

**Title:** From Zoo to Social Media: The Evolution of Human-Captive Wildlife Relations

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**Abstract:**

In the twenty-first century— an era of increasing domestic and international tourism- there are boundless opportunities to encounter wild animals both in their home countries and *ex situ* in zoological facilities around the world. Tourism activity— especially at accredited zoos and sanctuaries —plays a crucial role in the conservation of wild animal populations, and influences the welfare of individuals within involved species. Unfortunately, not all zoos and sanctuaries prioritize the conservation and welfare of their animals, such as those who promote irresponsible and mutually-harmful visitor-animal encounters for economic profit.

While the relationship between visitors and animals at zoological facilities has shifted over time to match evolving morals and sentiments towards animals, there is still a storied tendency of visitors preferring close encounters with charismatic wild species. Since the 1970s, researchers' attention has increasingly focused on assessing the influence of the *visitor effect*, which refers to the impact that viewing, touching, feeding, holding, and riding captive wildlife has on the animals. Many wildlife attractions promote such encounters, despite research suggesting that close interactions with visitors can cause stress and harm to involved species. Such activities are further promoted through the “selfie tourism” phenomenon, in which visitors capture images of themselves in too-close proximity to wild animals to be shared on social media. In this commentary, we consider the challenge of “selfie tourism”, and how it can promote unethical relationships between humans and wildlife and lead to deleterious implications for the animals' conservation and welfare.

**Key words:** zoo animals, visitor attitudes, wildlife encounters, wildlife tourism, selfie

**Introduction**

Human attitudes and behaviour are increasingly relevant to researchers studying wild animal welfare. Numerous studies since the late 1970s have considered the impact of visitors on wild species kept in zoological facilities. For example, Hosey and Druck (1987) conclude that zoo-housed wildlife— in their case, primates - do not completely acclimatize to being under the public eye; the mere presence of visitors can influence animal behavior to a greater extent than previously thought.

To better understand the relationship between zoo visitors and the animals present, one might consider why the public is drawn to such an encounter in the first place. In 1995, Kreger and Mench (1995) attempted to answer this question. They found that wildlife tourism provides the opportunity to observe and possibly even interact with wild animals who one would have difficulty encountering in their natural, wild habitats. For this reason, public-facing activities offered by zoos as a part of environmental education (including demonstrations, such as visitor feeding sessions, shows or performances) have been successful. As well, visitors spend more time in front of certain wildlife enclosures compared with others; a study by Skibins *et al* found the public has a documented preference towards wild animals considered to be similar to humans (2017). Animals with attractive nonhuman charisma has been considered in relation to the "willingness-to-pay" (WTP) phenomenon; the public are generally more motivated to leave donations for, and participate in, conservation programs which sponsor the most charismatic species (i.e.

flagship species, often megafauna), without regard for those less or negatively charismatic species (Horowitz and Bekoff, 2007) who may need the financial support and public awareness to combat their risk of extinction (Colléony et al., 2017).

### **The Visitor Effect**

Over the last two decades, there has been increased public interest in the condition and style of enclosures housing wild animals at zoological facilities and other wildlife attractions (Miller, 2012). In addition to zoos, opportunities for “once-in-a-lifetime experiences” such as with wild animals across aquariums, sanctuaries and other tourist attractions have multiplied uncontrollably in part due to a lack of global regulation. Zoological facilities, at least in most of the Western world, exist in capitalist economies which have tended to push the best interests of the individual animals, or their welfare, into the background in favour of visitor interest and appeal. For example, an interest in captive wild animal welfare has led to a shift in enclosures styles from barren, easy-to-maintain-and-view cages into more naturalistic, species-specific enclosures. While these strides have been made, there is still the opportunity at many tourist attractions for visitors and wild animals to interact directly, which we posit is both controversial and ultimately works against the best interest of the animals.

Zoological facilities which perform best practices of animal management and husbandry, as well as conservation, recreation, and research programs are accredited by the *World Association of Zoos and Aquariums*. These sites guarantee high standards for animal welfare. Wild animal sanctuaries have a similar accreditation body known as the *Global Federation of Animal Sanctuaries*; ensuring accredited sites disallow touch interactions with resident wildlife.

Unfortunately, “sanctuary” is not a regulated term, meaning facilities can operate under such a misleading title while proliferating unethical encounters with wild animals such as holding, riding, and the viewing of circus-style performances in opposition to best management practices evidenced by zoo biology and other relevant fields.

Megafauna such as mammals are especially victims of unethical zoos and sanctuaries, those which operate more like wild animal petting zoos than institutions of conservation, and unfortunately such interactive sites attract public attention and tourism dollars. Popular examples of this form of interactive wildlife tourism include dolphin and tiger encounters—two traditionally invasive and harmful practices that have come under scrutiny by animal-expert communities and, now, the public through awareness campaigns to end such practices (Senigaglia et al., 2020; Cohen, 2012). The captive feeding and touching of dolphins; representative of the sorts of relationships human-wildlife relations that should be discouraged.

Touching, feeding, holding, riding and capturing photos and videos at close proximity to wild animals are practices that may be a part of “selfie tourism” and greatly influences the so-called “visitor effect”. The visitor effect phenomenon can be defined as any type of human influence that leads to a change in the behavior or status of animals in captivity.

Davey (2007) stressed that visitor disturbance on species in captivity should be carefully evaluated, with attention to avoid under- or over-estimating the implications for animal welfare. Studies show that visitors tend to reflect on close encounters with wild animals as being positive experiences (Woods, 2002), whether or not the encounters cause stress or suffering, even short-term, for the animal individual.

As described in Rose *et al* (2020), the implications of the visitor effect for the welfare of wild animals in captivity may depend upon various external variables such as visitor number. The reality of close-contact, cross-species relationships bear consequences for visitors beyond being injured by bites or scratches; the possible transmission of infectious disease between humans and nonhuman animals, known as zoonoses (Stirling *et al.*, 2008) is a serious risk to the health of both parties– and to the conservation of wild animal populations both in and out of captivity.

The focus on the visitor experience and learning at zoological facilities may even eclipse where research attention is needed in understanding how the presence of visitors, and interactions with them, influences the welfare of species. The former, of course, is more straightforward to research than the latter, which accounts for the gaps and inconclusivity regarding how the visitor effect impacts many popular species found in zoos.

We would be remiss not to discuss the case of big cat tourism, which occurs in diverse forms of encounter in wildlife tourism around the world. According to Cohen (2012), tourism practices involving tigers, whom we often see images of in close contact with visitors at so-called sanctuaries, such as “Buddhist temples” in Asia or in roadside zoos in North America, almost always have negative consequences for their well-being and conservation. Furthermore, lions are involved in the wildlife tourism attraction known as “canned hunting” (Schroeder, 2018) characterized by the industrial breeding of thousands of lions to be fed by (likely naïve) volunteers, and “walked” with tourists before becoming unwitting targets for trophy hunters. Such wildlife tourism practices have no role in contemporary conservation as they are harmful to involved animals from a number of perspectives (Hunter *et al.*, 2013), even if in some cases there may be benefits in economic terms for local populations (e.g. income or conservation funding from trophy hunting).

### **Selfie tourism: new frontiers and future prospects**

With the advent of social media (e.g. *Facebook*, *Instagram*, *Twitter*, and *YouTube*), the relationship between humans and wild animals has moved into the digital dimension. As valuable as the internet is for environmental education and awareness, it also facilitates the promotion of unethical human-wildlife relationships (ex. wildlife selfies) and the illegal wildlife trade. It has been documented how sharing multimedia content portraying wild animals in captivity and/or close contact with humans can convey the wrong message (i.e. that wild animals belong in domestic settings and as human companions) to viewers (Lenzi *et al.*, 2020). For this reason, in addition to other forms of mass media (such as newspapers, TV, films and advertising), we posit that the greatest challenge we face as conservationists today is to intervene in the proliferation of irresponsible, harmful human-wildlife interactions on social media and, hopefully, transform such systems so that they encourage

responsible and ethical perceptions of wild animals' needs. In particular, young people are especially susceptible to such misinformation which can lead to negative repercussions on the future conservation and welfare of wildlife.

Social media can amplify irresponsible relationships between humans and animals. It is highly probable that the interactive encounters demonstrated with wild animals in viral wildlife selfies and videos promotes the desire to interact with wildlife in the same way, and even purchase them as companion species, which fuels the illegal wildlife trade. It is no coincidence that in recent years scientists have begun to talk about “selfie tourism” in terms of their potential to negatively impact wild animals (Carder et al., 2018).

The purpose of this commentary is to express concern about the future of human-wildlife relationships as animal scholars and activists, and to call for the transformation of such relationships in the future towards ones which respect the autonomy and wellbeing of wild animal individuals. In accordance with von Essen *et al* (2020), we believe that technology plays a dual role from an educational and conservation point of view, one which favors attention from the public on environmental issues and activism while simultaneously promoting irresponsible interactions and relationships with non-domesticated species. It is time to consider the relationship between visitors and captive wildlife from another perspective; future research on wildlife selfies should integrate sociological, cultural and technological scholarship for a holistic understanding of the issue. Our relationship to animals in captivity is constantly evolving; the repercussions of how we direct our actions and attention going forward is not just a welfare issue— the impact extends into economic realms, and ultimately influence our ability to conserve vulnerable and endangered species.

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