OBJECTIVES

The primary objectives of this assignment are (1) to give you the opportunity to explore a topic in freshwater ecology that is interesting to you, (2) to fine-tune your skills in evaluating, synthesizing, and communicating scientific information, and (3) to expand your awareness of the sources of primary information on freshwater ecology.

STRUCTURE OF THE PAPER

This will be a review or synthesis paper. I expect you to use the primary literature to identify broader and/or particularly interesting themes related to your topic, then to build the body of the paper around these themes, citing the primary literature to support specific statements and interpretations. In general, there are three main elements to a review paper: the introduction, thematic sections, and the conclusion.

Introduction: Your main goal in the introduction is to get the reader to keep reading. One good way to do this is to communicate why anyone in their right mind should be interested in your topic (independent of your conclusions), then to offer a ‘trailer’ for the body of the paper, and to close with brief descriptions of the broader implications that you will discuss in your concluding paragraphs.

Thematic sections: The main body of the paper is built around thematic sections representing the aspects of your topic that you find most interesting. Selecting these aspects is subjective, but you need to have enough citations to build each section. The exception is where you believe that an important aspect of your topic has not been addressed in the primary literature. It is great to build a section around these research “gaps”, and this can be especially effective in promoting new research. But keep in mind that there is A LOT of primary literature out there, so you want to be sure that someone has not done the research you see as lacking.

Conclusions: Here you want to provide a concise review of the MOST interesting and important points that came out of your work reading and evaluating the primary literature. This is where you lay out the handful of main points that you absolutely-positively want the reader to take away. To show her/him why it is important to remember these points, it helps to discuss their implications (e.g., “Many studies indicate that stream salamanders will feed on cats and dogs when other prey items become rare. This has the potential to influence the profit margin of pet stores in areas where stream salamanders are abundant.”)
**SPECIFIC ASSIGNMENTS**

***All assignments will be double-spaced, in 12-point font***

**Prospectus (September 30)**

- This is what you would write if you were trying to convince a journal editor to publish your paper. It will include (1) several sentences of introduction, (2) an outline of the thematic sections, and (3) your best guesses on the major contributions of the review (e.g., “I expect this review to provide valuable insight on X, Y, and Z.”). Cite the papers or books that you expect to contribute the most to the overall paper. The prospectus is a lot like the abstract of research paper, but with a few citations.
- This is also a way to help me to direct you to useful sources of information.
- 200 – 300 words
- 3+ citations

**Outline (October 23)**

- This will include (1) complete drafts of the introduction and conclusion, and (2) bulleted outlines of the thematic sections. Specifically, each section should have a title (e.g., *Interactions between salamanders and house pets*) followed by bullet points corresponding to each paragraph of the section where you indicate the main point of that paragraph and the citations you will use to support that point. For example:

  - Several studies conducted along Tennessee rivers suggest that that rainfall is important in controlling access to housecats during the summer (Lowe 2002, Sepulveda 2004). Specifically, high rainfall events were associated with spikes in reports of lost cats in suburbs surrounding Memphis.

I suggest aiming for 3-5 paragraphs per thematic section.
- 800 – 1000 words
- 10+ citations

**Full Paper (November 25)**

- 1500 – 2000 words
- 20+ citations
CITATION FORMAT

• In text (by date, then author):

• In bibliography (alphabetically by author):
  o Journal article
  o Book
  o Edited book
  o Book section