Aquatic Chemistry Research Project

Practicing scientists look up information for more often than they “know something off the top of their head”. There is no shame in this. It is good to know things, but it is also good to know how to find information. The exercise that follows is designed to introduce you to several of the key steps involved in finding, and understanding, scientific information. It will also give you a chance to explore a topic that interests you in more details or to get a head start on the research you will want to do to write your laboratory reports.

Assignment: Pick a focused topic within the broad topic of aquatic chemistry. I’ve suggested a number of topics below but you can select one of your own. Find two articles on the topic you have selected. One article must be a primary research article and the other article must be a more popular treatment of the same topic. For the purposes of this assignment, even a review article in the research literature will be considered to be a more popular treatment, but you could use a non-peer reviewed web site for this second source. Then, summarize the main finding of the research article and the experimental approach that the scientists used to reach that finding. If they were explicitly testing a hypothesis, what was that hypothesis? Summarize the main point in the more popular treatment of the same subject. What evidence do you have for the validity of the information in this source? How does the information in the two sources relate to each other?

Anticipated length: 1-2 pages, typed, double spaced. Due: February 2\textsuperscript{nd}.

Possible topics include:
Effects of nitrogen based fertilizers on lakes
Effects of nitrogen based fertilizers on estuaries
Effects of nitrogen based fertilizers on marine ecosystems
Effects of changes in trace metal concentrations on marine ecosystems
Effects of changes in salinity on coastal environments
Effects of pesticide run-off on surface waters
Effects of nitrates in ground water
Effects of excessive acidity on lakes
Effects of excessive basicity on lakes
Effects of aluminum on fish
Examples of low oxygen aquatic environments.
Effects of high phosphate levels on lakes.
Ways of measuring ANY of the chemical species you are measuring in lab.

Library meeting times. All meetings will take place in the library instructional room. Attendance is required and will be taken. Week of January 24\textsuperscript{th})
Monday pm 1:30-2:30
Tuesday am 9:00-10:00
Tuesday pm 1:30-2:30