

Purdue University
Department of Entomology
Undergraduate Capstone
Project Summary

Name of Student:

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Name of Mentor:

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Project Title:

Distribution of Lepturinae Due to Land Usage in Indiana

Project Summary:

The subfamily *Lepturinae* is the group of flower longhorn beetles. The larva feed on the wood of various species of trees while the adults feed on flowers mainly in the families *Asteraceae* and *Apiaceae*. Species locality data was collected from the literature, local entomological museums, and recent surveys targeting this group of beetles. A database of the cerambycid subfamily *Lepturinae* containing data on species, data source, and county-level occurrences was created in Microsoft Access. Polynomial regression was used to test for an effect of forest cover on the richness of this subfamily. Tippecanoe County was shown to be an outlier, i.e., the apparently higher richness is likely a sampling artifact from high collection effort centered around Purdue University. The results showed that approximately 20% of the variance in the response variable was explained by the amount of forest cover with greater richness in counties with more forest cover. This trend was apparent in counties with forest cover above a threshold of approximately 20%. The data collected also resulted in 18 new state records and 381 new county records for the state of Indiana.