A Guide to Writing about EE Biology
and
Editing your Papers

Writing and editing are both learned skills that require lots of focus, thought and work. You need to understand grammar and have the ability to hold a sequence of sentences in your thoughts to determine if it all makes sense.

1. Read the assigned pages on writing strategies and writing problems (Pechenik and LaMotte)
2. Read your paper as if it were written by someone else…..evaluate logic, use of unnecessary words or sentences, conciseness.
3. Practice…

Note: this guide is general and some details do not apply to writing that you’ll do in this class. You will write your Abstract (= Summary) first, but the general strategy for organizing it is the same for a longer paper. See the specific assignment for Abstract details for this course.

The two most important steps to successful writing:
   a. Make an outline/list of points before you start to write. This is the best place to edit for logic and flow and will make writing much easier.
   b. Edit ruthlessly.

NOTE: ALWAYS first do major edits on printed (double-spaced) copies.
DO NOT do this on the computer → you will miss many writing problems this way, including flow, whether you use tenses consistently throughout, etc.

How to write a paper/report/thesis/proposal:

A. Strategy: Plan ahead, don’t just write.
   1. Outline/list (include only essentials, key words, bullet points). In the long run, this will save you lots of time and the need to do major edits for logic and flow.

2. Order of thinking:
   • Results – main points, think through figures and tables you’ll need.
   • Methods – how did you get the results?
   • Discussion – main messages of data, how link to previous work?
   • Introduction – main context, your questions/hypotheses

3. Date/paginate everything:

B. Writing:
Hint: Write in the same order as for the Plan
1. Abstract/Summary: For papers in journals, this may be all some read, so use this as a ‘hook’ to get more readers.
   - EEB-journals usually do not include data or stats
   - Written last.

2. Introduction: context, aims, your specific approach/questions/hypotheses
   - Don’t state the obvious
   - 3-5 pp (not for your proposal in Bio183)
   - What is known – give context, be informative
   - What is not known relevant to your work
   - Why/How this study addresses these unknown issues
   - Aims/hypotheses
   - Raise the major themes from your data and discussion

3. Methods: How, where what: be complete without giving unnecessary details
   - Organisms used
   - P-values – give in results, not methods (may vary for different sets of analyses)
   - Sample size – depends on variation, logistics, etc.

4. Results: present and explain data
   - I recommend that you start with general patterns then specific.
   - Think through the tables/figures before you start (see outline).
   - Don’t repeat info in text, table, figures give only once.
   - Explain the main points of the tables/figures in text.
   - If table/figures are complicated, help the reader understand them with an example (e.g., “There were 3 species of algae at high temperatures, but many more when the temperature was low (Fig. x).”)
   - Put legends on all tables and figures.
   - Check out the format you need (thesis requirements?) for tables and figures.
   - Figures: keep simple and have clear differences among the categories you use subtle shading doesn’t work well.
   - Have discrete sections with sub-titles to help organization and flow.

5. Discussion:
   - Interpret data don’t simply repeat results.
   - Address all themes raised in the introduction.
   - Subtitle separate sections/themes as needed.

6. Acknowledgments: be diplomatic (politically correct) and generous.

C. Editing (same as for your proposal summaries: see sections by LaMotte, Pechenik, and notes from this class on editing – on class website).