

First record of Honey Badger *Mellivora capensis* in Deukhuri Valley, Dang district, mid-western Nepal

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Abstract.

Honey Badger *Mellivora capensis* is one of the least known mammals in Nepal and recorded from only a few areas in the country. During a camera-trap survey for Striped Hyaena *Hyaena hyaena* from May to July 2016, Honey Badger was recorded for the first time in Dang district, mid-western Nepal. This is a new locality record for Honey Badger in Nepal.

Keywords: camera-trapping, protected areas, Dang, Nepal

Honey Badger *Mellivora capensis* is listed as Least Concern on *The IUCN Red List of Threatened Species* (Do Linh San *et al.* 2016). The species has a large range which extends through most of sub-Saharan Africa from the Western Cape, South Africa, to southern Morocco and south-western Algeria, and then through Arabia, Iran and western Asia to Middle Asia (Turkmenistan, Uzbekistan), the Indian peninsula and Nepal (Do Linh San *et al.* 2016). It is considered rare or to exist at low densities across most of its range (Vanderhaar & Hwang 2003). Honey Badger is one of the least known small carnivores of Nepal (Jnawali *et al.* 2011). Only a few records are available for this species in the country (Baral & Shah 2008, Thapa 2014). Its presence is known from only a few areas in Nepal (Jnawali *et al.* 2011) and there are no known records of Honey Badger from Dang district.

Dang district is located in western Nepal (28°7'N and 82°18'E) and covers an area of 2,955 km². Dang district consists of two valleys, the Dang and Deukhuri valleys. The survey was in an area of approximately 185 km² which includes a major part of the Deukhuri Valley. Deukhuri Valley is surrounded by forest-covered hills that connect Bardia, Banke and Chitwan national parks through the Churia forests in the Dovan bottleneck. The valley is connected with Banke National Park in the west and an intact forest in the south connects with Sohelwa Wildlife Sanctuary in India (Khanal and Baniya 2018). The valley lies outside of Nepal's protected area system, however, it has been identified as one of Nepal's Important Bird and Biodiversity Areas (IBAs; Baral & Inskipp 2005, Khanal 2015). *Shorea robusta*,

Dalbergia and *Acacia* dominate the forested habitat types found here. Degraded forests are found in patches.

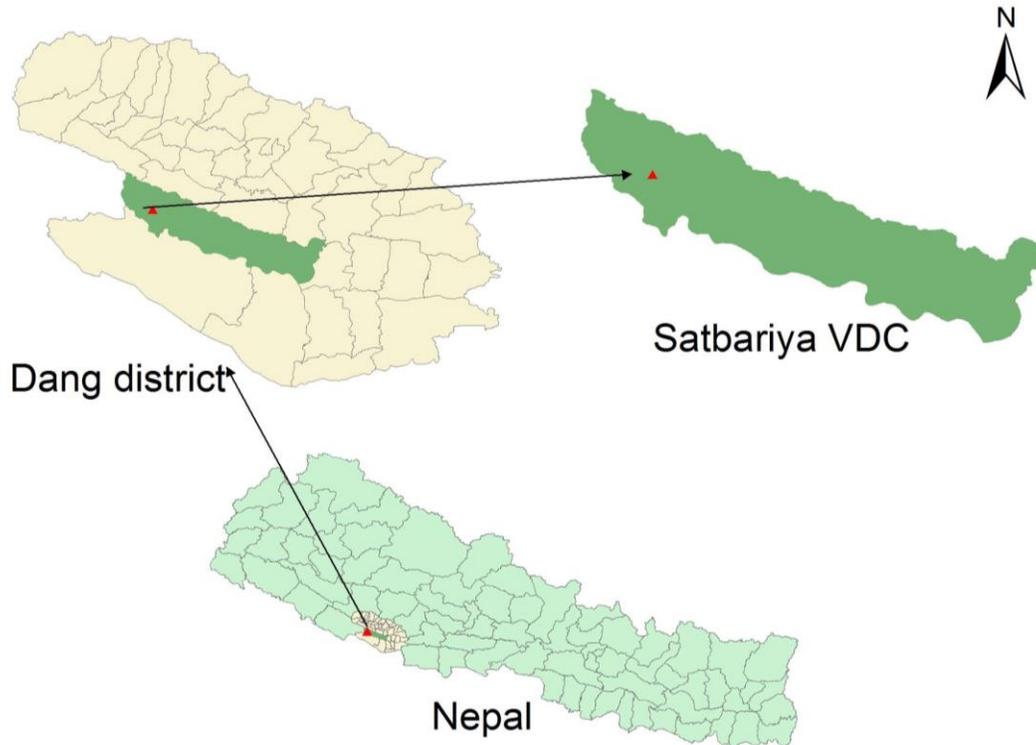


Figure 1. Location of Honey Badger *Mellivora capensis* record (red triangle) in Dang district, mid-western Nepal.

The survey was targeted at Striped Hyaena *Hyaena hyaena* in Deukhuri valley from May to July, 2016. Camera-trapping and sign surveys were the primary methods. The survey area was divided into the grids of 5×5 km. Grids with more than 50% forest cover were selected and grids which lie on human settlement areas, agricultural fields, rivers and large river banks were excluded from camera-trapping and sign surveys. In each grid, Browning XR camera-traps were placed on forest trails and by waterholes. If any animal carcasses were found camera-traps were set by these. Single camera-traps were deployed at each station in each grid and were left for 15 nights. A total of 22 grids were selected for the camera-trapping. The camera-traps were deployed for 330 camera-trap-nights. Three to four small pieces of chicken were used as bait at each station. The chicken bait was staked into the ground. Carcasses that were opportunistically encountered were left undisturbed with no bait, and the camera-trap was set facing the carcass. From the total, 86% of camera-traps were baited with chicken and 14% of the camera-traps were set facing carcasses.

The camera-traps produced a total of 10,232 images over 320 camera-trap-nights. Out of 22 camera-trap stations Honey Badger was recorded in one camera-trap station: a single image of Honey Badger was captured on 16 June 2016 at 23h09 in Kalikhola Community

Forest of Satbariya Village Development Committee of Deukhuri valley at an altitude of 231 m asl (Figure 2).



Figure 2. Camera trap image of Honey Badger *Mellivora capensis* in Dang district, Nepal. June 2016.

The successful camera-trap was placed in a regenerated area of forest at the base of a *Terminalia arjuna* tree, 100 m from a seasonal water source and 5 m from a trail used by livestock and humans. The area is used by local villagers for collecting fuel wood and grazing livestock. No Honey Badger signs were observed from other parts of the study area during the survey period.

This species has been recorded within the protected areas of Bardia National Park, Chitwan National Park, Parsa Wildlife Reserve (now Parsa National Park), Shukla Phanta Wildlife Reserve (now Suklaphanta National Park) and the districts of Banke and Kailali. The record presented in this paper is a new locality record for Honey Badger in Nepal.

There is limited information available on this species in Nepal in which to compare this record to. The camera-trap record in Dang was in an area dominated by *Terminalia arjuna*, *Dalbergia sissoo*, *Syzigium kumini* and *Shorea robusta*. Cattle grazing is common in this forest, as is the collection of fire wood by local people; the habitat is human-impacted and not pristine natural habitat. This record may suggest that the species can tolerate such

disturbances, though a single record is not enough to evidence this fully. There is little available information on Honey Badger in Nepal and at a national-level has been assessed as an Endangered species. Other potential Honey Badger sites could lie outside Nepal's protected areas; targeted surveys in forested areas as well as in protected areas for this species would help to clarify this species' status in the country.

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