

# First record of the Himalayan Black Bear (*Ursus thibetanus*) in the private forests of the Gadoli and Manda Khal fee simple estate in the Pauri Garhwal district of Uttarakhand, India

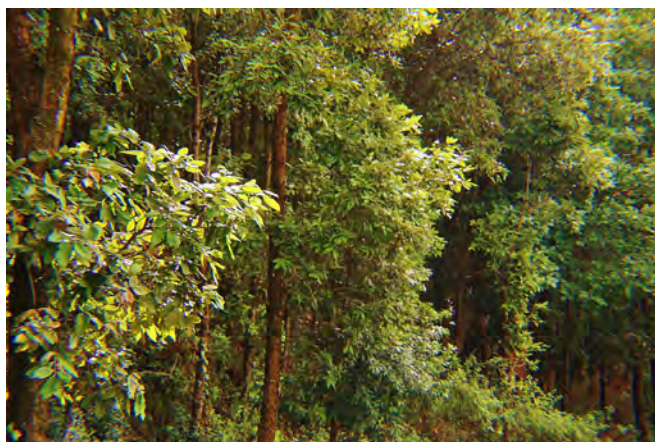
Subir Mario Chowfin

Himalayan Black Bear (*Ursus thibetanus*) is a threatened species of Bear which is assessed as Vulnerable as per the IUCN Red List Assessment (Gershelis and Steinmitz, 2008). Its Red List Category and Criteria is Vulnerable A2cd+3d+4d ver 3.1 and as per this assessment the population trend of the Himalayan Black Bear is decreasing with major threats being habitat loss due to logging, expansion of human settlements, road networks and hydro – power stations, combined with hunting for skins, paws and gall bladders. In India, <10% of the species range is within Protected Areas (PA's) and areas outside PA's are subject to development projects and extraction of wood for fuel and livestock fodder. (IUCN 2008 downloaded in March 2016).

The Gadoli and Manda Khal Fee Simple Estates (Map 1) are located in the Pauri Garhwal District of the Western Himalayan state of Uttarakhand in India. The point GPS location of the Gadoli and Manda Khal Fee Simple Estates is 30°07'18.1" N and 78°48'11.4" E. These estates are under private ownership consisting of about 450 hectares of forest with substantial portions of oak, pine and mixed temperate forests. These estates were originally tea estates and the scientific management and working of the forest areas of the Gadoli and Manda Khal Fee Simple estates was initiated in 1953-1954 through the First Working Plan for 795 acres which was revised in 1974 by the formation of the Second Working Plan for 765 acres. However, in recent times these forests were subject to a large number of illegal non-forest activities which included stone quarries, hot-mix plants, dumping of garbage, sale of forest land for commercial development which included agriculture, horticulture and housing.

To save these forests from eventual destruction, a Public Interest Litigation (PIL) was filed in the National Green Tribunal in New Delhi, India by Application No. 19/2012 during which the state government of Uttarakhand finally conceded that 292.177 hectares of the Gadoli Fee Simple Estate and 158.689 hectares of the Manda Khal Fee Simple Estate totaling ~450 hectares are forest.

Of special ecological significance, these private forests are located in the Western Himalayas of the Himalaya, the Himalaya being biogeographically a transition between the Palaearctic and the Indo-Malayan Realms and the Himalayas being one of the three biodiversity hotspots in India (Conservation International, 2016).



**Fig 1. Dense Oak forest in the Gadoli Fee Simple Estate**



**Fig 2. Himalayan Black Bear (*Ursus thibetanus*) camera trapped in the private forests of the Gadoli Fee Simple Estate**

As per the Global Ecological Zones identified by the Intergovernmental Panel on Climate Change (IPCC) based on observed climate and vegetation patterns (FAO 2001), the forests of the Gadoli and Manda Khal Fee Simple Estates fall within the Temperate Mountain Systems.

The temperate forests of these estates include coniferous, broadleaved evergreen, broadleaved deciduous and mixed forest types along with temperate grasslands as per the present IUCN Habitats Classification Scheme Ver. 3.1 (IUCN 2016). Along with being a part of an endangered ecoregion, these forests are ecologically significant as they are

C/o The Gadoli and Manda Khal Wildlife Conservation Trust, P.O.Box. 27, Pauri, District Pauri Garhwal, Uttarakhand.  
Email: [schowfin@yahoo.com](mailto:schowfin@yahoo.com)

**Table 1. Records of Himalayan Black Bear (Sathyakumar 2001)**

Status of Locality	Name of Protected Area / Locality
Protected Area	Nandadevi National Park and Biosphere Reserve Kedarnath Wildlife Sanctuary Valley of Flowers National Park Corbett National Park
Non – Protected Area	Yamunotri Valley Gangotri Valley Mussourie Chakrata Uttarakashi Tehri Bura Kedar Bageshwar Dharamghar Binsar* Upper catchment of Ram Ganga Ladhiya Valley* Parts of Pithoragarh District

**\*Binsar and the Ladhiya Valley have been brought under the protected area network post 2001**

also a part of the Western Himalaya Endemic Bird Area (Birdlife International 2016) landscape and are a part of the micro – watershed of the Nayyar River, a major river of the Pauri Garhwal district of the Garhwal Himalaya.

As part of a larger project being implemented by The Gadoli and Manda Khal Wildlife Conservation Trust on these estates to document biodiversity here, two night vision IR trail cameras powered by rechargeable batteries were placed near a perennial spring which emerges at the top of a ravine at an altitude of about 1700m and which supplies water to the residential bungalow on the Gadoli Fee Simple Estate. Oak forests (Fig 1.) are found on either side of the ravine where this spring is located with the forests in this area being dense and overstocked (Chowfin, 2015).

Cameras were checked daily and rechargeable batteries were changed whenever charge was low. During the course of camera trapping an adult Himalayan Black Bear (*Ursus thibetanus*) was recorded in one of the trail cameras in the area on 10<sup>th</sup> October 2015 at 19:32 hours with a video recording of 15 seconds (Fig 2.).

While there have been no sightings of the species in the forests of these estates in the recent past, when reviewing scientific literature of the occurrence of the species in the District, Black Bear occurrence and



**Map 1. Extract from Survey of India toposheet showing the Gadoli and Manda Khal Fee Simple Estates with approximate boundaries outlined in black.**

Human-Bear conflict have been documented in the administrative divisions of Pauri Garhwal (Bargali, 2012). Its occurrence has also been reported from PA's in the state as well as forested areas in certain localities (Sathyakumar, 2001) (Table 1.).

The documentation of this species in these forests suggests that there is a large likelihood and probability of a larger population of Himalayan Black Bear within this landscape consisting of the forests of the Gadoli and Manda Khal Fee Simple Estates and adjoining government and village forests within the Pauri administrative block.

This finding alongwith data presently being collected from ongoing surveys documenting biodiversity in the forest areas of these estates is indicative that wild fauna is returning to the forests of the Gadoli and Manda Khal Fee Simple Estates which provide a refuge to endangered mega-fauna within this landscape. Conserving and preserving these huge tracts of forest is of prime importance to ensure safe refuge for mega-fauna like this Himalayan Black Bear whose habitat is threatened throughout much of its distributional range. Furthermore, surveys in the region would be beneficial to document the presence of the species as well as identify habitats within the landscape that would be important to conserve for this endangered bear species.

### Acknowledgements

I am grateful to The Gadoli and Manda Khal Wildlife Conservation Trust for supporting my on-going work in the forests of the Gadoli and Manda Khal Fee Simple Estates.

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## Announcement



### Elephant Conference

#### Conference Theme

In celebration of UN World Wildlife Day, Department of Pharmacology, School of Pharmaceutical Sciences, Vels University, Pallavaram, Chennai, India is organizing an "Elephant Conference".

**Venue:** Shivalaya Auditorium

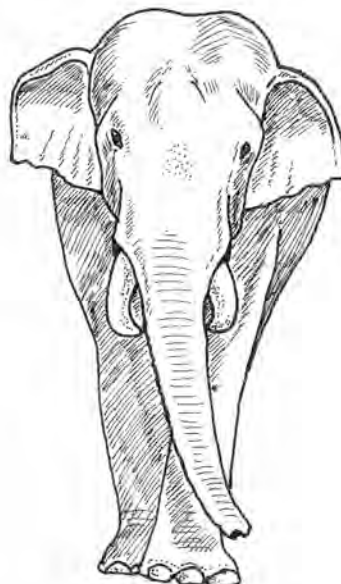
**Date:** 02 January 2017

**Time:** 10:00 a.m.

**Registration: Fees:** Rs. 200 (on the spot)

#### Oral & Poster Presentation Titles

- Wildlife ecology
- Elephant ecology
- Forest elephant ecology
- Climate change on forests and biodiversity
- Asian elephants
- Elephant habitat
- Elephants in Indian culture
- African elephants
- Captive elephants
- Elephants diseases
- Treatment protocols for elephants
- Elephant corridors
- Acoustic communication in wild Asian elephants (*Elephas maximus*)
- Wildlife-human conflict
- Conservation of elephants and forests
- Wildlife sanctuaries in India



#### For details contact

Mr. V. Santhosh Kumar, Head, Department of Pharmacology

Phone: 9445305819 / 9790828341

Email: [elephantconference@gmail.com](mailto:elephantconference@gmail.com)