



Ecology

Midterm Paper Guidelines

Project objectives:

1. Identify an ecological problem that threatens to disrupt the provision of an ecosystem service or services.
 - Please define the problem as specifically as possible. For example, “pollution” is too broad a problem; if you want to discuss pollution, you need to choose and research a specific pollutant.
 - Please define the threatened ecosystem service(s) as specifically as possible. Remember that ecosystems provide a broad range of services, from the purely aesthetic to vital necessities. Anything that humans value from an ecosystem can be considered a “service”. Make sure that the problem you cite does not simply waste and/or degrade an ecosystem service, but actually disrupts the provision of services by an ecosystem.
 - You may not use one of the specific ecological problems we covered in class; however, there are many related problems that you can choose.
2. Describe the root cause(s) of this ecological problem.
 - To fully meet this objective, you need to cite SCIENTIFIC EVIDENCE (in other words DATA) that identifies the root causes of the ecological problem. Whenever possible, you should trace this evidence back to its source.
 - Discuss the kinds of experiments and/or observational studies used to produce this data.
 - To receive full credit, you must cite at least THREE SOURCES OF RELEVANT DATA. These sources could be papers from the primary literature, reports from reputable agencies/ organizations, or online summaries of data posted on reputable sites. Please contact your instructor if you are unsure about the validity of data you have uncovered, particularly if it comes from the web.
 - Use figures, graphs, or tables from your sources in your *Appendix* (see below). Make sure to properly cite the source of all components of the *Appendix*.
 - Where the root causes remain uncertain, explain why existing scientific evidence fails to clearly identify what is causing the problem and suggest the kind(s) of research that needs to be done.
3. Discuss your proposed solution(s) to this problem.
 - Clearly explain how your proposed solution works and how it would be implemented.
 - What are the other possible solutions to this problem? Discuss the pro’s and con’s of every potential solution. Justify your proposed solution based on its costs/benefits compared to other potential solutions.
 - Use data from the scientific literature to support the choice of your proposed solution.
 - Ground your solution in the political, economic, and social realities of the region/country in which this problem is occurring. Your solution will be judged not only on its potential ecological efficacy, but also its real-world feasibility. BUT, don’t allow this stipulation prevent you from thinking big -- most of the solutions required to restore ecosystem services must occur on a large scale. ALSO, don’t allow political cynicism to limit your suggestions -- assume that if your argument is convincing enough, you could muster political support for your proposed solution.

Proposals:

You are required to submit a short project proposal by Tuesday, **February 19th, 2013 @ 11:59 pm**. All proposals will be through the *LMS* system. Your instructor will post comments on *LMS* letting you know whether the project proposal is approved; if the proposal is not approved, you should contact your instructor during office hours, by phone, or via email. To get some ideas for your project proposal, you can take a look at exemplary past projects here: <http://www.christopherxjensen.com/teaching/student-work/ecology-student-work/#midterm> (please note that your project proposal must be sufficiently different from the projects on this page).

Format of the Paper:

1. Please present your work in type-written, **single-spaced** format. Font should be 12 point, margins should be 1" on all sides.
2. Produce at least two (2) and no more than four (4) pages of **single-spaced** text.
3. Provide an *Appendix* (does not count towards page minimum or maximum) that presents figures, charts, images, or other helpful auxiliary information to support your paper. Label each part of your *Appendix* with a letter (for example, the first item will be "Appendix A"). Make sure that you refer to all parts of the *Appendix* in the main text of your paper.
4. Reference all ideas that are not your own using a numbered *Bibliography* (does not count towards page minimum or maximum) appearing at the end of your paper. Both superscripts¹ and bracketed [2] citations are acceptable, but use a consistent format.

Citations:

1. All citations must be referenced in the text. In referencing your citations, use the correct number from your numbered bibliography. *For example*: "Methane released by livestock represents a major contribution to greenhouse gas emissions [6]."
2. Please use a standard bibliographical format and use it consistently.
3. Please be careful about web citations. Much of what is published on the web is unreliable. It is up to you to assess the validity of all your sources.
4. Internet references should be cited with a page title, a full URL address, and the date accessed. For example: Jensen, Christopher X J., "The Quest for the Perfect Hive", <http://www.christopherxjensen.com/2010/06/07/the-quest-for-the-perfect-hive/>, Accessed 9-Sept-2012.

Submission of the project:

This project is due on Tuesday, **March 5th, 2013 @ 11:59 pm EST**. All papers should be directly uploaded to the *Learning Management System* in *Adobe PDF* format. There is a 10% penalty per day of lateness.

How you will be graded:

Your grade will be primarily based on how well you meet the objectives stated above. In addition, your instructor will assess how well you expressed an understanding of ecological concepts. All written work is expected to use proper spelling and grammar, except where obvious and necessary creative liberties are being taken with the language. Please see the *LMS* for sample grading sheets that provide you with a precise idea of how you will be graded.

On academic honesty:

Plagiarism of any kind will not be tolerated. All cases of suspected plagiarism will be turned over to the Registrar's office for potential referral to the academic judiciary. Please be careful to indicate the source of all ideas other than your own; this includes both direct quotes ("ecology is the science of...") and paraphrasing of books, scientific papers, and websites. Careful citation makes you seem more authoritative in whatever you write. For more detailed information on avoiding plagiarism, please see: <http://www.christopherxjensen.com/teaching/for-students/#no-plagiarism>.