First Camera Trap Record of Common Leopard *Panthera Pardus* (Linnaeus, 1758) in Banpale Forest, Pokhara, Nepal

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**Abstract**
Multiple pictures of the Common Leopard *Panthera pardus* were captured during camera trapping in Banpale forest, Kaski Nepal. It confirms the first camera trapping record of this mega and apex predator in Banpale forest.

**Keywords:** C Leopard; Banpale Forest; Predator and Camera Trapping

**Introduction**
The Common leopard is the most widely distributed cat species in the world [1]. Leopards are widespread in the forests of Bhutan and Nepal [2] across India [3,4], Pakistan [5] and Sri Lanka [6] occurring inside and outside Protected Areas. It is considered as top predator in its home range where it plays very important role in continuation of biodiversity [7]. It has been assessed as the vulnerable species by the IUCN Red data list [8]. Evidence suggests that Leopard populations have been dramatically reduced due to continued persecution with increased human populations [9,10], habitat fragmentation (UN 2014), increased illegal wildlife trade [11], excessive harvesting for ceremonial use of skins [12-14], prey base declines and poorly managed trophy hunting [15].

**Study Area**
The study area is the Banpale forest occupying an area of 30.4 hectare situated inside Institute of Forestry, Pokhara campus, Kaski district, Nepal. The forest is an area where camera had been deployed. It is situated in mid hill range of western region adjoining to Seti river between International Mountain museum, Madhgaunda, Tutunga and Institute of Forestry, Pokhara campus. The forest comprises subtropical mixed forest with Chilaune (*Schimawallichhi*) and Rani Salla (*Pinus roxburghii*) as the major plants in the area. Allisol is main soil types of forest. Toward the Seti river slope, the calcareous and metamorphic, sedimentary and igneous type of rocky area is found. It is affected harshly by the intensive human interference and is used as a water source path. Most of the land of this Banpale danda ranges from 25 to 45 degree slope (Figures 1 & 2).

**Methods and Methodology**
Key informant survey was carried out with the locals and IOF staffs about the C. leopard followed by one of the finest method to find the abundance of the species i.e. motion sensor Camera trapping was used. Only one camera trap (Bushnell, 8Mp) was deployed in the trees or wood stake at the height of 30-50 cm height on average. The camera was placed where the signs and
the chances of occurrence of the species were high. Camera was only active at night from 6:00pm to 6:00 am. The camera trap survey was carried out starting from December-March 2016/17 for about four months and consisted of a total survey effort of 100 trapping days in total 10 different camera trap stations. Camera trap was not subjected to camouflage neither the baiting was used as a luring agent [16,17].

Results and Discussion

Our study suggests that it has been found roaming in the forest since many years. As there are not viable prey species, the species is posing difficulty to thrive in such harsh condition at this contemporary stage. The presence of Common leopard (Pantherapardus) in the anthropogenically disturbed forest i.e. Banpale forest unveils the science based assessment through the camera trap recording of this giant mega fauna. Previously as well, the species had been sighted (verbally by Arjun Bastola Ast. Professor at Institute of Forestry on 5 December2015). The verbal words for sighting of C. Leopard in this forest have been finally confirmed through the camera trap assessment within dependent images of the species from two different sites.

The anthropogenic interventions are scorching its territory to small patches which are making it dwindle and co-exist in an area of scantily distributed prey species. Unwise use of forest and other activities as a whole for definitely are contributing to the declining of the remaining population of the species from the forest area in recent future. Therefore, there is high time need to put a stop on anthropogenic interferences as soon as possible. Human generated fire in the patch of the forest has been a serious threat to the species longevity. The sighting of this elusive cat is interesting in the less prey distributed area but has also increased the vulnerability of Human-leopard conflict in adjacent area. Human settlements are close to the recorded area(less than 500m); therefore we recommend for the adoption of conflict prevention measures nearby as soon as possible.

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