

# First photographic evidence of *Panthera tigris* from Neora Valley National Park, Central Himalayas, India

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## Abstract

Present article reports first photographic evidence of *Panthera tigris* from Neora Valley National Park. Previous sightings have been occasionally reported from the National Park and its surroundings, whereas the present study is the first scientific study confirming the presence of this species through photographic evidence. Tiger was camera trapped on a trail in the upper forest region of the National Park at an altitude of 2605m.

**Keywords:** Camera Trap, Carnivore, Central Himalaya, First Record

## Introduction

There are past evidences and records for the presence of tiger in the North Bengal and evidence of tigers in the Neora Valley area are known early as 1940s where Harding (2006) mentioned that tigers may have migrated from the Terai of the lower North Bengal to Upper Neora areas moving further north to Sikkim or Bhutan forest areas. Several state forest surveys in this National Park has been conducted in the past indicating the presence of tiger in the PA (Mallick, 2012). Despite of these reports and repeated surveys, only secondary evidences were found in confirmation of the animal in the Neora Valley National Park (Biswas *et al.*, 1999; Mallick, 2012). Closest presence of tigers in North Bengal was last reported from the Buxa Tiger Reserve based on scat collection and molecular studies which indicate there are 15 individuals in the area (Borthakur, 2013). All India Tiger census report states that presence of 10 tigers in the North Bengal region in 2006, followed by nil in 2010 and three individuals in 2014 (Jhala *et al.*, 2015). All of these figures are based on surveys inside the Buxa Tiger reserve of Alipurduar, West Bengal. Nevertheless, no census has been carried in the Neora Valley National Park so far. This paper is therefore reporting presence of tiger in the Neora Valley National

Park, based on camera trap evidences.

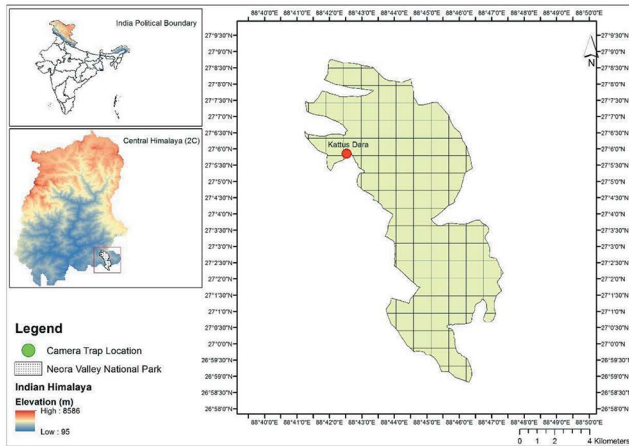
## Material and Methods

Camera Traps were deployed throughout the Neora Valley National, West Bengal, as part of the Himalayan Biodiversity Monitoring Project to record various species of mammals and ground bird species occurring in the National Park (Figure 1). The Park was divided into 1 x 1 Km<sup>2</sup> grids, with a total of 88 grid sectors. A total of 10 infrared camera traps (SPYPOINT Model No-Force 11D) were deployed in both upper and lower regions at varying altitudes on a rotation formation for fortnight interval at each trap sites. Digital photographs from the camera were retrieved and images were analysed for confirmation of the animals/birds captured.

## Results and Discussion

On 22nd April 2018, an individual tiger *Panthera tigris* (Linnaeus, 1758) was recorded during early morning hours in the Kattus Dara (Lat: 27.09757 Long: 88.70886 Elevation: 2605m) (Figures 2 and 3) of the upper forest division of Neora Valley National Park. Two camera traps set 500 m apart recorded an individual in the Chaudapheri camp region of the National Park at 4:21 AM and 4:33 AM respectively. Several observations were

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**Figure 1.** Map of Neora Valley National Park with camera trap location.

made in the past along with pugmarks and scats in the region but this is the first record based on photographic evidence for the presence of Royal Bengal Tiger in the National Park. The night before this record was rainy and humid with temperature as low as 5°C. The individual was recorded after the rain has stopped in the following morning. The Kattus Dara trail is in Eastern Himalayan Temperate Forest with very narrow width (1.7 to 3.3m width). Dominating tree species at the recorded sites were Bamboos, *Lithocarpus pachyphyllus*, *Quercus thomsoniana* and *Rhododendron arboretum*. Camera Traps in the trail has also recorded herds of Wild Boar *Sus scrofa* Linnaeus, 1758 and Macaques *Macaca* sp. The trail is also used by Marbled Cat *Pardofelis marmorata* (Martin, 1837) which was recorded during two other incidences. Among other herbivores Barking deer *Muntiacus vaginalis* (Boddaert, 1785) and Himalayan Serow *Capricornis thar* (Hodgson, 1831) were recorded in the nearby areas. Much of the forest lands are converted to plantations, tea estates or discontinued in this landscape (Kshetry *et al.*, 2017) which may have disrupted the link between the forests of terai areas and in the upper North Bengal. Hence, there is a possibility that the present recorded individual may be of a different population linked to adjoining forest areas of Pangolakha Wildlife Sanctuary, Sikkim or to Bhutan forests. Recent report of the tiger has been confirmed in the Pangolakha Wildlife Sanctuary by the forest officials of Sikkim which is the first confirm report of tiger presence in East Sikkim after a decade (Lachungpa, 2019). The recorded individual is whether Royal Bengal Tiger (*Panthera tigris tigris*) or Indo-Chinese Tiger (*Panthera*

*tigris corbetti*) is yet to be confirmed (Luo *et al.*, 2004). Whether the Neora Valley National Park is serving as a corridor between lower terai landscape and forests of Sikkim and Bhutan or is a viable area for tiger residence has remained to be studied. Further studies in the region with camera traps and molecular investigation may reveal relations between the populations.



**Figure 2.** Recorded tiger back view at Kattus Dara, Neora Valley National Park.



**Figure 3.** Recorded tiger left view at Kattus Dara, Neora Valley National Park.

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