Impact of Urbanization on Behavior of NYC Squirrels

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INTRODUCTION

Urbanization has been a prominent trend in the past few decades. Cities continue to expand and transform natural habitats and ecosystems into new urban spaces, forcing the wildlife in those areas to adapt to the new environment. New York City is not an exception; as the city keeps growing, urban life faces more and more challenges, and it's our responsibility to take care of the ecosystems around us.

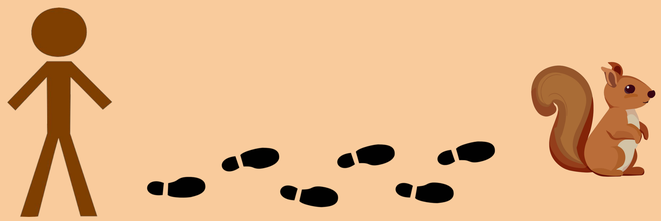
That's why this experiment will focus on the impact of urbanization on the behavior of squirrels living in urban parks to those living in more suburban areas of the city to figure out if the behavior of urban squirrels is influenced by urbanization.

RESEARCH QUESTION

Does urbanization of NYC impact squirrels behavior ?

HYPOTHESIS

Urbanization plays a role on squirrels behavior by enabling squirrels who are living in more urban parks to be more adapted to humans, hence decreased distance.



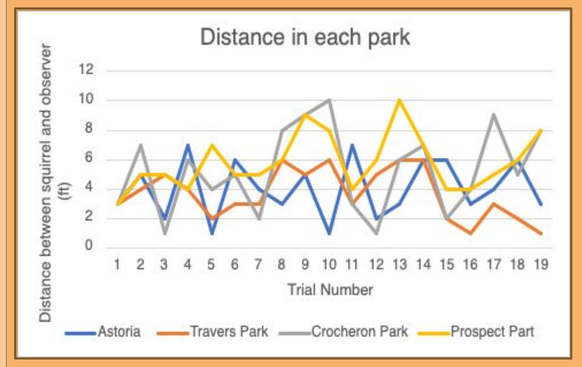
METHODS

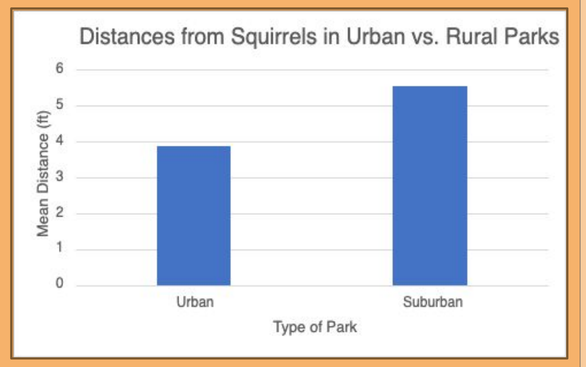
We each chose to examine a sample of 20 squirrels each from 4 different parks, totaling 80 squirrels, 2 parks were more uban while the other 2 were more suburban.

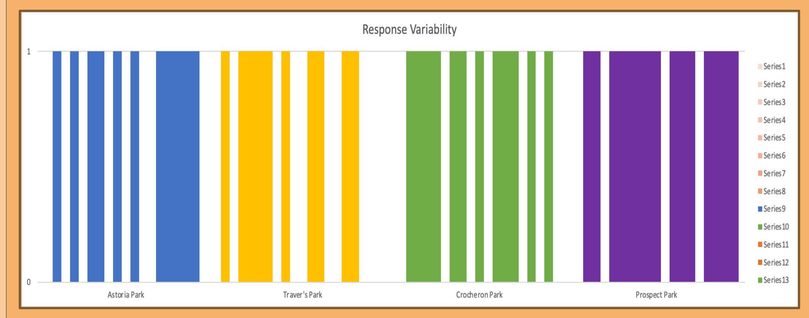
In order to test our hypothesis, we created a T- test and created graphs using both the distance as well as the response of the squirrels.

RESULTS

Key Finding: Urbanization Impacts the Behavior of Squirrels







This graph depicts whether there was a response(labeled as 1) or no response(labeled as 2). There is a greater concentration of no responses in the urban squirrels when compared to the concentration of no response (1) in suburban. The opposite is true in terms of the responses noted

The Z test conducted to test the significance of the response variables provided a p value that was less than alpha proving that we must reject the null hypothesis. This shows that there is a relationship between the urbanization of the park and whether the squirrel responds.

CONCLUSIONS

We conducted a two arable T-test with urban parks being one variable and suburban parks being the second variable. We proposed to test our null hypothesis with an alpha value of 0.05 and when we conducted the test our p value was less than 0.05. Hence proving that we reject the null hypothesis that there is no correlation between squirrels and the urbanization levels of the park

FUTURE RESEARCH

Future research can study about the inevitable part of complete urbanization of NYC Parks and animals that live there, especially squirrels. It would study the change in behavior of squirrels and possibly the change in squirrel population in urbanized parks.

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