

# Occurrence of the Northern Red Muntjac *Muntiacus vaginalis* (Cetartiodactyla: Cervidae) in an ecotone in northeastern Nepal



The Northern Red Muntjac  
*Muntiacus vaginalis* in  
northeastern Nepal. ©  
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An ecotone can be defined as an ecosystem where two communities (for e.g., agricultural land and forest) integrate. Such environments are significant for adaptive species that can benefit from the availability of multiple habitats. A pair of Northern Red Muntjac *Muntiacus vaginalis* (Boddaert, 1785) was spotted in an ecotone landscape in northeastern Nepal.

The Northern Red Muntjac has a chestnut red-coloured coat, dark brownish-black facial markings, and small antlers (Timmins et al. 2016). It is protected under Nepal's National Parks and Wildlife Conservation

Act 2029 (1973) (Jnawali et al. 2011). The species occurs in dense tropical and subtropical forests, thickly wooded hills, and also in degraded forest areas near human settlements (Paudel et al. 2015).

Although the Northern Red Muntjac is globally assessed as Least Concern (Timmins et al. 2016), it is assessed as Vulnerable in Nepal due to a decline in its populations in the wild over the past 15 years (>10,000 individuals remaining; Jnawali et al. 2011). Anthropogenic stressors such as habitat encroachment and conversion of forest into agricultural lands (Amin et al. 2018) and the



The study area in northeastern Nepal

changing climatic variables (Alfthan et al. 2008) have the potential to adversely impact the species.

The study area in Nepal (27.618N & 85.453E) is a forested area with agricultural land managed by local ethnic groups. During a biodiversity survey undertaken by the author in June 2018, a pair of Northern Red Muntjacs was sighted in the ecotone (between the agricultural and forested land) at around 06.30h. The pair was observed for 5 minutes using binoculars (10 x 50 DPS) and was photographed. During the observation period, the pair continued to forage in the ecotone while maintaining close proximity to each other. An alarm call was raised by one of the members of the pair on spotting the author, and the pair then disappeared into the thick forest behind them.

Currently, there are no known targeted conservation measures in place to protect the Northern Red Muntjac in the study site. The presence of this vulnerable species is a promising sign for species conservation

and highlights the availability of additional habitat. With the growing anthropogenic and climatic threats to forest ecosystems, however, future conservation strategies need to address the threats and habitat requirements of the species for its long-term conservation.

#### References

- Alfthan, B., N. Gupta, H.L. Gjerdi, T. Schoolmeester, M. Andresen, M. Jurek & N.K. Agrawal (2018)**. Outlook on climate change adaptation in the Hindu Kush Himalaya. Mountain Adaptation Outlook Series. United Nations Environment Programme, GRID-Arendal, and the International Centre for Integrated Mountain Development, Vienna, Arendal, and Kathmandu, 96pp.
- Amin, R., H.S. Baral, B.R. Lamichhane, L.P. Poudyal, S. Lee, S.R. Jnawali, K.P. Acharya, G.P. Upadhyaya, M.B. Pandey, R. Shrestha, D. Joshi, J. Griffiths, A.P. Khatiwada & N. Subedi (2018)**. The status of Nepal's mammals. *Journal of Threatened Taxa* 10(3): 11361–11378. <https://doi.org/10.11609/jott.3712.10.3.11361-11378>
- Jnawali, S.R., H.S. Baral, S. Lee, K.P. Acharya, G.P. Upadhyay, M. Pandey, R. Shrestha, D. Joshi, B.R. Lamichhane, J. Griffiths, A.P. Khatiwada, N. Subedi & R. Amin (compilers) (2011)**. The Status of Nepal Mammals: The National Red List Series. Department of National Parks and Wildlife Conservation Kathmandu, Nepal, viii+267pp.
- Paudel, P.K., M. Hais & P. Kindlmann (2015)**. Habitat suitability models of mountain ungulates: identifying potential areas for conservation. *Zoological Studies* 54(1): 37.
- Timmins, R.J., R. Steinmetz, N.S. Kumar, M.I. Anwarul & H. Baral (2016)**. *Muntiacus vaginalis*. In: The IUCN Red List of Threatened Species: e.T136551A22165292. Downloaded on 26 June 2019. <https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T136551A22165292.en>

**Acknowledgements:** I would like to sincerely thank Herb Nepal for their generous hospitality.

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Citation: Gupta, N. (2019). Occurrence of the Northern Red Muntjac *Muntiacus vaginalis* (Cetartiodactyla: Cervidae) in an ecotone in northeastern Nepal. *Mammal Tales* #12, In: *Zoo's Print* 34(7): 35–36.