

Predation, parasitism, and disease . Due April 21 24 points.

Find a scientific article in the **primary literature** (not a summary or news article, but the actual study that presented the data you're interested in) that deals with predation, parasitism, or disease and that you can relate back to what we've covered about this in class.

A good way to find suitable articles is through the library's online search tools such as BioAbstracts (available as an "electronic database" at the library website). Or from off-campus you might try 'google scholar' (<http://scholar.google.com/>). You will probably get more interesting papers if you search with attention to a species or taxonomic group you're interested in (e.g., search for "predation *panthera leo*", or 'disease ecology rabies'). Using a scientific name will usually give more useful results. You might also include a particular aspect of predation you're interested in (e.g., search for "predation population cycle"). Ask me if you're not sure whether your paper would qualify.

You do not need to read the entire article in great detail. Focus first on the abstract, to see if it is likely to fulfill your needs. Then skim the article to confirm that it deals with predation, parasitism, or disease in some way related to what we've done in class. Then answer the questions below. Choose a paper that will let you answer these questions!

1. Give the full and correct citation for the article (see bottom of page).
2. What hypothesis or question did the author(s) set out to answer?
3. Why is that hypothesis or question of interest to an ecologist?
4. What methodology was used? (theory, field exp, natural experiment, lab experiment, etc.). Then briefly describe the essential approach taken to answer the question (e.g., 'set up lab populations of mites and record population sizes').
5. What organism was studied, and where? (give the scientific name, and common name if available; present the names 'properly,' as described in class). Or was there no organism?
6. For how long did they study this creature (in years, AND in approximate number of generations; estimate the number of generations if not reported directly in the paper)?
7. Is the conceptual model (predator-prey, disease, etc) used in the paper similar to the one we used in class? (Does it make the same assumptions?) If not, briefly explain what additions or modifications have been made, or what model is used (if any).
8. Are any of the values in the relevant equation reported (e.g., R_p , c)? If so, what are they? If not, explain why this paper is relevant to the assignment.
9. What did the authors indicate was the major conclusion of the study?
10. What did you learn from the article? (briefly – a couple of sentences)
11. Describe any important part of the article that was unclear to you in a sentence or two.

Background

The "primary literature" refers to journals that report the results of original scientific research. For this exercise, please choose from among these journals that focus on ecological topics. The list of journals in the previous literature assignment is a good starting point, but if you are not sure whether a journal would qualify, ask me. These sources are available either in the Science Library's current journal room (the glassed-in room on your left as you enter), or in the Library's 'Electronic Journal Center' online (<http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals>) (or go to www.uakron.edu/library, and click on 'electronic resources', then on 'electronic journals', then on 'electronic journal center'. Other journals are acceptable (including medical and epidemiological journals), but **do not** use popular articles (e.g., Scientific American, newspaper, web news services).

Citations: Use this format:

Author(s), year. Article title. Journal Volume:pages.

For example:

Chamaillé-Jammes S, Fritz H, Valeix M, Murindagomo F, Clobert, J. 2008. Resource variability, aggregation and direct density dependence in an open context: the local regulation of an African elephant population. *Journal of Animal Ecology* 77: 135–144