New locality record of Hog Deer in Sumera Forest Nursery, Uttar Pradesh

The Hog Deer *Axis porcinus* is a medium-sized cervid historically distributed across northern India, Nepal, Bhutan, Bangladesh, and parts of southeastern Asia (Biswas et al. 2002). The species is closely associated with tall alluvial grasslands and floodplain ecosystems, particularly within the Terai Arc Landscape and Brahmaputra Basin (Johnsingh et al. 2004; Sinha et al. 2019).

Biswas et al. 2004 reviewed the status of Hog Deer in India and reported a widespread decline across its range due to habitat loss, grassland conversion, and hunting pressure. The species was found to persist mainly in small, isolated populations within protected areas such as Kaziranga, Manas, and Dudhwa, highlighting its dependence on conservation-managed habitats also reported that Hog Deer populations in the Gangetic plains had become increasingly fragmented and dispersed because of extensive habitat loss, agricultural expansion, and degradation of floodplain grasslands, restricting the species to isolated grassland patches and remnant floodplain habitats. Later, Ahmed & Khan (2015) conducted ecological studies in Dudhwa National Park and estimated a Hog Deer density of 3.09 individuals/km² in the alluvial floodplains, while also documenting their preference for upland grasslands, small herd sizes, and female-biased sex ratios.

Subsequently, Paul et al. (2018) highlighted similar patterns of habitat fragmentation and declining wetland-grassland connectivity in cervid populations of the upper Gangetic plains, emphasizing the need for landscape level habitat conservation. In northeastern India, Sinha et al. (2019) conducted intensive

Sumera Forest Nursery: Hog Deer sighting locations. Source: Google Earth.

Hog Deer sighting along the nursery edge. © Shaikh Rahim.

population assessments in Manas National Park and documented major temporal fluctuations in Hog Deer abundance, with populations declining from historical estimates of nearly 10,000 individuals in 1983 to 1,626 individuals before recovering to 3,545 ± 647.64 individuals in 2019 following conservation and habitat restoration efforts.

Over the past few decades, Hog Deer populations have undergone significant decline due to habitat loss, fragmentation, agricultural expansion, grassland degradation, and poaching (Bhowmik 2002; Biswas 2004; Angom et al. 2020).

In India, important populations persist in protected landscapes; however, information from non-protected and human-modified landscapes remains limited and poorly documented. Such areas may still serve as secondary habitats, dispersal corridors, or temporary refuges for the species. Uttar Pradesh, particularly its western region, has experienced extensive land-use change, resulting in severe reduction of natural grasslands.

Habitat near sighting. © Shaikh Rahim.

Hog Deer subadult male. © Shaikh Rahim.

Consequently, records of Hog Deer from non-protected landscapes in this region are rare. The present study reports opportunistic sightings of Hog Deer from Sumera Forest Nursery in Aligarh District, thereby contributing a new locality record and highlighting the conservation relevance of small habitat patches outside protected areas.

Sumera Forest Nursery (~0.19 km²) is located in Jawan Block, Aligarh District, Uttar Pradesh, India. The study area lies within the Gangetic plains and is characterized by a mosaic of plantation patches, grassland fragments, and agricultural fields. The vegetation is dominated by cane grass *Tripidium benghalense,* bamboo stands, and plantation species such as *Diospyros montana* and *Streblus asper*. The nursery is bordered by the upper Ganga Canal and intensively cultivated agricultural land.

Despite its small size and anthropogenic pressures, the area provides structural vegetation cover and forage resources that may support wildlife species. Such modified landscapes are increasingly recognized for their potential ecological role as refuges or stepping-stone habitats in fragmented ecosystems.

Field observations were conducted opportunistically between April and May 2017 during postgraduate research fieldwork. Surveys were not systematic but involved repeated visits to the study area during different times of the day. Sightings were recorded through direct visual observation, and photographs were taken when possible. Geographic coordinates were recorded using a handheld GPS device. Species identification was based on standard morphological features described in previous studies (Biswas 2004; Ahmed & Khan 2015).

Fawn: small body size, spotted coat (early stages); **sub-adult:** intermediate body size, absence of fully developed antlers; **adult male:** presence of three-tined antlers; **female:** absence of antlers, smaller build.

Location: Sumera Forest Nursery, Jawan, Aligarh (UP), India

Details of Sighting

Date	Time	Individual observed	Habitat/Notes
27.iv.2017	1445 h	Subadult	Sheltering under *Diospyros montana* & *Streblus asper*
13.v.2017	1715 h	Subadult	Feeding near bamboo & cane grass; visible 3–4 mins
16.v.2017	1735 h	Subadult + Adult male	Cane grass; adult with antlers

GPS Coordinates: HDS1: 28.04508° N, 78.11186° E; HDS2: 28.04425° N, 78.11313° E These observations indicate that Hog Deer may persist or intermittently utilize small habitat fragments outside formally protected areas. The use of cane grass, bamboo thickets, and plantation edges suggests behavioural flexibility where suitable cover and forage remain available.

The presence of both sub-adult and adult individuals may indicate temporary residency or a small remnant local population, although further evidence is required before inferring breeding status. In the intensively modified Gangetic plains, forest nurseries, riparian fields, and grass-dominated edges may function as refuges or movement corridors for ungulates. Such habitats are rarely surveyed, and their conservation value is often underestimated.

Potential threats in the area include habitat degradation, vegetation clearing, encroachment, livestock grazing, feral dogs, road mortality, and human disturbance. Since the present records are old (2017), resurveys are needed to confirm current occurrence. Camera trapping, pellet surveys, and local ecological interviews may help determine occupancy and seasonal use.

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References

Ahmed, K. & J.A. Khan (2015). Group size and habitat use of hog deer in alluvial floodplains of Dudhwa National Park, Uttar Pradesh, India. *Journal of Zoological Research* 5(1): 1–6.

Angom, S., C. Tuboi, M.G.U. Ghazi, R. Badola & S.A. Hussain (2020). Demographic and genetic structure of a severely fragmented population of the endangered Hog Deer *Axis porcinus* in the Indo-Burma biodiversity hotspot. *PLoS ONE* 15(2): e0210382.

Bhowmik, M.K. (2002). The causes of decline of hog deer (*Axis porcinus*) in protected areas of Himalayan West Bengal. *Zoos' Print Journal* 17(8): 858–860.

Biswas, T. (2004). Status and ecology of the hog deer (*Axis porcinus*) in its native range. *The Indian Forester* 130(11): 1319–1332.

Biswas, T., V.B. Mathur & A.J.T. Johnsingh (2002). Population and conservation status of the hog deer (*Axis porcinus*) in India. *The Indian Forester* 128(2): 187–200.

Johnsingh, A.J.T., K. Ramesh, Q. Qureshi, A. David, S.P. Goyal, G.S. Rawat, K. Rajapandian & S. Prasad (2004). Conservation status of tiger and associated species in the Terai Arc Landscape, India. RR-04-001. Wildlife Institute of India, Dehradun, 110 pp.

Paul, S., B. Pandav, D. Mohan, B. Habib, P. Nigam & S. Mondol (2018). Current distribution and status of Swamp Deer *Rucervus duvaucelii duvaucelii* in the upper Gangetic plains of north India. *Oryx* 52(4): 646–653.

Sinha, A., B.P. Lahkar & S.A. Hussain (2019). Current population status of the endangered Hog Deer *Axis porcinus* (Mammalia: Cetartiodactyla: Cervidae) in the Terai grasslands: a study following political unrest in Manas National Park, India. *Journal of Threatened Taxa* 11(13): 14655–14662.

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