Biodiversity of insects in cotton and soybean fields

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INTRODUCTION:
Pitfall traps are mainly used for ecology studies and ecologic pest control. A pitfall is a trap for insects that travel on the ground. Flight intercept traps catch insects that are moving through the air. Insects that enter a pitfall trap are unable to escape, and may either be killed by the trap or remain trapped, but unharmed.

Biodiversity in some areas shows a significant correlation to various groups of insects (Duelli and Obrist 1998). The purpose of the study was to test species numbers or diversity measures of several faunistic groups and of flowering plants for their correlation with the total number of animal and plant species found at a given site. Various methods of trapping collect different groups of insects based on their behavior.

MATERIALS AND METHODS:
12 pitfall traps
1 Flight Intercept Trap
Study sites in cotton and soybeans across the Mississippi Delta

RESULTS AND DISCUSSION:
Pitfall and flight intercept traps are used to find the level of biodiversity in the fields of cotton and soybean and to see what insects will be attracted. The traps are all checked once a week. Some of the insects that were caught were beetles, spiders, and crickets. After retrieving the contents of the traps, they are taken back to the laboratory, labeled, and transferred into whirl pack bags to be analyzed later.

Flight intercept trap in a soybean field.

REFERENCES:
Duelli, P., & M. Obrist. 1998. In search of the best correlates for the local organismal biodiversity in cultivated areas. Biodiversity and Conservation. 7(3): 297-309

ACKNOWLEDGEMENTS:
I would like to thank Dr. Parys and Cavishia Roberson for their assistance with my presentation.

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