ABSTRACT

Invertebrate populations were surveyed in plots of Miscanthus, big bluestem and soybean throughout the summers of 2010 and 2011 in southwestern Ontario. Plots were sampled using pitfall traps, sweep nets, quadrat sampling and stalk-splitting. The objective of this study was to determine plant influence on the biodiversity of invertebrates. This poster presents data on the invertebrates collected in pitfall traps during the summer of 2010. The highest number of families was found within plots of big bluestem, followed by soybean and Miscanthus. That is, 40 different invertebrate families were found in big bluestem, whereas 27 families and 19 families were found in soybean and Miscanthus respectively. Shannon biodiversity indices ranged from 3.4 in big bluestem to 2.7 in Miscanthus.

RESULTS

Of the three evaluated plants, big bluestem had the highest richness of invertebrate families. In addition, this grass generally had a higher abundance of individuals within these families (Figure 2). Using the Shannon biodiversity index:

$$H' = -\sum p_i \ln p_i$$

It was determined that the highest invertebrate biodiversity occurred in plots of big bluestem followed by soybean and finally Miscanthus, with index values of 3.4, 3.1 and 2.7 respectively.

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REFERENCES