**Week 5 in-class exercise**

1) Break up into three small groups of equal size.

2) Each group should attempt to complete as many of the following problems as possible:

Chapter 11: #24

Chapter 12: #20, #27, #31

Chapter 13: #18, #30.

3) Go to “whitlockschluter.zoology.ubc.ca/data/” to download your data.

4) Work together with your group to decide how to approach each problem using R.

5) Consult “whitlockschluter.zoology.ubc.ca/r-code/” for some simple instructions regarding the R code you will need.

**Homework**

6) Finish the problems at home and produce a document with your answers and graphs. Be sure to answer all of the questions. Turn this document in to me next Tuesday.

7) In addition to the questions from the book, complete the following exercise (turn in Tuesday):

a. Propose a study related to your research interests that involves a comparison of means.

b. Enumerate your null and alternative hypotheses.

c. Propose a sample size for each treatment or observational group (your study could be either experimental or observational).

d. Based on what you know about the system, can you guess and approximate standard deviation of the response variable?

e. Do you anticipate any problems with the analysis of this experiment? Why or why not?