

Title: Assessing Characteristics of *Escherichia coli* Isolates from Environmental Sources

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Abstract:

This project surveyed growth characteristics of *Escherichia coli* isolates from water sources around Taylor County, Texas. Factors considered were sampling sites, growth characteristics on selective and differential media, BIOLOG™ profiles and identifications, and antibiotic susceptibility. Nelson Zoo Lake One and Elm Creek yielded more *E. coli* isolates on CompactDry™ agar plates than any other water sources tested. Of the 55 isolates identified as *E. coli*, six O157 H7 strains were detected, based on BIOLOG™ profiles. Analysis of the isolates revealed clusters of similar BIOLOG™ profiles. Selective and differential media EMB and CHROMagar ECC™ plates proved to be good indicators of *E. coli* O157 H7, but growth characteristics on BIOLOG Rainbow Agar™ were variable.