

Term Paper Guidelines BIOL 645

The term paper is a required part of the course worth 150 points. The paper should address some coherent topic or question through the use of the scientific literature. You may select any topic which falls under the general rubric of freshwater ecology and which may be dealt with through scientific literature. The topic could be basic research or applied. The topic should be one which you have not written a term paper on before or should expand or extend significantly on previous efforts. While material from the "grey" literature (government reports and other non-peer reviewed publications) may be used, this material should constitute no more than 1/2 of the referenced citations. In other words at least half of the citations in your paper should be from the primary scientific literature, that is peer-reviewed journals and edited books from reputable publishers. As a rough rule of thumb about 20 articles should be included in your review and referenced in the Literature Cited section of your paper. That means that you will certainly need to look at 30-40 papers to get what you need. The paper should be about 15-20 double-spaced pages and must be typed.

The topics of some past papers are shown below just to give you some ideas.

Dominance of blue-green algae in eutropic ecosystems.

A review of the reproductive ecology of the freshwater mussels of the Unionacea.

Predation and freshwater macroinvertebrate communities.

Ecological and adaptive implications of factors that induce production of mictic females in rotifers (Order Monogononta).

The viability of stomach contents analysis as an indicator of diet composition in fish.

Thermal loading: a little bit of feast, a little bit of famine.

The effects of acid rain on freshwater environments.

Lake Baikal copepods.

In some cases a very narrow topic will have a significant amount of literature and will be appropriate for a term paper. In other cases you may have to widen the topic as you go to get sufficient literature. The GMU Library has a number of the important journals in the field of freshwater biology including: Ecology, Limnology and Oceanography, Archiv fur Hydrobiologie, Internationale Revue gesamtem Hydrobiologie, Freshwater Ecology, Aquatic Botany, Journal of Phycology, Journal of Plankton Research, Applied and Environmental Microbiology, Archives of Environmental Contamination and Toxicology, Canadian Journal of Fisheries and Aquatic Sciences, Hydrobiologia (1976-81 only), Journal of Ecology, Journal of Freshwater Ecology, and Journal of Protozoology. I subscribe to a couple of others not taken by the library: Verhandlungen Internationale Veriengung Limnologie, and Journal of the North American Benthological Society. You also have access to the other libraries in the DC Consortium. The University of Maryland also has an excellent library which is open to the public. Some journals are now available on line.

In order to get started on your topic, try consulting your textbook as well as indices and computer search services available in the library. **START EARLY!** This will allow you maximum leeway in obtaining references and adjusting your topic before you start feeling the deadline coming on. To make sure you are getting started, you must submit a topic, outline, and initial reference list of at least 5 articles to me by Feb. 21. I will get this back to you on February 28.