



Evelyn Isenberg

A soil biota comparison between areas of invasive and native plants at Brumbaugh Nature Center, University of Mount Union

The purpose of this study is to determine invasive plants species potential impact on soil biota. Soil samples and leaf litter were collected from three invasive and three native plant areas. Soil samples were used to grow and identify bacteria by colony morphology and gram staining. Leaf litter samples and Burlese-Tullgren funnel were used to extract soil invertebrates. The Shannon Wiener Index was used to determine diversity. On the micro level, bacteria colony types were similar in native and invasive areas, and most were gram positive. However, soil macro-invertebrates' diversity (H') was higher in native areas ($H'=0.82$) than in invasive plant areas ($H'=0.49$). This study indicates that invasive plants may not have an impact on bacteria, but can negatively impact soil invertebrates' diversity.