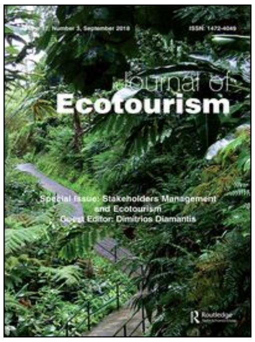

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Animal health warning labels in nature-based, ecotourism & wildlife tourism

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NOTE

Animal health warning labels in nature-based, ecotourism & wildlife tourism

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ABSTRACT

The purpose of this research note was to introduce a novel system of animal health warning labels to (i) contribute to better welfare (health) of animals used at nature-based ecotourism and wildlife (NEWT) attractions and (ii) provide a method to communicate to tourists in a language they are already exposed to daily. Two different frameworks inform the development of the proposed system, both of which are new to the tourism studies domain. The first situates an animal health warning label system within a 'health and social-ecological systems' mode of thinking, while the second focuses on the psychological, social, and philosophical mechanisms that determine participation at NEWT attractions. The research note concludes with policy, practice, implementation and monitoring recommendations.

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Wildlife tourism; health warning labels; health and social-ecological systems; education

Introduction

Studies on nature-based, ecotourism and wildlife tourism (NEWT) point to a range of different strategies to mitigate impacts on flora, fauna and ecosystems. Select examples include codes of ethics (Garrod & Fennell, 2004), certification systems (Lackey & Pennisi, 2020), education and interpretation (Bustam et al., 2012), and zoning in space and time (Howes et al., 2012). However, even with these measures in place, animals often experience intense pressure, necessitating higher levels of animal welfare literacy amongst tourism stakeholders, especially tourists (Fennell, 2022).

The purpose of this research note is to introduce a novel system of animal health warning labels to (i) contribute to better welfare (health) of animals used as tourist attractions, and (ii) provide a method to communicate at NEWT venues in a language (warning labels) that consumers are already exposed to daily. Two different theoretical frameworks inform the development of the proposed system. The first situates the animal health warning labels system within a 'health and social-ecological systems' mode of thinking, while the second focuses on the psychological, social, and philosophical mechanisms and is adapted to determine participation at animal-based attractions.

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Health in social-ecological systems

Health models have evolved to emphasise the connection between humans, animals and their shared settings. 'One Health', for example, is 'a collaborative, multisectoral, and transdisciplinary approach–working at the local, regional, national, and global levels–to achieve optimal health outcomes recognising the interconnection between people, animals, plants, and their shared environment' (CDC, 2022, online; Chappell & Thorpe, 2022). An 'Eco-Health' model has also been proposed to link ecosystems, society, and the health of animals and humans (see Rapport et al., 1999). However, some scholars argue that both of these models are overly reductionist in separating disciplinary domains (Rock et al., 2009)

Zinsstag et al. (2011) propose a 'health in social-ecological systems' model where ecological (sustainability, resilience, adaptive management) join with social, cultural, economic, and political determinants and outcomes of health. This model also incorporates systems biology of wildlife and domesticated animals at various scales (including humans) in a variety of ecosystems along with their health-related components, including natural resources and physical conditions within urban, rural and wilderness spaces. This model provides a theoretical foundation and justification for integrating health and the tourism industry, broadly conceived, to extend the discussion on and mitigation of impacts on animals used in tourism.

Health warning labels

Health warning labels communicate information on products that pose a risk to human health (Hammond, 2011). For tobacco products, labels increase knowledge of health risks, positively influence social norms, and reduce consumption, with pictorial warning labels and testimonials of past users as the most effective format (Brennan et al., 2019). For the non-medical cannabis industry, Leos-Toro et al. (2019) found that pictorial health warnings on cannabis were perceived to be more effective and believable than text-only warnings. Taillie et al. (2020) show that front-of-package nutrient warning labels for foods with high levels of sugar and/or ultra-processing are commonplace in the food industry to guide healthier food choices on the part of consumers (Kelly & Jewell, 2019).

A survey of the tourism literature indicates that health warning labels have not been a topic of investigation. Warning signs are often used in adventure sports, like skiing, including double black diamond (for experts only), blue square (for intermediate skiers), and green circle (for beginners). Recent studies indicate that warning system technologies are now in place to allow park staff to detect, identify and report animals moving toward a park's border (Ronoh et al., 2022). Kline et al., (2020) include labeling as one of 13 variables in their wildlife equity model, i.e., labels identifying risks to wildlife from certain products (e.g., palm oil and the destruction of habitat). The purpose in the present article is to identify *direct* impacts on animals from touristic activities.

Synthesis

Figure 1 crosses the species threshold through the development of a novel system of animal health warning labels consistent with the health in social-ecological systems

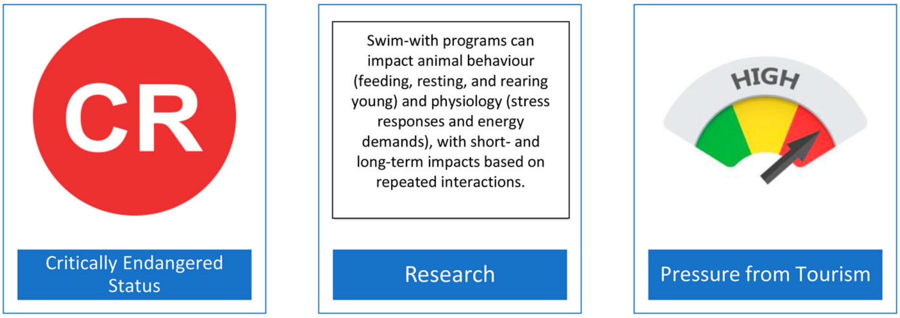

Figure 1. Animal health warning labels.

model outlined above. It speaks to recent work on animal agency (Haanpää et al., 2021) and animals as stakeholders (Fennell, 2014). In introducing the model, I use swim-with programmes, which place tourists in the water alongside charismatic megafauna (Cater & Richardson, 2017). Although many swim-with excursions promote themselves along research, education, and conservation lines (Lück & Porter, 2019), these objectives are often minimised in pursuing pleasure and profit (Ziegler et al., 2018). In some cases, governments have imposed a moratorium on research vessels and a reduction of commercial licences in managing dolphin-human interactions prompting scholars to argue that such represents a paradigm shift in the cetacean industry (Higham & Bejder, 2008).

Figure 1 is based on the example of Burrunan dolphins (*Tursiops australis)* of Port Phillips Bay, Australia, a species managed within a marine sanctuary because boat operators consistently failed to exercise caution when approaching this species in the wild (Howes et al., 2012). The Figure introduces three forms of information in the form of icons. The first icon (pictorial label) contains information on the IUCN Red List status of Burrunan dolphins, identified by the IUCN as critically endangered. The second provides general information (text label) on research conducted on swim-with tours. Finally, the third icon (pictorial label) indicates the pressure the species is currently under from touristic demand. High numbers of tourists placing continuous pressure on a species can compromise the health of these animals, recognising that different species respond differently to higher and lower levels of demand.

Figure 2 is adapted from Taillie et al. (2020) on front-of-package nutrient warning labels. These authors draw on social and behavioural science research to identify seven categories, modified in Figure 2 for tourism purposes. First, label attention leads to comprehension, cognitive elaboration, and message acceptance informed by external or prior factors (e.g. pre-existing knowledge of animals used in tourism). Next, the framework moves to negative affect and risk perception centred on different emotional and cognitive states relative to the interaction with an animal (e.g. perceived severity of animal harm). These emotional states are later compared/contrasted with social reactions and norms, leading to tourist behavioural intentions, where the intent is to either not purchase a tour or to purchase a tour mindful of impacts based on akratic responses (Fennell, 2015). Finally, the model culminates with either the purchase of a tour or the choice not to purchase one.

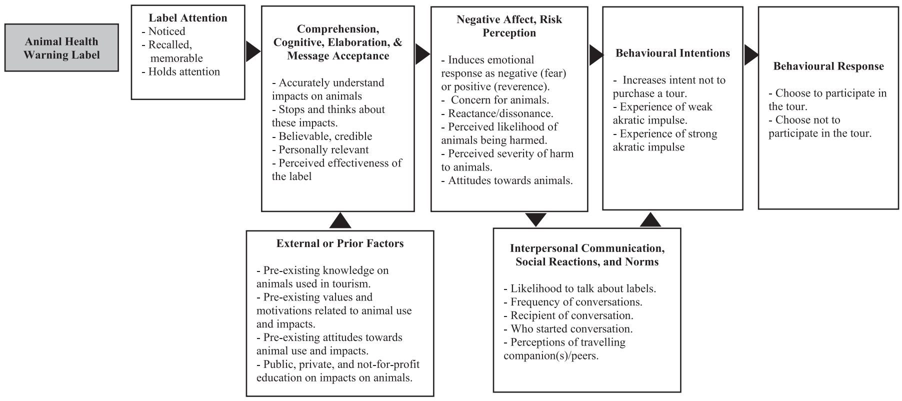

Figure 2. Socio-psychological factors related to animal health warning labels.
Source: Adapted from Taillie et al. (2020).

Despite the deployment of several protective measures in the use of animals in tourism, as discussed above, the welfare and conservation status of animals is often compromised (Moorhouse et al., 2015). These labels should thus promote greater support of a species through donations and volunteer activity under the belief that wildlife tourism is *supposed* to be about conservation, research and education–not just enjoyment (Moorhouse et al., 2015). And while health risks are often expressed to tourists on aspects of safety on boat-based excursions, the proposed model identifies health risks to animals as an added priority. These pro-animal labels as educational devices should be displayed on boats, websites, promotional materials, and at DMOs. Having said this, the intent of the proposed labelling system is not to eliminate the consumption of these experiences but rather to communicate with tourists in a language they are exposed to daily (i.e. warning labels) in being clear on the welfare and conservation status of animals and the potential risks of using animals in the absence of responsible management. In this way tourists have a choice to participate or not in these tours, not unlike the choice people have to smoke cigarettes or consume foods with health-compromising additives.

Policy and practice

How best to introduce policy, implementation, and monitoring of animal health warning labels is a question of significant weight. In front-of-package food labelling (FOPL) practices in Europe, Kelly and Jewell (2019) write that an independent public health information service organisation, the Health Evidence Network (HEN), coordinated by the World Health Organisation regional office in Europe, is responsible for synthesising the best available knowledge on FOPL to advise on policy and practice. Implementation of FOPL systems is voluntary because the European Union regulations stipulate that it is not mandatory for nationalities to implement these systems. The HEN report (Kelly & Jewell, 2018, pp. 1126–1127) provides the following recommendations on how to proceed based on the following policies (in italics), with added context around how the NEWT sector could develop its policies and practices for animal health warning labels:

1. *Establishing a single, consistent FOPL system to aid consumer use and understanding of the label*. Based on the three icons, the proposed animal health warning label system in Figure 1 provides the requisite amount of information to communicate critical information to tourists on sustainability and risks to the animal species used.
2. *Opt for government-led policy development rather than a commercially based system, as consumers perceive the latter as less credible*. The development of a national body (e.g. NGO or industry organisation) would be suitable for a system of animal health warning labels. Such a system could operate within a model sensitive to the tension between global principles and local practices, which has been recently addressed through the integrative social contracts model framework developed by Fennell (2020). Adapted from the work of Donaldson and Dunfee (1994), Fennell argues that hypernorms such as the pinnacle of practice, recognition of beneficence, non-maleficence, enhancing literacy and education, justice, recognition of animal agency should be used as guidance in informing practices of local operators in different geographical contexts. Even more helpful would be the eventual development of a universal system housed within a global organisation (new or existing) which would act as. Coordinating agency through an enhanced sustainability ethics platform designed to protect the interests and welfare of animals used in tourism.
3. *Develop the scope of FOPL policies based on stakeholder engagement and formative research to ensure that the right policy is chosen for the population*. Essential for the proposed model would be the interaction and cooperation of all stakeholders affected by the use of these labels. Indeed, the health in social-ecological systems model proposed by Zinsstag et al. (2011) promotes the inclusion of social, cultural, ecological, and political factors in establishing sustainable, resilient and adaptive systems.
4. *Explore ways to overcome issues with uptake of the labelling system in the marketplace, including mandatory implementation*. Not unlike codes of ethics which are by nature voluntary, mandatory implementation of the proposed system should be avoided. However, self-regulatory systems like the International Association of Antarctic Tour Operators (IAATO, 2022) would be the ideal mechanism to introduce the proposed system. Indeed, testing the proposed model in a relatively closed system like Antarctica would be beneficial, with a broader application of the model to follow in other regional contexts, as noted in the previous recommendation (3).
5. *Support implementation by developing guidance documents for industry to facilitate label adoption and public education initiatives to stimulate consumer demand for the labels and improve awareness and understanding*. Recent work in animal-based tourism argues for a stronger focus on animal welfare literacy for both demand and supply aspects of the animal-based tourism industry (Author, 2021). Future developments might also see organisations, not unlike the HEN noted above, designed to identify and synthesise knowledge that could be used to better inform the NEWT sector on the responsible use of animals in tourism.
6. *Create a formal and comprehensive policy monitoring and evaluation program to assess implementation and impacts*. Animal health warning systems would provide a stronger connection between government and industry while immersed in a regional and global emerging norm on the wise and sustainable use of animals in tourism. Governments or other regulatory bodies could monitor and evaluate the impacts of the

proposed system by gathering data on the status of animals and the pressure that these animals endure as a result of tourism. Highly stressed animals would be managed accordingly through permits or different forms of tourism to mitigate overtourism. Similarly, social costs would be borne by operators operating outside the parameters and standards of the system, encouraging tourists to look for operators whose business practices are consistent with responsible use.

What emerges as significant from the preceding six recommendations is value in research, policy, monitoring, education, and best practice guiding the actions of all stakeholders involved in NEWT industries. Strategic and transdisciplinary planning would allow for a circular and integrated approach to benefit animals–and the environments in which they live–as well as operators and communities for the long-term viability of the industry.

Conclusion

The health in social-ecological systems model adapted for the proposed framework is timely in efforts to identify sustainable and health-related determinates and outcomes not for tourists and operators, but for animals used in tourism. I argue that the time has come for accepting and implementing such an approach as we grapple with the consistent and overwhelming pressures that animals must endure in the pursuit of pleasure and profit. Moreover, having government or other regulatory bodies play a more vital role in managing the use of wildlife for the tourism industry provides an enhanced level of commitment which signals the importance not only of social systems but ecological systems too. Next steps will involve the identification of NEWT species and industries in specific regions and the collection of data from tourists, operators and other stakeholders on the viability of the proposed system.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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