Name(s)	**Project Number**
Nivedita Sharma	**S1919**

Project Title

Biodiversity of Bugs: How Is Relative Abundance of Species Affected by Local Environment?

Abstract

Objectives/Goals
My objective is to determine the affect of temprature,humidity and flora on Biodiversity of Bugs found in our local eniornment. To compare biodiversity sesonally using Shanon-Weiner Index.

Methods/Materials
Tanglefoot Tree Pest Brand barrier, Insect Identification Books, Plastic cups, Plastic knife, Petri dish, Distilled water, 3x5 Note cards, magnifying glass, sugar, Tweezers.
Three locations were chosen in an appropriate location without water sprinklers. Distilled water and sugar was mixed in a plastic cup and placed at each of the location. The note cards were covered with Tanglefoot Tree pest barrier and placed with the plastic cups at each location. The apparatus was left out for a day. Then the collected bugs were observed and analysed to determine their species. The bugs were characterized according to their species and counted for mathematical analysis of the data. The experiment was conducted during summer and winter.

Results
My Hypothesis was supported by my analysis, that the relative abundance of species is affected by temprature and humidity of the local enviornment. The species and number of individuals found in the summer are higher than the number found during winter.

Conclusions/Discussion
My hypothesis was supported by my analysis, that the biodiversity of bugs is affeted by local enviornment.The temprature and humidity affect population of bugs sesonally such as summer and winter. The data led to additional information, that some bugs found in the local enviornment are sesonal and some are found throughout the year. The biodiversity of bugs determines the health of the ecosystem.Research on the experiment highlighted the importance of bugs in the biome.

Summary Statement

The project determines the sesonal population of bugs in the local enviornment using mathematical analysis.

Help Received

Mr. Levy helped organize the board, Dr. Suraj Pal Sharma helped format the conclusion, Mr. Taylor helped with the mathematical analysis of the data and Terminex and Stanley Pest control call advisors explained the relationship between household pest and their local enviornment .