

# THE ROLE OF GREAT APES IN THE EDUCATIONAL EFFICACY OF MODERN ZOOS

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In our expanding urban societies, zoos are increasingly important vehicles for allowing natural contact with wild creatures (Maple et al. 1995). The need for people to connect with wild animals remains strong (Kreger and Mench 1995a and 1995b) and the impact of such connections should not be undervalued. Desmond Morris (1968), in describing his first visit to a zoo, summarizes perfectly the role of zoos in modern society: “That visit did more for my later interest in animals than a hundred films or a thousand books. The animals were real and near...If zoos disappear, I fear that our vast urban population will become so physically remote from animal life that they will eventually cease to care about it.”

While the educational opportunities afforded by zoos are many, the educational efficacy (defined as the power to produce an effect or change) of these institutions has been argued (Kellert and Dunlap 1989). In 1974, Robert Sommer disagreed with zoos about their role in education: “Unless one’s goal is to learn about the effects of confinement, the educational values of the [hard] zoo is probably more negative than positive. Despite excellent intentions, it is likely that even the best public zoos are creating stereotypes about animal behavior that are not only incorrect but work against the interests of wildlife preservation.” It is our opinion that elite zoos and aquariums have changed dramatically since this statement was written (see also Sommer 1999), and that the positive educational impact of zoos today is more evident. Thus, a new analysis is needed. Though few data on the educational efficacy of zoos focus on great apes, we will add available information on the great apes when possible.

## THE EDUCATIONAL EFFICACY OF MODERN ZOOS FOR THE PUBLIC

Surveys have clearly demonstrated that people view environmental education as one of the primary roles of zoos and aquariums (Kellert, 1999; Kreger and Mench 1995a and 1995b). While at the zoo, visitors prefer educational opportunities that involve interactive experiences with both people and animals (Wolf and Tymitz 1979; Chicago Zoological Society and Lincoln Park Zoo 1993; People, Places, and Design 1992; Gold and Beveniste 1995). Zoological parks provide a variety of these experiences including immersion in naturalistic exhibits, outreach programs, live animal demonstrations, participatory displays such as interactive graphics, biofacts and artifacts, formal education programs, technology-assisted programs, and interactions with staff and docents. But how effective are these educational techniques at changing the conservation knowledge and affecting the attitudes and behavior of zoo visitors?

Unfortunately, very few data exist concerning the effectiveness of zoos in changing attitudes and behavior related to conservation and behavior change. We do know that visitors appear to be interested in conservation: Gold and Benveniste (1995) found visitors to the great ape house at the Lincoln Park zoo ranked conservation as the second most interesting topic about which to learn. However,

studies by Tunnicliffe (1994; 1995a; 1995b) report that few visitors describe zoos as serving a conservation purpose or spontaneously discuss conservation issues while at the zoo.

In terms of interest in and understanding of conservation, there is limited evidence to suggest that zoo visits are linked to increases in these variables. For example, a study at Brookfield Zoo and Lincoln Park Zoo (Chicago Zoological Society and Lincoln Park Zoological Society 1993) found zoo visitors had higher conservation knowledge scores than nonvisitors. Ogden et al (1994) found a self-reported increase in conservation interest following a visit to a naturalistic gorilla exhibit. Similarly, Ford and Burton (1991) found that concern for conservation was higher at naturalistic gorilla exhibits than at traditional exhibits, with greater understanding by viewers of the need for habitat preservation. Finally, both Yerke and Burns (1991) and Swanagan (1993) found a significant, pro-conservation attitude shift after exposure to live animal demonstrations.

In addition, several studies have tied this interest in conservation to conservation action. The Brookfield and Lincoln Park study found that zoo visitors had higher conservation knowledge scores than nonvisitors, and conservation knowledge was positively correlated with environmentally responsible consumer and voting behavior and support for/participation in conservation-oriented volunteer activities (Chicago Zoological Society and Lincoln Park Zoological Society 1993). Similarly, Swanagan (1993) found that frequent zoo visitors, particularly those with a participatory experience such as an animal demonstration or animal contact, were more likely to engage in conservation-related action than nonfrequent visitors or visitors with only a passive experience of viewing animals at a distance. Finally, Brookfield Zoo found that visitors who reported spending a lot of time in the zoo’s wetland exhibit showed significantly higher interest in participating in wetland conservation behaviors than visitors who reported spending little or no time in the exhibit (Rabb and Saunders 1999).

While these data are promising, they unfortunately suggest that simply visiting a zoo is not a very effective mechanism for promoting conservation-related behavior change. Instead, zoos need to decide which conservation messages they will tell, motivate visitors to receive that message, and provide visitors with avenues for changing behavior. We suggest that the future of education lies in the following:

1. Conducting and publishing more research on effective educational techniques.
2. Delivering educational messages at the interest level of the zoo visitor.
3. Educating the public about current issues facing individuals and species represented in captive collections, including conservation and animal welfare issues.

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4. Relating conservation crises in habitat countries to similar, local issues.
5. Striving to bring high levels of cutting edge scientific knowledge into the realm of education.
6. Incorporating current methods of teaching, such as technology-based teaching, to ensure state-of-art educational opportunities and penetration into underserved and distant populations.
7. Providing a hierarchy of information available to visitors to ensure that individuals with various levels of knowledge will be able to learn something from a zoo visit.
8. Providing on-site opportunities for conservation.
9. Providing a range of educational opportunities aimed at different audiences, including families, adults, children, students, and teachers. In particular, zoo exhibits should provide instructions for adults on how to share interpretative information with their children, as parents or caregivers are the most common educators at zoos.

### CONCLUSIONS

With respect to great apes, zoos are perfectly positioned to educate guests about the complex issues surrounding these animals in both captivity and the wild, and many institutions have developed innovative ways of communicating these messages. There are limited data on the effectiveness of some aspects of our educational programs, and unfortunately, we do not have definitive data addressing the overall educational efficacy of zoos. There is a clear mission on the part of the AZA to address these questions, and the AZA Conservation Education Committee has a task force devoted to evaluation issues. Further, the educational initiatives proposed by some of our institutions may help to address these larger questions. With these efforts in place, we are hopeful that in short order, we will finally have the data to support our contention that zoological facilities do impact the knowledge, attitudes, and behaviors of our guests regarding the importance of conserving great apes in particular, and animals and wild places in general.

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