Urbanization and its Effect on The Eastern Gray Squirrels.

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Introduction

Biodiversity after an urban sprawl generally decreases. However, not all animals die due to urbanization, some not only survive but thrive in the new man-made habitat. The gray squirrel (Sciurus carolinensis) is possibly the most well-adapted species to urbanization next to raccoons and opossums (Robiou, 2008). gray squirrels are also able to survive due to the introduction of new food resources provided by humans (Nilon and Parker, 2008). In my experiment, I will observe the gray squirrel to determine if urbanization is affecting the food choices. My hypothesized that in more urbanized squirrels will spend less time performing foraging behavior and more time on unnatural behavior such as garbage foraging.

Methods

1. Picked five areas that fit the following categories: Natural area, Forest area, Mixed Campus area, Built area and Town.
2. Record five squirrel within each area for 2-2.5 minutes.
3. Record a observe the durations for the following behaviors: Foraging, Alert, Arboreal, Motion, Rest , Groom, Social and Unnatural.

Time Line

09/20/2016-10/2/2016: Observation for the fall Season
11/28/16-12/2-2016: Observation for the fall-winter Season
01/25/17-02/9/17: Observation for winter Season.
03/05-17-3/25/17: Observations for spring Season.

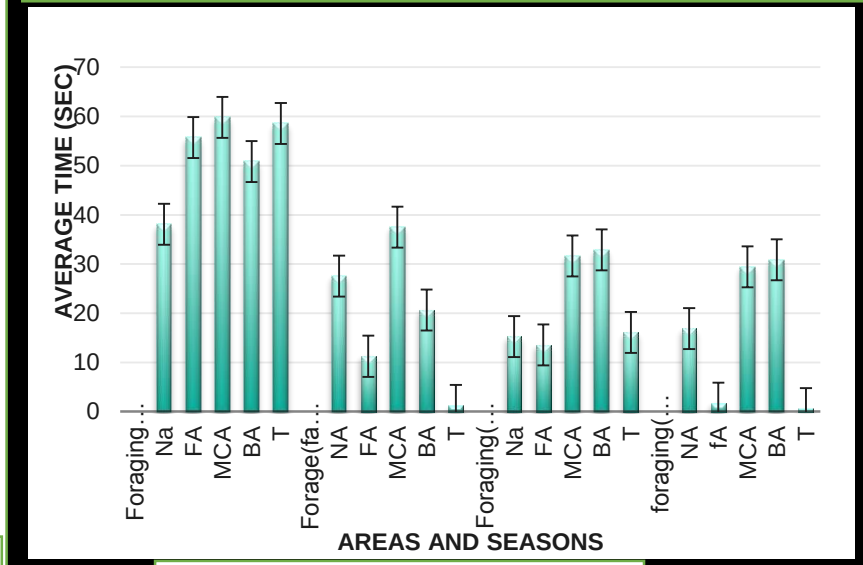


Figure 1: Average time spent foraging
DF:19
p=0.000005

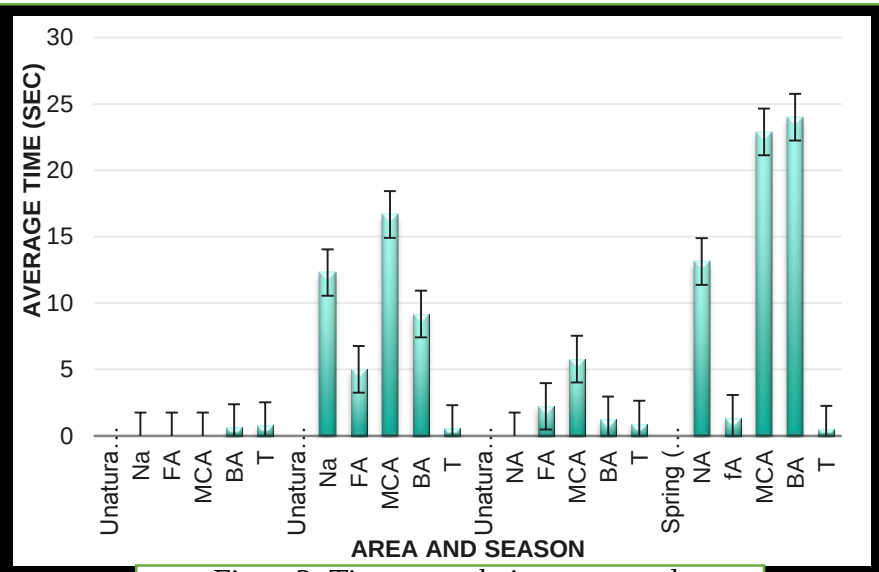
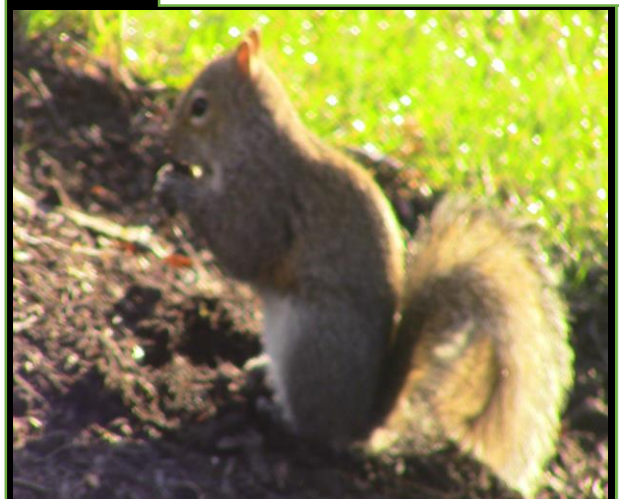


Figure2: Time spent being unnatural.
DF:19
p=0.0000005



References and contact

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Conclusion

Almost all observations were statically significant. Although neither of the figures support my hypothesis, however my second prediction was supported by the figures as there seems to be a correlation between seasons and different types of behavior. One explanation is that some of my areas were accessible to squirrels from different areas as well as a low sample size within the fall-winter observation.