

**Guidelines and Suggestions for Environmental Analysis Paper**  
**ENVS 10 Sect. 06 Fall 2008**  
**Lecturer: Stephanie Coppeto**

**A. Overview:** This paper is designed to introduce you to current environmental topics and the peer-reviewed literature and show your critical thinking skills. In this assignment, students will objectively analyze an environmental topic of your choice using known scientific (and peer reviewed) facts relevant to the issue. The paper must be based on independent and original library research you have conducted.

**B. Topics:** Choose one environmental topic to research in the library. Make the topic specific so you will be able to find the right articles and cover your analysis in three double-spaced pages. There are many possible topics to choose from so get creative – is there an environmental question that has been bugging you? - use this opportunity to research it! Carefully analyze the topic using known scientific facts you have gained and ask yourself the following questions: Why is your topic important? What are the main issues? How does the research you have found shed light on the topic (use specific examples with citations)? Question the explanations – do they address the problem, do their results seem plausible? What are some future directions for research in this area? How does society (morals, politics, policy, etc.) influence science in this area? How does science in this area influence society?

Example topics:

“The effects of climate change on”:

- species geographic ranges
- coastal wetlands
- water resources in California
- California native plants
- indigenous human communities
- restoration of the San Francisco Bay Delta

“The effects/benefits of”:

- GMOs on public health
- Transportation on wildlife movement (choose a specific species)
- Invasive species on biodiversity
- Habitat fragmentation on biodiversity
- Wind turbines on migratory birds
- Restoration for vernal pool/wetland conservation
- Recycling for decreased waste production

“The conservation of”:

- California tiger salamander
- San Joaquin kit fox
- California spotted owl
- Salmon

See the US Fish and Wildlife Service and California Department of Fish and Game web sites below for lists of endangered and threatened species: [http://www.dfg.ca.gov/wildlife/species/t\\_e\\_spp/index.html](http://www.dfg.ca.gov/wildlife/species/t_e_spp/index.html)  
[http://ecos.fws.gov/tess\\_public/StateListing.do?state=all](http://ecos.fws.gov/tess_public/StateListing.do?state=all)

**C. Paper Content:** The paper should include the following sections (more or less):

- 1) Title: Make it catchy but make it true to the content of your paper and make it brief
- 2) Introduction of the issue (first paragraph) – discuss sources of the problem, symptoms of the problem, and any other relevant information to introduce the topic
- 3) Body of the paper: Following the introduction, you should expand on your specific topic. Think, what are the major points you want to make? Choose a few and describe how your articles

- demonstrate these issues. What makes these issues important overall? Use concrete examples from the articles (remember to cite!). Analyze the situation – does the science provide plausible explanations? How do societal views influence this area of science and vice versa?
- 4) **Conclusions** (last paragraph or two): Summarize the major points of the paper and describe future directions for research in this area.

**D. Literature Sources:** You are required to use at least two peer-reviewed articles but may also use book chapters (including your textbook if appropriate), “gray literature” (government reports and environmental impact statements and reports), and **one** internet source (Wikipedia **can not** be used as a source). You must use your own words when summarizing the information in the articles (or else you are plagiarizing). You must cite the literature you use in the body of the paper and in a “References” section at the end of the paper. In text citations will include the author’s last name and year of publication (Smith 2007) and must follow any findings that came from the research of the peer-reviewed article. For papers that have two authors, citation will look like this (Smith and Jones 2006). For papers with more than two authors, the citation will look like this (Smith *et al.* 2005). You may incorporate figures and tables if they are properly identified (cite the source and include a title with a figure/table). The References section and figures and tables are not included in the page limit.

Hint: sometimes it helps to do a search for a “review” peer reviewed paper; if one has been written on your topic – this can provide you with the big picture. Please do not use more than one review paper.

For guidance on citing reference in the text of the paper and in your references section, please see the Council of Biology Editors Online Guide:

<http://www.bedforstmartins.com/online/cite7.html#1>

**E. Tables and Figures:** You may incorporate figures and tables if they are properly identified (cited) and include a title. Figures and tables are not included in the page limit.

Some specific pointers on writing:

1. Do not write in the first person (this is not a research paper but review and analysis of research papers)
2. Make an outline first or brainstorm ideas in a way that keeps your thoughts organized.
3. Talk with a friend or family member about the topic.
4. More words do not necessarily mean more points – keep your written responses straightforward and to the point – absolutely No Fluff!
5. Ask for a peer review – asking a friend/parent to review your paper can be a tremendous help – do your statements make sense to someone else reading them for the first time?
6. Remember the basic structure of a paragraph – Topic sentence, supporting sentence, concluding/leading sentence to the next paragraph. Subheadings can sometimes be helpful in staying organized and breaking up major points.

**F. Format and Deadlines:** The assignment is divided into three parts. All parts should be formatted in 12 point Times New Roman font, double-spaced with 1-inch margins. Any papers exceeding the assigned page limit will be penalized 5% of the total possible grade.

1. **Paper Outline (due Oct. 7):** In one page, identify the specific environmental issue, summarize the main topics you will cover and the main themes of the paper. Include a references section listing the relevant articles you are using.
2. **Draft Paper (due Nov. 6):** A three-page draft of your paper should be as complete as possible. Remember, more work done now means fewer revisions for the final paper. The draft should include comments made on the topic outline if you feel these will improve the paper. References and tables/figures are expected in the draft.

3. Final Paper (due Dec. 2): A three-page final paper that is checked and double-checked for errors. The final paper should incorporate the suggested revisions from the draft paper if you feel these improve your paper. Submit the reviewed topic outline and draft paper with your final paper.

**G. Grading:** Your paper assignments will be graded on content, grammar and style, and references. Please consider the following when you are writing and reviewing your papers:

1. Paper Content: Organization of thoughts, relevancy of topic and paper selected to the topic, depth of exploration into topic, level of work, level of analysis and critical thinking, inclusion of societal role, care in proof-reading, frequency of typographical and spelling errors.
2. Grammar and Style: Margins, font size and type, use of subheadings, sentence structure, proper use of adjectives/adverbs, tense, neatness of presentation, overall style.
3. References: Presence, correct style, number of citations.