

1. COVER PAGE

Chicago Zoological Society - Brookfield Zoo

Final Report

February 28, 2018



TITLE OF THE PROJECT: Relevancy of African and Asian Elephants in Zoological Facilities

REPORT TYPE: Final

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PROJECT START DATE: 1/1/2017

PROJECT END DATE: 12/31/2017

2. CONSERVATION NEEDS

The goal of the study was to examine the impact of viewing African and Asian elephants within zoological facilities. Specifically, participants were surveyed following their viewing experience at nine zoos throughout North America to examine the impact of that experience as well as factors that lead to the highest levels of emotional reactions and conservation intent. Information gained from this multi-institutional study will help the zoological community start to better understand our collective impact on elephant conservation. Given the increased scrutiny surrounding elephants within zoos, we are at a critical point in time to let science demonstrate the relevancy of elephants under professional care.

3. GOALS AND OBJECTIVES

1. Randomly sample visitors at seven zoological facilities after viewing African or Asian elephants.
2. Examine regional or species differences in those experiences.
3. Determine the factors that lead to positive emotional affect in visitors viewing African or Asian elephants.
4. Determine the factors that lead to increased conservation intent for visitors after viewing African or Asian elephants.
5. Disseminate key findings to the AZA and international zoological community to impact conservation education for elephants.

4. ACTIONS TAKEN

The goal of the current study was to examine the conservation relevancy of having African and Asian elephants in zoological institutions. Adult visitors were intercepted and invited to complete a survey form after they viewed an elephant exhibit at one of nine zoos throughout the United States. Data collection took place between May 1, 2017 and August 31, 2017 and survey forms were completed using iPad tablets. All of the participating zoos were accredited by the Association of Zoos and Aquariums and included Columbus Zoo & Aquarium, Denver Zoo, Fresno Chaffee Zoo, Memphis Zoo, Milwaukee County Zoo, Oregon Zoo, Point Defiance Zoo & Aquarium, Saint Louis Zoo, and San Diego Zoo Safari Park. Approximately half of the zoos (n = 4) exhibited African elephants and the other half (n = 5) exhibited Asian elephants. In total, we received 1,294 valid surveys resulting in an average of 143.7 per facility.

Data were examined using structural equation modeling to look at regional or species differences in elephant experiences, factors that lead to positive emotional affect and interest in getting involved in conservation. A report has been sent to all participating institutions with preliminary results and a manuscript has been submitted for peer-review. Once published, final results will be shared with participating institutions, International Elephant Foundation, and the AZA Elephant Taxonomic Advisory Group.

5. CHANGES

The only change to the project was the addition of two facilities (Columbus Zoo & Aquarium and Memphis Zoo) to increase the number of participating institutions.

6. CONSERVATION OUTCOMES

As a result of this project, we now have a better understanding of the collective conservation impact of zoos in North America in relation to Asian and African elephants. The study was able to identify factors that lead to increased conservation intent and can help guide institutions with African and Asian elephants by ensuring experiences that lead to increased interest in conservation.

Anecdotally, project staff at the Point Defiance Zoo & Aquarium have reported that the survey process has been helpful in inspiring conversations about elephants and the issues that affect them, and how zoo visitors can get involved. The majority of survey participants at this facility (approximately 60%) have asked follow up questions about the zoo's elephants. Many of the questions have been related to elephant natural history or specific questions about the zoo's elephants Suki and Hanako – such as how old are they, how much do they eat, etc. Some of the questions are conservation-related, such as “what are you doing to help elephants?” or “what can I do to help elephants?”

General comments have been supportive of having elephants in zoos, including “I’m glad you are doing so much to help elephants” (after attending a keeper talk) and “I’m glad you are sharing actions that visitors can take to get involved.” One person stated that they don’t believe elephants should be in zoos. Staff were careful to have these conversations only after survey administration, so as not to influence responses.

7. NUMBER OF HUMANS/ELEPHANTS IMPACTED

Currently, AZA has 230 accredited member institutions (AZA, 2017) with approximately 70 (30%) of those exhibiting either Asian or African elephants (Meehan et al., 2016). Every year, approximately 195 million people visit those 230 facilities (AZA, 2017). While visitor numbers across institutions are not equal, even the ability to educate and inspire 30% or over 54 million of those visitors could have a significant impact. As a result of this study, we now have scientific data on the impact of viewing elephants at these facilities as well as factors that lead people to want to get more involved in conservation. This information can help zoological institutions demonstrate the relevancy of providing visitors with opportunities to view these charismatic megafauna.

8. PROBLEMS

N/A

9. ACCOMPLISHMENTS

Short-term the project was successful as we met all of our goals and objectives within the one year timeline. Long-term success will be judged by successfully publishing the results in a peer-reviewed journal.

10. NEXT STEPS

Once we have received notice that the manuscript has been accepted for publication, we will then share final results with participating institutions, International Elephant Foundation, and AZA Elephant Taxonomic Advisory Group. In addition, an abstract will be submitted for formal presentation at the AZA annual conference.

11. HUMAN INTEREST STORY

Maura Davis, Elephant Manager at the Denver Zoo shared how she was excited to have some science to better understand the impact of viewing elephants in zoos. She believes that the experiences of zoo visitors with Asian elephants at the Denver Zoo leave people inspired and she is excited to finally have some science to better understand these experiences thanks to the financial support from the International Elephant Foundation.

12. 500 WORD MAX. SUMMARY

The goal of the current study was to examine the conservation relevancy of having African and Asian elephants in zoological institutions. Adult visitors were surveyed at one of nine zoos throughout the United States between May 1, 2017 and August 31, 2017. All of the participating zoos were accredited by the Association of Zoos and Aquariums and included Columbus Zoo & Aquarium, Denver Zoo, Fresno Chaffee Zoo, Memphis Zoo, Milwaukee County Zoo, Oregon Zoo, Point Defiance Zoo & Aquarium, Saint Louis Zoo, and San Diego Zoo Safari Park. Approximately half of the zoos ($n = 4$) exhibited African elephants and the other half ($n = 5$) exhibited Asian elephants. In total, we received 1,294 valid surveys to examine the impact of viewing African and Asian elephants and determine factors that lead to increased interest in getting involved in conservation.

Structural equation modeling was utilized to examine factors that lead to interest in getting involved in conservation and visitor perceptions of animal welfare. Factors that were explored included demographics, predispositions (a person's typical conservation related activities), emotional experiences (questions related to feelings during the viewing experience), animal welfare perception (questions related to the health of elephants), and conservation intent (questions regarding future conservation behavior). Information gained from this study helps AZA zoos better understand their collective impact on visitor's interest in getting involved in conservation. In addition, results will help inform the types of experiences that increase visitor interest in getting involved in conservation. Results have been submitted for peer-review and an abstract will be submitted to AZA to present at the national conference in Seattle, WA.

13. 50 WORD MAX. SUMMARY

Visitors at nine accredited zoos were surveyed to examine experiences viewing African and Asian elephants. Information gained from this study helps accredited zoos better understand their collective impact and inform institutions on the types of experiences that increase visitor interest in getting involved in conservation.

14. ORGANIZATIONS INVOLVED

Lead Partner: Chicago Zoological Society

Partner Institutions: Columbus Zoo, Denver Zoo, Fresno Chaffee Zoo, Memphis Zoo, Milwaukee Zoo, Oregon Zoo, Point Defiance Zoo and Aquarium, Saint Louis Zoo, and San Diego Zoo Safari Park.

15. FINANCIAL REPORT

Please see attached.

16. IMAGES

Please see attached.

17. VIDEO CLIP

Please see attached.

18. PUBLICATIONS/PRESENTATIONS

Miller, L.J., Luebke, J.F., & Matiasek, J. (In Review). Impact of viewing African and Asian elephants at accredited zoological institutions: Conservation intent and perceptions of animal welfare. *Zoo Biology*.

19. WEBSITES, BLOGS, SOCIAL MEDIA

<https://www.czs.org/brookfield-zoo/home>

<https://www.columbuszoo.org/>

<http://www.denverzoo.org/>

<https://fresnochaffeezoo.org/>

<https://www.memphiszoo.org/>

<http://www.milwaukeezoo.org/>

<http://www.oregonzoo.org/>

<http://www.pdza.org/>

<https://www.stlzoo.org/>

<http://sdzsafaripark.org/>