



# ACHIEVING CONSERVATION OUTCOMES THROUGH ENVIRONMENTAL INTERPRETATION: A CASE STUDY OF ZOOS VICTORIA

Sue Broad & Betty Weiler

*Working Paper 4/04  
March 2004*

DEPARTMENT OF MANAGEMENT  
WORKING PAPER SERIES  
ISSN 1327-5216



## Abstract

This paper outlines the methods and findings from phase one of a study examining the relationship between interpretation and the achievement of conservation outcomes in the context of captive wildlife attractions, with particular reference to Zoos Victoria. This study has the potential to contribute to theory construction by extending our understanding of the ways in which zoo interpretation leads to conservation outcomes. Such information is vital if zoos are to be managed as sustainable tourism/leisure sites that have the capacity to contribute to conservation. Phase One of the study examines, through a series of workshops, what is meant by terms such as 'positive action for the environment' and 'contribute to conservation', and identifies particular conservation outcomes that could be considered objectives of the education/interpretation programs at each Zoos Victoria property. Workshop responses were allocated to categories and tallied, resulting in some similarities but also some important differences across the three properties with respect to conservation outcomes that should be priorities for the zoo. The results provide some insight into the perspectives of staff and volunteers and lay the groundwork for the remainder of the study, which seeks to observe and quantify the actual conservation outcomes being achieved by zoo interpretation

**This paper is a work in progress. Material in the paper cannot be used without permission of the author.**

# ACHIEVING CONSERVATION OUTCOMES THROUGH ENVIRONMENTAL INTERPRETATION: A CASE STUDY OF ZOOS VICTORIA

## INTRODUCTION

The aim of the research project presented in this paper is to critically examine the relationship between interpretation and the achievement of conservation outcomes in the context of captive wildlife attractions, with particular reference to Zoos Victoria. There has been no comprehensive independent study of the relationship between interpretation and the achievement of conservation outcomes in the context of captive wildlife attractions. This study addresses this notable research gap and has the potential to contribute to theory construction by extending our understanding of the ways in which zoo interpretation leads to conservation outcomes. Such information is vital if zoos are to be developed and managed as sustainable tourism/leisure sites that have the capacity to contribute to conservation.

This paper outlines the methods and findings from phase one of the study, which sought to identify the conservation outcomes of Zoos Victoria as a basis for then developing and implementing measures of the extent to which these outcomes are being achieved. The three properties managed by Zoos Victoria serve collectively as a case study for testing and refining the methods for wider application.

## BACKGROUND TO THE STUDY

‘Wildlife tourism is now very big business indeed and predicted to increase dramatically over the next decade’ (Shackley, 1996:xxi). A wide-variety of activities can be classified as having a wildlife tourism component; wildlife may be in captive exhibits (e.g. zoos or aquaria) or in their natural habitats (e.g. wildlife safaris) and they may be an incidental part of the experience (e.g. during nature-based tourism) or the specific focus (e.g. whale-watching) (Reynolds and Braithwaite, 2001). The nature of these activities varies between and within sites and settings, and, among other things, according to visitor management strategies.

The exhibiting of captive animals is a specific area that has received extensive coverage in the literature for many years (Conway, 1969; Sommer, 1972; Jamieson, 1985; Chiszar et al., 1990; Preece, 1993; DeLapa, 1994; Hancocks, 1995; Mazur, 2001). The role of zoos and other captive animal facilities has been a major focus of this discussion, with recreation, education, research and conservation identified as valuable benefits of keeping animals in captivity (de Courcy, 1995). Indeed, Kellert (1987) refers to zoos as ‘the sleeping giant of the wildlife education and conservation field’, because of the number and range of visitors, the extent of repeat visitation and the potential to influence public beliefs, knowledge, attitudes and behaviours towards conservation. Likewise, *Caring for the Earth, A Strategy for Sustainable Living* (IUCN, UNEP, WWF 1991) suggests that because people freely choose to attend zoos and expect of learn while there, they are effective at contributing to the ‘quest for a sustainable society.’ Moreover, as the demand for opportunities to interact with wildlife in both captive and non-captive settings is growing rapidly (Orams, 1996; Davis et al., 1997; Reynolds and Braithwaite, 2001), zoos in particular provide a way of reducing the pressure on animals in the wild and the negative impacts associated with such interactions (Lipscombe et al., 2000).

Notwithstanding this potential, controversy remains as to the appropriateness of using taxpayers’ money to keep wildlife in captivity, even though zoos have endeavoured to improve their image and contribution to wildlife conservation via captive breeding programs and other initiatives. A key issue is that although zoos state they are primarily concerned with education, conservation and research, some people believe zoos have not demonstrated their success in achieving these aims (e.g. Sommer, 1972, Jamieson, 1995, Ollason, 1993). Furthermore, similar criticisms and challenges are being voiced in the mass media (see for instance Powell 2003). Notwithstanding the difficulty of demonstrating these outcomes empirically, there have been many calls for further research examining the education and conservation achievements of zoos (Broad and Weiler, 1997; Woods, 1998). Indeed, according to a recent report published by the CRC for Sustainable Tourism, a comprehensive assessment of the contribution of zoos to the conservation of wildlife, and specifically the

role that environmental interpretation plays in achieving wildlife conservation aims, is ‘a major research priority’ (Tribe, 2001:1).

## CONSERVATION EDUCATION WITHIN ZOOS

As outlined above, it is generally accepted that education/interpretation is one of the key roles of the modern zoo. A review of literature concerning the history of zoos and zoo education identified four key objectives or outcomes for zoo interpretation:

1. An educational experience that is recreational, enjoyable and satisfying;
2. the cognitive learning of facts regarding animals, and about the function and management of the zoo or exhibit;
3. the development of positive attitudes including a concern for and commitment to wildlife conservation; and
4. behavioural outcomes, including appropriate on-site behaviour and long-term environmentally responsible behaviour (Broad and Weiler, 1997).

These objectives or outcomes are not necessarily unrelated, as enjoyable learning experiences (objectives 1 and 2) can in fact be designed and delivered in ways that influence attitudes and behaviour (objectives 3 and 4). However, this paper is concerned primarily with objective four, that is, the achievement of both short and long-term environmentally responsible, or conservation related, behaviour through education/interpretation programs at Zoos Victoria.

The importance of conservation outcomes is evidenced by the extent to which the zoo community has embraced this objective at an international, national, and organisational level. Internationally, The World Zoo Conservation Strategy (IDUZG/CBSG [IUCN/SSC], 1993:21) states that conservation education is ‘a specially important element of zoo education’. In Australia, the theme of the 2003 ARAZPA<sup>1</sup> Conference - ‘Education - The Key to Conservation’ demonstrates how important this role is to the local zoo community. In addition, papers presented at the ARAZPA conference provide evidence that both public and private zoo institutions acknowledge the role of conservation education in motivating visitors to modify their behaviour to contribute to conservation. For instance, Smales, Leifman and Hoysted (2003) from Zoos Victoria, suggest that zoos can contribute to conserving wildlife ‘by educating the wider community so that they feel motivated and empowered to go on and contribute to conservation by the way they subsequently live their lives’. Likewise, O’Callaghan (2003), Curator at Australia Zoo, argues that ‘an important role of zoo education is to promote and stimulate awareness of our natural environment to encourage behaviours that conserve every aspect of the natural resources of the world’.

Similarly, Woollard (2001) correctly observes that an action or modified behaviour must be the fundamental objective of zoo conservation education programs. He explains that ‘raising awareness of the wide range of environmental issues and of threats to biodiversity has a higher purpose – that of promoting a sustainable future. This future is entirely dependent upon converting awareness into appropriate responsive action.’ As a result he argues that ‘zoo education is therefore far more than information, awareness and inspiration – it is a call to action’. Similarly, O’Callaghan (2003) argues in relation to zoo education that ‘if there is not an onus and attempt to change people’s behaviour then the education program is just providing information’.

An examination of the recently released ARAZPA Education Policy (2003) provides similar evidence of the link between zoo education and subsequent conservation behaviour, as the policy states that zoo education:

- empower(s) people to **take positive action** for our environment...
- provides unique learning experiences that connect people with the natural world by... capturing the imagination and emotions of visitors to **motivate positive actions**...

---

<sup>1</sup> ARAZPA is the acronym for Australasian Regional Association of Zoological Parks and Aquaria. It is a non-profit, conservation organisation committed to helping conserve the world’s threatened species and is the peak zoo and aquarium organisation in the Australasian region.

- involves the whole community by... providing opportunities for people to **behave in an environmentally responsible manner**...
- provides opportunities for staff and community members to continually improve their knowledge and skills for **environmental actions**...
- gives people an understanding of their place within the natural world and the need to **take individual and collective action** for ecological sustainability [and] models **environmental action** for sustainable living **that visitors can apply** [and]... links visitors and communities with environmental programs and information. (Emphases added).

## RESEARCH DESIGN AND METHODS

While it is clear from the above that influencing behaviour is a goal of zoo education/interpretation programs, how can research assess zoos' effectiveness in achieving this goal? In order to begin to answer this question, five workshops were held at the three Zoos Victoria properties with the following objectives:

- to examine what is meant by terms such as 'positive action for the environment' and 'contribute to conservation', and specifically to identify particular conservation outcomes that could be considered objectives of the education/interpretation programs at each zoo;
- to identify conservation outcomes that are considered priorities by staff at each zoo; and
- to identify conservation outcomes that are currently being targeted by the education/ interpretation programs at each zoo.

Workshops were held at Werribee's Open Range Zoo (WORZ), Melbourne Zoo (three workshops were held, one primarily for general staff, one for the zoo executive team and one for FOTZ<sup>2</sup> volunteers), and Healesville Sanctuary. There were a total of 104 participants in the four workshops, ranging from management level to front-line staff and volunteers.

To meet the three objectives, participants undertook three main activities during each workshop. The first activity required participants to identify, in pairs or small working groups, examples of *possible target conservation behaviours* that could be considered objectives of the zoo's education/interpretation program. These were recorded on butcher's paper, clarified and then shared with workshop participants as a whole in order to produce a consolidated list of possible behaviours. The second activity required participants to individually and confidentially rank up to five conservation behaviours from the consolidated list that they personally believed *should be priorities* as objectives of the zoo's education/interpretation program. The third activity required participants to identify from the consolidated list of conservation behaviours any conservation outcomes that are *currently being targeted* by the education/interpretation programs at the zoo.

## FINDINGS

Responses were allocated to categories and tallied, resulting in some similarities but also some important differences across the different workshops with respect to conservation outcomes that should be priorities for the zoo. Overall, 'donating money/sponsoring a zoo animal' was the on-site behaviour identified by the most participants, followed by 'reduce/reuse/recycle while at the zoo', 'volunteer with the zoo, and 'talk/spread the message'. The off-site behaviours mentioned most often were 'reduce/reuse/recycle', 'support or volunteer with an environmental/ conservation group', 'create/preserve wildlife habitats', and 'spread the conservation message'. The results provide some insight into the perspectives of staff and volunteers and lay the groundwork for the remainder of the study, which seeks to observe and quantify the actual conservation outcomes being achieved by zoo interpretation.

---

<sup>2</sup> FOTZ is the acronym for Friends of the Zoo. It is the voluntary support group of Victoria's three zoos - Melbourne Zoo, Healesville Sanctuary and Werribee's Open Range Zoo.

## REFERENCES

- ARAZPA (2003) *ARAZPA Education Policy*, Mosman, ARAZPA.
- Broad, S. & Weiler, B. (1997), Tigers and Tourists: the Learning Opportunities of Captive Wildlife Exhibits, *Proceedings of the Australian Tourism & Hospitality Research Conference*. Bureau of Tourism Research, Canberra pp. 88-105.
- Broad, S. and Weiler, B. (1998) Captive Animals and Interpretation: A Tale of Two Tiger Exhibits, *Journal of Tourism Studies*, 9, 1: 14-27.
- Chiszar, D., Murphy, J. and Iliff, W. (1990) For Zoos, *The Psychological Record*, 4: 3-13.
- Conway, W. G. (1969) Zoos: Their Changing Roles, *Science*, 163: 48-52.
- Davis, D., Banks, S., Birtles, A., Valentine, P. and Cuthill, M. (1997) Whale Sharks in Ningaloo Marine Park: Managing Tourism in an Australian Marine Protected Area, *Tourism Management*, 18, 5: 259-271.
- de Courcy, C. (1995) *The Zoo Story*, Ringwood: Penguin Books.
- DeLapa, M. D. (1994) Interpreting Hope, Selling Conservation: Zoos, Aquariums, and Environmental Education, *Museum News*, 73, 2: 48-49.
- Hancocks, D. (1995) Lions and Tigers and Bears, Oh No! in Norton, B., Hutchins, M., Stevens, E. and Maple, T. (ed.) *Ethics of the Ark: Zoos, Animal Welfare, and Wildlife Conservation*, Washington: Smithsonian Institution Press, 31-37.
- IUCN/UNEP/WWF (1991) *Caring for the Earth, A Strategy for Sustainable Living*, Gland, Switzerland.
- IUDZG/CBSG (IUCN/SSC) (1993) *The World Zoo Conservation Strategy: The Role of the Zoos and Aquaria of the World in Global conservation*, Brookfield, Chicago Zoological Society.
- Jamieson, D. (1985) Against Zoos, in Singer, P. (ed.) *In Defence of Animals*, Oxford: Basil Blackwell, 108-117.
- Lipscombe, N., Howard, J. and Porter, A. (2001) Using Interpretation to Manage Tourist and Wildlife Interactions: Tourists and Dingoes on Fraser Island, *Proceedings of the Australia and New Zealand Association of Leisure Studies Conference*. Edith Cowan University, Fremantle pp. 231-246.
- Mazur, N (2001) *After the ark? : Environmental Policy Making and the Zoo*, Carlton, Melbourne University Press.
- O'Callaghan, P. (2003) Bringing Wombats Out of the Hollow Log: The Value of Wandering Wildlife *Proceedings of the ARAZPA Conference 2002 – Education the Key to Conservation*, Adelaide.
- Ollason, R. J. (1993) Getting the Message Across, *Journal of the International Association of Zoo Educators*, Proceedings of the 11<sup>th</sup> IZE Congress, Taronga Zoo, 186-190.
- Orams, M. (1996) A Conceptual Model of Tourist-Wildlife Interactions: The Case for Education as a Management Strategy, *Australian Geographer*, 27, 1: 39-51.
- Powell, S. (2003) The New Zoo, *The Weekend Australian Magazine*, Feb 22-23, 27-31.
- Preece, R. (1993) *Animal Welfare and Human Values*, Ontario: Wilfred Laurier University Press.
- Reynolds, P. and Braithwaite, D. (2001) Towards a Conceptual Framework for Wildlife Tourism, *Tourism Management*, 22: 31-42.
- Smales, I., Leifman, J. and Hoysted, J. (2003) Conservation In Zoos: Are We Educating Or Will It Remain Our Best-Kept Secret? *Proceedings of the ARAZPA Conference 2002 – Education the Key to Conservation*, Adelaide.
- Sommer, R. (1972) What Do We Learn at the Zoo, *Natural History*, 81, 26-27: 26-85.
- Tribe, A. (2001) *Captive Wildlife Tourism in Australia*. CRC for Sustainable Tourism,

- Wollard, S. P. (2001) Zoo Education For A Sustainable Future, *Journal of the International Association of Zoo Educators* 37: <http://www.izea.net/journal37.htm>.
- Woods, B. (1998) Animals on Display: Principles for Interpreting Captive Wildlife, *Journal of Tourism Studies*, 9, 1: 28-39.