ENS 495 2016 Lab Write Up 1

September 15, 2016

**Your First Finished Figure in R!**

The Overall Assignment:

##### 1) Create a polished R version of the graph you extracted data from for pre-lab #2. This should be a dot-plot version of whatever graph you extracted data from. The plot should be “clean” and look good enough to include in a presentation, poster, or paper. You should have all the skills and code necessary to do this by the end of Lab 3. Most of this will involve adapting the code from [Lab 2b: Displaying Data - plotting means](http://rpubs.com/brouwern/207553)

on <http://rpubs.com/brouwern/> and adapting it to your data. Most of this work will probably be finished by the end of class. **Save your R code!**

2) Export the plot from R into PowerPoint.

3) Make a text box below the figure and write an appropriate caption / figure legend. This can be based on the original text in the paper but should be modified if the data you plotted is a subset of what was in the original graph. You should also include any information that the original authors may have neglected to include. This information is probably all in the methods of the paper. The types of information to include are:

-a very brief summary of what the data are and where or how it was collected. Usually a single sentence, run-on-ish sentence, like “Mean effects of glyphosate (RoundUp TM) on garlic mustard (*Alliaria* petiolate) on road edges and within closed canopy forest at Trillium Trail, Fox Chapel, PA.”

-What the sample size was. “N = 50 *Alliara* rosettes per treatment combination.” Sample size might be tough to find so you can just say “N = ????” if its not easy to locate in the paper.

-what the error bars are (standard deviation, standard error, or 95% confidence interval). Typically something like “Error bars = +/- 95% CI.”

4) Save and annotate the R code used to make the figure. The annotations should indicate what each line of code does.

**Submit the following things by the beginning of next lab:**

1) For finished figure with its new caption

2) The original figure with the full citation in standard format, like that used in Ecology or The Journal of Wildlife Management.

3) Your annotated R code with the data, the commands and arguments you used, and notes as to what the command and arguments mean.