## 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?