

Living on the Edge: Tribal Perceptions and Coping Strategies in the Face of Human-Wildlife Conflict in Wayanad District, Kerala

Mariya Joseph¹ & Sanib K. A.²

Abstract:

Human-wildlife conflict in Wayanad disproportionately affects indigenous tribal groups whose daily survival depends on the forest. Their heightened vulnerability results in significant loss of life, livelihoods, and psychological trauma. Understanding the unique challenges and strategies adopted by these communities is essential for designing effective, equitable conflict interventions. This study contends that human-wildlife conflict must be analysed through the lens of each community's unique dependence on forests. It examines how the Kattunayaka Tribal Communities in Wayanad, with their distinctive knowledge and coping mechanisms, experience and confront such conflict. By focusing on their perceptions and strategies, the research aims to demonstrate the necessity of integrating tribal realities into conflict management for fair and lasting solutions.

Keywords: Human-wildlife conflict, Tribal Community, Kattunaikkan Tribe, Indigenous Knowledge system

Introduction

Human-Wildlife Conflict (Mahanti & Kumar, 2018) describes negative interactions between wild animals and people due to overlapping territories and incompatible natural resource interests. Resource shortages in forest fringe areas adversely impact both, leading to Human-Wildlife Conflict (HWC) (Hodgson eHuman-Wildlife Conflict (Mahanti & Kumar, 2018) denotes adverse interactions between wild animals and human populations, often arising from overlapping territories and competing interests regarding natural resources. Resource scarcity in areas adjacent to forests negatively affects both parties, giving rise to Human-Wildlife Conflict (HWC) (Hodgson et al., 2020). Whereas such conflicts were once geographically limited, they have now attained global significance as a result of habitat incursion, urbanization, and

¹Research Scholar, Department of Political Science, University of Calicut

²Assistant Professor, Department of Education Mar Baselius College of Teacher Education, Sulthanbatheri

demographic expansion. Deforestation and habitat fragmentation force wildlife into human-inhabited areas, increasing the frequency of antagonistic interactions, leading to property damage, livestock predation, crop loss, and occasionally, fatalities among both humans and wildlife livelihoods and biodiversity. These issues worsen when government priorities favor wildlife over local needs. Addressing the conflict requires awareness of sociopolitical, geographic, cultural, historical, economic, and legal dimensions (Madden, 2004). A balanced approach promotes ecological sustainability and human development by understanding root causes, involving community members, implementing mitigation measures, and supporting fair laws.

India's rapid economic growth and large population have led to wildlife threats due to deforestation, habitat fragmentation, and expanding human settlements. Wildlife areas become islands surrounded by human-dominated landscapes, increasing negative interactions, especially with large mammals (Madhusudan & Mishra, 2003). Competition for scarce resources like land and water exacerbates these conflicts, with cropping patterns attracting elephants and other wildlife. Cultivated areas may also lie along habitual animal movement paths. These conflicts cause economic losses, such as crop and livestock destruction, and lead to psychological stress among affected people.

Approach towards human-wildlife conflict

Conflict between humans and wildlife is increasingly recognized as a significant issue confronting wildlife conservationists and managers, primarily attributable to expanding human populations and the encroachment of wildlife territories. Human perceptions and relationships with forests and wildlife have evolved over time, with different social groups exhibiting varied attitudes (Marchini, 2014). Recent reports from the Kerala Government (GOK, 2022) indicate that contemporary wildlife management strategies acknowledge uncertainty and adapt to evolving circumstances through Adaptive Impact Management (AIM). This approach necessitates prompt institutional responses. Communities affected by such conflicts typically anticipate immediate attention from governmental agencies, active involvement in management planning and decision-making, and effective, cost-free mitigation measures (GOK, 2022). Elephants, wild boar, tigers, and, in certain locations, leopards are identified as the most problematic species; more recent observations include monkeys and peafowl (GOK, 2022). According to data from the Minister of State in the Ministry of Environment, Forest and Climate Change in the Rajya Sabha, 2,727 human fatalities due to elephant attacks and 349 from tiger attacks occurred between 2019 and 2024 (Government of India, 2024). Meanwhile, unnatural animal deaths are also increasing, with hundreds of elephants perishing due to electrocution, train collisions, and poisoning (Indian Express, 2024).



Kerala's forest cover is approximately 11,521.813 square kilometres, about 29.65% of the state's area. Rising human populations and activity around forests have increased human-wildlife interactions and conflicts. In recent years, tensions have intensified for settlers near reserve forests and sanctuaries, with regional variations in animal encounters. Key factors include human population growth, habitat loss, cropping pattern changes, and wildlife population increases. Notably, incidents now occur in areas distant from forest fringes.

Factors like abandoned farmlands, garbage accumulation, adaptable species behaviour, and breeding success have allowed conflict-prone species such as wild boar, bonnet macaque, and peafowl to migrate and establish populations beyond forest fringes (Kerala, 2022). Now, serious conflicts occur in distant settlements and urban areas, so conflict is no longer limited to forest fringes (Kerala, 2022). This pattern is observed across all Forest Divisions in the state, especially in Wayanad and the northern region.

As per the latest records of the Kerala Government, between the period of five and a half years (2019- 2024 October), wild animal attacks resulted in the deaths of 692 people and injuries to 4,801 people in the state. Additionally, animals caused damage to crops valued at ₹98 crore in a year. The districts of Wayanad, Idukki, Palakkad, Thrissur, Pathanamthitta, Kannur, and Malappuram are the major pockets of these conflicts (Chandrasekhar, 2025). According to the Economic Review 2022-23 (Government of Kerala, 2024), a total of 8,873 human-wildlife conflict incidents were reported in Kerala during 2022-23, resulting in 98 human casualties. Among these, 48 deaths were caused by snake bites, 27 by elephant attacks, seven by wild boar attacks, and one each by wild gaur and tiger attacks, while 14 were caused by other animals. Additionally, 871 people were injured, and 65 cattle deaths were recorded. Compensation totalling ₹10.49 crore (₹105 million) was disbursed, including ₹3,37,31,013 for human deaths, ₹2,45,73,297 for injuries, and ₹1,46,66,363 for cattle deaths, along with payouts for crop damages (Government of Kerala, 2024)

The district of Wayanad is situated in the north-eastern part of Kerala and spreads over 2132 sq. km, part of the Deccan Plateau, with forests and human settlements. As an agriculture-dependent region with many farmers residing near forests, the district experiences some of the highest levels of man-animal conflict in the state. It borders Nagarhole National Park in Karnataka and Muthumalai National Park in Tamil Nadu.

The district falls under the administrative control of the North Wayanad, South Wayanad, and Wayanad Wildlife Forest divisions and constitutes a major portion of the Nilgiri Biosphere Reserve (M. G. Bijosh; John Abraham; C. Balusami, 2022). Wayanad district has 74.2% forest cover, the highest in Kerala, followed by Pathanamthitta and Idukki. Wayanad is one of the hot spots for human-wildlife conflict in the state. Wild

animals frequently cause extensive damage to crops, livestock, and human settlements. Wayanad reported 44 human deaths due to wildlife-related incidents during the period from 2009-10 to 2020- 21, and about 149 people have been killed and over 1,000 injured in wild animal attacks in Wayanad since 2014 (Kerala, 2022). The district has lost 41 human lives to elephant attacks and seven to tiger attacks over the last decade (Government of Kerala, 2024). Human-wildlife conflict in Wayanad is significantly influenced by both herbivorous and carnivorous species. Among the herbivores, the Asian Elephant (*Elephas maximus*), Wild Boar (*Sus scrofa*), Gaur (*Bos gaurus*), Bonnet macaque (*Macaca radiata*), and Sambar (*Cervus unicolor*) are prominent contributors due to their frequent encroachment into agricultural lands, resulting in extensive crop damage and threats to human safety. The major carnivorous predators in the area are the leopard (*Panthera pardus*), Tiger (*Panthera tigris*), and wild dog (*Cuon alpinus*). Among these, the Asian elephant and the wild boar caused the most damage. Predators raiding nearby villages and the fringes of the forest cause the killing of livestock such as cattle, goats, poultry, dogs, or even human beings, which becomes a matter of serious concern with HWC (M. G. Bijosh et al., 2022). The ecological and behavioral undercurrents of these species are influenced by habitat fragmentation, scarcity of food and water during the summer, and the proximity of human settlements to forest areas, amplifying existing conflicts.

People living near the habitat often face significant threats, including economic, social, and psychological losses. Beyond the immediate loss of agricultural fields, it also includes loss of life, restrictions on traveling, need for continuous monitoring, limited job opportunities, sleep loss and low-level school attendance of children, risk of contracting diseases and psychological stress. All these factors, coupled with frequent threats, have a negative impact on people's perception of wildlife protection.

HWC and Tribes

While addressing HWC issues, the term “human” should not be understood as a homogeneous entity. Instead, it must be treated as a diverse category having multiple layers, perceptions, and lived experiences. This was shaped by the human settlers, their lifestyles, and their relationship with the forest and wild habitat. The settlers from indigenous tribal communities have a close relationship with wildlife and a more positive, distinct perception of it than non-tribal settlers.

Tribal communities have culturally evolved in ways that reflect their innate wisdom in limiting environmental harm by maintaining a symbiotic relationship with nature (M. Natarajan et al., 2020). Each Tribe in Kerala is diverse from other indigenous groups and the non-tribal population in the country. Wayanad is notable for its significant tribal population, comprising various indigenous tribes, including the



Paniyas, Kurumas, Adiyars, Kurichyas, Ooralis, Kadars, and Kattunaikkans. These tribes represent 18.5% of Wayanad's total population and 36% of Kerala's tribal population. The major tribal communities in the district include Paniyas (44.06%), Mullu Kurumas (17.34%), Kurichyas (16.10%), Kattunaikkans (11.33%), Adiyans (7.41%), and Urali Kurumas (3.13%) (State Planning Board).

The Kurichyas are among the more advanced tribal communities in Wayanad, known for their sustainable farming and small landholdings. Formerly practicing shifting cultivation, they now focus on settled paddy farming and grow native rice varieties using eco-friendly methods like crop rotation and mixed cropping. Their traditional tree-top watch huts (Erumadam) have largely disappeared due to reduced paddy cultivation. The Kuruma tribe, believed to descend from the ancient Vedars, consists of subgroups based on traditional occupations such as bamboo and honey collection, and fishing. They are also small farmers, known for sustainable slash-and-burn agriculture. The Paniyas, the largest tribal group in the district (44.06%), live in scattered forest-edge settlements and have a history of bonded labour and landlessness. Despite some working as forest watchers today, they still face poverty and limited access to education and resources. The Adiya tribe, once referred to as "Ravulayar," shares a similar history of exploitation and bonded labour. Living in remote forest hamlets, they continue to suffer from severe socio-economic challenges.

The Kattunaikkans, designated as a Particularly Vulnerable Tribal Group (PVTG), primarily inhabit forested areas and maintain a close bond with nature. The literal meaning of Kattunayakan/Kattunaickan is 'Lord of Forests', and they prefer to live in a forest region (Kakkoth, 2005). Kattunayakan is the largest population in the state's Particularly Vulnerable Tribal Groups. They constitute 4.69 per cent of the total Scheduled Tribes in Kerala, and they are mostly found in Wayanad district (Anusree, 2021). Traditionally, they relied on forest resources for activities such as honey collection and minor forest produce gathering; they have gradually shifted to casual agricultural labour. They predominantly reside along forest fringes and within the forests, striving to balance their traditional lifestyle with modern economic demands. Together, these tribes form a vital part of Wayanad's cultural and ecological identity, despite their ongoing struggles for development and inclusion. They speak a language identical to Kannada and can speak Malayalam with outsiders. The Kattunaikkans are considered the least civilized among the jungle tribes and subsist on the forest by collecting non-wood forest produce such as honey, tubers, fruits, medicinal plants, and others (Easa, P. S., & Sankar s, 2001). Though they do not own farmland, they work as agricultural and forest laborers. There are also small-scale cultivators in the community (Kakkoth, 2005).

While both tribal and non-tribal communities experience human-wildlife conflict, their relationship with wildlife differs significantly. Tribal communities often have a deeper connection to nature, viewing wildlife as integral to their cultural and spiritual identity. Their livelihoods are closely tied to forests and wildlife, leading to a more harmonious coexistence. This study is conducted among the Kattunayakan Tribal community at the Kurichayad Tribal Settlement of Noolpuzha Village Panchayath in Wayanad District. With the largest tribal population in the district, Noolpuzha Village Panchayat also ranks second in the state, with 2346 Kattunayakan tribal members (R. Ramakrishnan et al., 2024). The Kurichyard tribal settlement presently accommodates 112 individuals distributed among 33 families. Historically, this place was part of the Vedar Rajas, later the Kottayam Royal Dynasty, and the Pazhassi Rajas. Until the first quarter of the 19th century, the area was largely inhabited by the Kurichya tribe, who were well known for their significant contributions to the army of Pazhassi Raja against the British. As a prominent settlement of the Kurichya tribe, the British referred to this area as 'Kurichy-yard,' a name that later evolved into 'Kurichyard' (Pavithran & Kolangattil, 2021). Following its role as a center of the Kurichya revolt, the British army forcefully displaced the Kurichya inhabitants from the region. According to oral history, the Kattunayakan tribal groups in Kurichyard came from Karnataka, along with the Wayanadan Chetti Community, as laborers on the Wayanadan Chetti's fields. Now they are engaged in small-scale farming, cattle rearing, and the collection of forest products other than wood. Mainly honey, medicinal plants, teak wood seed (*tectona grandis*), soppum kaya(*sapindaceae*), etc.

Area of the Study:

The study was conducted in the Kurichyard tribal settlement, located approximately 7 kilometres from Chethalayam town in Wayanad district, Kerala. The settlement lies within the forest area, and reaching it requires a journey of around 1 hour and 30 minutes by private vehicle through the Wayanad Wildlife Sanctuary, a protected region under the Kurichyard Wildlife Range. The area is surrounded by dense forest, including teak plantations, which are monitored by the forest and wildlife department. It influenced the consistent presence of wildlife in the area, and the remote location of the habitat from densely populated areas makes it an important site for studying HWC.

Research Design:

The study employs a qualitative research method to examine the perceptions of the Kattunaika tribal community regarding HWC, with a special focus on their interactions with elephants and other animals. For that, a semi-structured in-depth interview method is employed, along with observation and a focused



group discussion, enabling participants to express their experiences through their social and cultural interpretations.

Sampling and Participants:

The study was conducted in the Kurichyad tribal settlement, using purposive and snowball sampling to select participants with direct experience. The respondents include elderly men and women, as well as young boys and young married women. The tribal chief also contributed valuable insight during the data collection.

Data Collection Tools and Procedure:

Data collected through in-depth interviews using a semi-structured questionnaire and focused group interviews, and observation, focusing on individualized narratives. Interviews were conducted in Malayalam and translated into English during the time of analysis. The thematic division of data includes the nature and frequency of wildlife encounters, cultural and spiritual beliefs related to forests and animals, traditional coping tools, the effects of ecological changes in the forest, gendered effects of the HWC, and beliefs and roles of forest deities in their lives. Each session lasted between 30 to 45 minutes and was recorded with the participants' consent. Additional notes were taken to capture contextual details and non-verbal expressions.

Ethical Considerations:

Informed verbal consent was attained from all participants before commencing the interviews. The participants were informed on the aim of the study, the intended nature of their contribution, and the confidentiality of their responses. A false name is used in recording results to ensure anonymity.

Data Analysis:

The data was analyzed thematically using manual coding techniques. Repeated readings of the translated transcripts helped identify key patterns, recurring themes, and culturally significant narratives. The coding categories included conflict frequency, spiritual belief, gendered impacts, independent coping mechanisms, and ecological impact. These themes were synthesized to develop a detailed analysis of the community's perception and response to HWC.

Findings

In-depth interviews with tribal chiefs and other followers provide deep insights into the perceptions, experiences, and cultural interpretations of human-wildlife conflict among tribal communities in Wayanad. The responses reveal a complex relationship with wildlife, driven by spiritual worship and ongoing challenges.

Elephants: Companions and Deities: One topic of discussion was the sacred status accorded to elephants. According to the tribal chief, "The elephant is a god, and we offer prayers to it at every harvest. The first part of the harvest is always given to the elephant." These references reveal the traditional view that elephants are not just wild animals, but sacred creatures worthy of respect and ritual offerings. These beliefs influence their tolerance of elephant activity in their neighbourhood, making them not only a threat but also part of the broader environmental balance.

The difference between 'good' and 'bad' wildlife: Despite his spiritual reverence for elephants, the chief also mentioned the existence of "good" and "bad" elephants. He explained that wild elephants in the forest are typically well-behaved, but elephants that move away from surrounding human settlements are frequently hostile and destructive. He observed, "There are good and terrible elephants. The ones near villages are terrible, because they thrive on the stuff that humans consider waste." This anthropological classification represents a moral framework based on the animals' behaviour and origins, as well as variations in elephant behaviour patterns, which create local responses to various interactions.

Multiple species in conflict: The community's relationships with animals go beyond elephants. Tigers, buffaloes, monkeys, and bears are also frequently involved in conflicts. Every animal is perceived differently. Buffaloes, for example, are commonly characterized as ferocious animals that once attacked a cowherd. Monkeys are regarded as highly destructive, capable of destroying crops even in the absence of human defenders. The chief referred to the monkeys as "a constant threat that destroys everything, even when no one is around." Meanwhile, tigers are seen as untrustworthy and opportunistic, occasionally attacking animals and humans in their neighbourhood, yet they have encountered tigers virtually every day in their environment. Although interactions with bears are rare, they are regarded as a threat, particularly when people enter the forest to collect honey. Although bear attacks are uncommon, society recognizes that they may still pose a risk during such activities, particularly when the animals feel threatened or provoked.

Ecological Change as a Root Cause: The community identifies ecological degradation as a primary cause of increased conflict. According to the chief, the rise in elephant aggression and frequency of raids is tied to the decline in forest resources. He observed, “There is no more food in the forest. The bamboo groves (*Bambusa vulgaris*) have been destroyed. Elephants cannot survive in forests where invasive species like ‘manjakonna’ (*Senna siamea*) and ‘padarpp’ (*Mikania micrantha*), on top of bamboo, grow, because they don’t eat that due to the bitterness.” The replacement of traditional fodder with inedible or bitter undergrowth, such as ‘konginichedi’ (*Lantana camara*), has forced elephants to encroach into human settlements in search of food, and it has also become a shadow space for tigers and other predators to hide.

Displacement and Disruption of Traditional Practice: Historically, the community used elevated tree huts known as ‘Erumadam’ or ‘Machan’ to guard fields from elephants. However, this practice has become nearly extinct due to a decline in paddy cultivation and changing land use. The loss of such adaptive strategies has further exposed the community to wildlife threats, reducing their ability to cope through traditional means.

Indigenous Beliefs and Forest Protection Rituals: The tribal community continues to rely on spiritual rituals to ensure its safety in the forest. Before venturing into the forest, elders (who have died) are offered ‘dakshina’, including *betel leaf*, *tobacco*, and other items in prayer, seeking protection from harm. The chief explained, “We offer prayers with tobacco and sacred items because he ancestors will protect us. According to their belief, the Elephants attack only persons who have committed wrong or consumed alcohol and entered the forest.” This shows a trust in a moral connection and divine operationalized through moral behaviour.

Gendered impact of wildlife conflict: One of the serious gender specific dimensions of HWC in the area related to water collection, which is primarily undertaken by women. Water for cooking and drinking was collected from a small water source, known as ‘Keni[1], which they considered very sacred and located approximately 1.5 kilometres from the settlement. Every morning, female members of each family go to the forest to collect water, typically carrying in small vessels balanced on their heads. This daily engagement exposes a considerable risk of wildlife attack at any time, especially from elephants and tigers. In addition to that, the continuous attack of the predators on the cattle, especially the ‘Wayanadan cow[2], goat and buffalo, also further intensifies the impacts, vulnerability and workload.

The Forest as a Spiritual Landscape: Finally, the forest itself is perceived as inhabited and guided by divine presence. The chief recounted that when someone gets lost in the forest while collecting honey and other



non-wood items, “the forest deity will show the way. It will bring you back by calling out at noon and guiding you to the right path.” Such narratives reflect a strong spiritual connection to the land and an enduring belief in the forest's sentient, protective nature.

Conclusion

The findings highlight indigenous communities’ spirituality, their relationship with ecology, and their views on daily survival. HWC is not only treated as a topic of loss and danger but also through the lens of border morality and the existing cultural framework. The findings underscore the importance of incorporating indigenous knowledge, ecological memory, and moral and spiritual perspectives when developing conservation strategies for wildlife management and HWC mitigation. In contrast to the negative perceptions of non-tribal communities, especially in the semi-urban and rural agricultural settings which often see wildlife as a matter of curiosity, amusement and threat to safety and property, indigenous groups see it as a matter of co-existence and have adopted survival strategies along with the change in the ecosystem, behaviour of animals, and human practices.

Reference

[1] A small water body within the forest. Which they consider as a very sacred. In every morning female members of the community fetch water from the source. They only use water for cooking and drinking, which collected from this water body. In every morning before collecting water, they clean the water source and the process called ‘*theval*’, because the same water source is been used by other wild animals as well.

[2] Asper the person who accompanied me to the settlement, the ‘Wayanadan Cow’ is an indigenous species of cow of the region, which now only exist with them. The cow looks like a bull with big strait horn. They consider it like a part of their house hold. They usually not tie in the cowshed and not use broomstick to clean the cowshed and using bare hand to clean it along with water.

Anusree, G. I. (2021). Educational scenario of scheduled tribes in Kerala. *Multidisciplinary Issues in Social Science Research*, 27.

C. K. Pavithran; B. Kolangattil. (2021). *Charithramurangunna Wayanad*. Wayanad: Bhala Sabha.

Chandrasekhar, R. (2025, November 16). Five and a half years: 692 human lives lost to wildlife. Ernakulam: Kerala Kaumudi.

David W. Macdonald. (2004). From theory to practice, without bluster. In D. W. Macdonald, & C. Sillero-Zubiri, *Biology and conservation of wild canids* (pp. 353–372). Oxford University Press.

Easa, P. S. (2001). *Study on man–wildlife interaction in Wayanad Wildlife Sanctuary*. Peechi: Kerala Forest Research Institute (KFRI).



- Express, T. N. (2024, August 31). *India will be global hotspot for human-wildlife conflict by 2070*. Retrieved November 25, 2025, from The New Indian Express: <https://www.newindianexpress.com/xplore/2024/Aug/31/india-will-be-global-hotspot-for-human-wildlife-conflict-by-2070>
- Government of India, M. o. (2024). *Rajya Sabha unstarred question no. 672*. Rajya Sabha. New Delhi: Government of India.
- Government of Kerala, S. P. (2024). *Economic Review*. Thiruvananthapuram: Government of Kerala.
- Hodgson, I. D., Redpath, S. M., Sandström, C., & Biggs, D. (2020). *The state of knowledge and practice on human-wildlife conflicts*. Luc Hoffmann Institute.
- Human-wildlife conflict. (2023). In D. W. Macdonald, *Biodiversity Conservation: A Very Short Introduction*. Oxford University Press.
- Kakkoth, S. (2005). The primitive tribal groups of Kerala: A situational appraisal. *Studies of Tribes and Tribals*, 3(1), 47–55.
- Kangwana, K. (1995). Human-elephant conflict: The challenge ahead. *Pachyderm*, 11-14.
- Kenneth Wallen; Kerrick W. Robinson; Natalie T. Redmond; Kaitlyn E. Shaw; Jerry J. Vaske. (2024). Scoping review of the first 25 years of human dimensions of wildlife. *Human Dimensions of Wildlife*.
- Kerala, G. o. (2022). *Fourteenth Five-Year Plan (2022–2027): Working Group on Addressing Issues Related to Human–Wildlife Interactions in Kerala*. Kerala State Planning Board. Trivandrum: Agriculture Division.
- M. G. Bijosh; John Abraham; C. Balusami. (2022). Human–wildlife conflicts: Causes and mitigation measures in Wayanad Wildlife Sanctuary of Kerala. *Global Scientific Journal*, 621–631.
- M. Natarajan; T. Kalidasan; H. Taba. (2020). Understanding the effect of socio-economic characteristics and psychosocial factors on indigenous agricultural practices among tribals in Subansiri District of Arunachal Pradesh. *Plant Archives*, 1389–1392.
- Macdonald, D. W. (2023). *Biodiversity conservation: A very short introduction* (Vol. 738). Oxford University Press.
- Madden, F. (2003). Creating coexistence between humans and wildlife: Global perspectives on local efforts to address human–wildlife conflict. *Human Dimensions of Wildlife*, 9(4), 247-257.
- Madden, F. (2004). Creating coexistence between humans and wildlife: Global perspectives on local efforts to address human–wildlife conflict. *Human Dimensions of Wildlife*, 9(4), 247–257.



Madhusudan, M. D., & Mishra, C. (2003). Why big, fierce animals are threatened: Conserving large mammals in densely populated landscapes. In V. K. Rangarajan, *Battles over Nature: Science and the Politics of Wildlife Conservation* (pp. 31-55). Permanent Black.

Marchini, S. (2014). Who's in conflict with whom? Human dimensions of the conflicts involving wildlife. In M. J. M. J. Jerry, Vaske, A. Rechkemmer, & E. Duke, *Applied ecology and human dimensions in biological conservation* (pp. 189–209). Springer.

Nemtsov, S. C. (2003). A short-lived wolf depredation compensation program in Israel. *Carnivore Damage Prevention News*, 16-17.

Padma Mahanti; Sanjeet Kumar. (2018). Human–wildlife conflict: A case study in Kerala, India. *Journal of Biodiversity and Conservation*, 1(2), 42-53.

R. Ramakrishnan; S. Rajendrakumar; N. K. Kothurkar. (2024). Regional sustainability of the Kattunayakan tribe in Kerala, India through the enhancement of agricultural, livestock, and livelihood options. *Agricultural Systems*, 217, 103929.

State Planning Board, K. (n.d.). *District profile: Wayanad*. Retrieved December 10, 2025, from State Planning Board, Government of Kerala: <http://www.old.spb.kerala.gov.in/index.php/district-profile-wayanad.html>

Straka, T. M., Drijfhout, M., Kochalski, S., von Ruschkowski, E., & Gruenewald, C. (2023). The human perspective in nature conservation and wildlife management: An introduction to the “Human Dimensions of Wildlife.”. In C. C. Hrsg, *Evidence-Based Wildlife Management* (pp. 273-289). Berlin: Springer Berlin Heidelberg,

Straka, T. M., Drijfhout, M., Kochalski, S., von Ruschkowski, E., & Gruenewald, C. (n.d.). The human perspective in nature conservation and wildlife management: An introduction to the “Human Dimensions of Wildlife.”. In *The human perspective in nature conservation and wildlife management: An introduction to the “Human Dimensions of Wildlife.”*.

Tanja M. Straka; Margreet Drijfhout; Sophia Kochalski; Eick von Ruschkowski; Claudia Gruenewald. (2023). The human perspective in nature conservation and wildlife management: An introduction to the “human dimensions of wildlife”. In M. Apollonio, R. Putman, & A. Cagnacci, *Evidence-based wildlife management* (pp. 273–289). Springer.

Tanja M. Straka; Margreet Drijfhout; Sophia Kochalski; Eick von Ruschkowski; Claudia Gruenewald. (2023). The human perspective in nature conservation and wildlife management: An introduction to the “human dimensions of wildlife”. In M. Apollonio, R. Putman, & A. F. Cagnacci, *Evidence-based wildlife management* (pp. 273–289). Springer.

Publisher’s Note: *The views and opinions expressed in this article are solely those of the author(s) and do not necessarily reflect those of the publisher, editors, or the editorial board.*