

Western Illinois University
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Abstract

Recorded Scholarly Presentation

Major: Biology

Faculty Mentor: Victoria Livingston

Water Quality in Former Agriculture Land Converted to Prairie and Forest Land

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Water quality is a crucial factor in the health of any aquatic environment. It affects the species that can inhabit that aquatic environment as well as the health of those aquatic species and the health of other species that come into contact with the water from that environment. There are numerous parameters that can be tested to determine the quality of water, but in this research, six will be observed: nitrogen (N), phosphorus (P), dissolved oxygen (DO), connectivity, pH, and temperature. The system of water being used in this research is on former agricultural land that has been converted into prairie and forest land with native plant species. This water system includes an inlet stream followed by a wetland, another stream section, and a pond at the end. The owner of this land has made efforts to improve the water quality in this system, so this research will suggest if their efforts have been successful. Samples will be taken at three points in the system: the inlet stream, the outlet of the wetland, and the pond. Nitrogen and phosphorus levels will be taken using a SMART3 colorimeter. A Hach meter will be used to measure DO, connectivity, pH, and temperature. The results will be compiled to determine the water quality at different points in the system.