

Evolution or Intelligent Design? Zoo Stances Around the U.S. Comparing Public Zoos to Private Zoos in the Sense of How Do They Portray Evolution Cecilie Elliott, Murriel Grimes, Kaelyn Jefferson, and Zach Sergi



Department of Biological and Environmental Sciences, Longwood University, 201 High Street Farmville, Virginia 23909

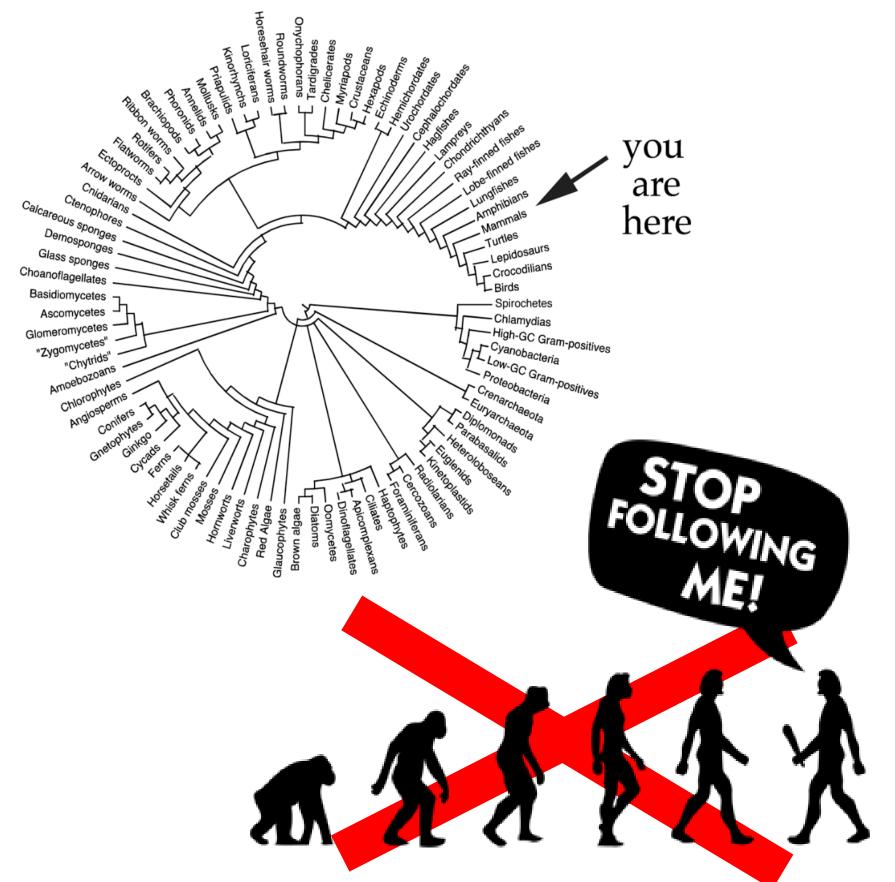
Results

Table 1. Results from all examined areas of this

Introduction

What is the difference between a publicly-funded and a privately funded zoo?¹

What is evolution?²



experiment.					
Ζοο	Public or Private?	Political demographic	Website	Educate on evolution?	
San Francisco Zoo	Public	Democratic	Supported	N/A	
Smithsonian National Zoological Park	Public	Democratic	Supported	Yes	
North Carolina Zoo	Public	Republican	Supported	Yes and no	
Metro Richmond Zoo	Private	Democratic	Not mentioned	No	
Nashville Zoo at	Private	Republican	Not mentioned	No	

Discussion/Conclusion

adaptations



Built for Speed

Penguins have evolved to have a smooth, oval shape allowing them superb mobility in their aquatic environment.

Underwater, a penguin is as clean-lined as any porpoise. Swimming with its head pulled back to the shoulders and its feet tucked well under its tail, the penguin darts through the water in a torpedo-like fashion.

On a snowy surface, some species have adopted the habit of "toboganning" on their smooth, round bellies, using feet and flippers for propulsion.

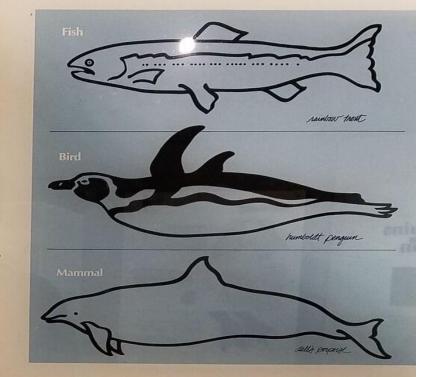


Figure 3. A penguin demonstration at the Portland Zoo describing how penguins evolved their shape from adapting to their environment.

Attitude shift when evolution was mentioned

Research Question

Is there a difference in the way evolution is portrayed to the public between publiclyfunded and privately-funded zoos?

Hypothesis

Publicly-funded zoos will place more of an emphasis on evolution than privatelyfunded zoos.

Methods

- 1. Observe portrayal of evolution at the Richmond Metro Zoo and Smithsonian National Zoo
- Survey websites of Richmond Metro Zoo, Smithsonian National Zoo, San Fransisco Zoo, North Carolina Zoo, and Nashville Zoo at Grassmere

Grassmere				
Southwick's Zoo	Private	Democratic	Not mentioned	Yes and no

Response to Questionaire

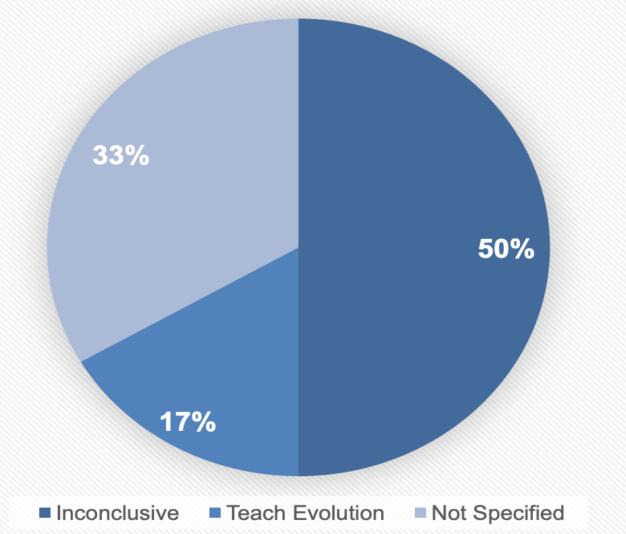
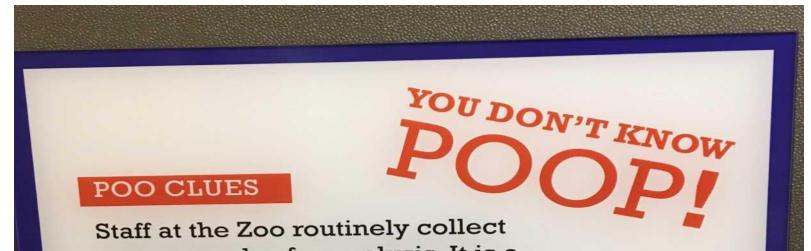


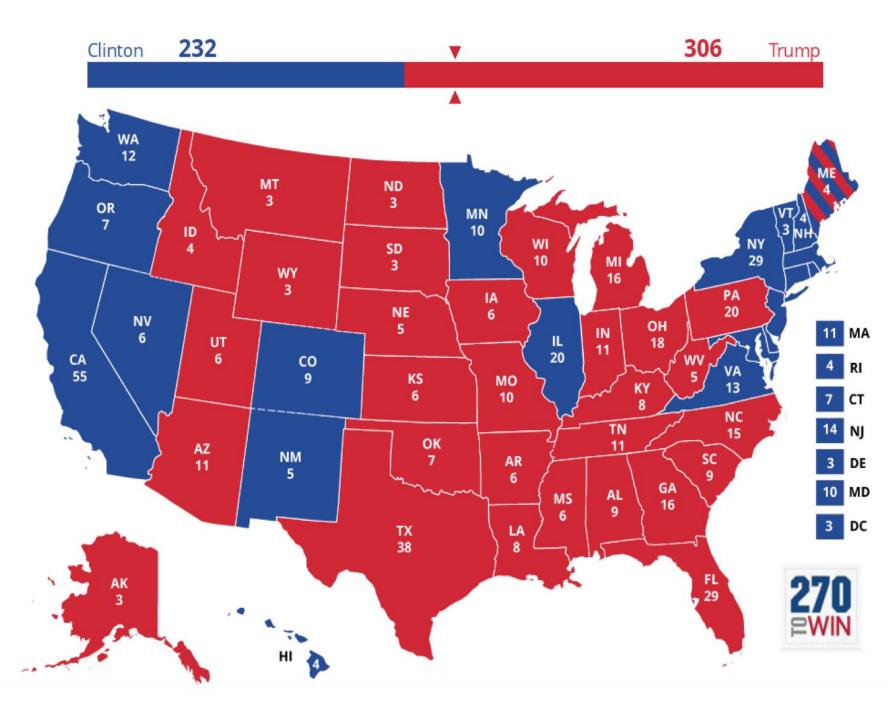
Figure 1. Out of the 6 zoos that were studied, 50% of them were inconclusive about whether they portrayed evolution to the public. One zoo clearly educated on evolution and two did not.



Websites were more explicitly supportive than the survey answers

Political demographics of the zoo was predictive of the zoo's stance

Hypothesis was not strongly supported – low sample size?



- 3. Send questionnaire to all of the zoos
- 4. Analyze answers and results

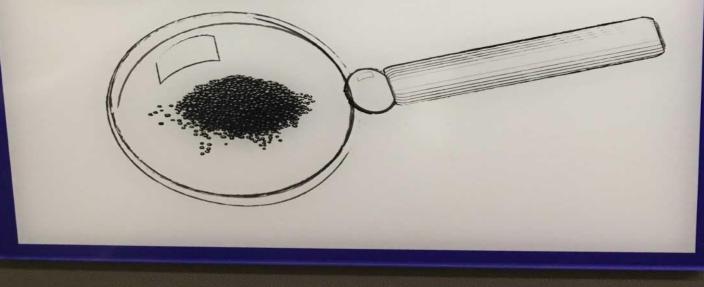


Questionnaire 1. Are you a publicly funded or privately-funded zoo?

2. What is this zoo most wellknown for?

3. How do you attract zoo visitors/business?

4. Who is your main clientele?5. What is this zoo's mission statement? Focus on education? Entertainment? Animal conservation? poop samples for analysis. It is a non-invasive way to better understand animal health, behavior, genealogy, evolution, and more!



Public vs. Private

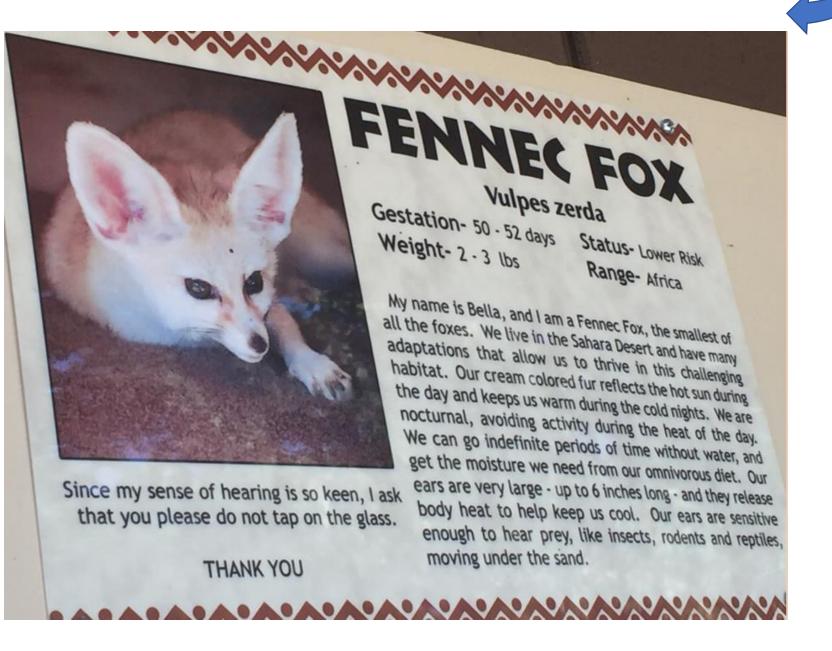
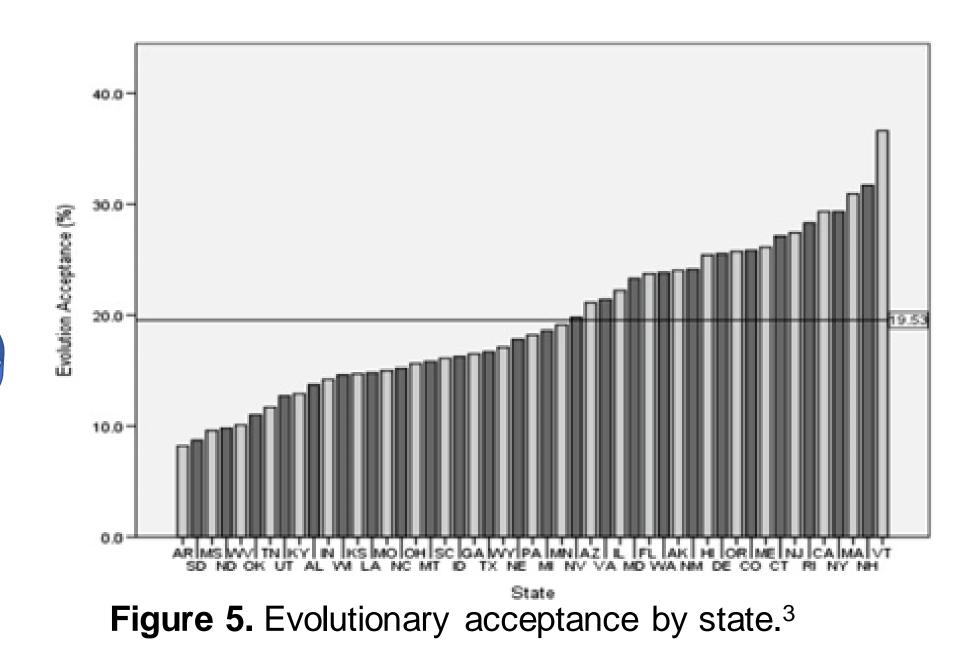


Figure 2. This figure shows the difference in evolution

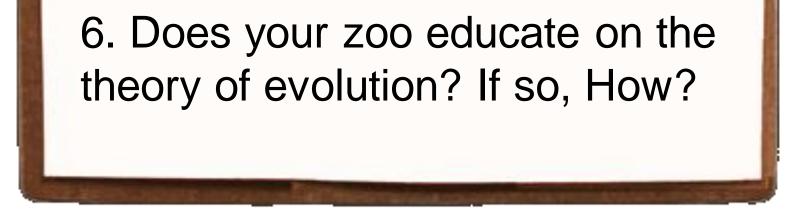
Figure 4. Political outcome from the Presidential election in 2016.⁴



Future Directions

This observational study could be used to educate people with backgrounds in science on which populations/environments would be more open to hearing about evolution.

Bigger sample size Longer time period



portrayal at the Richmond Metro Zoo versus the National

Zoo. The top image is a sign from National Zoo using the

phrase, "evolution." The bottom image shows education on

specific species, but no mention of evolution.



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 We would like to thank all the zoos that participated in this study.