



# Ants, Ants, Ants

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## Abstract

The question we were trying to answer during our research was if the biodiversity of ants was in any way affected upon how healthy the grass in that area was. We have always heard about different environmental factors affect biodiversity. I wanted to know if ant diversity was correlated with grass health. Are ants affecting the grass negatively or positively? Results showed that health of grass was not correlated with changes in biodiversity.

## Introduction

Ants are found on all continents other than Antarctica and show a wide variety of diversity. There are 128 native species in New York State alone. Understanding what ants are present can help humans because they affect us in many ways. One way they affect us is that they can carry foodborne illness or they can infest your home. Species of ants vary from habitat to habitat. Ants are vital members to the environment, Ants turn and aerate the soil, allowing water and oxygen to reach plant roots. Ants eat a wide variety of organic materials and provide food for many different organisms. Collection of ants can be done by leaving baits in areas where they are known to be active.

## Materials & Methods

The materials we used were a 1 by 1 meter of PVC pipe. The method we used was that we first found a area with lush green grass and located how many ant holes were present in a 1 by 1 meter. We also then took a sample from those same ant hills. We then repeated these steps in an area that has less less healthy grass.

## Acknowledgements

I'd like to thank Mr. Onufrock and Barcode LI for supplying us with the materials and knowledge we needed to carry out this endeavour.



Fig. 1  
Phylogenetic  
Tree of  
bracoded  
specimens

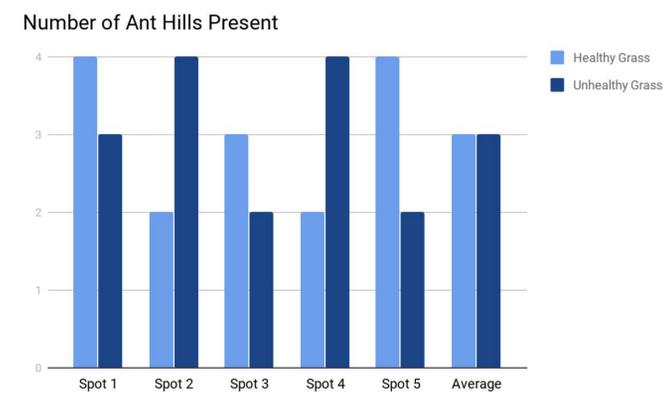


fig. 2 Bar Graph Depicting the  
number of ant hills present at  
differnet locations



Fig 3. Image of an specimen  
10, found out to be *Lasius  
neoniger*, or a turfgrass ant.

## Results

What we found was very interesting. The amount of ant hills were almost the exact same, with only a variance of one or two in both directions. We also found that most of the ants were of the same 2 types of ants, carpenter ants and field ants. meaning that despite 128 species being native to the state of New York, the same two were found on the two different types of grass. this led us to believe that the health of grass does not impact the type of ants living there.

## Discussion

My results answer my question but not the way I expected. I was thinking that more ants would be in the more green and healthy grass. I thought this because I believed the ants would hide in the grass and underneath to remain hidden from predators and to avoid the elements, such as wind and rain. In addition ants would be allowing gas and water flow to the grass helping it to grow better. I also thought that different ants would be present in the different areas but that wasn't true either.