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Tel: 0135-2652410 | E-mail: wpsidoon@gmail.com Website: www.wpsidoon.org

Cheetal Vol 63 No. 1 (2026) | November 2025 - April 2026

CHEETAL

JOURNAL OF THE WILDLIFE PRESERVATION SOCIETY

ESTD. : 1958

November 2025 - April 2026

Cheetal Vol 63 No. 1 (2026) LCCN : 2022337235 ISSN: 0528-9122

HIMALAYAN BLACK BEAR CONFLICT IN UTTARAKHAND: EMERGING ISSUES

Eshan Chowdhury[1] and V.P. Uniyal[2*]

[1]Department of Biotechnology, Graphic Era Deemed to be University, Dehradun
[2]Department of Biosciences, Graphic Era Deemed to be University, Dehradun
Email: eshanchowdhury.phd@geu.ac.in; uniyalvp@gmail.com*

ABSTRACT

The paper examines the increasing dispute between humans and Himalayan black bears in Uttarakhand, where bears increasingly come into contact with humans more frequently due to ecological, climatic, and human-caused changes. A vulnerable keystone and indicator species of Himalayan forests, Himalayan black bears face threats from habitat loss, fragmentation, poaching, and retaliatory killings. Additionally, climate change modifies snowfall patterns and interferes with their hibernating and feeding habits. Bears are pushed onto croplands, orchards, garbage dumps, and livestock farms due to declining natural food availability, expanding agriculture, urbanisation, and infrastructure. This has resulted in a substantial rise in bear attacks, injuries, and fatalities in recent decades. Bear-related occurrences have clearly increased, according to conflict data from Uttarakhand, highlighting the urgent need for management. The paper advocates for an integrated, science-based approach that includes habitat restoration, waste and livestock management, early warning systems, community awareness, and climate-adaptive conservation planning to encourage coexistence and assure long-term bear and ecosystem survival.

Keywords: Himalayan black bear; human bear conflict; habitat loss; climate change; Uttarakhand

INTRODUCTION

India is home to four bear species: Himalayan black bear, brown bear, sloth bear and sun bear (Nath et al., 2020). Himalayan black bear (*Ursus thibetanus laniger*), a subspecies of Asian black bear is differentiated from the Asian black bear by its longer, denser hair and smaller, whiter chest marking (Pocock, 1941). The Himalayan black bear attains a length of roughly 130 to 190 cm (4–6 ft). Adult males weigh between 110 and 150 kg (242–330 lb), whereas adult females range between 65 and 90 kg (143–198 lb). The lifespan of a bear is around 25 years (Thakur et al., 2007). The Himalayan black bear inhabits deciduous, broad-leaved forests, thorn brush forests, and coniferous forests of the Himalayas and northeastern Indian highlands at altitudes ranging from 1200 to 3300 meters above sea level, encompassing an area of around 270,000 square kilometers, with an estimated

population of 5400 to 6700 individuals (Parter, 1980; Satyakumar et al., 2007; Waseem et al, 2020). It may be found at elevations as high as 4700 meters (9900 feet) (Thakur et al., 2007). A limited population of Himalayan black bear is unevenly spread throughout Pakistan, northwest India, and potentially northeast India and Nepal (Pocock, 1941). Due to heightened threats and species susceptibility in the wild, the Himalayan black bear is classified as Vulnerable on the IUCN Red List (Garshelis et al., 2016) and designated under Schedule I of the Indian Wildlife (Protection) Act of 1972. They are omnivorous animals that will consume almost anything. They eat a variety of insects, including termites and beetle larvae, as well as acorns, nuts, berries, honey, and roots. If food becomes short, they may turn to consuming livestock such as sheep, goats, and cattle (Bears of The World, 2015). The mating season occurs in late autumn, and often two or more cubs are born in late winter and early spring (Prater, 1998). In India, bears often have two litters and are born with closed eyes (Walker, 1964). The Himalayan Black Bear is regarded as an ecological indicator and keystone species of the environment (Daniel Simberloff, 1999; Sathyakumar et al., 2013) and has a vital ecological function in sustaining forest dynamics due to its exceptional primary seed dispersal capabilities (Koike et al., 2012), often termed ecosystem engineers (Basnett et al., 2020). It has been reported that Himalayan black bears are more hostile toward people than American black bears. When an Asiatic black bear comes into interaction with humans, it often retreats (Thakur et al., 2007).

Figure 1: Himalayan black bear (*Ursus thibetanus laniger*) Photo: Mohan Thomas

KEY REASON OF HUMAN- BEAR CONFLICT IN UTTARAKHAND:

The state of Uttarakhand is situated in the Himalayan foothills. It is encircled by dense forests, which are the native habitat of the Himalayan black bear and sloth bear (Nath et al., 2020). Himalayan black bear has faced numerous difficulties, including habitat degradation, population decrease brought on by poaching and hunting for pelts, paws, and gall bladders, and retaliatory killing in reaction to human-bear conflicts (Charoo et al., 2009; Sathyakumar et al., 2012).

Habitat loss: Human-bear conflicts mostly arise from habitat degradation attributable to human encroachment and the reliance of local people on forest resources (Marley et al., 2017), both of which elevate the chance of human-bear interactions. The main cause of human-bear conflict in Uttarakhand is habitat loss due to human activities such as agriculture, urbanisation, and infrastructure development, which reduce natural food (berries, nuts, insects) and den sites. These activities lead to forest cover changes, habitat fragmentation, and isolation of wildlife, pushing bears into human areas looking for easy food from garbage or livestock (Mardaraj et al., 2025).

Disrupted hibernation pattern: Himalayan black bears typically enter hibernation by early November, prompted by snowfall and low temperatures. However, in recent years, delayed and lighter snowfall has led to warmer mountain conditions, disrupting the ecological cues for hibernation. As a result, these bears experience significant alterations in their metabolic cycles, resulting in stress, restlessness, and a continual

search for food during the usual dormant periods (Santra, 2025).

Food Scarcity and Altered Foraging: The decline of essential natural food supplies for Himalayan black bears in Uttarakhand's forests, such as fruits, nuts, and berries, is linked to climate variability, habitat degradation, and changes in forest composition. This scarcity forces bears to scavenge in agricultural areas, orchards, refuse sites, and human habitats, leading to increased interactions with people. Bears experience hyperphagia in autumn to accumulate fat stores for hibernation. Limitations in natural food supplies may compel them to forage near human habitats, increasing the possibility of conflict (Azad and Mishra, 2025).

In Uttarakhand, a combination of biological, climatic, and human factors leads to bear-human conflicts. Bears are forced to forage in crops and human waste due to a lack of natural food; habitat shrinkage and encroachment push them into human areas; climate change modifies their behaviour and activity patterns; and increased human activity and changes in land use increase encounters. Bear sightings and assaults on people and animals have increased dramatically in the area due to these circumstances.

HUMAN-BEAR CONFLICT STATUS IN UTTARAKHAND

Human-wildlife conflicts in India have escalated in recent decades, with Uttarakhand seeing a particularly worrying increase in human-bear clashes. According to government data, human-wildlife conflict has claimed over 900 lives in Uttarakhand over the past 25 years, with leopard attacks claiming 548 lives, elephant attacks 230 lives, tiger attacks 106 and bear attacks 70. According to data from the Uttarakhand Forest Department, bears have killed 68 persons and wounded 1,972 others in the last 25 years. Bear assaults in 2022 resulted in 57 injuries and one fatality. There were about 53 injuries in 2023, but no fatalities were reported. Three of the 65 victims of bear attacks in 2024 lost their lives. Seven of the 71 victims of bear attacks in 2025 have already lost their lives (Figure 2).

DISCUSSION AND CONCLUSION

With a focus on the Himalayan black bear (*Ursus thibetanus laniger*), the current study emphasises the rising worry of human–bear conflict in Uttarakhand. According to the data, increased human expansion into forest environments, food shortages, habitat loss, and behavioural changes brought on by climate

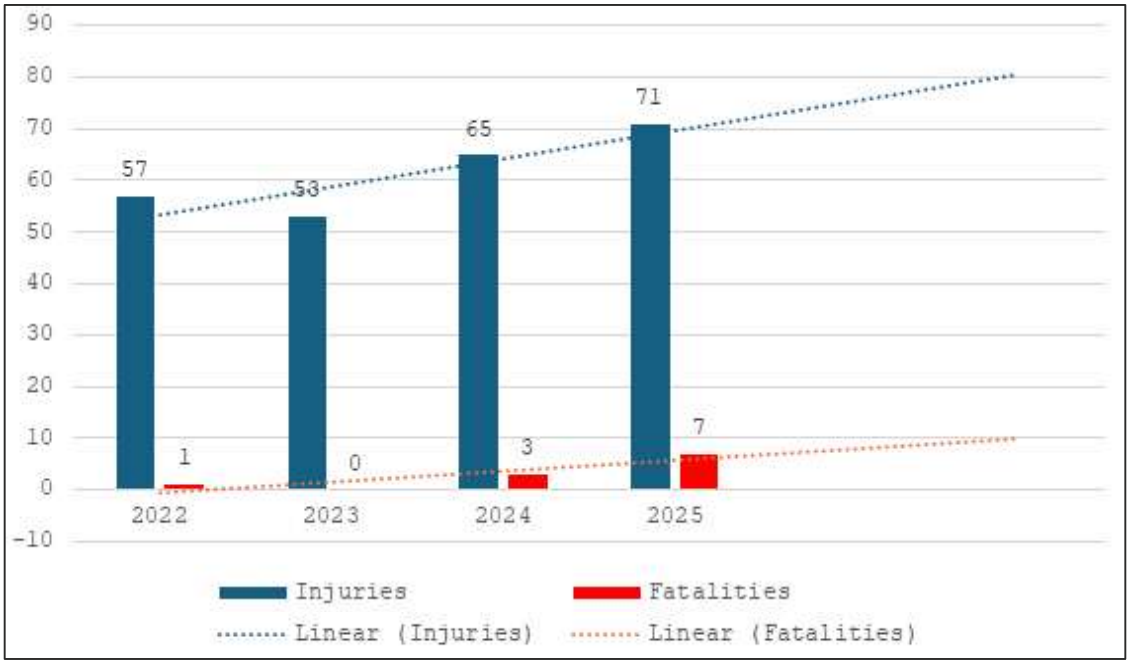

Figure 2: Data on injuries and fatalities resulting from human bear conflicts in Uttarakhand.

change all contribute to escalating conflicts. Bears have been forced to enter agricultural areas and human settlements due to changes in hibernation patterns and disruptions in natural feeding supplies, which have increased the number of accidents and fatalities. Human-bear encounters have been steadily increasing over the past few decades, according to data, which emphasises how important it is to handle this problem with management techniques based on scientific studies. Given the Himalayan black bear's ecological significance as a keystone and indicator species, ongoing conflict threatens both human safety and the integrity of forest ecosystems. An integrated strategy involving habitat restoration, better waste management, early warning systems, community awareness campaigns, and climate-adaptive conservation planning would be necessary to reduce human-bear conflict in Uttarakhand. In order to reduce conflict and ensure the long-term sustainability of this vulnerable species, it is imperative to strengthen coexistence frameworks and incorporate local community engagement. In the fragile Himalayan environment, human deaths and biodiversity loss could get worse if prompt and efficient solutions are not put into place.

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About the Authors:

Eshan Chowdhury

Eshan Chowdhury is currently pursuing a PhD in the Department of Biotechnology at Graphic Era Deemed to be University. Dehradun.

Prof. (Dr.) V.P. Uniyal

Dr. V. P. Uniyal is a distinguished Scientist and ecologist, with a wealth of experience in the field of biodiversity and natural heritage conservation. Formerly serving as Scientist-G and Senior Professor at the Wildlife Institute of India, Dehradun. He has completed over 30 research projects, resulting in the publication of 150 research papers, scientific reports, and four influential books and field guides. His mentorship has guided over 25 Ph.D. students and supported the research endeavours of 35 Master's dissertations. Dr. Uniyal has been honored with a sac spider species named Clubiona uniyali (Araneae: Clubionidae), discovered from the Nanda Devi Biosphere Reserve. This recognition not only celebrates his extensive work but also his enduring impact on the study and conservation of lesser-known biodiversity across the Himalaya.