Freshwater Ecology Laboratory

Finding and summarizing primary literature assignment

Due 31 August 2018

15 pts

When starting any new research project, it is important to learn about what others have found before you. Today, there are many electronic resources available to help us find scientific literature, but it can be daunting to know where to begin and how to proceed. Your goal will be to begin the process of finding and summarizing peer-reviewed literature that is relevant to your project.

Our project will focus on the response of ecological variables (i.e., organisms [benthic macroinvertebrates], water chemistry, ecosystem processes [cellulose decomposition]) in depressions left by overturned trees that are unconnected by stream surface water. You need to find **five relevant peer-reviewed** articles or book chapters for this project. One citation must focus on these unique depressions and one must focus on cellulose decomposition as a tool for ecological study, but the other three are up to you in terms of their focus.

The first articles you find may not be of much help. Instead, you need to read the abstract (and skim the article if available) to see how helpful the article will be for the project. Because scientific articles usually only have a few major findings, it is a good idea to take notes of these findings immediately to help you get a better overview of the field and how this article fits in the overall field of study. So, for **each** of your five articles you need to **write three to five sentences describing the key findings of the paper and why the paper is useful for our project**. Do not copy the abstract; summarize in your own words.

Citations and summaries for each article need to be typed and turned in as **BOTH paper and electronic forms**. COMPLETE THIS ASSIGNMENT INDEPENDENTLY OF OTHERS! Besides not cheating, the effectiveness of our group search will be much higher than if we work together.

A typical citation format for you to follow is:

Last name, J.J., other authors. YEAR. Title. Journal name Volume:Pages.

A selfish example (note the hanging indent; usually, that's standard practice):

Laliberte, L., J.O. Luken, J.J. Hutchens, and K.S. Godwin. 2007. The ecological boundaries of six Carolina bays: community composition and ecotone distribution. Wetlands 27:873:883.

Search engines will help you find relevant literature quickly, although they often only tell you that an article exists and do not link to the full text. One good one is Google Scholar because it is free and it often links you to the full text. Kimbel Library at CCU provides several great article databases online (use the Browse Databases option on the homepage; from there click "Browse All Databases"). The best one for discovering articles is Web of Science. Not only will it tell you an article exists, but it usually lists the citations within an individual article so that you can review what other scientists in the field have found. Although most Web of Science articles have an abstract, they do not always have the full text (check the link 'Find Full Text' that is at the bottom of each citation). Other good ways to access full text on the Kimbel page, include 'BioOne', 'Environment Complete', 'JSTOR', 'ScienceDirect', 'SpringerLink', and 'Wiley Online Library'. Another helpful way to see if CCU has access to the full text of an article is to use 'Find Journals' to examine whether we have access to the individual journal.

Also, **I cannot overemphasize the importance** of examining the Literature Cited section at the back of articles to see what other articles may be out there (especially the older ones), which are often missed by newer electronic search engines.

Finally, at this point, do **NOT** ask for any articles using Inter-Library Loan or PASCAL, (downloading PDF's is fine). We'll review which articles may be best as key resources and see whether ILL is necessary.