

## Bio-6C Field Project: Report & Presentation

Your project report will consist of a typed abstract & reference list, a one-page *Methods* flow diagram, and an oral presentation to the class. Each presentation will include a PowerPoint® slide set, and should be precisely twenty minutes long, plus five minutes to answer questions. We will treat these talks as formal research presentations at a professional conference. So it is important that you prepare your report seriously and carefully — and practice your presentation delivery and timing in advance! At a real academic conference, a talk either too short or too long is unacceptable.

All participants in each study team are expected to participate equally in all parts of the project — including giving the talk! You may want to delegate a moderator to direct the flow and keep everyone on time. Additionally, all students are required to attend all of the presentations *and* to contribute questions or comments during the discussion period.

Reread the Biology 6C “Ecology Research Project” description to make sure that you have fulfilled the assignment. To “present a paper” at an academic conference means more than delivering a casual discussion or narrative. It means that the oral presentation follows the same strict structure and format as does a written research report to be published in a scientific journal. Read the description of the specific parts of a research paper described on the LabWrite website: <http://www.ncsu.edu/labwrite/res/po-quickguide.html> . Also refer to the lab report instructions in your Bio 6B Lab Manual. *In addition* to the above requirements, the following components should be included in your PowerPoint® slides:

- **Opening title page:** Start with a *descriptive* title for your project, a list of the authors of your study (your team members) listed alphabetically, the name of the occasion (Biology 6C Field Project Reports, De Anza College), and the date of the presentation.
- **Introduction:** Include information on why your group investigated this particular topic, why you feel it’s important to study it, what published or anecdotal accounts helped you develop your project. Generally organize this section starting with the most general questions or observations and end with the specific question you are addressing. Remember to specifically state your hypothesis.
  - E.g., “We hypothesized that disturbed oak woodland would have lower shrub species diversity than would undisturbed oak woodland.”
- **Description of your study area:** Specify the location(s) of your sites, including maps and photos if available. Include size of the area along with details like topography and vegetation. Mention who owns or manages the property and how you acquired access.
- **Methods:** Describe your research protocols, sampling techniques, equipment or instruments used, types of statistical analyses, and where you got your methods. How and why were the original methods modified for your experiments and measurements? Where did you get your materials? Overall, this section should be complete enough for someone else to find the same location, do the same methods, and reproduce your project and results.
- **Results:** Present the findings of your fieldwork and experiments in the form of tables and graphs (figures). Each table and graph should be numbered (i.e., Table 1, Table 2, Figure 1, etc.) *and* given a specific descriptive title.
  - E.g., “Table 1: Relative abundances of shrub species in disturbed and undisturbed oak woodlands.”All graphs should have appropriate and labeled scales and keys if required. The purpose of a graph is to quickly and clearly present the results to the reader. As such, they should be simple and uncluttered. Graphs of data should include standard error bars.
- **Discussion:** Don’t skimp or over-simplify your conclusion. Present truthfully the findings of your fieldwork. Do your results suggest any novel associations or interpretations? Was your hypothesis supported or rejected? How? Where your conclusions statistically significant? How do your conclusions compare to other investigators? Organize this section opposite of your introduction — start with specific conclusions and correlations and end with more general applications and perspectives. Include any suggestions for management, projections for the future, proposed refinements of your methods, and new questions and avenues of investigation extending from your findings.

- A list of **literature cited**: You must cite *at least* five references from reputable scholarly sources, not including textbooks or encyclopedias. Since this is cited literature, you should actually refer to each of them during your presentation. List all sources according the MLA format.

Read the articles, “What Is a Scholarly Journal vs. a Popular Magazine?”, “Evaluating Information Found On the Internet”, and “Citing Sources, Guide to Library Research” on the College Library’s *Research Tips* webpage: <http://www.deanza.fhda.edu/library/researchtips.html> .

This list should also be typed accompanying your submitted abstract to be turned in before your presentation.

- **Acknowledgments**: Thank anyone who helped your group with this project. For example, people who advised you on the methods or locations, agencies who gave you information or access, friends that came out and helped you gather data or carry gear, etc. Be gracious, but relevant. (Skip the personal endearments.)

The great challenge to preparing a good presentation is **BE COMPLETE, BUT BE CONCISE!** So, be prepared and manage your time carefully. If you think a section is too unwieldy (esp. the Results and Discussion sections), break it up into subsections with subheadings. Most importantly, demonstrate pride in your work. Remember that this is a group effort — if your name is on it, you understand the results and agree with the conclusions.

For the abstract of the paper, again refer to the LabWrite website. Basically it should be about a third to a half page long and should contain a one or two sentence summary of major points corresponding to each of the above sections. It should **not** be written in first person, such as “In this paper we’ll tell about ...”. For example:

A survey was done to compare the vegetation at two oak woodland sites in Santa Clara County, one site used for cattle grazing and the other relatively undisturbed. Tree and shrub abundance and diversity were measured by 5 x 50-m band transects, and forb abundance was estimated by quarter-meter<sup>2</sup> quadrats. Trees, shrubs, and forbs all showed higher abundance and species diversity in the undisturbed site than in the grazed site. Furthermore, more exotic species were noted in the disturbed site.

Your list of references can be typed on the lower half of the same page with the abstract.

On the day of the presentation, all members of your team should be on time at the beginning of class, ready to turn in your abstract and load your PowerPoint® show onto the class computer, no matter when you are scheduled to present your paper. Preferably, you’ll have at least a working version the day before your presentation to load and make sure that it works on our computer.

Finally, it is considered good professional etiquette to send a copy of your abstract and PowerPoint® presentation (or a PDF of your PowerPoint® slides) to any agency or property owner that approved your project.