Plant Ecology – IB154
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Spring 2005

Literature Critique #1 – Due week of February 8

Article: Tyler, C.M. 1996. Relative importance of factors contributing to postfire seedling establishment in maritime chaparral. Ecology 77: 2182-2195.

Writing critiques

The purpose of writing critiques is to help you think critically about scientific information and to help familiarize yourself with the scientific method. The critiques will also give you practice writing in a scientific manner. Critiques are not book reports or simple reviews – they require critical assessments.

You critique should show evidence that you have:

- Read and understood the paper at an advanced level;
- Moved beyond the facts presented by critically evaluating the implications of the results and the way in which the paper is written;
- Successfully expressed your ideas through clear and careful writing.

Critique structure

1. Your paper should open with a discussion of the main question(s) addressed by the author and a description of the specific hypotheses she tested. You should also include a couple of sentences describing the study system. If you do not believe that a hypothesis was tested, then you might state this investigation was a descriptive study designed to examine…(whatever topic). In such a case, you could also criticize the fact that the authors did not propose any specific hypotheses.

2. Give a brief description of the methods used to address the questions or hypotheses. Comment on the methods used, addressing some of the following questions: Does the system seem especially well-suited for examining the phenomena studied? Were the methods, in some way, unique or especially interesting? Or, were they standard fare, as far as you can tell? Do you see any problems or shortcomings in the methods?

3. Did the provided data answer the questions that the authors set forth? Was the presentation of the data (figures or tables) clear and convincing? Can you see any obvious problems or inconsistencies with the way the data were analyzed or interpreted?

4. Comment on your opinions of the conclusions. For example, you could state whether or not you agree with them. Or, were they surprising? Confusing? Mundane? Do they suggest that further work in the area might be fruitful? Do they give a new explanation for previously observed phenomena?

5. Are the results able to be generalized to other systems? Do the authors make any attempt to link their work to that of others in their field? (This should come out in the Discussion section). Do their results have larger implications (e.g. conservation, economic, cultural?)

6. Comment on your opinion of the writing in the article. Is the paper hard to follow? Poorly organized? A pleasure to read?

Things to note

1. The critiques should be 2-3 pages long, double-spaced, in 12pt font. These are going to be short papers; part of the challenge of this assignment is to express your ideas concisely.

2. This is an essay, not an outline. Do not list off your points with numbers and bullets.

3. Express your opinion. This is a critique, not a book report. Please don't get hung up criticizing trivial points, however. Look for both the good and the weak points of the paper.

4. You might find it useful to look at some of the articles cited in your article, to give you a better understanding of the topic or system. This is not, however, a requirement of the assignment.

Don't forget

- Citation format: You do need to cite the article you are writing about, but please mention both the title and the authors of the paper in the introductory paragraph of your critique. If you need to cite any other articles, use parenthetical citations in the form: (Author name, year). Use the citation format of the journal *Ecology* in a References Cited section at the end of your critique.
- Quotations: Do not quote directly from the paper. *Always* use your own words to paraphrase the researchers' methods or findings. In fact, direct copying of the author's prose (without acknowledgement) is plagiarism.
- Tone: Although this is, in many ways, a creative assignment, it should not be written in a conversational or otherwise informal manner. You might find it useful to study the way in which a review article in a scientific journal (such as the Howe and Smallwood article we read the first week) is written if you have any uncertainty about writing non-research papers in a formal scientific style.
- Scientific names are always written the format *Genus species*. They must always be italicized, the genus name should be capitalized and the species name should be lower case (e.g. *Adenostoma fasciculatum*). After you have introduced a species, it is acceptable to refer to it by only the genus (e.g. *Adenostoma*) or to abbreviate the genus to a letter, as in *A. fasciculatum*.