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Raccoon (*Procyon lotor*) Foraging in Relation to Storm Drains



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INTRODUCTION

As human population grows and urban areas expand, human-animal conflicts are more and more likely to happen (Nyhus 2016). Understanding and knowing how to control and limit human-animal conflict

is important because of diseases that animals might carry. For example, raccoons, a species common to urban areas, have been known to carry rabies, a dangerous and potentially fatal disease if passed on to humans.

Cal Poly Humboldt is located near the community forest with a variety of animal species. Raccoons specifically have been seen on campus exiting storm drains. In my study, I tested the use of the trash cans in relation to the distance from the nearest storm drain.

METHODS

I quantified raccoon use of trash bins at Cal Poly Humboldt's campus using camera traps attached to the top of the bins, with the camera face down. I noted how often raccoons were recorded entering (Figure 1).

I measured the distance from each trash bin to the nearest storm drain by counting the amount of meter long paces. To test for a relationship between storm drain distance and raccoon use, I used a linear regression.



Figure 1: A photo, taken from a camera trap, of a raccoon, Seen here with food in its hands after climbing all the way into the trash bin.

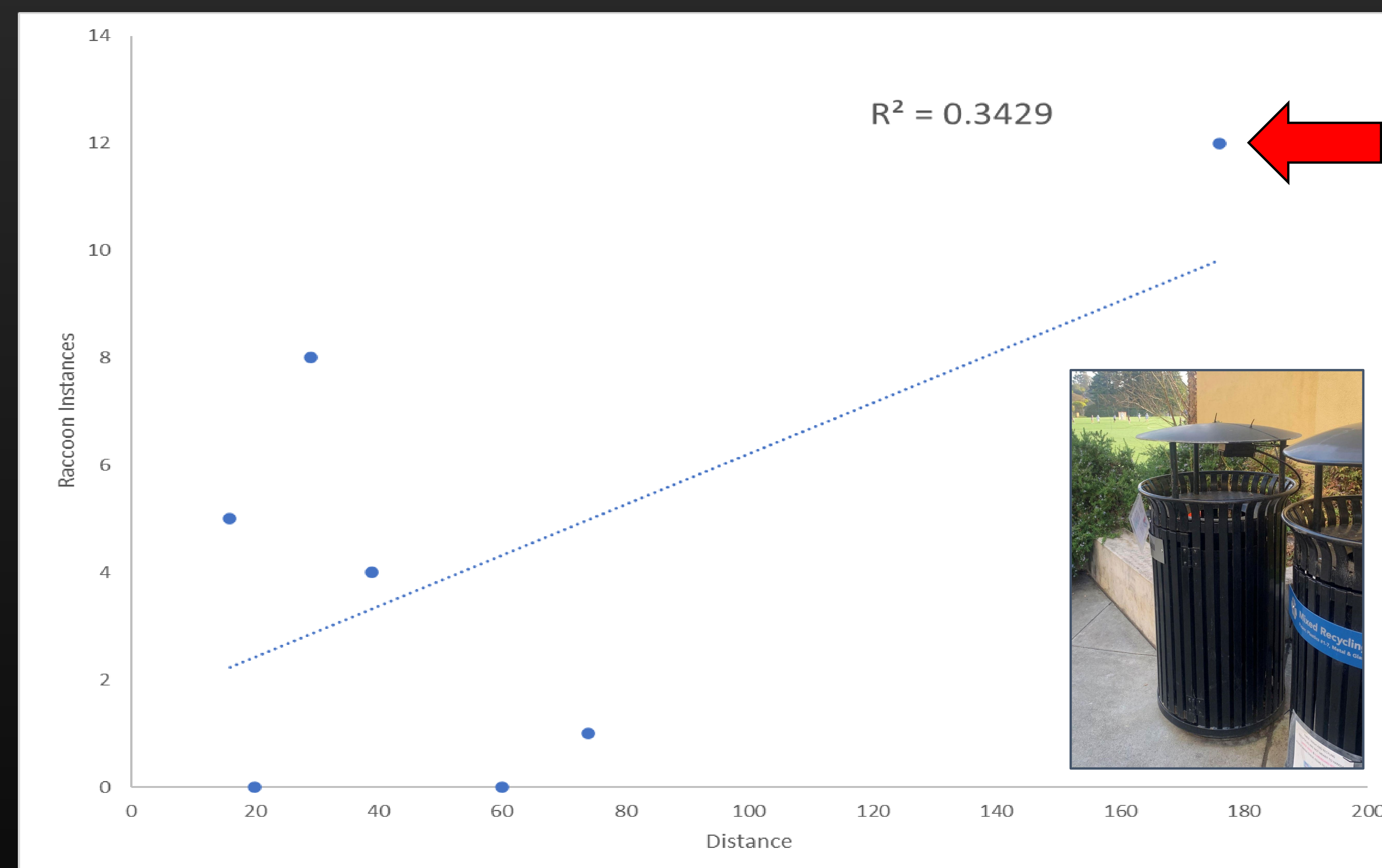


Figure 2: Raccoon detections at trash bins and the distance to nearest storm drain ($R^2=0.34$, $P=0.167$). Red arrow indicates most used bin.

RESULTS

I found no relationship between raccoon use and distance to storm drain (Figure 2 $R^2=0.34$, $P=0.167$). Interestingly, the trash bin with the highest use was the furthest from the storm drain (red arrow in Figure 2).

DISCUSSION

I did not find support for my hypothesis that distance to storm drain is related to raccoon trash bin use. In fact, the trash bin furthest from the storm drains showed the highest use. The trash can with the highest use was near the dining hall, suggesting bins with more food trash are used more often. Trash bins with the least amount of detections but close to storm drains were outside dorms, academic buildings or administrative buildings. One camera was located at a convenient store but did not have any raccoon detections.

My results suggest that raccoons use trash cans regardless of distance to storm drains and that food availability is more important. Solutions that could be put in place could be to use a different bin or lid type to keep animals from getting inside or to remove the trash from the bins more often.

LITERATURE CITED

Nyhus, P., 2016. Human-Wildlife Conflict and Coexistence. *Annual Review of Environment and Resources* 41:1, 143-171.

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