



A leopard is about to cross the wall situated along the Delhi-Haryana border

## THE WALL THAT DIVIDES AND THE WILDLIFE THAT UNITES HARYANA AND DELHI

- Parvaiz Yousuf & Mukesh Chand

As the scorching summer months of May and June arrived this year, our daily excursions to the [Asola Bhatti Wildlife Sanctuary](#) (ABWS) became increasingly challenging. We braved the sweltering up to 50°C heat and navigated through Delhi's bustling streets on our motorbikes to reach the Sanctuary. In a city like Delhi, where urbanisation pressures are immense, finding a genuine wildlife haven is a rarity. While the city boasts of several 'city forest' patches and a well-managed [Zoological Park](#), ABWS stands out as the sole Protected Area within the National Capital Territory (NCT), offering a unique opportunity to spot wild animals in their natural habitat.

As the only Sanctuary for wild animals in the NCT, ABWS has assumed greater significance. Located on the outskirts of Tughlaqabad, its boundaries

merge with the neighbouring state of Haryana. Our research project involved setting up camera traps within the ABWS to identify and document the various species present in the area. Little did we know that these camera traps would unravel a fascinating story, far beyond our expectations!

### Asola Bhatti as an Urban Sanctuary

The [Asola Bhatti Wildlife Sanctuary](#), spanning 32.71 square kilometers, is a unique urban oasis situated on Delhi's southern Delhi Ridge, nestled within the ancient [Aravalli](#) mountain range. Despite being dominated by semi-arid tropical thorn vegetation – including the proliferation of the alien invasive *Prosopis juliflora*, which covers nearly 3/5<sup>th</sup> of the area, and *lantana* – the Sanctuary remains a vital refuge for numerous rare and remarkable species (Figure 1).



Figure: 1. Asola Bhatti Wildlife Sanctuary  
(Credit: Mukesh Chand)

Historically, the ABWS was ravaged by large-scale sand and quartzite mining activities, which began in the early 20<sup>th</sup> century and peaked in the 1970s and 1980s, causing widespread habitat destruction and environmental degradation. In response, the Government of NCT of Delhi and conservationists launched a reclamation initiative to safeguard the forest area. Following its official designation as a Sanctuary in 1986 and subsequent renaming to Asola Bhatti Wildlife Sanctuary in 1991, a concerted effort was made to restore the habitat to its natural state, preserve biodiversity, and create a secure haven for diverse plant and animal species.

Despite Delhi's crowded and urbanised landscape, the Asola Bhatti Wildlife Sanctuary harbours a surprising array of wildlife, challenging the common perception among the city's residents that animals like hyenas and chital do not 'live' within their city limits. Our two-month camera trap survey revealed an impressive 20+ mammal species, a notable finding for an urban setting like Delhi. The Sanctuary is a vital habitat for several uncommon species, including the Striped hyena (*Hyaena hyaena*), leopard (*Panthera pardus*), Nilgai (*Boselaphus tragocamelus*), chital (*Axis axis*), sambar (*Rusa unicolor*), Indian crested porcupine (*Hystrix indica*), Small Indian civet (*Viverricula indica*), Asian palm civet (*Paradoxurus hermaphroditus*), Jungle cat (*Felis chaus*), and wild pig (*Sus scrofa*), among few others.

However, a concerning practice has been observed: the Forest Department's monthly expenditure of approximately ₹ 8 lakh (figures from 2018) to feed the Sanctuary's rhesus macaques (*Macaca mulatta*). We feel that this practice is unsustainable and may exacerbate human-animal conflict by causing an increase in the macaque population, rather than promoting a balanced ecosystem (Figure 2).



Figure: 2. Food provisioning of rhesus macaques in ABWS by Delhi's Forest Department  
(Credit: Parvaiz Yousuf)

The Sanctuary's biodiversity is further highlighted by the presence of [253 bird species](#), underscoring the importance of preserving such natural areas within urbanised landscapes like Delhi. Alongside providing an opportunity for Delhi residents to connect with nature and appreciate the beauty of wildlife in its natural habitat, another recent major draw is the stunning Neeli Jheel within ABWS, boasting crystal-clear blue waters. Many book carts to reach Neeli Jheel, taking in the rich wildlife and scenic beauty of the Sanctuary along the way (Figure 3).



Figure: 3. Neeli Jheel in the Asola Bhatti Wildlife Sanctuary  
(Credit: Parvaiz Yousuf)

### Wall between the same Forest

The Sanctuary has a large perimeter of around 45 km. Our camera trapping endeavours yielded fascinating insights, particularly when we set up a camera near a breach in the wall separating Asola Bhatti from the adjacent Reserved Forests in Haryana. The footage revealed a surprising frequency of wildlife movement, with leopards, nilgai, and other animals utilising this gap almost daily to traverse between the two areas (Figure 4).



Figure : 4. Leopards captured crossing the wall that separates Asola Bhatti WLS with Haryana's forests (camera trap image)

Regrettably, the NCT Government constructed this wall to demarcate the ABWS boundary without fully considering the ecological implications. The barrier effectively isolates animals within a contiguous forest, causing fragmentation. In many sections, the wall exceeds 10 feet in height, posing a significant obstacle for numerous species (Figure 5). It's akin to envisioning a wall erected within our own homes, even if the Department's reasoning might be to prevent [bootlegging and encroachment](#), among other issues.

Fortunately, the breach in the wall facilitated mammal movement, and we observed frequent usage by species like chital and leopard. This highlights their need for expansive, connected territories. Other users of the gap included the striped hyena and jungle cat. Witnessing this diverse array of wildlife underscored the Sanctuary's vital role as a wildlife corridor.



Figure : 5. Small Indian civet (camera trap image)

### Ecological Issues due to the Wall

As the forested ecosystem recovers from its mining past within ABWS, and as its floral and faunal communities increase in density and diversity, the most critical ecological issue that has emerged is that of habitat fragmentation by this perimeter

wall, restricting the free movement and intermingling of species populations. Large animals, such as leopards and nilgai, require expansive areas for feeding, mating, and raising their young. However, the presence of a wall between their habitats limits these natural behaviours, leading to increased competition for resources on either side. This, in turn, can result in heightened conflicts between animal groups on both sides of the wall (Figure 6).



Figure : 6. Nilgai (camera trap image)

Simultaneously, smaller animals like civets and mongooses face significant challenges crossing the barrier, hindering their access to food and potential mates. This could lead to the potential reduction in genetic diversity, in turn leading to less healthy and resilient species populations, making them more susceptible to diseases and environmental changes. Furthermore, animals attempting to circumvent or breach the wall often suffer injuries. While species like Nilgai exhibit rational behaviour to avoid human encounters, others like porcupines might be unable to cross the wall if it weren't for the existing breach (Figure 7).

The wall also compromises the Sanctuary's role as a wildlife corridor, crucial for facilitating the free movement of animals between Delhi's and Haryana's forests. This disruption can isolate populations, causing ecological imbalances and biodiversity loss. The altered interactions between animals can, in turn, modify ecosystem dynamics, ultimately affecting the delicate ecological balance between predator and prey populations in the Aravallis.

### Recommendations and Conclusion

We strongly feel that the Forest Department must holistically assess whether parts of the walled perimeter of ABWS, especially in areas/sections that connect forests of Delhi and Haryana and harbour higher animal densities, could be brought down.

Alongside increased protection measures such as regular and effective foot patrolling by sufficient number of forest staff, the law of the land must be strongly enforced to prevent/free encroachment of forestland and book anti-social elements. This will reduce the necessity for the wall in the first place, critical sections of which could be gradually dismantled enabling animals to move freely between habitats. The Department may also consider establishing or reviving habitat corridors with native vegetation plantation, which will provide a safe and familiar environment for animals to move across. Further research is necessary to understand the wall's impact on animal movement and identify suitable plant species for corridor plantations. Leveraging technologies like drone-mapping and GPS tracking can inform corridor placement and help monitor animal movement.

Lastly, the governments of NCT of Delhi and Haryana must collaborate to address this issue, involving the forest departments of both states in the decision-making process. Raising awareness among local communities, such as those in Sangam Vihar and Bhatti, is crucial for effective Sanctuary management and protection. By engaging with stakeholders and fostering cooperation, we can work towards creating wildlife-friendly urban landscapes that prioritise connectivity over barriers.

The perimeter wall within the ABWS highlights the need for a more nuanced approach to urban planning and wildlife conservation. Through targeted interventions and collaborative efforts, we can transform our cities into thriving habitats that support biodiversity and maintain ecological balance.



Figure : 7. Indian crested porcupines (camera trap image)

## About the Authors:

**Parvaiz Yousuf** is currently a researcher at the Wildlife Institute of India, apart from being a prolific writer. He holds an M.Sc. in Zoology with his chief interest being Ornithology. He recently authored the well-received book, "Birds of Jammu & Kashmir including Ladakh" and has numerous other publications. He contributes to international science magazines like Asian Scientist and Truly Curious, and served as the Director of the Wetland Research Centre, Wildlife Conservation Fund YPJK from 2018-2023.

**Email Id:** [parvaizyousuf444@gmail.com](mailto:parvaizyousuf444@gmail.com)

## Mukesh Chand:

Mukesh Chand is a researcher at the Wildlife Institute of India. He holds an M.Sc. in Environmental Science and works as a Project Associate in the project, "Developing an Integrated Management Plan for Asola-Bhatti Wildlife Sanctuary." His interest lies in understanding the emerging conflict between humans and non-human primates.

**Email Id:** [mukeshrajwar123@gmail.com](mailto:mukeshrajwar123@gmail.com)



Figure : 8. Nilgai (camera trap image)