Name(s)	Project Number
Lilly M. Ryll	**J2213**

Project Title

Backyard Bacteria

Abstract

Objectives/Goals
The objective is to identify which of the selected arthropods is covered in the most bacteria.

Methods/Materials
Bees, flies and pill bugs were tested for bacteria. Bees were used as a comparison for flies and pill bugs. The test subjects were tested by being allowed to roam around an empty petri dish for five minutes, then the animal was transferred into a sterile plastic tube with forceps, and then sterile water was used to wash out the dish. The same water was then transferred into the tube, where the animal was held, with a pipette and the animal was #washed# by tipping the closed tube upside-down 10 times. 50 or 25 mL of the wash water was then plated out onto a labeled agar dish and incubated in a warm, constant closet. The temperature in the closet was recorded and bacterial and/or fungal colonies growing on the agar dishes were then counted each day over three days. The results were recorded and averaged.

Results
Results showed that the species averaging with the most bacteria was the pill bugs, then flies and bees in last. The average for bees was 1,963 colonies per test subject. The average for flies was 5,514 colonies per test subject. Finally, the average for pill bugs was 45,847 colonies per test subject. In average flies had about 180 % more colonies than bees and pill bugs had about 2,234% more colonies than bees.

Conclusions/Discussion
The results proved the experimenter#s hypothesis wrong. It had been hypothesized that flies would have the most bacteria and bees the least. The bees did have the least bacteria, however, it turned out that pill bugs had much more bacteria than flies.

Summary Statement

The species of arthropod covered in the most bacteria has proven to be pill bugs.

Help Received

Dad helped with proper and clean handling of petri dishes. Parents provided all materials. Ms. Schumacher helped with scientific method and proper form for display and notebook