

**City Colleges of Chicago  
Olive-Harvey College  
Chicago, Illinois  
Curriculum**

**SCHOOL**

Olive-Harvey College, 2-year, 8,706 students, Chicago, Illinois.

**ABSTRACT**

Olive-Harvey College (OH) creates a Wetlands Research Curriculum Guide, with sample research projects and photographs.

**GOALS AND OUTCOMES**

**Goals**

The three research projects are:

1. Rapid Evolution of Insecticide Resistance? We would like to determine if spraying of differential insecticide spraying of wetlands in the Chicago area has resulted in rapid evolution of pesticide resistance in mosquitoes.
2. Local *Phragmites*: Native or Invasive? Management of natural areas depends in large part on removing invasive species and planting native species. There are two different lineages of the common reed (*Phragmites australis*). One is native to the US, but the other is a European invasive. We determined the lineage present at the CCC Wetland through genetic testing of mtDNA haplotypes.
3. CCC Wetland History. Management of natural areas also depends on knowledge of the history of the area. The history of the CCC Wetland was determined by GIS methods as well as examination of historic maps, as well as original survey plates. We proposed two possible sets of resulting documents: scientific papers submitted to peer-reviewed journals, and a wetlands research curriculum guide.

**Accomplishments and Outcomes**

Concerning scientific papers, the three projects are in different states of readiness. The *Phragmites* project has completed a good portion of experimental work (DNA RFLP analysis) and much writing. The rapid evolution project has polished presentation of introduction and methods, but sampling has only begun. The wetland history project has the historical map analysis completed, but atomic absorption spectrophotometry has not begun due to lack of time and funding. Without the spectrophotometry component the wetland history project is lesser scale and is not expected to be publishable in a peer-reviewed journal.

**Commentary and Reflection**

One thing that came out of this endeavor was that a single student working for only a single semester is probably not sufficient to fully complete and submit a full-fledged, publishable research project. The year before, I conducted an independent research course with three students working on a single project for two semesters. This resulted in very strong findings currently in review.

## **ENGAGEMENT AND SUPPORT**

### **Funding and Resources**

This project was funded by a Greenforce Initiative mini-grant. The Greenforce Initiative is a partnership of Jobs for the Future and National Wildlife Federation to strengthen the capacity of community college's to green the skills of the modern workforce.