The Biodiversity of Ants in Developed versus Undeveloped Areas

Charlie Mediavilla, Shannon O'Leary (under the supervision of Tracy Nellins, St. Dominic HS)

Abstract

The genetic composition of each individual ant differs no matter what species they are or where they are discovered. The main foucs of our experiment was to collect ant species in two different locations of Long Island, one area that was a field and one area that was a suburban neighborhood. Unfortunately, the ten ant species collected did not have amplifiable DNA, so no DNA results were obtained. However, by looking at previous records of ants from the database, it was determined that genetic diversity between ants increase when they are in undeveloped areas.

Introduction

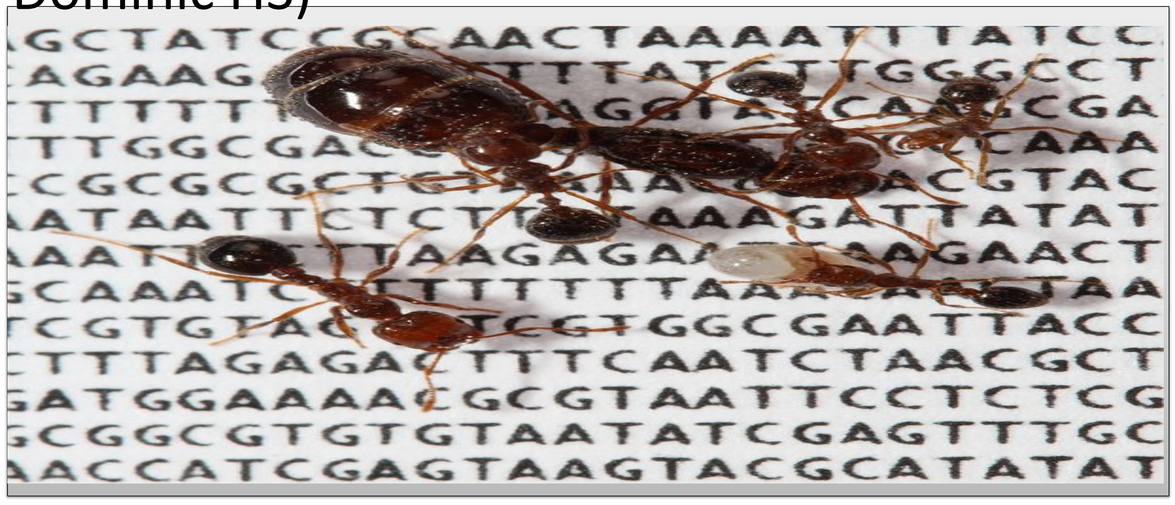
Because ants can sustain life in very flexible conditions, they can be found in almost all areas of Long Island. However, the concept being researched is whether or not ants have genetic difference from the different areeas they live in. It is hypothesized that ants will have somewhat of a genetic difference depending on the species and parts of Long Island they live in.

Materials & Methods

The materials needed to complete the DNA rapid isolation were given to us to perform at home by Cold Spring Harbor Laboratory. Ants were obtained and stored in the freezer. Following, a DNA rapid isolation was performed and then sent out to be amplified.

Results

Each student collected 5 samples each. Shannon's samples were unable to be amplified. Charlie's samples were not sent out.



Discussion

Our findings were unable to be analyzed, so no results could be concluded. Some future ways to improve the observation could be to perform the DNA rapid isolation in a lab with guidance from professionals, be more careful when performing the actual procedure, and not to be forgetful and submit samples in time to be sent out.

References

https://dnasubway.cyverse.org, https://hs.stdoms.org, https://cshl.edu

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