

Animal Behavior in a Suburban Wildlife Corridor: A Camera Trap Study

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Host Organization: **Bainbridge Island Land Trust**

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Introduction

- Habitat fragmentation and destruction have been the leading cause of the current mass extinction.
- Expanding human populations are limiting areas that wildlife will use.
- How human use will affect wildlife needs to be considered in order to protect the wildlife.
- Question: How do animals change their behavior in a wildlife corridor when humans are present?**

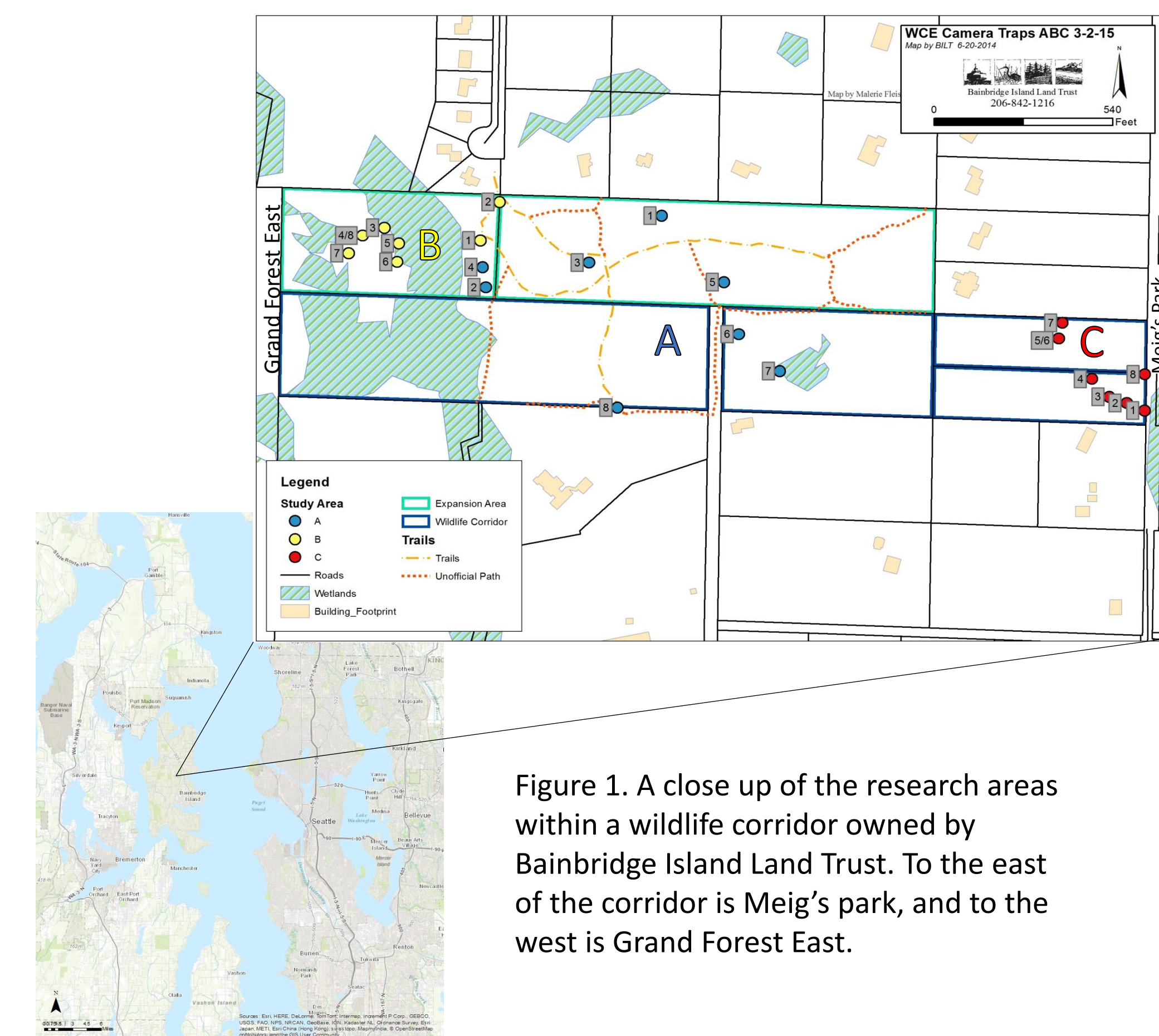


Figure 1. A close up of the research areas within a wildlife corridor owned by Bainbridge Island Land Trust. To the east of the corridor is Meig's park, and to the west is Grand Forest East.

Results

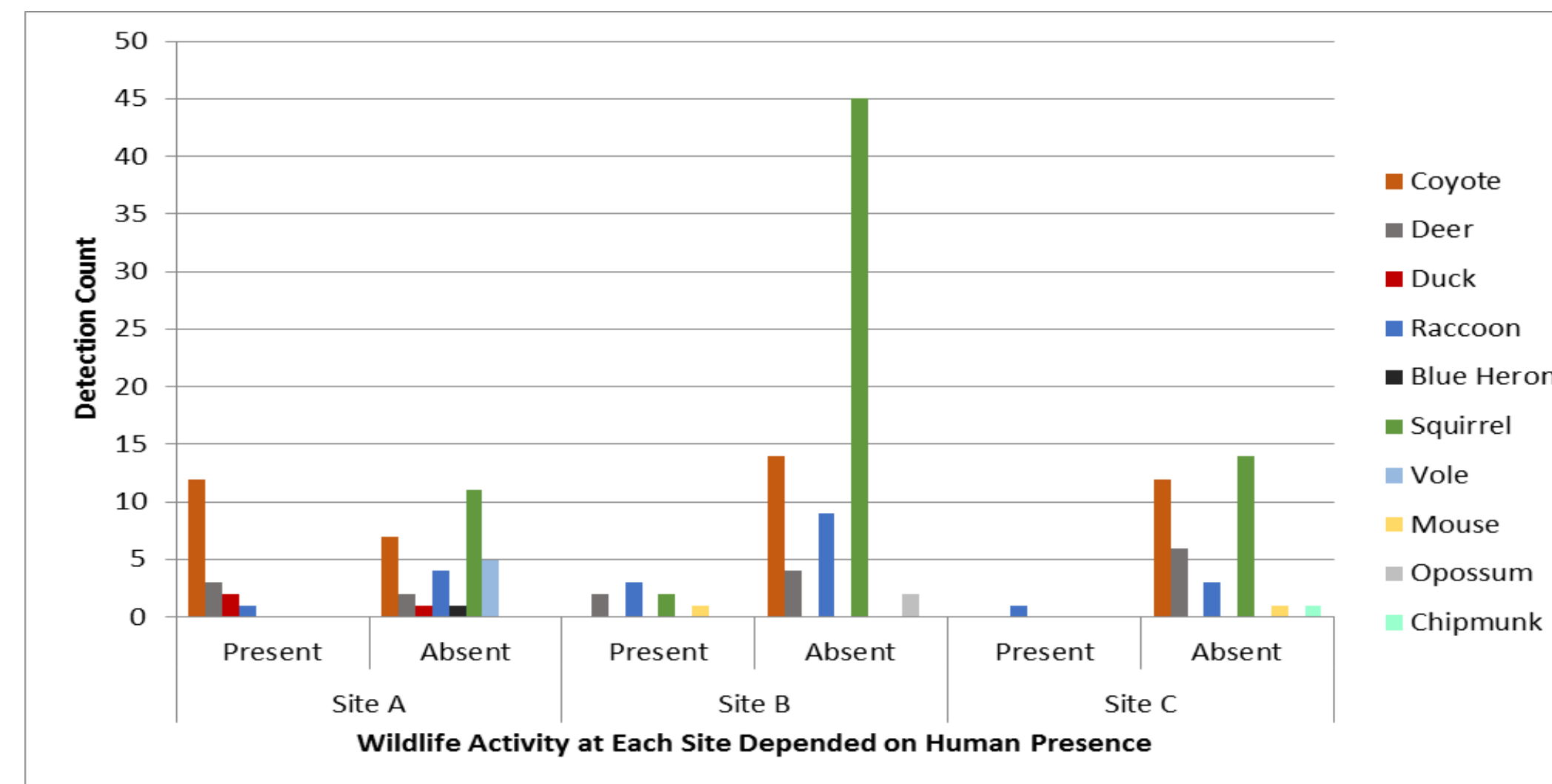


Figure 2. Animal activity for each site when cameras were grouped based on human presence. If there were two or less people detected at a camera the data was put in the not present column. Detection does not mean abundance; detection shows the activity in front of the camera.

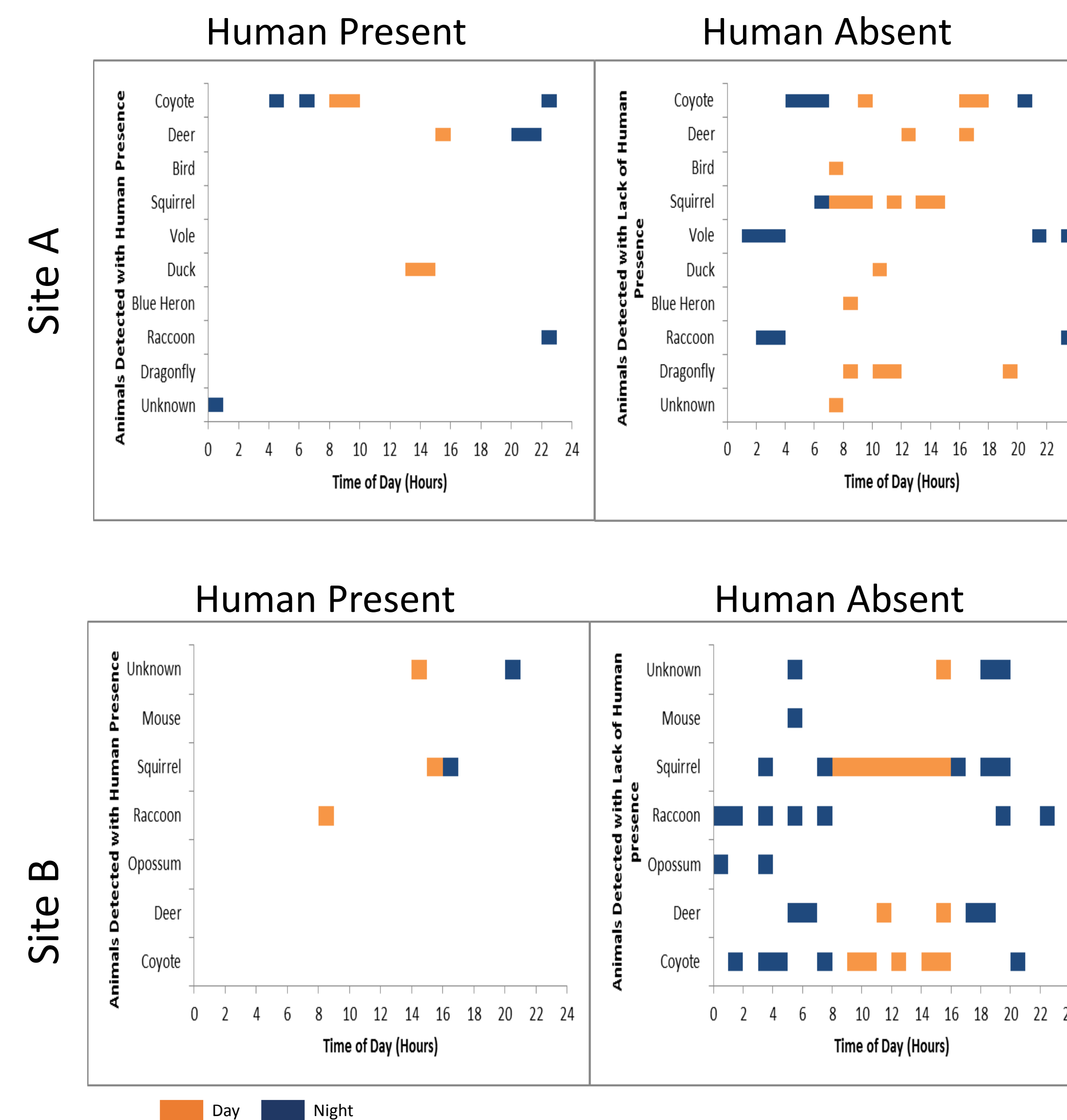


Figure 3. These graphs were the daily activity of wildlife in study site A (upper graphs) and study site B (lower graphs). The left graphs of detected activity with people present and using the area regularly. The right graphs were detected wildlife activity when there was infrequent to no human activity.

Summary

- 209 total camera days were sampled with a total of 510 detections. 323 were human detections with a majority walking dogs off-leash.
- There were more animals detected in areas with humans absent (areas with 2 or fewer human detections). (See Fig. 2)
- For the majority of the animals including coyote and deer there were more activity during the day in areas without humans. (See Fig.3)
- There were few detections of nocturnal species even though human activity occurred during the day.



Figure 4. An example of a coyote being detected by one of the cameras placed within the wildlife corridor on Bainbridge Island. The information provided in the picture was documented on a spreadsheet and compared with the other cameras in the study. © Bainbridge Island Land Trust

Significance

- Wildlife tend to shy away from areas with frequent human use. By either moving away or changing when they are active.
- Off leash dogs increase the area of human influence.
- To limit the area of human influence corridors should limit access to established paths and keeping dogs leashed.
- Limiting the number of trails in a corridor so there will be more areas for wildlife to move from one side to the other.
- For a wildlife corridor to be effective human use will have to be restricted because any recent human activity is a deterrent to wildlife.

Acknowledgement

Rebecca Nissley, Deborah Rubnick, and Avery Bowron Friends and Family

Internship/Method

- I interned with Bainbridge Island Land Trust; they conserve land that is potentially valuable land such as wetlands and forests.
- Camera traps were used in a wildlife corridor connecting Meig's Park and Grand Forest East. (See Fig. 1)
- Motion triggered camera traps capture any movement in front of them.
- There were a total of eight cameras and three study area.
- Cameras were positioned near human trails and game trails.