

# Snakes are scary – or are they? A preliminary evaluation of the Dangerous Creatures Reptile Exhibit at uShaka Sea World, Durban, South Africa

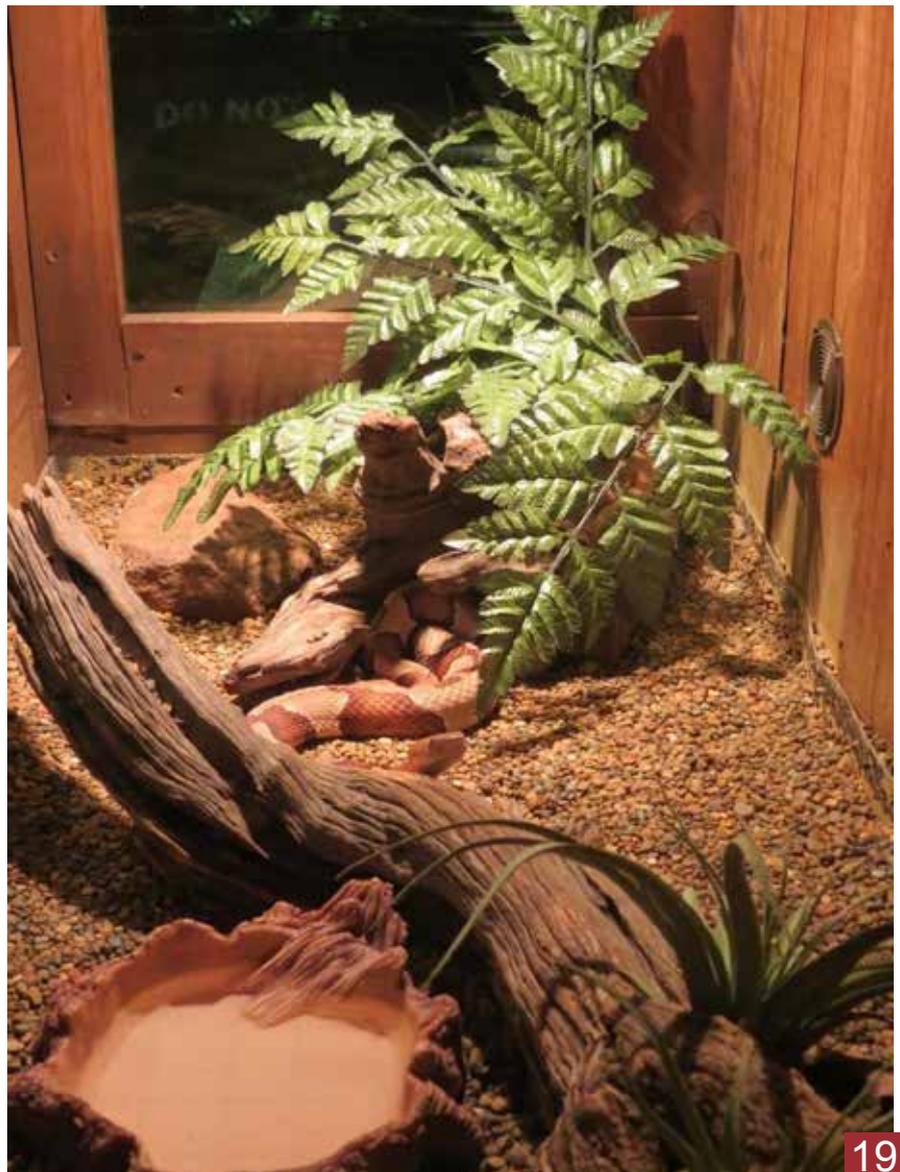
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## A brief theoretical background

Zoos and aquariums have the capacity to influence large numbers of people with a strong conservation message, by providing opportunities for them to develop emotional connections with animals (Conway, 2007). Zoos and aquariums are found on every continent and in almost every country of the world, from wealthy first world cities to poor, war ravaged towns. While the animals exhibited in zoos and aquariums differ, the opportunity for visitors to view and connect with wild animals remains central. Even in poor cities in developing countries, enormous groups of school children visit the local zoo, as do families, with the zoo providing a much needed respite from the harsh realities of daily life. In the first world urban environment, zoos and aquariums provide city dwellers with a similar opportunity to relax with family and friends in a pleasant and safe environment. For both rich and poor, zoos and aquariums provide visitors with an opportunity to connect with nature (Rabb & Saunders, 2005) as they are able to reach across social, cultural and economic barriers to touch people throughout the world. This enormous reach comes with tremendous responsibility, and zoos and aquariums are increasingly challenged to prove their claims of contribution to conservation.

There are many areas of research which require attention before zoos and aquariums can confidently assert their true value to conservation. One such field is the potential disconnect between the visitor's motivation for a visit (entertainment) and the zoo or aquarium's mission (behaviour change through education). The relationship between education and entertainment in an educational leisure setting is very complex (Packer 2006; Packer & Ballantyne 2004) and the extent to which education and entertainment are conflicting or complementary is unknown. Previous research has shown that entertainment and education are synergistic and complementary in educational leisure settings (Falk & Dierking, 2000; Falk, Moussouri & Coulson, 1998; Packer & Ballantyne, 2004). Although visitors often identify recreation as their primary reason for visiting a facility (Serrell, 1977),

Packer & Ballantyne (2004) analysed data from six educational leisure settings and found that learning in a leisure setting is seen by the visitor to be integral to the enjoyment of the experience. Importantly they noted that visitors were more likely to invest effort in learning if it was perceived as fun and relaxing – 'you learn more when it's fun', and most importantly, that education was considered to complement the entertainment aspect of the experience – 'you enjoy it more when you learn' (Packer & Ballantyne 2004). Falk, Moussouri & Coulson (1998) noted that visitors with high entertainment motivations stayed longer in an exhibit, and that the duration of the visit was linked positively to learning. These studies indicate that entertainment and education are not mutually exclusive and that a zoo or aquarium should attempt to integrate these two aspects of their business



to facilitate learning while having fun. In fact, if entertainment motivations increase visit duration, and visit duration increases learning, then entertainment motivations are positive for the overall learning mission of the facility. It would appear that the perceived tensions between educational and entertainment motivations of visitors are largely academic, and that no such conflict exists consciously within a visitor (Falk, Moussouri & Coulson, 1998).

### Dangerous Creatures Exhibit

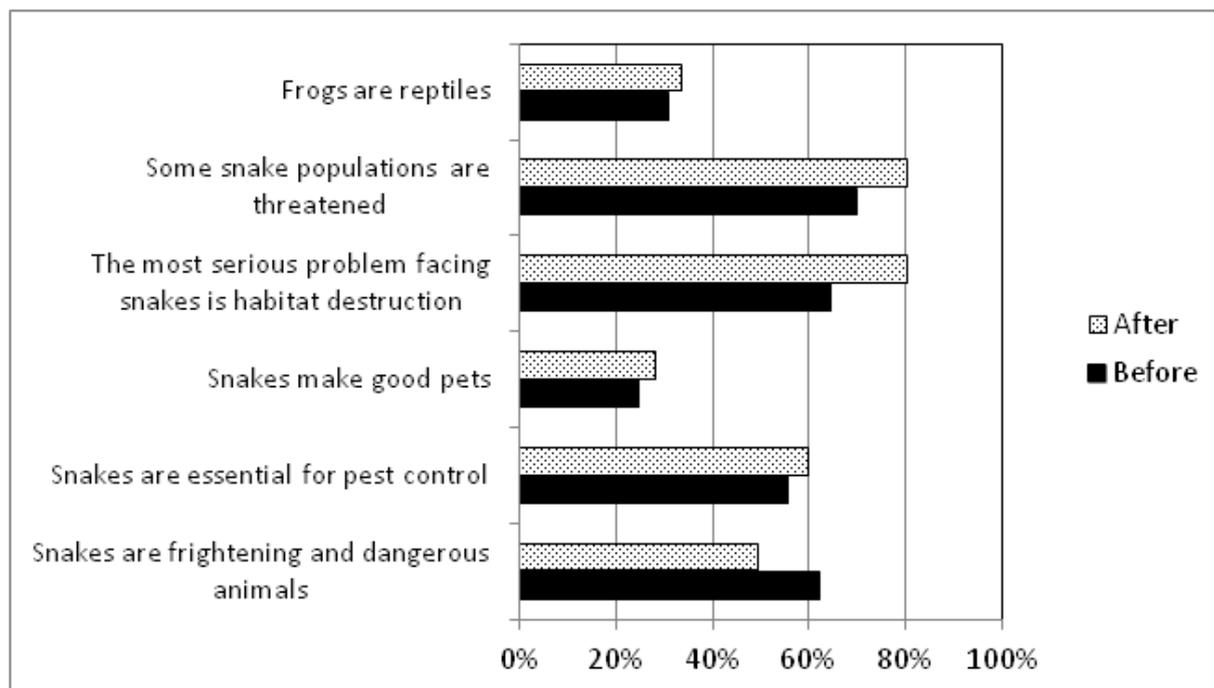
In 2006 uShaka Sea World departed from its traditional focus on marine animals and designed and opened a terrestrial exhibit. Filled with squeals of delight and fear, the Dangerous Creatures exhibit hall has fascinated guests with amazing animals displayed in an 'Indiana Jones' type exhibit since opening. The exhibit hall is over 300 square meters in size. The exterior has been themed to resemble a warehouse in a Zanzibari fishing village, with enticing peeks into the interior showing a tarantula and some king snakes. Visitors enter the "warehouse" and find themselves in a jumble of crates and boxes, discovering a host of beautiful, interesting and often dangerous animals. Following the winding path and ducking under ropes and crates creates a sense of excitement in the explorer, and a series of special effects ensures that visitors are startled at various points. This creates a sense of expectation, and the interaction with the effects and with each other creates considerable mirth. The exhibit houses a range of potentially dangerous animals, including 96 reptiles of 41 different species, 48 arthropods (spiders and scorpions) of 13 species and 39 amphibian species (frogs). Local creatures include the beautifully patterned gaboon vipers, the vibrant green mambas and the giant bullfrogs. The jewel-like poison dart frogs, plastic looking Whyte's tree frogs and cartoon like Argentinean horned frogs are all at home in their realistic exhibits.

As many of the world's frog species face extinction, the efforts of the uShaka Sea World team to breed these wonderful indicators of ecosystem health are increasingly important. One such conservation project is the Pickersgill's reed frog (*Hyperolius pickersgilli*) breeding programme. This tiny frog is endemic to the KwaZulu-Natal coast is classified as critically endangered, mainly due to the degradation of the coastal reed beds and wetlands that form its natural habitat. Breeding success has been achieved and the team will be working with the local nature conservation authority in a release programme.

The innovative and fun approach to theming, as well as the obvious care of the exhibits and the excellent husbandry of the animals has made this display a great success with guests. Since opening over 300 000 visitors have enjoyed the exhibit. The theme 'From fear to fascination' was used to describe the exhibit. Our aim was to help move visitors from their fear of the animals, to a fascination for the amazing creatures and an appreciation of their role in ecosystem functioning, as well as their vulnerability to people. We hoped that people would leave the exhibit more interested in the animals displayed, and more concerned about their wellbeing. However, the exhibit is also very entertaining and we were concerned that the high entertainment value would overshadow the more serious conservation messages that we wanted to convey. In order to answer our questions, a simple evaluation project was implemented.

### Entertainment vs Education?

A total of 101 visitors completed a questionnaire after exiting the Dangerous Creatures exhibit. Slightly more males (52%) than females were interviewed. Most visitors were in the 30 – 39 age group (31%) and almost half of the visitors surveyed were from KwaZulu-Natal (53%). Only 10% of the visitors interviewed were international visitors.



Most groups comprised of five or fewer people and most people were visiting with their families, as 47% of the visitors were accompanied by children. A total of 36% were visiting for the first time, while 43% noted that they had previously visited a snake park at another facility. A total of 15% respondents were repeat visitors.

When visitors were asked why they had chosen to visit the facility, the highest rating was 'fun and educational', closely followed by 'It is something to do at uShaka'. Visitors appear to enjoy this exhibit, with 92% of visitors agreeing or strongly agreeing with the statement 'I enjoyed the exhibit'. Visitors also reported learning about reptiles and conservation. Over 91% felt that they had learnt about reptiles and 68% reported that they had learnt more about conservation. Interestingly, 53% felt that they had changed their minds about snakes after visiting the exhibit – from a more negative to a more positive view of snakes. Half of the visitors found the exhibit frightening – which is not surprising given the nature of the exhibit and well as the inherent fear that most people have of snakes.

In a series of retrospective questions, visitors indicated that their attitude towards snakes had changed by the end of their visit. Before visiting the exhibit, 62% felt that snakes were dangerous while after visiting the exhibit this had dropped to 49%. Visitors also learnt about the conservation status of snakes – with respect to habitat destruction and population status (Fig. 1). There was a slight increase in the percentage of visitors who think that snakes make good pets (25% to 29%). This is not a good impression and indicates that this is a message which needs to be addressed in the exhibit. Therefore, despite the positive results of the survey, visitors do not always see exhibits the way keepers and educators do, hence the confusing messages about reptiles as pets. This is why studies of this nature are essential to ensure that the messages being conveyed by the exhibit are being interpreted by the visitors in the way they were intended to be understood.

### Reason for Attendance

Fun and educational	6.00
It is something to do at uShaka	5.75
We saw it advertised	5.00
I love reptiles	4.00
Fun for the children	3.86
I am interested in a reptile as a pet	2.93

*Self-reported motivation to visit the Dangerous Creatures exhibit (Mean score out of 7)*

Overall the results of this preliminary study indicate that the Dangerous Creatures exhibit is achieving its goals of helping people to move from a place of fear of reptiles towards a fascination with these amazing creatures and a better understanding of the role of reptiles and amphibians in the ecosystem. The entertainment value is high, but this does not appear to detract from learning. Comments from visitors indicate that the high entertainment value attracted them to the exhibit, but the opportunities for learning kept them in the exhibit for longer. In fact, many visitors would not enter the exhibit if it was seen as 'a boring place to learn'. Further comments from visitors suggest that the opportunity to touch a snake or an iguana was a catalyst to changing their opinion of reptiles from 'scary and slimy' to 'smooth and beautiful'. This supports the conclusions reached by Packer & Ballantyne (2004) about the synergistic effects of entertainment and education.

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