

# Human Influence on Wildlife Behavior

RADFORD UNIVERSIT

Alex Brooks, Austin Bissell, Brooke Ventura, Jonathan Borsellino, Lavne Sigmon Department of Biology, Radford University

### Introduction

The goal of the study was to find how humans influence the wildlife at Wildwood Park, specifically along the trails. Wildwood Park is a greenway in the city of Radford with 50 acres of forest, marshes, and meadows located in the foothills of the Blue Ridge Mountains. The area is used for hiking and biking. and requires minimal maintenance and influence by the city of Radford.

### Wildwood Park

There were two separate trails used for the research, one located on the west side of the park along Connelly's Run, a local stream, and one located deeper into the forest on the east side.





## **Questions & Hypothesis**

- . How often are the camera locations visited by wildlife versus humans?
- What wildlife species frequent trails with more human activity? What wildlife species frequent trails with less human activity?

If there is a high level of human activity on a trail, then less wildlife will use the trail

### Research Methods

Our class setup twelve motion sensored Simmons Whitetail Trail camera stations throughout the park. placed no more than 15 meters away from the trail. Seven of the cameras were set up on the east-facing side of the park while the other five were set up on the west-facing side.

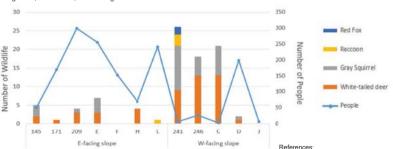
The cameras were placed thigh-high, or about 3 feet, which is a recommended height for capturing small mammals. We used no lures, left the habitat as it was. and only removed brushwood growth when needed so it would not set off the cameras motion detectors. This ensured a captured image of only wildlife and humans passing by.

The cameras operated from 10/4/2018 until 10/25/2018 and were active 24 hours a day. After collecting the cameras, we were able to start logging data.

We calculated slope steepness, elevation, distance to trails and stream, coverage of tree canopy, conifers. ground, and shrubs, and average tree diameter.

### Results & Implications

- The data shows the interaction of wildlife and humans on the east facing and west facing slopes of the park.
- · Cameras on east facing slopes show a higher level of human activity than west facing slopes.
- . These areas with more human activity had considerably less wildlife activity.
- Trails with less human activity showed higher numbers of wildlife, and had the only pictures of raccoons and foxes
- Our hypothesis was supported by the data gathered. The wildlife tend to frequent trails less travelled by people. As the amount of human activity increases, then the amount of wildlife present will decrease.



The Wildwood Park website Cameras in East and West Sides of Wildwood http://wildwoodpark.atwebpages.com// Printing Supported by the RU Office of Undergraduate Research & Scholarship