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Raccoon use of Storm Drains on Cal Poly Humboldt's Campus

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Introduction

Urban or suburban raccoons are capable of adapting to depend on manmade structures such as sewers, storm drains, or culverts in order to avoid human-related threats. Multiple studies indicate that these structures actively promote connectivity of fragmented wildlife populations. On Cal Poly Humboldt's campus, raccoons are frequently seen entering and exiting the curbside inlet storm drains.



Objective

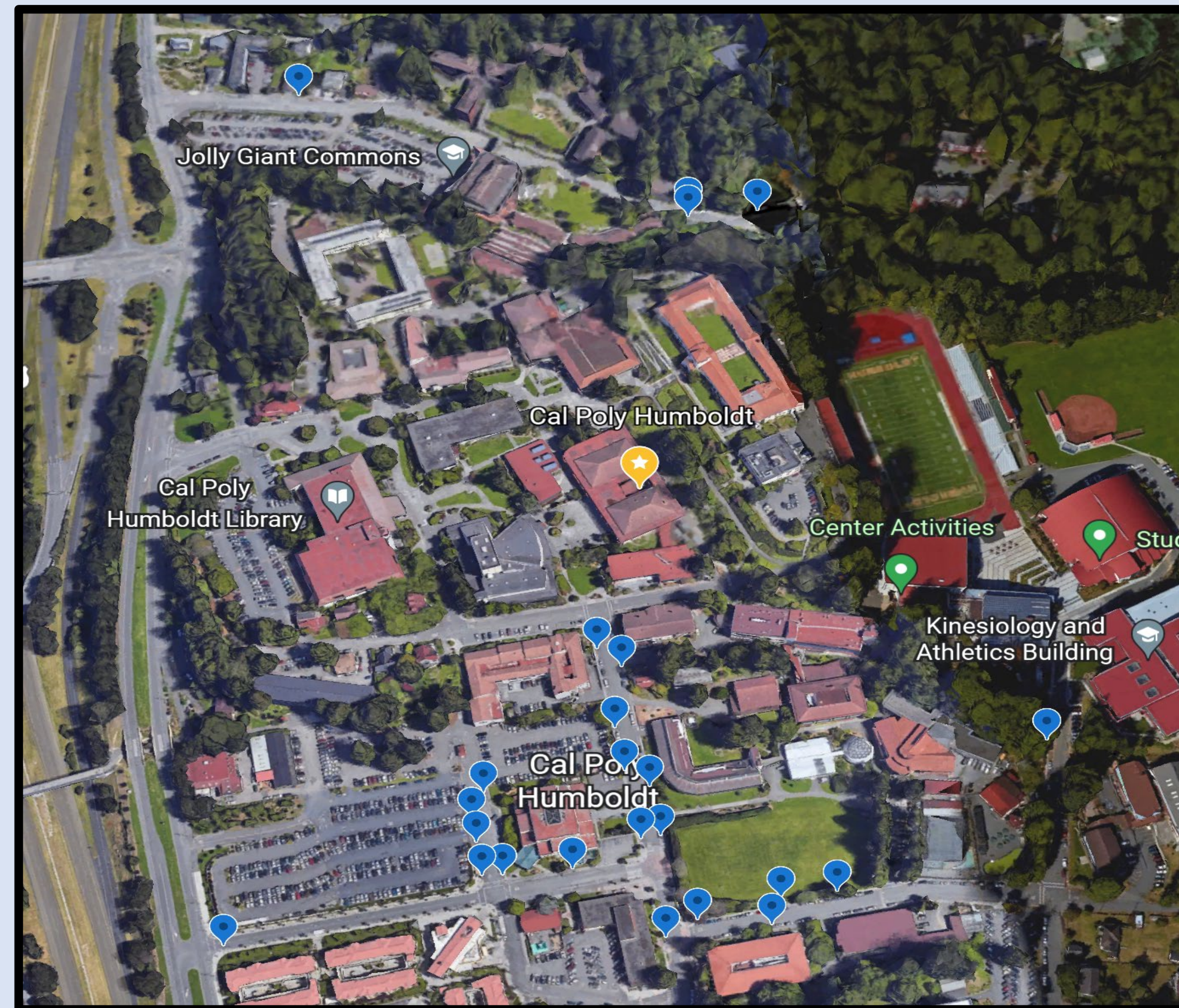
- To enhance our understanding of how raccoons implement curbside storm drains within Cal Poly Humboldt pertaining to distance from the center of campus

Hypothesis

- Raccoons will enter storm drains farthest from the center of campus and closer to forests or general vegetation

Study Area

- Cal Poly Humboldt Campus
- Neighboring Arcata Community Forest



The figure above shows CPH campus, the center of campus represented by the yellow marker, and storm drains represented by the blue markers

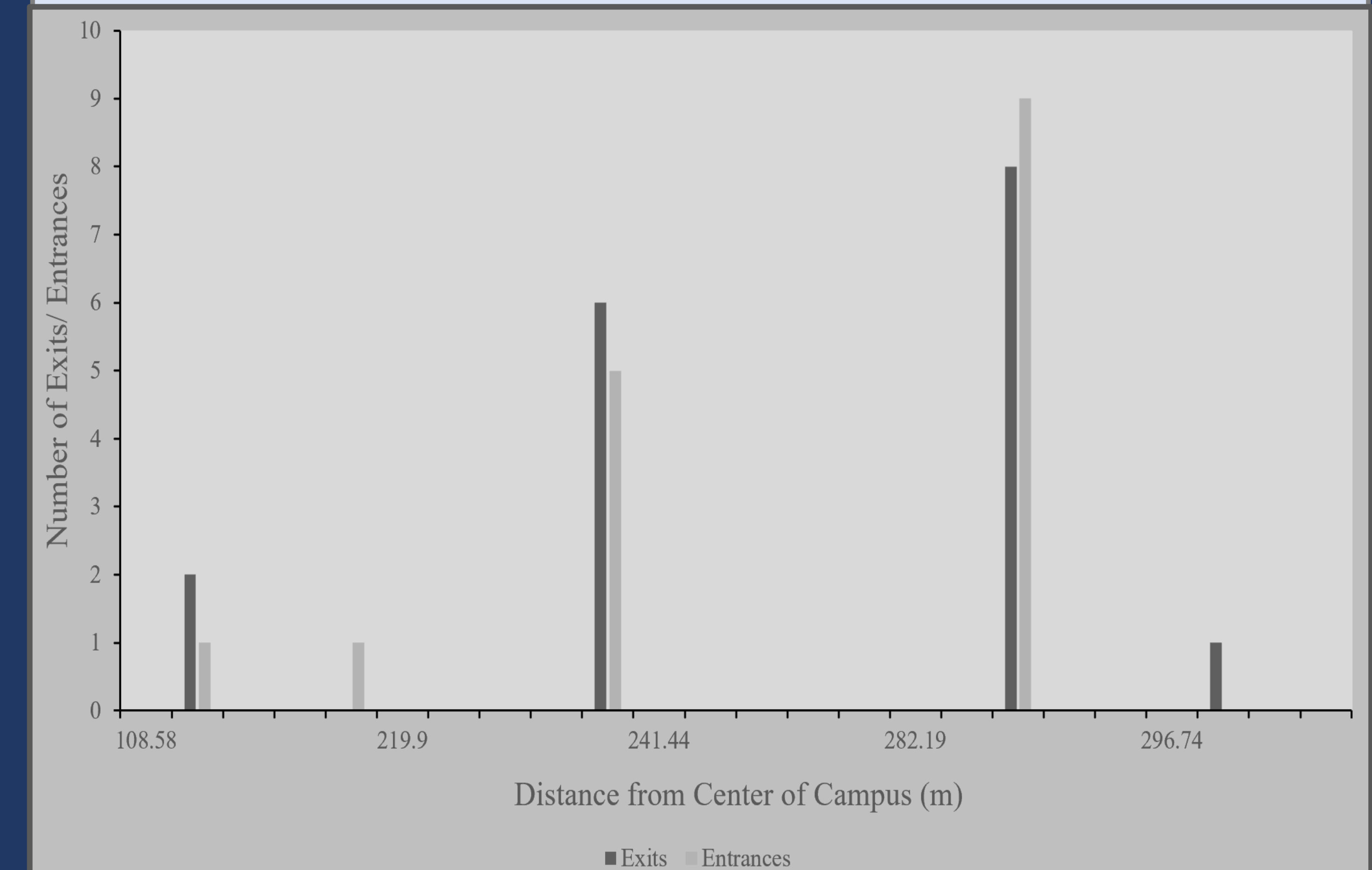
Methods

- Set cameras out for four 1-week intervals at 24 storm drains (1 week /storm drain) facing storm drain entrances
- Marked locations on Google Earth
- Tested significance of data with Poisson regression



Results

- Relationship between distance from the center of campus and number of exits and entrances insignificant
- Raccoons frequently utilized particular "favorite" storm drains



Management Implications

- Storm drains have potential for connectivity in raccoon populations on CPH campus
- Future studies could observe the inside of the storm drains and examine blueprints to further examine how they are navigating and using the drainage system
- Further studies could attempt to identify individual raccoons or groups of raccoons to better understand CPH campus raccoon behavior