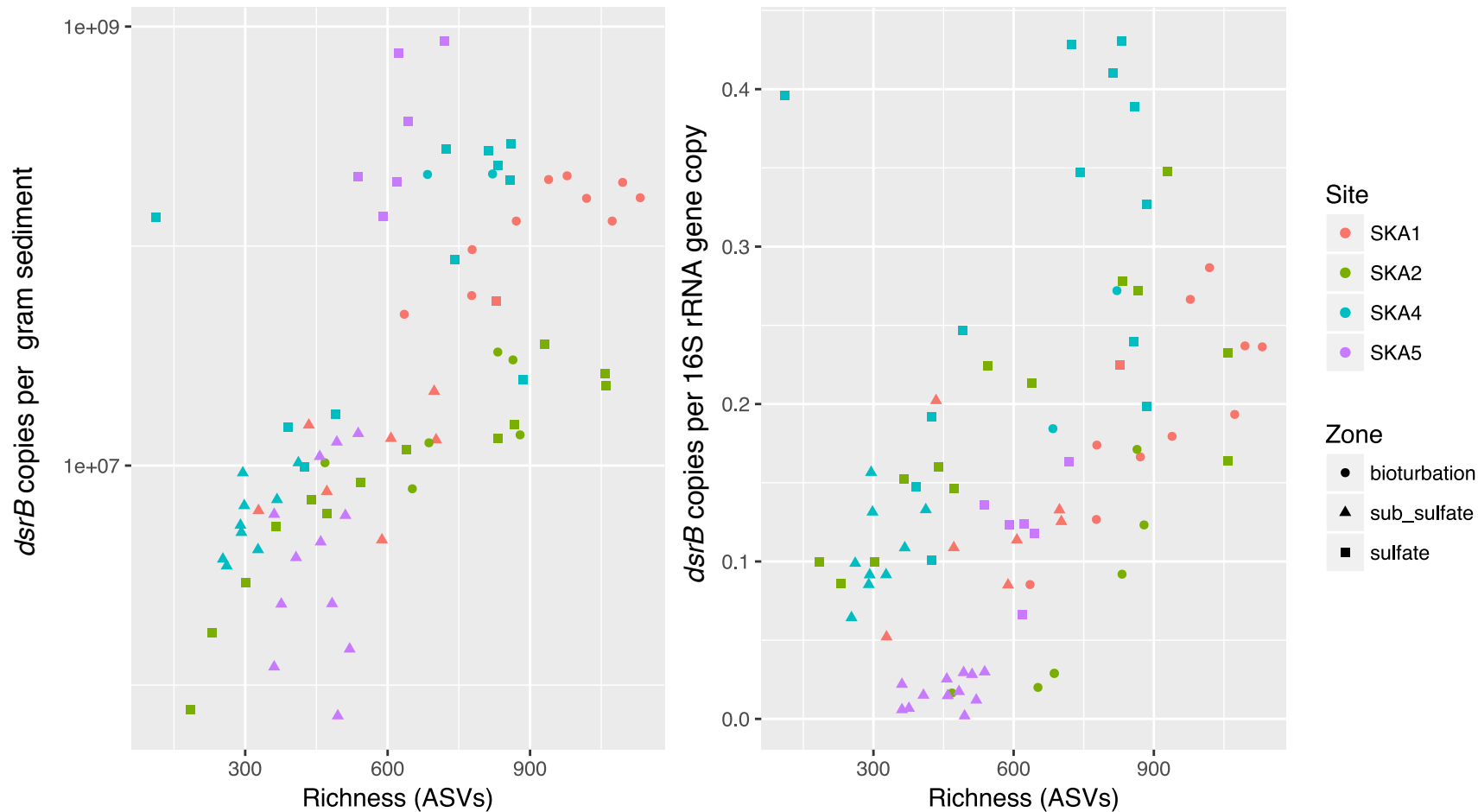


Supplemental Figure SF1: Fraction of *Desulfosarcina* and *Azospirillum*, the two cultivated genera identified in this study, at sites SKA1◇, SKA2×, SKA4+, and SKA5△.

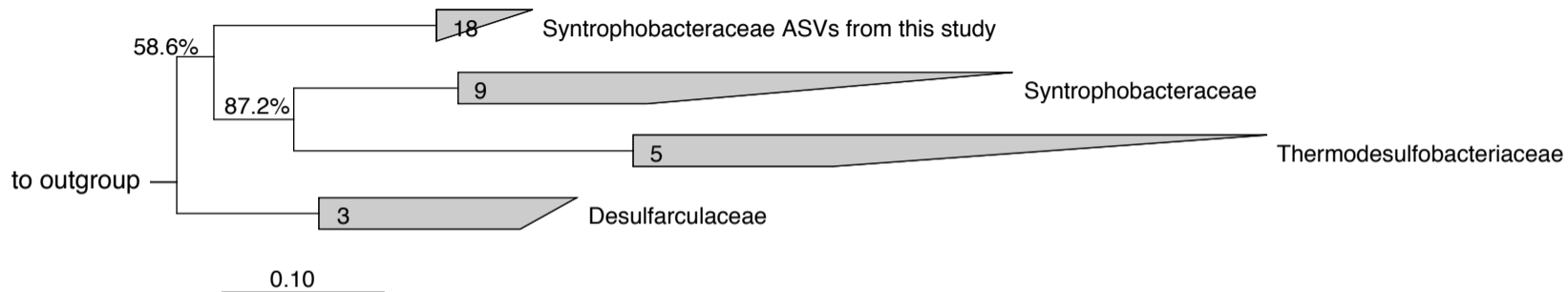
Rarefaction Curves



Supplemental Figure SF2: Rarefaction curves for *dsrB* amplicon sequencing (all samples in this study).



Supplemental Figure SF3: Left panel: Plot of *dsrB* copies per gram sediment against richness (total number of ASVs). Right panel: Plot of *dsrB* copies per bacterial 16S rRNA gene copy (SRM abundance normalized to total bacterial community size) against richness.



Supplemental Figure SF4: Phylogenetic tree constructed using PhyML (1000X bootstrapped) containing sequences from a *dsrAB* database (9) and ASV sequences from the top 100 ASVs classified as Syntrophobacteraceae. Numbers on family groups show the number of sequences used to construct this phylogenetic tree in each group.