

1 Short Answer

a) In terms of the “Grammar of Graphics” what is a statistical graphic?

b) What is the chief difference between a barplot and a histogram?

c) What is **overplotting**? Name the two ways seen in class to deal with it.

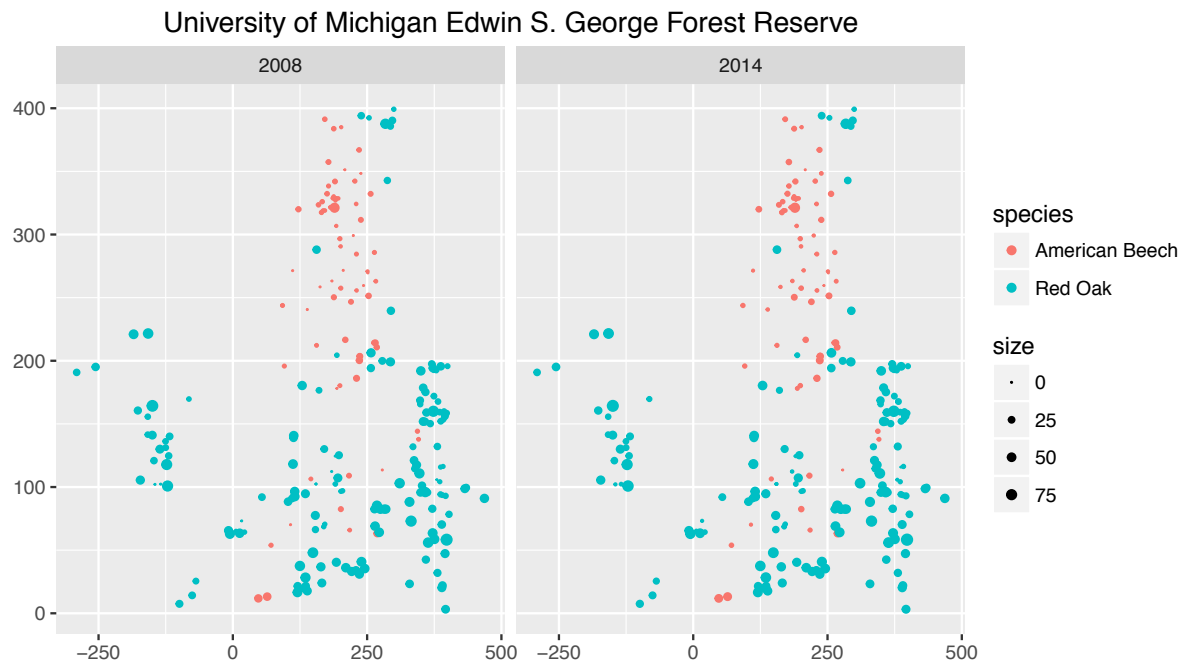
d) A smoother allows one to focus on a trend in graphic by separating out the A from the B . What are:

A : _____

B : _____

2 Graphics

Say you are walking around the Forestry department at the University of Michigan this week, and you see the following graphic posted on a bulletin board under the rubric “Forestry Maps.”



a) Identify

- all variables displayed on this graphic
- how they are manifested/represented in the the graphic

b) What is the chief comparison being made in this plot?

3 Tidy Data

Say your collaborator in biology sends you an Excel spreadsheet with the contents below. This data is **not** in tidy format. Rewrite this data frame so that it is in tidy format. To minimize writing you may use abbreviations. For example: write “Al.Ba.” in place of “Allactaga balikunica.”

species	tail length
Allactaga balikunica	177.32
Allactaga bullata	165.2
Allocricetulus eversmanni	18.64
Apodemus uralensis	84.89
Arvicola amphibius	105.14
Brachytarsomys albicauda	230.02
Brachyuromys betsileoensis	83.32
Cardiocranius paradoxus	74.36
Castor fiber	379.89
Cricetulus barabensis	24.72
bold = needs checking	
yellow = from different source	