**Lab report: 16S gene sequencing, community level analysis**

Due through Moodle, Tuesday Dec. 12

You should conduct this analysis in RStudio, either through posit.cloud or on your own laptop if you prefer.

1. Calculate the Shannon diversity for each of the sites. Which site has the highest diversity, and what is that value?

2. Make an NMS ordination of the six sites. You should have points representing the sites but not the organisms, and the sites should be labeled. Insert a copy of that plot here:

3. Based on this ordination, which is more important in influencing community composition – river sampled or time of year? Explain your answer.

4. Make a stacked bar chart of just the Archaea across the samples, colored by phylum. Insert a copy of that plot here:

5. Tell me two interesting patterns you can see in the distribution of archaeal phyla between samples.