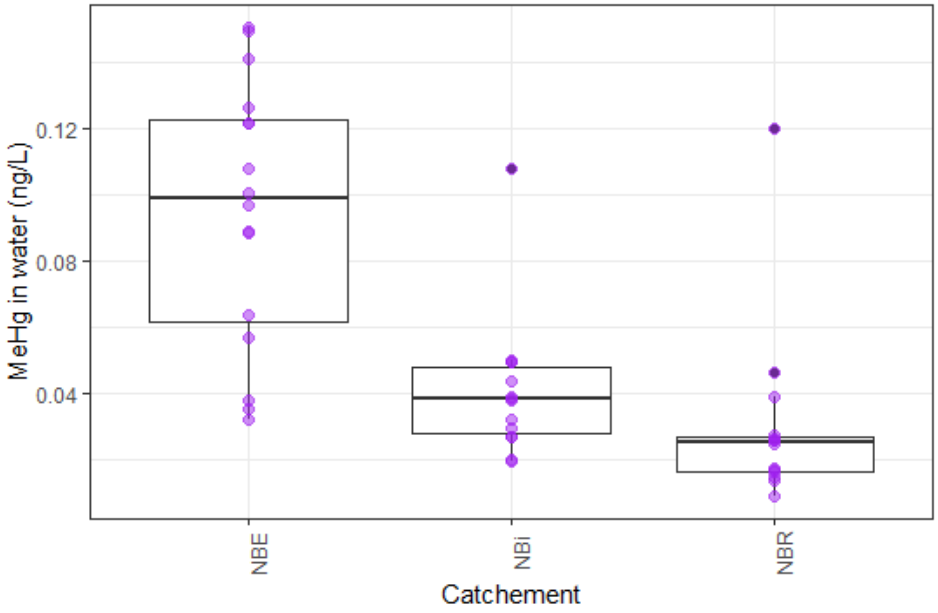
Hypothesis: Forestry in New Brunswick alters the mercury levels in stream water and stream foodwebs.

How I would test: I would start by making box plots for the MeHg concentration in the catchments. I would show the confidence intervals and plot the data to see if there are any significant outliers, just to have a visual to work with.



How much difference is there actually between the average MeHg of each catchment?

Within my knowledge, the tests I would apply would be an ANOVA to test the differences in means between the 3 catchments. After I would think I would want to use a Tukey's test to test for significant differences between the different pairings of catchments. However, in literature I've seen people use the Kruskal-Wallis test in place of ANOVA for data that is non-parametric. I think the Kruskal-Wallis test would be useful if I was comparing the mean MeHg between sites in different catchments.

I would repeat this procedure for water, and each trophic level. As well as if I wanted to consider spatial variation I would compare the mean MeHg levels in the different sites within catchments that are in similar locations between the headwater and furthest measurement downstream.