

## Digital Journal - Directions to Students

BIO 597A: Wetland Plants Fall 2013

In this assignment you will be asked to research and visit a plant community. The “final product” will be a visually creative digital tour integrating the information you learned on-line and from natural history collection with a hands-on, in the field, experience. While creating your “final product” you will be asked to formulate some questions and research ideas related to scientific discovery, biology and the living world. Digital tours can be presented in a myriad of visually creative ways but they **must** detail the information gathered, address questions posed in the assignment, address ongoing and relevant questions about biodiversity, and document the physical and virtual locations visited. A PowerPoint with embedded video and images, a YouTube movie, an animated slide show, a *TourGuide* presentation or a new blog are just a few examples of how the digital tour can be presented. Think of this assignment as way to create a virtual visit to your plant community.

The goal is that after completing this series of exercises and experiences, you will be able to:

- Describe raw data available in physical natural history museums and on-line databases.
- Compare types of information obtained from online and physical sources.
- Extract data from virtual resources and on-line databases and convert into meaningful information about the living world.
- Apply information to a key issue related to scientific discovery, biology and the living world.
- Appreciate the value of natural history collections in creating useful understanding of the living world around us.

After picking a Michigan plant community type and specific location (the instructor can help with this), the assignment has three phases:

- Phase One: Conduct and document background research on a specific plant community. This includes investigating different data sources online and visiting a natural history collection. You will be guided through Phase One and instructed to address specific questions.
- Phase Two: Visit an example plant community, record observations, and reflect on the field experience relative to background research. Students are asked to reflect on what they have learned and how they can utilize resources to address relevant research and field based questions.
- Phase Three: The creation of a digital tour. The digital tour is a multimedia presentation and should include information from the background research and images from the field visit. This is where you will report your answers to questions and final reflections addressed in the assignment. Students use the digital journals to present what was completed during Phases One and Two of the assignment and put this in the context of an interesting question or emerging issue in biodiversity science.

The assignment has **very specific instruction** which will help guide you through the virtual and physical site you will be asked to visit and detail the expectations of this assignment (Stay tuned...these will be provided and discussed in detail). The first week of class you will be asked to select a field site. You can then begin Phase One and start the research on your selected plant community. Phase Two is where you visit the site. You will be required to visit outside of class time and take images, video, and screen captures to document your field site. Phase Three is where you pull this together into a virtual tour. Along with a visually appealing tour, you will be asked questions that need to be addressed in your digital journal. Grading specifics are detailed in the Rubrics which will be provided. Be creative and have fun with the final product. Take some risks and enjoy the experience!

### **Phase Three - Digital Journal**

This is the presentation portion of the project and where you accurately represent the work you did in Phases One and Two. This is the phase in which you creatively present what you researched, what you experienced at your field site, and what you learned from this experience. This should be developed as you go along and is graded on the quality of delivery, clarity of presentation, accuracy of information and completeness of the final product. This portion of the assignment is also the part in which you are free to express yourself and be creative. Regardless of how you decide to present the work you did, the final product needs to address all components of the project and be professional. Digital journals need to be proofread, be factually accurate, cover the expected content, and fulfill the expectations of the assignment. The Digital Journal and all associated images must reflect your original work and images unless otherwise noted. These may get posted on-line, so make this a fully polished project.

Phase Three Specifics\*:

- 1) Present maps that could be used to locate your site.
  - a. Provide a detailed map of the site (as detailed as available).
  - b. Provide a map and directions to the field site (within the context of the region).
- 2) Report **specific details** about the **plant community you visited** (these should all be original images).
  - a. Note the common, indicator, noteworthy and invasive plant species present in the community you visited. Provide at least 15 support images (a minimum of 3 of these images must be of herbarium specimens from previous collections either at your site or a similar plant community)
- 3) Report **specific** details about the **site you visited**(these should all be original images).
  - a. Describe the hydrology in the plant community you visited. Provide three support images.
  - b. Make note of the soils in the plant community you visited. Provide three support images.
  - c. Indicate any evidence of animal species present at your site. Provide three support images.
  - d. Document the impact of human disturbance in the plant community you visited (e.g., ditches, ORV damage, pollution). Describe and supply three support images.
  - e. Make note of any evidence for active management in the plant community you visited (e.g., invasive shrub removal, prescribed burning, water level management). Supply three support images.
- 4) Incorporate the following into your digital Journal:
  - a. Frame your plant community digital journal within a research question or conservation concern specific to your site. Define the concern and propose next steps.

- b. Explain how herbarium specimens and herbarium specimen labels helped you identify plants and informed you about diversity through time and space at your specific locality. Describe three ways this can help you in future career and research endeavors?
- c. Discuss the value of the research segment of this assignment. Reflect on the virtual data available and how this can help scientists studying your plant community. Reference a minimum of three virtual resources used in the research phase of this assignment (include specific links).

\* Pay special note to the bottom of the grading rubric. Organization, clarity of presentation, and creativity are included in the assessment for this section. Specific requirements for images, labels and use of Latin names are explained. Make sure you review the specifics so you can fulfill all expectations of the