

Reading a Journal Article

Adapted from: "Guidelines for Reviewing a Scientific Paper" Written by Janet Fischer, Department of Biology, Franklin and Marshall College

When you are reading a scientific paper, you must read it more thoroughly than you have ever read any material before. You should be prepared to spend at least 2 hours reading and thinking about it; but do not be surprised if critical reading requires 4-5 hours. Remember... the published word is not gospel and every scientific paper has flaws and weaknesses. I suggest that you critique a scientific paper with a pencil in hand, and that you write your comments and questions in the margins.

After reading the assigned paper, answer the questions outlined below in your notebook. During the class period that the paper summaries are due, we will briefly discuss the assigned papers as a group. All students are expected to critically read the paper before the class discussion and to share their ideas and comments in class

To summarize the major goals, approach, and findings of the paper, answer these questions in you lab notebook:

- 1) What was the hypothesis or objective?
- 2) How was the hypothesis tested? Did the study involve a long-term data set, a lab or field experiment, a mathematical model, or a combination of approaches?
- 3) What were the major results?
- 4) What does the author conclude?
- 5) What are the implications of this research? How can this research be applied to solve ecological problems?
- 6) Will the findings of this study apply to other systems (e.g., can the results of a marine study be applied to terrestrial plants)?