

Biology 273: Marine Ecology

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Overview

As part of my course on marine ecology (Biology 273) I developed a series of exercises addressing plagiarism, critical reading of scientific articles, and researching and writing a short critical review of a specific topic in marine ecology.

A. Exercise on plagiarism

After a discussion of the basic copyright laws and the University's Academic Code of Honesty, I provided students with a series of examples of plagiarized texts and an example of non-plagiarized writing. I then provided them with a short article on a current topic in marine ecology and ask them to write a brief summary of it, being careful to avoid plagiarism. Students evaluated each others' unidentified work, checking it for clarity and lack of plagiarism. They then had the opportunity to revise their work before turning it in. I evaluated their work based on their ability to summarize a scientific text in their own words. I was pleased to see that all students avoided plagiarism and understood how to think critically about the paper they read.

B. Comparison between a primary source and its presentation in the course textbook

Originally I intended to provide groups of students with pairs of articles on a similar topic, one from a peer-reviewed scientific journal and another from a non-peer reviewed magazine or website. I had trouble, however, finding appropriate pairs of papers that we had easy access to. Instead, I asked students to select a paper featured in their textbook and compare the primary source to the treatment in the text. This was possible because the text is extremely well-documented and includes many case studies from the scientific literature. Students addressed a series of questions regarding the evidence on which the authors based their statements and the confidence the students had in those statements. Each group presented their findings to the class as a whole. We also had a general discussion on evaluating information provided by diverse sources. Groups were assessed on their ability to discern distinctions between information gained from diverse sources. Students uncovered a surprising number of errors in citations in their text as well as inconsistencies between the primary source and the manner in which it was portrayed in their book.

C. Research paper on marine fisheries

Each student selected one species for which there is a significant marine fishery or aquaculture market (examples include red snapper, tilapia, albacore tuna, shrimp, and oysters). Katie Duke provided a library presentation to help students locate resources appropriate for this project. Each student researched and wrote a paper to assess the resources available

few had difficulty with the basic skills of writing a research paper, especially in having a thesis to the paper and using information from external sources to support their thesis.

Impact on teaching and student learning outcomes and assessment