This first assignment is designed to show you that an understanding of statistics is important for you to be able to understand the literature in your own field, and to give you experience using electronic access to academic journals. In addition, your selection of articles will make it easier for me to find relevant examples for lecture that interest you.

I ask you to search for an article published in an academic journal that (1) is on a biological topic, (2) you think is interesting, and (3) uses statistics. I am looking for a genuine research article (in an academic journal accessible electronically through the UW library), not an article in the popular press (such as a newspaper or news magazine or a personal or company web site). One approach is to search for an article using a search engine like Google, and then find the article through the library. Another approach is to browse a journal such as Science, Nature, Genetics, Evolution, The American Journal of Botany, or something similar. My home page has a link to electronic journals accessible from campus.

Once you have found an article that matches the criteria, please answer the following questions. While I ask that you turn all other assignments in on paper, for this assignment you should email your responses in the body of the message to larget@stat.wisc.edu. Please do not send an attached Word file. The text of the questions is on the course web page, so you can copy and paste.

1. Please provide a web address (URL) to the article you selected.

2. If applicable, describe the sample of individuals (units) for which data is collected. Describe how this sample was selected.

3. Does the article make comparisons between two or more groups of individuals? If applicable, describe how the groups are determined. For example, are the groups determined by some observed characteristic (such as sex) or are the units assigned at random to different treatment groups?

4. Report one scientific question that your article addresses.

5. What conclusions does the article draw regarding this scientific question?

6. If applicable, select one graph from the article. What variables are graphed on each axis? What does the graph illustrate?

7. Identify one variable that is measured by the authors. What are the units of measurement? Is the variable summarized with a statistic? If so, what is the value of the statistic?

8. Identify a method of statistical analysis used by the authors.

9. If applicable, report a conclusion drawn by the authors that is supported by statistical evidence.