

Excercise 4

1. Read the file “species.txt”. Make a model of biomass as a function of pH. Is this model significantly better than the null model of a single mean?

Using bootstrapping, test how robust the result is that the mean for low pH is lower than that for medium, and that is lower than high. How often out of 1000 bootstraps do you get this result? Do the same for median.

Make a model of biomass vs. species. Notice that species is read in as a number, but that it should actually be a factor. Does species predict biomass?

Make a model with species and pH and their interaction, and reduce it to the significant model.

2. Read the file “strange.txt”. Plot z vs. x . Do a linear regression of z vs. x . Does z increase or decrease with x ? Now do an analysis of variance of linear models for z . In the best model, does z increase or decrease with x ?