

# Highest altitudinal record of Striped Hyena to Nepal

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## Abstract

Striped hyaena is one of the least studied large carnivores of Nepal. A pugmark was recorded from an altitude of 2136 meters from sea level in Salyan district, which is the new altitudinal record to Nepal. It was recorded nearby a human settlement and the local people also acknowledged that the species has been continuously occupying the particular study area since long back.

The striped hyaena (*Hyaena hyaena*) is one of the most important large carnivores which are scavenger in nature (Kruuk 1976). They generally occur in thin forest and light bushes but avoid dense forests in arid to semi-arid environments (Alam et al. 2014). Due to its decreasing population trend, it has been classified as Near Threatened on IUCN Red list (AbiSaid and Dloniak 2015). It has also been categorized as Endangered in Nepal and is kept under protected species in National Park and Wildlife Conservation Act, 1973 because of its low and declining population structure, which is estimated to be below 100 (Jnawali et al. 2011). Out of the four species of *Hyaena*, only striped hyaena is found in Nepal. There is very scanty information on the status and distribution of this species in Nepal. The species is known to occur in southern lowlands of Nepal including some protected areas (Jnawali et al., 2011) while some of its population could be found outside the protected areas. It has been recorded from southern lowlands of Terai at around 100 meters to 1750 meters above the mean sea level (Majupuria and Majupuria, 2006, Bhandari et al. 2017).

A sign based camera trap survey for field verification of hyaena was conducted in Salyan, Karnali Province of Nepal in between May and June, 2019. This region lies outside the protected area and is managed by Divisional Forest Office, Salyan. Sign survey was carried out from an altitude of 943 m to 2514 m elevation. Line transect sampling was done in all possible habitats such as river belt, forest trails, grassland and agriculture land to collect information on hyaena. Though the camera traps couldn't record photographic evidence of striped hyaena, most probably due to its low abundance, various pugmarks of this species were recorded from several points throughout the survey. A pugmark was recorded nearby Kumakh village of Siddhakumakh rural municipality (28.480341° N82.184695°E) at an altitude of 2136 m (Figure:

2) which is the highest elevation record of striped hyaena from

Nepal till date. The pugmark was recorded in a trail close to a rugged terrain and the nearest human settlement was less than a kilometer away. The area was dominated by broad-leaved species such as *Myrica esculenta*, *Quercus* sp. and *Schima wallichii*.

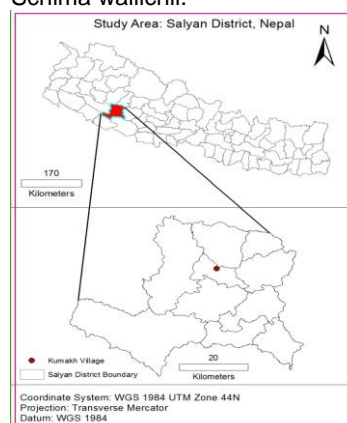


Figure 1: Study area:

Salyan district



Figure 2: Pugmark of Hyaena



Figure 3: Habitat where the pugmark was recorded

This record signifies that the striped hyaena has been using the lower temperate broad leaved forest in this area as its habitat even above the elevation of 2000 m. The local people were aware of the presence of this species as altogether two hyaenas were killed in the district between 2018 to 2019 from lower altitudes; where post mortem report by Veterinary Hospital and Animal Export Center, Salyan shows that one was killed in road accident while the other was killed due to the respiratory failure. Therefore, a detailed research about the distribution of striped hyaena in this altitude is necessary alongside the identification of the threats for its survival.

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#### References:

- AbiSaid, M. and Dloniak, S.M.D. 2015. *Hyaena hyaena*. The IUCN Red List of Threatened Species 2015:e.T10274A45195080.<https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T10274A45195080.en> (Accessed on October 28, 2020).
- Alam, M., Khan, J., Kushawa, S., Agrawal, R., Pathak, B., and Kumar, S. (2014). Assessment of suitable habitat of near threatened striped hyena (*Hyaena hyaena* Linnaeus, 1758) using Remote Sensing and Geographic Information System. *Asian Journal of Geoinformatics*, 14(2), 1–10.
- Bhandari, S., and Bhusal, D. R. (2017). Notes on human-hyena (*Hyaenahyaena*, Linnaeus 1751) conflict in Jajarkot, Kalikot and Mahottari districts of Nepal. *Journal of Institute of Science and Technology*, 22(1), 127–131.
- Jnawali, S. R., Baral, H. S., Lee, S., Acharya, K. P., Upadhyay, G. P., Pandey, M., Shrestha, R., Joshi, D., Lamichhane, B. R., Griffiths, J., Khatriwada, A. and Amin, R. (2011). *The Status of Nepal Mammals: The National Red List Series*. Department of National Parks and Wildlife Conservation, Kathmandu, Nepal, pp. 276.
- Kruuk H (1976). Feeding and social behaviour of the striped hyaena (*Hyaena vulgaris* Desmarest). *East African Wildlife J* 14: 91-111.