



What do Cats do All Day?

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Abstract

When we look at zoo animals, we only see them for a couple of minutes at most. We do not see how active they really are, nor do we get a good representation of their behavior (Szokalski et al 2012; Allen et al. 2015). Cats are usually seen as lazy, sleepy animals. However, what do zoo cats really do during the day? Following four separate visits of 70 minutes each, the results showed a correlation between social behavior/movement based on size of the animal. There is a clear difference in the level of activity and observable behaviors among these species of big cat. The data suggest that smaller cats, like the Bobcat may be better at showing the public a wider range of behaviors.

Purpose

The purpose of this research is to observe and analyze the difference in behavior between different cats.

Questions, Hypotheses, and Predictions

Question: What do zoo cats do during the day?

Hypothesis: There is a correlation between size of the animal and activity level.

Study System

Panthera tigris jacksoni



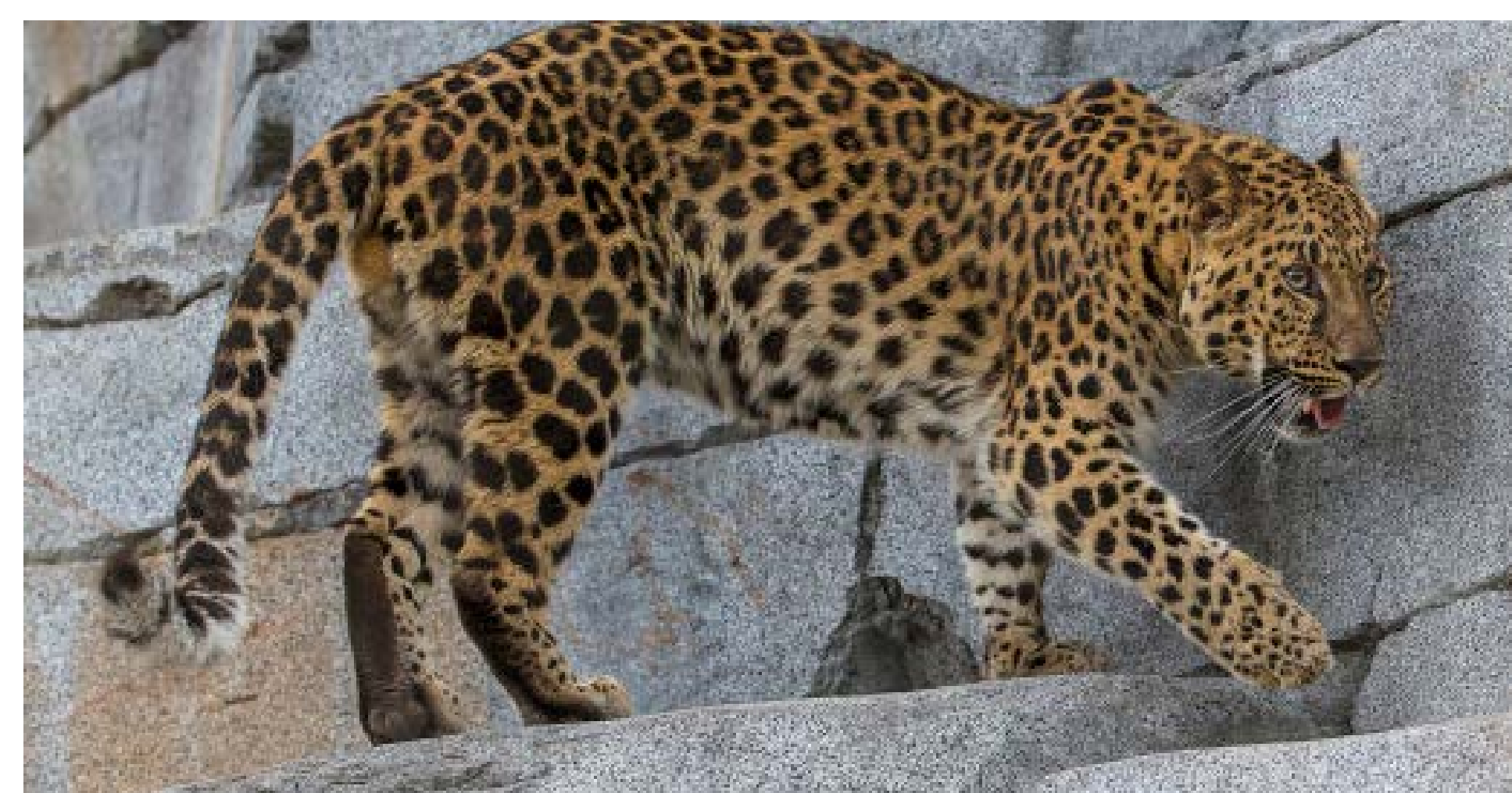
www.animalspot.net/malayan-tiger.html

Acinonyx jubatus



www.littleapplepost.com/2015/05/15/cheetahs-return-to-sunset-zoo-june-5/

Panthera pardus orientalis



www.critterfiles.com/big-cats-on-the-prowl-at-new-san-diego-zoo-exhibit/

Lynx rufus



leerichardsonzoo.org/zoedit/Archive/2012-11-26-NewLogo.php

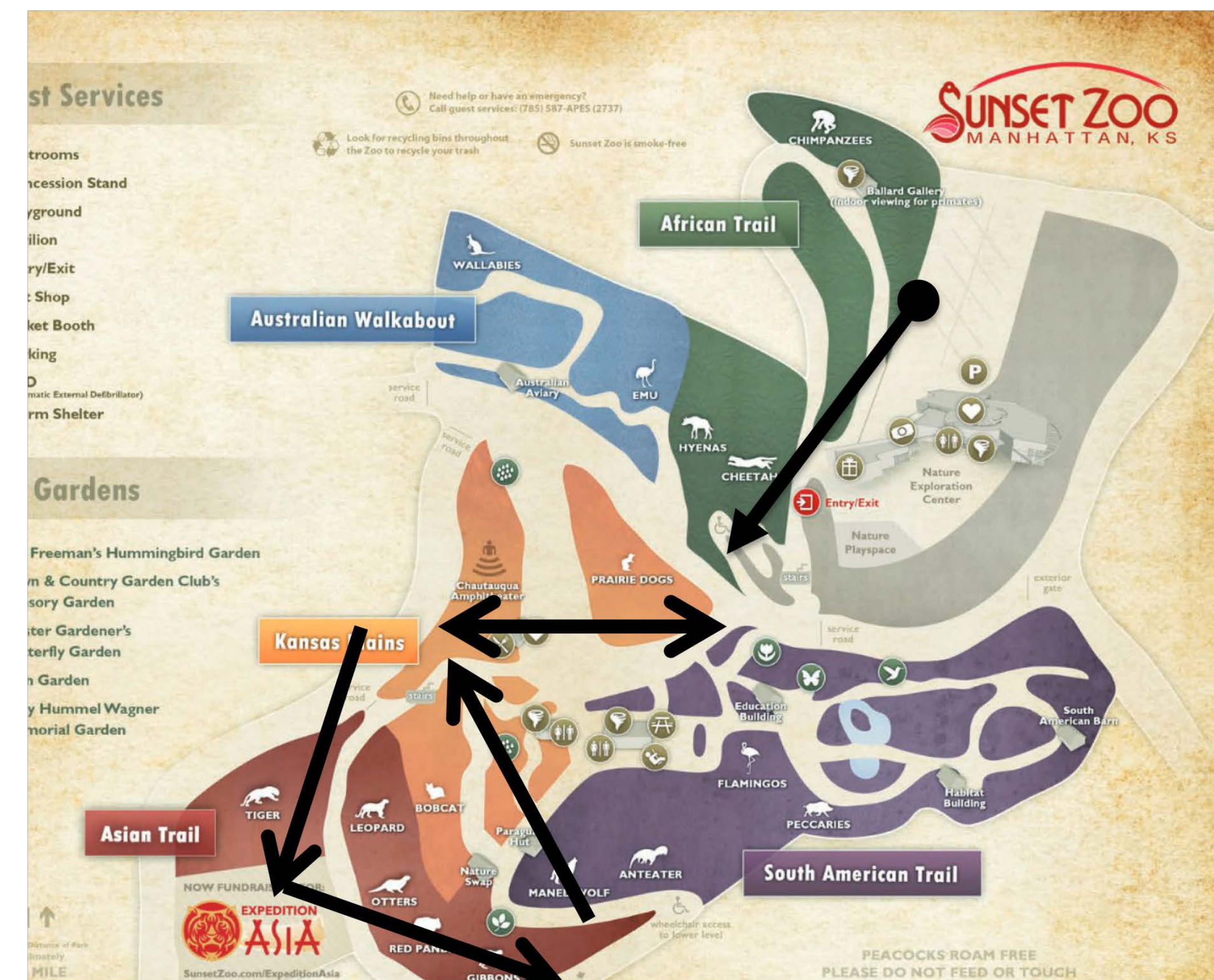
Methods and Experimental Design

- Data were collected at sunset zoo.
- Behavior of bobcats, cheetahs, tigers, and Amur leopard were collected on a spread sheet. Spread sheet data were collected in seven, 10- minute increments for each animal. Data were collected on four different occasions.
- An ANOVA was used to see if there was a significant difference between activity levels of the cats.

- Activity levels for each cat were measured using this chart



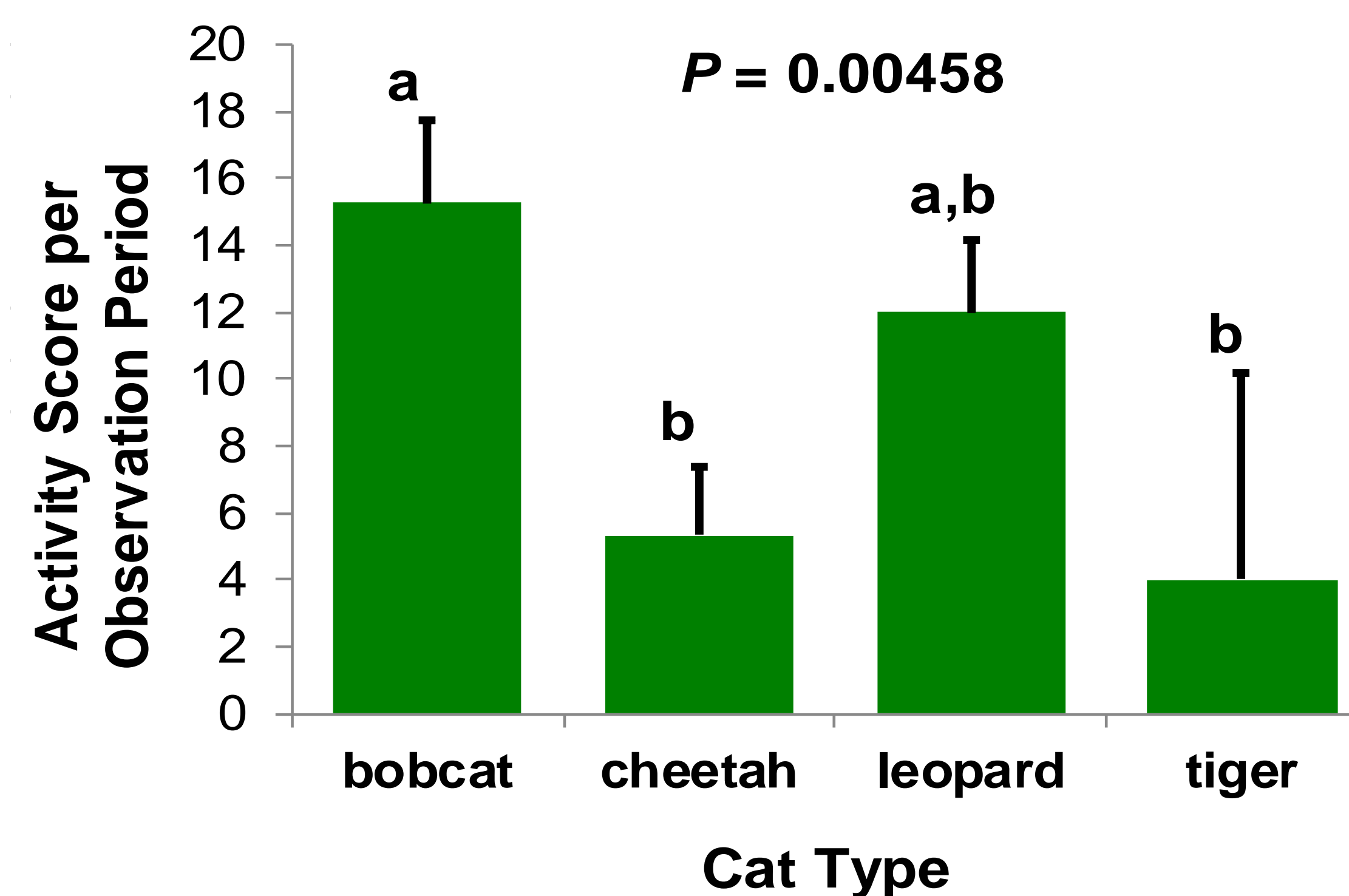
- Route taken around zoo



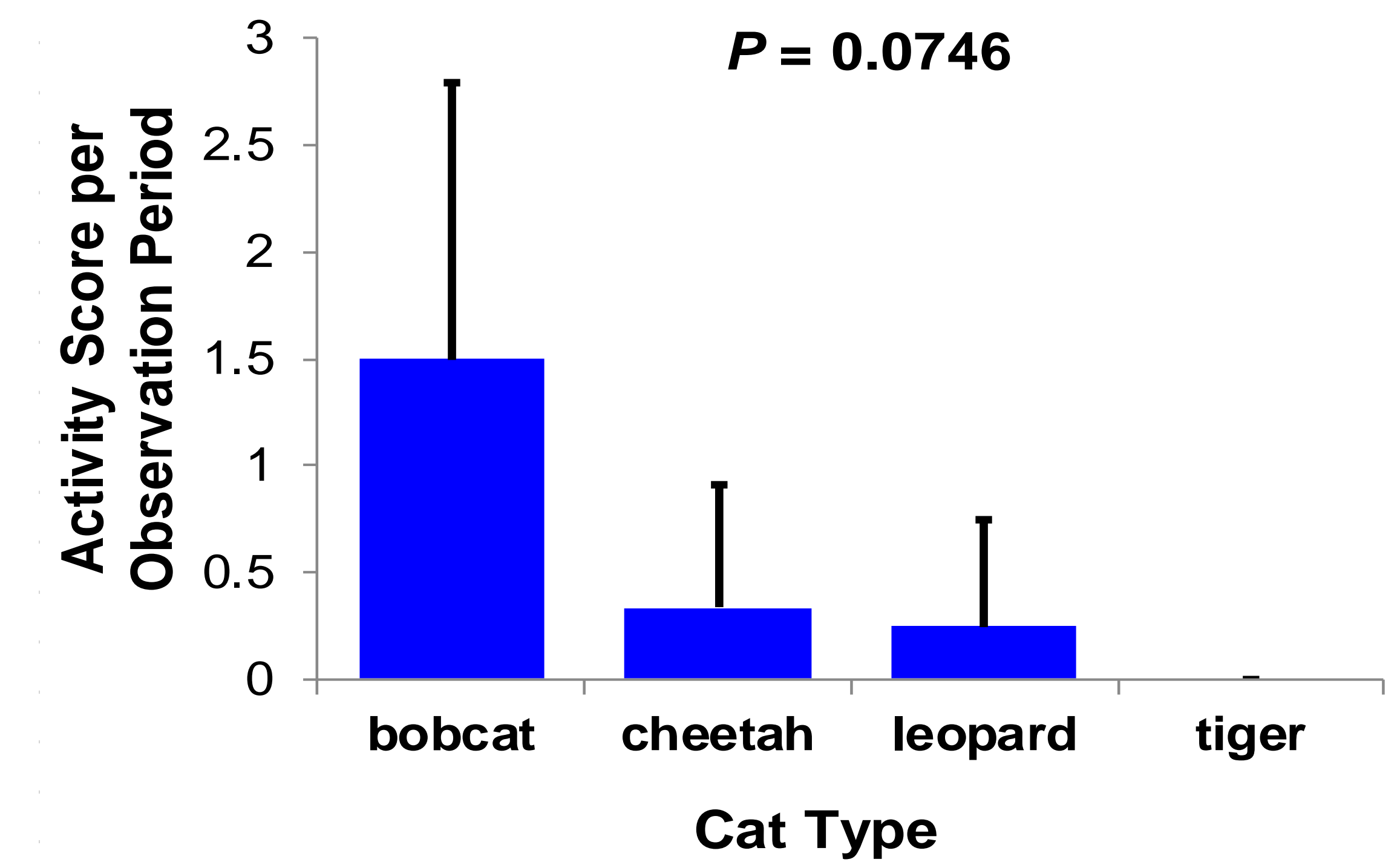
www.sunsetzoo.com/DocumentCenter/View/19

Results

(A) Movement



(B) Social



Conclusions

The data show there is a significant difference in amount of movement depending on size of the cat. The social activity graph does not show a significant difference in social activity between the cats despite the bar graph showing a trend of decreasing social activity compared to cat size (P=0.0746). This is likely due to small sample sizes.

Future Directions

To improve this experiment, social activity could be better collected and analyzed by increasing the number and length of the observations. Increasing the number of sets of observations could also improve the numbers and show a better correlation between the size of the cat and how active/social they appear to be.

References

- Allen, M.L., C.F. Wallace, C.C. Wilmers. 2015. Patterns in bobcat (*Lynx rufus*) scent marking and communication behavior. *J. Ethology* 33:9-14.
- Luo, S.J. et al. 2004. Phylogeography and genetic ancestry of tigers (*Panthera tigris*). *Plos Biology* 2:e442.
- Szokalski, M.S., C.A. Litchfield, W.K. Foster. 2012. Enrichment for captive tigers (*Panthera tigris*): current knowledge and future directions. *Applied Animal Behavior Science* 139:1-9.

Acknowledgements

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