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Editorial: Understanding the role of local knowledge and human emotions in wildlife conservation

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Editorial on the Research Topic

[Understanding the role of local knowledge and human emotions in wildlife conservation](#)

Introduction

Our perceptions, emotions, and interactions with nature, which are crucial to understanding our actions toward wild species, have significantly shaped the empirical knowledge (henceforth, *local* or *traditional* knowledge) that human societies have built over millennia on how animals and their habitats can be used and managed for the benefit of both animals and people. This wealth of local knowledge developed by people living in close proximity to wildlife is a testament to their deep understanding of nature. Sustainable management of wildlife populations is usually a powerful tool for conserving species of interest, particularly those of economic value but also those at risk of extinction. Local knowledge of people interacting with wild animals has had a determinant role in sustainable wildlife management and conservation across regions and cultures. These interactions often produce a set of emotions (i.e., empathy, happiness, fear, disgust, and anger) that can strongly influence their current and future attitudes and behaviors toward wildlife.

It is widely recognized that local initiatives can be significantly improved by integrating scientific information from research into management and conservation processes. Nonetheless, traditional knowledge developed by local communities is frequently undervalued or neglected compared to scientific knowledge when government agencies design wildlife conservation policies and programs. In our view, scientific and local knowledge should not be regarded as incompatible but rather as complementary information sources to sustainably manage and conserve wildlife populations and the ecosystems they depend on for survival. Recognizing that local knowledge and human emotions toward wildlife management and conservation have been insufficiently documented and discussed in the scientific literature, we invited manuscripts that would contribute to improving and expanding our understanding of these aspects. The articles

published within this Research Topic not only explore and discuss the richness and relevance of wildlife-oriented local knowledge and emotions but also serve as a call to action, inspiring further research and discussion on how these invaluable aspects could inform decision-making on wildlife management and conservation.

Local knowledge applied to wildlife conservation

The articles in this Research Topic describe the diverse underlying factors explaining the perceptions, emotions, attitudes, and practices of local communities (both rural and urban) regarding wildlife use, management, and conservation. This topic offers the readers a global perspective on how human-wildlife interactions and their implications for animal conservation are multidimensional and should be addressed under multidisciplinary approaches. It also highlights the importance of linking local and scientific knowledge to conservation agendas administered by governments.

[Packer et al.](#) present an interesting case of the impact of perceptions on wildlife conservation in Africa. They found that people's beliefs in spirit animals prevented prompt actions by rural communities to control persistent carnivore predation on humans. On their side, [Ortega-Álvarez and Casas](#) discuss how both animal traits and people's interests and needs influence their perceptions and interactions toward wildlife and why these factors explain biocultural salience in bird species as perceived by residents of a rural community in Mexico. These authors suggest using this multifactorial approach to inform public policy and conservation actions.

Three papers provide insights into the social and cultural dimensions of hunting practices in rural settings of tropical ecosystems around the world. In central Africa, [Shephard et al.](#) observed that external forces such as urbanization, monetization, and migration affect the transmission of traditional knowledge about hunting among members of an Indigenous group. This impacts local identities and capacities for wildlife management and conservation. Similarly, [Pattiselanno et al.](#) found that demographic growth, changing social and economic conditions, and the introduction of exotic animals have severely altered traditional hunting practices in Indonesian New Guinea. These authors suggest integrating local knowledge and governance with national regulations to improve wildlife conservation and preserve the region's cultural heritage. In the Amazon, [Paemelaere et al.](#) analyzed how variables such as the geographic location of communities and the ethnicity and gender of their residents were determinants of their value orientations toward wild meat consumption. They advocate assertive communication to support better wildlife management policies through regulated consumption of resilient game species and protection of the vulnerable ones.

Two more articles investigate the social and ecological drivers of human-wildlife coexistence in North America. [Benítez-Moreno et al.](#) examined the negative consequences of weak regulations in wildlife-oriented tourism administered by the residents of a rural community in the Yucatan Peninsula. Their findings suggest that

tourism services would benefit from environmental communication and outreach programs integrating traditional and scientific knowledge on targeted animals to promote better practices by local guides and visitors. Finally, in an urban setting in the southwestern United States, [Haight et al.](#) detected that the residents of suburban zones close to protected areas showed more positive attitudes toward "harmful" wildlife species than the inhabitants of fully urbanized neighborhoods. Complex sociodemographic and environmental factors, including cognitive judgment and previous experiences with animals, further influenced people's perceptions of wildlife.

Conclusion

We agree with the authors in this Research Topic that humanity is in a critical moment in which human-wildlife interactions are rapidly changing and local knowledge appears to be losing ground in social perception and behavior toward animal species. In our view, this collection of articles expands our understanding of the importance of frequently understated local knowledge and human emotions in wildlife management and conservation. As shown by the authors, this kind of knowledge and people's emotions and attitudes toward wildlife species depend on a multiple and complex array of social, cultural, and environmental variables converging in each person and community. Further research on these human dimensions of wildlife management under comprehensive, transdisciplinary approaches can contribute to improve our willingness to collaborate in local initiatives for sustainable use and inform global conservation policies and practices.

Author contributions

EN: Conceptualization, Investigation, Supervision, Writing – original draft, Writing – review & editing. DS: Conceptualization, Investigation, Supervision, Writing – review & editing. NC: Writing – review & editing.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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