

## Ecology – Research Report 2 Assignment

**Topic:** Biodiversity lab

**Due:** Reference synopses due March 11; Research report due March 16 (both due promptly at the beginning of class)

**Length:** Long enough to include all important information described below. This will probably be *at least six pages* of text (typed, double-spaced, normal-sized font and margins).

**References:** at least 5 relevant *scientific journal articles*; turn in a photocopy of the first page of each article with your report

**Reference synopses:** For two of your references, write a short synopsis of the article. Each synopsis should summarize the research question, methods, results, and conclusion, and should also describe how this reference relates to your research report topic. Due March 11; turn in along with a photocopy of the first page of each article.

**Grading:** This assignment is worth 150 points. Your report will be graded on content as well as format and clarity. The report will not be judged on length, but on whether it includes all essential information. Refer to the paper checklist to see what I'll be looking for in each section. This is a big chunk of your grade, and I expect a major effort on this assignment. You will be held to a high standard, for both content and clarity!

**Content:** Your research report will follow the general format of scientific journal articles. In your research report, you should tell the reader what your research question was (introduction), what was done (methods), what you learned (results), and how your results relate to the research question (discussion). These components of the research report are explained below. Also refer to the checklist to make sure that your report meets the requirements that it will be graded on.

Abstract – concise summary (approximately 200 words):

- why the research was done
- hypothesis/specific research question
- methods
- results
- conclusion

Introduction – what is the question and why is it interesting?

- general ecological concept(s)
- specific phenomenon
- what other research has been done
- specific hypothesis/prediction/goals

Methods – how was the question addressed?

- what, where, when, **how**, why
- treatments, controls, measurements
- analyses (what, how, **why**)
- NOT a list (and not restating the lab handout!)
- enough detail to allow a fellow researcher to repeat the experiment

Results – *what are the results?*

- explain results
- refer to figures and/or tables
- no redundancy between figures or tables and text
- relate results to hypothesis

Discussion – *what do your results mean?*

- summarize results
- conclusion about hypothesis (in light of the results)
- relate to other research (with references)
- consider alternative explanations / discuss weaknesses

Literature Cited – *published studies to which you refer in your report*

- at least five scientific journal articles
- must be cited in introduction and/or discussion
- follow format used in the journal *Ecology* (see sample articles on course website)

Tables and Figures

- with captions, axes labeled
- at end of report

For excellent and detailed advice about how to write a research report, consult the *Guide to writing research reports*, posted on the course website.