Bioe 183

**Assignment 6a: Methods & Results**

The methods and results sections of a proposal or paper are where you explain your work. You have to be clear about your study organism(s) and system, how you will test your hypotheses and/or make your observations, and explain the results to your readers. Both sections should be as long as needed to present all of the information. (But not in this assignment - see below.)

It will be useful to read over at least one research paper that's relevant to your work to see what is included in the Methods and Results.

Follow the EEB writing guidelines for methods and results. They include some specific wording that is important.

**Methods:** typically include the following:

* Description of species & system
* Sub-sections for species, system, what you did to address your questions, hypotheses or observations (may have >1 section for this); some authors include a separate section that indicates what statistical package (Excel, jmp….) you used, and the different stats procedures (e.g., in SAS, Proc t-test). In each section make sure that you explain what you are testing (again, check the EEB writing guidelines).
* Be complete re the methods used to him collect data: someone should be able to repeat *exactly* what you did after reading your methods.
* For the section describing a particular method, start with a sentence something like: “To test X, I….”

**Results:** This section is all about you. It is where you present your data to your readers. You have to take readers by the hand and help them interpret their figures and tables. Do not just say “…the data are in Figure 1”: you have to explain the data. You may include subsections for different types of data, but that is up to you: use the best way that explains your particular results.

**References:** You may use references in either section, but results often don't have any because you're presenting your own material. In methods sections, citations are used for sources that might have habitat descriptions, information about your species, and particular methods. Check the EEB writing guide for the correct citation style.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Assignment: due Nov 2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Write **abbreviated** Method and Results sections that include the following:

**Methods:**

1. Section 1: a brief description of your species and system (in a sub-headed section). Make sure you include scientific names, properly formatted, of any species that are the focus of your work.

2. **Section 2: One (and only one)** component of your project. This should be a separate, sub-headed section that links a particular question to the methods that you will use.

3. **Section 3: Optional:** provide a statistics section that indicates how you would analyze the data that you describe in #2.

**Results:**

1. Draw a graph or present a table of data that you think (or hope) you may get (or already have collected).

2. Explain it in one short paragraph.

3. **Optional:** do the statistical analysis that you describe in the methods, even if your data are made up and include that in explaining the results.

Together, these should be no more than 1 1/2 pages (double spaced, as always).