

‘Maintaining forest cover, preventing fragmentation key to contain conflicts’

Feb 13, 2023, 10.55 PM IST

Nagpur: Maintaining forest cover and preventing fragmentation of habitats while minimizing human disturbance is crucial for the long-term conservation of bears outside protected wildlife reserves across India.

The latest study in the Kanha-Pench corridor says balancing human safety alongside the conservation of the bear population will need co-management of conflict situations where wildlife managers work with local residents.

The study titled, ‘Safe space in the woods: Mechanistic spatial models for predicting risks of human–bear conflicts in India’, says conservation of sloth bears requires consideration of human safety. It was published in the journal *Biotropica*.

Scientists focused on understanding sloth bear habitat use, and their interactions with people and identifying areas where people’s dependence on forests for resource extraction overlap with locations of high risk of bear conflict and attacks.

Many forested landscapes in India are shared by wildlife and people. Wild animals use non-forested areas such as agricultural farmlands to move across large landscapes. At the same time, local communities depend on forests for resources such as fuelwood, fodder, wild fruits/flowers, and other forest products.

“This overlap sometimes leads to interactions between wildlife and people with negative consequences. In such shared spaces, conservation of wild animals, especially those that can be dangerous for people’s lives and livelihoods, can be challenging,” say experts.

Scientists from the University of Florida, the Centre for Wildlife Studies (CWS), and the National Centre for Biological Sciences–TIFR studied sloth bears in a forest corridor of Madhya Pradesh.

The corridor connecting Kanha and Pench tiger reserves is among the most important landscapes in India, supporting several threatened species of wildlife and over 3.5 lakh people. The objective of the study was to identify locations where people’s dependence on forest resources overlaps with areas of high risk of attacks by bears.

In a recent study, researchers conducted indirect sign surveys (documenting pugmarks and faeces) to understand where sloth bears are found and why. They combined these results with information on bear attacks on people, gathered through interview surveys of local communities.

“The Kanha-Pench landscape has been a high conservation priority landscape for over two decades, especially for the conservation of tigers. However, the landscape is also home to several other threatened species, including sloth bears that frequently come into conflict with people. Their conservation requires active management by taking into account human safety,” says Mahi Puri, the lead author.

She adds, “Our study found that sloth bears frequently used areas with rough terrain, high forest cover, and vegetation productivity while avoiding areas with high forest fragmentation. Bear attacks on people were more likely to happen in areas with denser forests, rough terrains, and locations with high bear presence. By simultaneously gathering data on bear ecology, their interactions with people, and forest resource extraction patterns, we were able to identify locations with the highest risk of human injury or death due to bear attacks.”

However, sustaining carnivore populations in shared spaces requires careful attention to human safety as well. In the case of human–bear interactions, this requires co-management of conflict situations by engaging with key frontline forest and health staff by building community awareness through education on how to stay safe and first aid training through programmes such as ‘Wild Surakshe’.

This can be achieved through active surveillance of locations with a bear presence close to settlements, awareness workshops that advocate best practices for avoiding extremely high-risk locations, and facilitating a shift from forest resources (specifically fuelwood to LPG cylinders) to reduce forest dependence.

“Multiple research efforts by us across India suggest focusing conservation interventions on reducing negative interactions and especially preventing human injuries and deaths from sloth bears has to be prioritized,” stated Krithi Karanth, co-author of the study.

The other authors included Arjun Srivathsa (University of Florida and National Centre for Biological Sciences–TIFR), Imran Patel, and N Samba Kumar, both Centre for Wildlife Studies.



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