**BIO 160: Anatomy of scientific papers (LAB WEEKS 3 & 4)**

**PART I (for Week 3):**

**Read the assigned paper and answer the following questions:**

**Anatomy**

1. What are the main goals of the introduction to a scientific paper?
2. What were the main goals of this paper?
3. What was the “big picture” topic being covered?
4. What is the role of humans in influencing or managing this ecosystem?
5. What tense is the intro typically written in?
6. What tense is the Materials & Methods section typically written in? Why?

*Data, variables and methodology*

1. What were the observational/experimental units?
2. What were the independent (explanatory) variables? Were they categorical or numeric? Ordinal or continuous?
3. What dependent (response) variables were used?
4. How was sampling done? How did the researchers avoid bias? What factors probably influenced the sample size in this paper?
5. What statistical tests were used? Were they convincing? Discuss in terms of the hypotheses tested.
6. What place do you think this paper has in the scientific literature? Does it change our understanding of the theory or system?

**PART II (for Week 4):**

1. Which measures of central tendency and dispersion (variability) were employed?
2. How were the data presented (i.e., what kinds of graphs, what variables, data in tables)?
3. Describe at least **three** general findings of the results?
4. What are the main goals of the discussion of a paper? Were these goals achieved?
5. How do these results affect human-environment interactions, including how humans affect and manage ecological systems?
6. What might you add to the discussion?
7. Was there any part of the paper that was especially confusing? How could you approach this problem?
8. Having read the paper, try giving it a better title