

COMPARING CAPTIVE AND NON-CAPTIVE WILDLIFE TOURISM

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- Visitor experiences at captive and non-captive wildlife tourism sites are compared.
- There were demographic, motivational and experiential differences between sites.
- The non-captive wildlife viewing experience was more intense and emotional.
- Non-captive experiences had a more powerful impact on visitors' learning.
- Both can do more to increase visitors' conservation learning and behaviour change.

Wildlife tourism is broadly defined as tourism undertaken to view or encounter wildlife (Newsome, Dowling & Moore, 2004). It occurs in a range of settings including artificial environments where animals are captive (e.g., zoos, aquariums and wildlife centres) and natural habitats where animals are non-captive (e.g., ecotourism experiences, national parks). One of the main arguments for the continuing development of both captive and non-captive wildlife tourism attractions is that they help to secure long-term conservation of wildlife and their habitats (Higginbottom, 2004; Newsome, et al, 2004). Although different types of wildlife encounters are likely to have different strengths and weaknesses (for visitors, wildlife and the environment), the relative advantages and disadvantages of different approaches to wildlife tourism remain unexplored (Ballantyne, Packer, Hughes & Dierking, 2007).

This paper compares visitor attributes, experiences and outcomes at two captive and two non-captive wildlife tourism sites. Understanding more about the audiences attracted by different types of wildlife tourism, the experiences they afford, and their impact on conservation learning and environmentally responsible behaviour will not only assist wildlife tourism providers to better meet the needs of their visitors, but also contribute to the ongoing debate regarding the ethics of holding animals in captivity.

Both captive and non-captive wildlife tourism providers acknowledge their obligation to not only safeguard the welfare of the animals being observed, but also to provide engaging and effective learning experiences that influence visitors' pro-environmental behaviour (WAZA, 2005). However, non-captive wildlife tourism in wilderness settings may disturb or damage habitats, influence animal behaviours, and disrupt feeding patterns through deliberate or unintentional provision of food (Duffus & Dearden, 1990; Green & Higginbottom, 2001; Shackley, 1996). Modern zoos and aquariums may strive to maintain high standards of care and provide enclosures that resemble natural habitats, but are often criticised by animal welfare groups for keeping animals in captivity. Captive wildlife tourism allows visitors to view rare animals not commonly seen in the wild, and also attracts a wider audience as the experiences are usually less expensive (Hughes, Newsome & Macbeth, 2005). Non-captive wildlife tourism allows visitors to actively achieve rather than passively receive wildlife sightings (Knight, 2010).

Data were collected as part of a larger project (Ballantyne, Packer and Falk, 2011; Ballantyne, Packer and Sutherland, 2011) at four marine-based wildlife tourism sites in Australia over three stages: pre-visit (N = 1286); post-visit (N = 841); and follow-up (N = 240). The sites included a marine theme park and aquarium (captive sites), a whale watching tour and a turtle-viewing experience (non-captive sites). A pre-visit questionnaire measured interest in nature, knowledge about wildlife conservation, engagement in environmentally

responsible behaviours, and motivations for visiting. A post-visit questionnaire measured aspects of the experience (such as getting a good view of the animals or discussing new information with a companion), and changes in environmental awareness, understanding and attitudes as a result of the visit. A four-month follow-up web survey obtained rich, descriptive data regarding the impact of the experience on environmental knowledge, attitudes and behaviour. Overall, visitors to the non-captive sites were more likely than visitors to the captive sites to be international tourists (28% vs 18%, χ^2 [1, N=1054] = 14.29, $p < .001$) and first-time visitors (87% vs 47%, χ^2 [1, N=1185] = 222.35, $p < .001$). Group composition, average age and gender balance were similar across sites.

Although visitors to captive and non-captive wildlife tourism venues arrived with similar levels of environmental knowledge, interests and behaviour, there were motivational and experiential differences that set them apart. Non-captive wildlife viewers placed greater importance on the learning aspects of their visit, $t(1239) = 4.32$, $p < .001$, while visitors to the captive sites placed greater importance on the social, $t(1229) = 3.99$, $p < .001$, restorative, $t(1228) = 4.95$, $p < .001$, and entertainment-oriented aspects, $t(1235) = 8.65$, $p < .001$. The fact that non-captive viewers were more likely to be international and/or first-time visitors may have contributed to these differences in motivations, but it is also likely that the way visitors think about a zoo or aquarium outing is different from the way they think about wildlife viewing in natural habitats. Visitors perceive zoos and aquariums more as sites for a social, relaxing or enjoyable outing with family or friends while they perceive non-captive viewing more as an opportunity to experience and learn about the natural world.

The non-captive wildlife viewing experience was reported as more intense and emotional than the captive viewing experience. It was more exciting, $t(887) = 4.48$, $p < .001$, and more engaging, $t(887) = 3.18$, $p < .001$. Visitors were more likely to develop an emotional connection with the animals, $t(886) = 2.53$, $p < .05$, and to feel a sense of wonder or awe, $t(885) = 3.29$, $p < .001$. Four months after their visit, non-captive wildlife viewers provided more emotionally-charged accounts of their experience than captive wildlife viewers, $t(238) = 4.92$, $p < .001$. Non-captive wildlife viewers were more likely to have their questions answered by staff, $t(851) = 6.99$, $p < .001$, but captive wildlife viewers were more likely to discuss new information with a companion, $t(880) = 3.46$, $p < .001$.

As reported elsewhere (Ballantyne, Packer & Sutherland, 2011), viewing animals in their natural habitat led to a sense of privilege, especially when animals freely approached visitors. The captive viewing experience, on the other hand, allowed visitors a closer view of animals, often from a totally new perspective, e.g., having sharks and rays swim overhead in an aquarium viewing tunnel. There were no differences between the sites in the extent to which visitors were engaged reflectively, a factor that has been shown to impact significantly on learning outcomes (Ballantyne, Packer & Falk, 2011). Perhaps both types of experiences currently fall short in encouraging visitors to reflect on their experience, and interpretive techniques could do more to intentionally engage visitors in processing and making meaning from their experience, both during and after their visit (Ballantyne & Packer, 2011).

The combination of demographic, motivational and experiential differences noted above resulted in non-captive experiences having a more powerful impact than captive experiences on visitors' short-term learning, $t(851) = 2.54$, $p < .05$, as well as follow-up measures of new knowledge, $t(238) = 6.52$, $p < .001$, and attitude change $t(238) = 3.92$, $p < .001$. However, this difference did not extend to consistent differences in the adoption of new

environmentally responsible behaviours as a result of the visit, perhaps due to the lack of opportunities for reflective engagement. This represents a lost opportunity to make a real difference both to visitors' lives, and the environment.

The findings indicate that both captive and non-captive wildlife tourism organisations can do more to increase visitors' conservation learning and adoption of environmentally sustainable behaviour. Encouraging visitors to reflect on their experiences could be the key to unlocking this potential. Non-captive wildlife tourism experiences were perceived to be more engaging, exciting, memorable and transformative than captive wildlife viewing experiences. On the other hand, captive wildlife tourism experiences can reach a larger number of visitors without increasing their impact on the wildlife or wildlife habitats. Captive wildlife tourism experiences need to capitalise on their advantages by allowing visitors to see animals up-close and encouraging visitors to discuss their ideas and experiences with their companions. Although different wildlife experiences have different strengths and weaknesses, both need to improve their effectiveness in motivating visitors to take action on behalf of the wildlife they observe.

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