Water Quality Analysis in a Constructed Wetland: Six sites within a constructed wetland at the LSU Agriculture Center Red River Research Station were sampled weekly from the middle of May through July. Sites 1 and 2 were located on the two sources of inflow. Site 3 was located at the dam between the upper and lower pond. Site 4 was located in lower pond where the water from the upper pond entered, while Site 5 was located at the dam across the lower pond. Site 6 was located at the drain pipe where the water exited the lower pond. Sites 1 and 2 provided information on the quality of the water before it reached the wetland system. Sites 3, 4 and 5 provided information on the overall improvement of water quality within the wetland system. Site 6 allowed us to evaluate the overall effectiveness of the wetland system. At each site, students recorded the time of day, air temperature, and weather conditions and measure turbidity, pH, conductivity, dissolved oxygen, and temperature. Finally, grab-samples were taken with an alpha-bottle. In the laboratory the water samples were analyzed for ammonia, nitrate, phosphate, and sulfate content. Another portion of the raw water sample were immediately prepared for an analysis of the biochemical oxygen demand (BOD). Within 24 hours of returning to the laboratory, raw samples which were acidified in the field were acid digested for total Kjeldahl nitrogen and total phosphate analysis.

Faculty Director - Stephen W. Banks; undergraduate - Trinidy Fisher; high school student - Whitney Chaney.