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Poster Presentation

Antibiotic Susceptibility Testing of Non-*Escherichia coli* Thermotolerant Coliforms (KEC) Isolated from Streams Feeding into the Mississippi River in Hancock County, Illinois

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Fecal pollution is determined by the presence of thermotolerant coliform bacteria in water (Crenshaw, 2011). Thomas Crenshaw and Dr. Wendell French conducted a recent study on the degree of fecal pollution in natural water streams feeding into the Mississippi River in Hancock County, Illinois. Over a period of three months, they collected different samples of water aseptically to prevent sample contamination, from seven streams that flow into the Mississippi River. The samples were filtrated using the membrane filtration technique and placed on CHROMagarECC (ECC) and incubated at both 41°C and 44.5 ^{o}C to determine the optimum growth temperature of thermotolerant coliforms (Crenshaw, 2011; Alonso et al., 1999). Since the degree of susceptibility of microorganisms vary in between species and strains (Tortora et al., 2007), it is important that antibiotic susceptibility tests be conducted on the isolates from the Mississippi River. We will use different types of antibiotics, each with different modes of action and different spectrums of activity. The objective of our study is to determine the level of sensitivity/resistance as well as multidrug resistance amongst the different strains of non-*E. coli* isolated from the previous study. We used the reference strain of *E. coli* (ATCC8739) as a negative control for comparison.