

Garden Club of America Coastal Wetland Studies Award Summer 2007 Research Update  
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9/7/07

Over the past few months I have spent a lot of time out in the field and in the lab, I have been conducting monthly sampling, since April, at four created mitigation wetlands in southeastern Virginia. Each month I collect observational data on the vegetation community, and water depth. I also collect samples of soil, porewater, which is the water found below the soil surface, and cattail leaves. I take these samples back to the lab and measure the amount and types of nitrogen and phosphorus compounds. I am currently finishing my final lab analyses and then I will begin to use this data to determine whether the nutrient availability and usage by vegetation is consistent across different plant communities within the same wetlands and between created wetlands of different ages. This is especially important because the nutrient availability and soil characteristics play a large role in determining the type of plant community that is present at these sites. Since many of the created mitigation wetlands have large areas that are dominated primarily by invasive cattails, it is important to understand what environmental factors could be causing this. What we learn from this study can potentially be used to help design other mitigation wetland projects to better replicate the habitat and functions of the natural wetlands they are designed to replace. Over the next few months I will be writing the results and discussion portions of my thesis, and I hope to be finished by the beginning of December in order to graduate in January of 2008. I would like to take this chance to thank you for your support. The scholarship from the Garden Club of America has enabled me to fund the travel to and from field sites, as well as cover the cost of sampling equipment, and lab supplies and equipment that are required to do the nutrient analysis for my research.