

**Status of Distribution,
Human-bear Conflict and
Conservation Threats
in
Jigme Singye Wangchuck National
Park**

**Letro
Forestry Officer
JSNWP**



Presentation Outline



1. Introduction
2. Study area
3. Methods
4. Results
5. Discussions
6. Conclusions and Recommendations
7. Acknowledgements





1. Introduction



1.1. Nomenclature

- Eight species of bears are known in the world.
- Himalayan black bear is confined in Asia
- Common Name: Asiatic black bear, Asian black bear, **Himalayan Black bear**, Tibetan black bear, moon bear.
- Local Name: Dhom.
- Scientific Name: *Ursus thibetanus*.





1. Introduction

1.2. Physical Feature and Breeding

- ❑ Covered in a black coat with a white-yellow "U" shape patch on the chest.
- ❑ Its ears are larger than other species.
- ❑ Like other bears, the Asiatic black bear has a developed sense of smell but a poor eye sight and hearing.

- ❑ They have relatively small claws but are good climbers.
- ❑ They are omnivorous creatures.
- ❑ Sexual maturity is reached at approximately three years.
- ❑ Mating is believed to occur in October with usually two cubs born in February while the mother is still hibernating.
- ❑ The offspring usually stay with their mother into the second year.

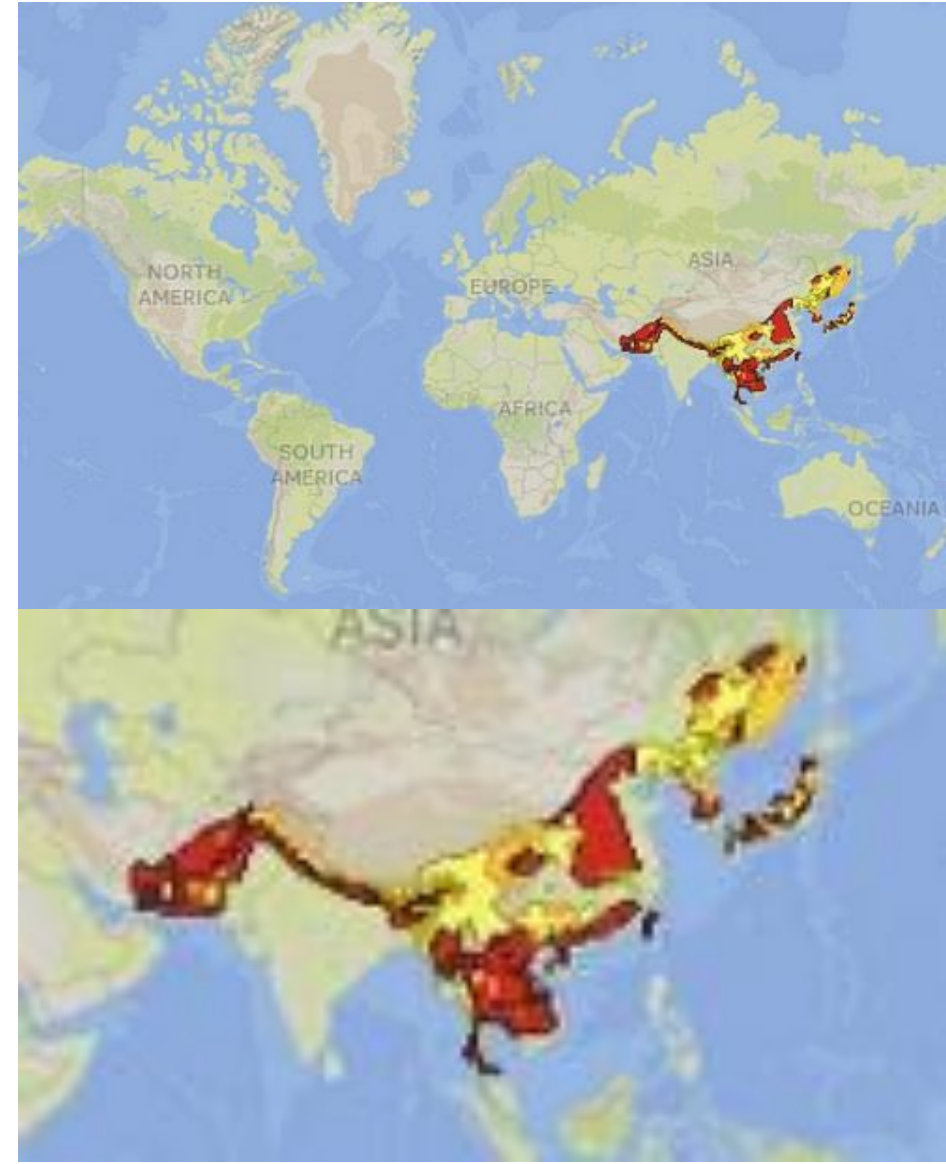


1. Introduction



1.3. Distribution

- ❑ The Himalayan Black bear has a wide distribution.
- ❑ Its range covers south-eastern Iran, Afghanistan, Pakistan and through the Himalayas to Myanmar; Southeast Asia to southern China; southern Russian Far East, North Korea and South Korea; the southern islands of Japan and Taiwan.
- ❑ Habitats of the Himalayan Black bear include coniferous and temperate forests.
- ❑ They live at higher elevations during summer and at lower elevation during winter.

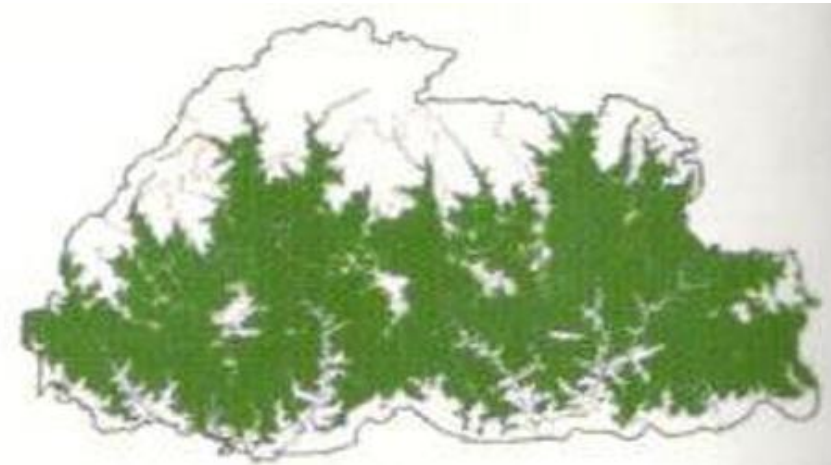




1. Introduction

1.4. Status in Bhutan

- ❑ Himalayan Black bear is the only species recorded in Bhutan.
- ❑ The presence of Himalayan Black bear is reported from all the ten protected areas of Bhutan.
- ❑ The Himalayan Black bear is protected under Schedule I species of the Forests and Nature Conservation Act of Bhutan 1995.

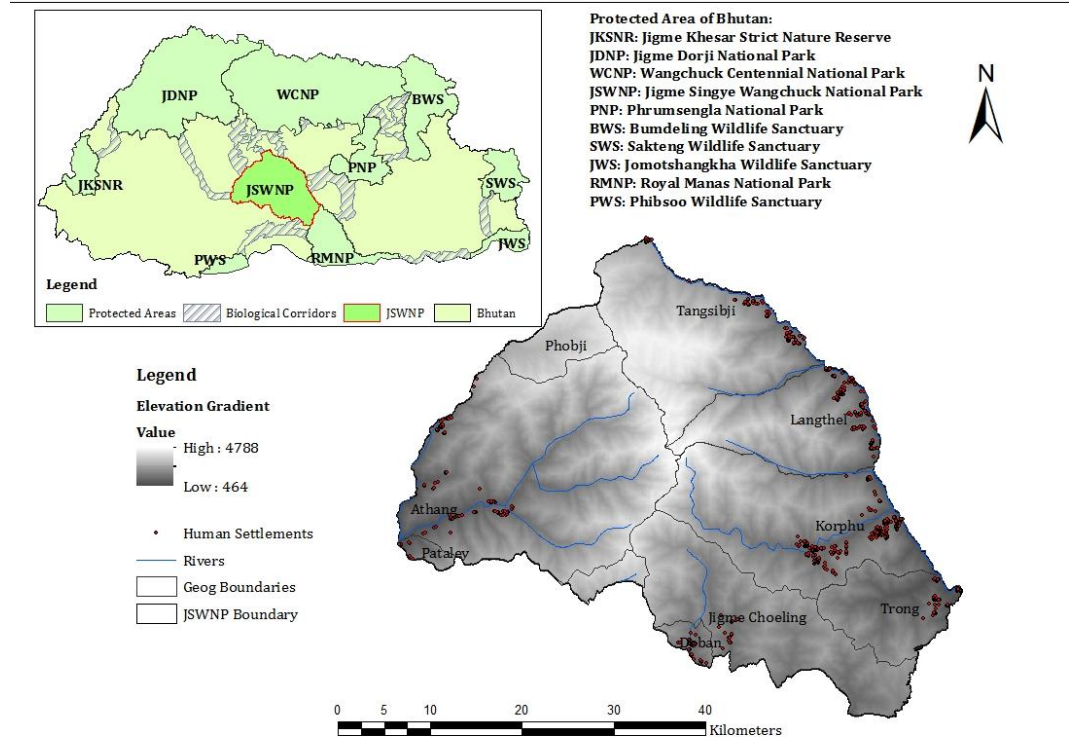


Forests between 1200-3750 m



2. Study Area

- ❑ The study area, JSWNP is located in central Bhutan.
- ❑ The park is within the altitudinal range of 464 masl to 4925 masl.
- ❑ Park has diverse flora and fauna (over 400 recorded vascular plants, 39 mammals, 270 birds, etc.)
- ❑ About 588 Households (HH) of subsistence farmers live scattered inside the parks multiple-use zones





3. Methods

- ❑ Analysing camera existing camera trap data to obtain presence data.
- ❑ Camera trap data was analysed using programme reNamer.
- ❑ Sign survey on the trail transects.
- ❑ 57 transects covering 171 Kms with each transect length of 3 Kms considering the larger home range



3. Methods

- ❑ Questionnaire survey was administered to know the human-bear interactions and people's perceptions on bear conservation.
- ❑ 311 HHs (53%) of the park residents interviewed.
- ❑ The respondents were from the geogs of Athang (72), Korphu (135), Langthel (36), Tangsibji (21) and Trong (47).

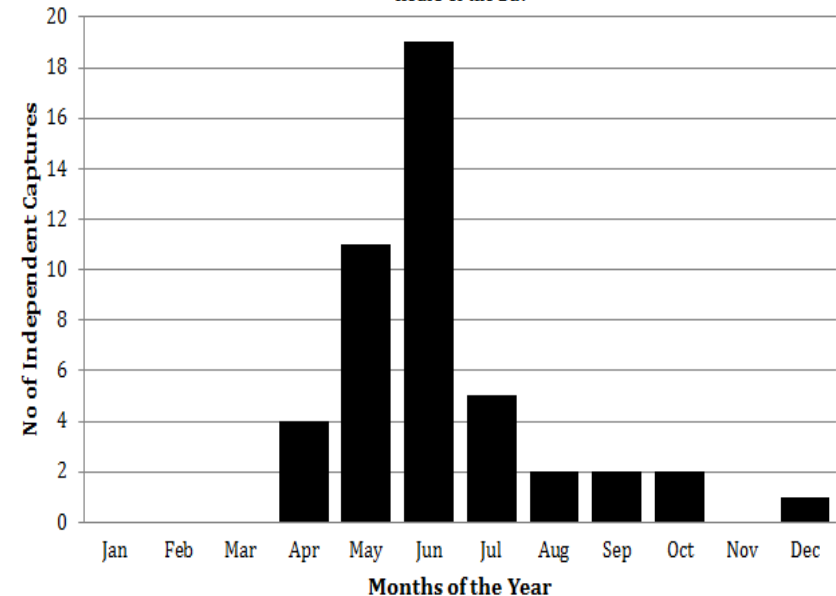
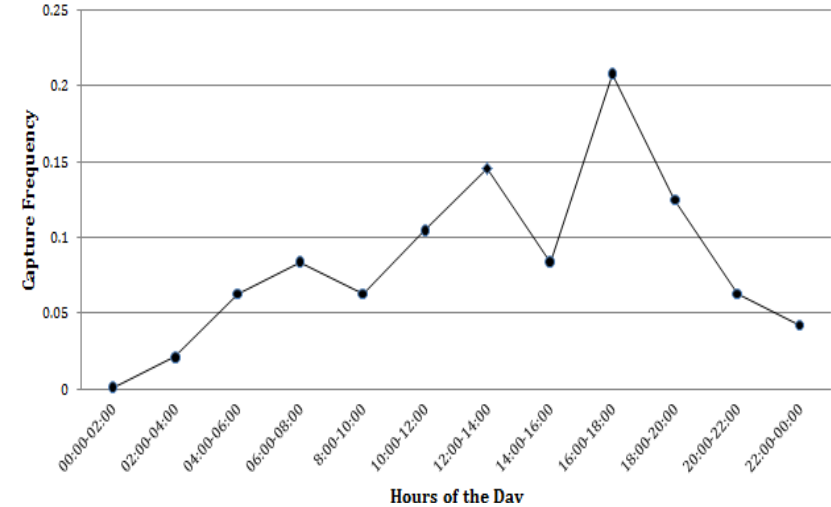




4. Results

4.1. Status of Occurrence of Asiatic black bear

- ❑ Himalayan black bears were captured in 22 camera trap stations (44% n=50) stationed in different habitat types.
- ❑ Bears were captured within an elevation range of 809 masl to 4086 masl.
- ❑ High levels of activity between 16:00-18:00 hours (Capture frequency = 0.208) as compared between 22:00 - 04:00 hours with capture frequency being below 0.05.
- ❑ Monthly activity pattern shows high level of activity in the months of May, June and July accounting 76.08%





4. Results

4.1. Status of Occurrence of Asiatic black bear

- ❑ We recorded 42 evidences from the line transect survey.
- ❑ The most recorded sign were that of claw marks and scratches (40.74%) followed by scats (37.04%), feeding signs (14.8%) and calls (7.4%).
- ❑ The evidences were recorded between an elevation range of 840 masl and 3983 masl.
- ❑ A total of 35 tree species belonging to 16 different families were identified in the sites where animal signs were recorded.

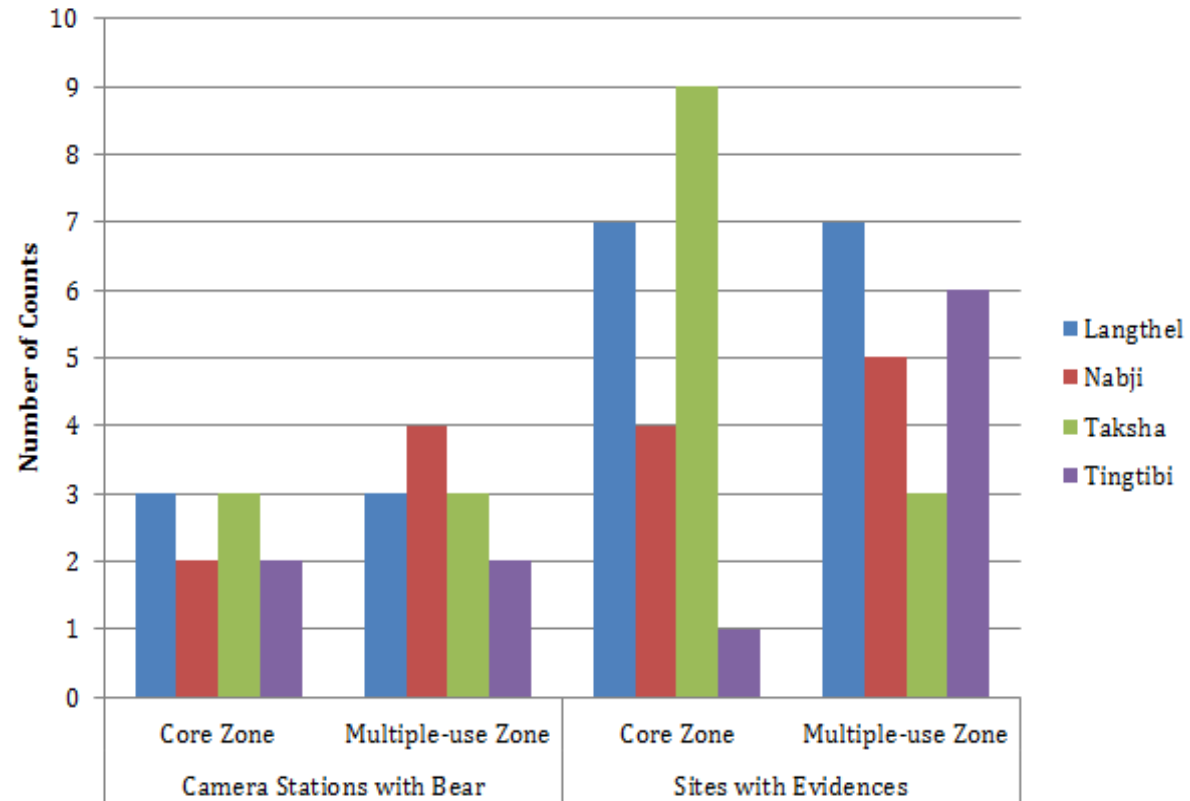
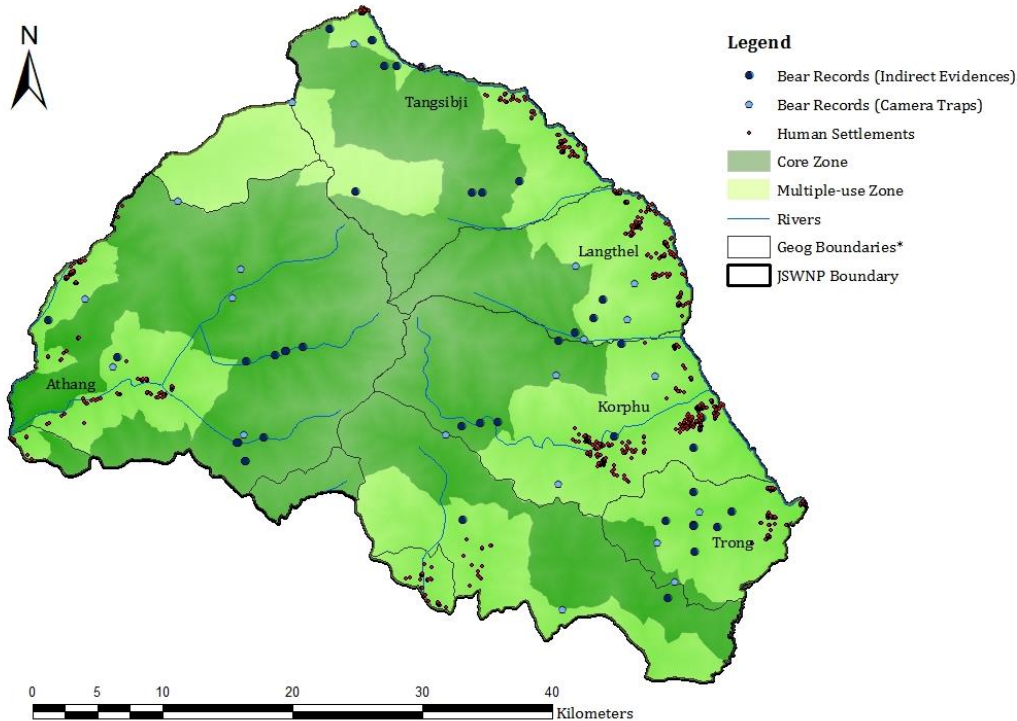




4. Results

4.1. Status of Occurrence of Asiatic black bear

- ❑ There is equal distribution of bear in multiple-use zone and core zone of the national park.



* Geogs where Questionnaire Survey was conducted are labelled.



4. Results

4.2. Residents knowledge on Asiatic black bear

- ❑ Of the 311 respondents 85.85% were aware of the presence of Himalayan black bear in their locality.
- ❑ 74.15% of saw the animal at least once in the previous year and 25.84% (n=267) reporting of sighting bear evidences.
- ❑ Of the people knowing about the Himalayan black bear, 62.54% felt that it is a fairly common species; 19.85% felt it is rare; 10.48% felt its too abundant.





4. Results

4.3. Human-bear conflict and conservation threats

- ❑ 25.72% (n=311) of the respondents were victims of Himalayan black bear in the past five years.
- ❑ 8 respondents had past experience of family member being mauled by bear.
- ❑ Villagers from Chendebji under Langthel Park Range reported about bear attacking their cowsheds and killing calves in the past years.
- ❑ Bear damaging cereals like maize, barley and buckwheat were reported as annual problem especially in Nabji, Tingtibi and Taksha.





4. Results

4.3. Human-bear conflict and conservation threats

- ❑ 76.2% of the total respondents expressed the need for conservation of Himalayan black bear.
- ❑ 8.68% felt poaching as a threat, 17.68% felt there are threats from retaliation.
- ❑ 9.32% however felt that habitat destruction caused by modern infrastructure development would cause a threat to conservation, citing massive clearing of forests for erecting Electric Transmission Lines.





5. Discussion

- ✓ Asiatic black bear is thriving well in JSWNP, with uniform distribution in many parts of the national park.
- ✓ Bears are seldom found in elevations above 4000 masl where scrub vegetation are more, possibly relating to the fact that there are less food material.
- ✓ Bear were found to be present either in the multiple-use zone or within a 3 km buffer from settlement.
- ✓ The increase in human wildlife interaction, i.e., increased level of human activities in wildlife habitats results in increased conflicts.
- ✓ The lack of compensatory measure from the park in times of human attack and property loss caused by Himalayan black bear would augments the risk to retaliation.



6. Conservation Recommendations

- ✓ Thorough study on the population dynamics and behavioural pattern using more innovative and advanced wildlife survey techniques.
- ✓ Stronger advocacy programmes to the farmers about the status of conflict species.
- ✓ Solar electric fencing programmes needs to be strengthened to reduce crop losses and other ICDP and CBNRM programmes need to be strengthened to help built stewardship for conservation.
- ✓ Compensatory measures needs to be revived, especially for the human casualties and holistic livestock insurance programmes needs to be revived or instituted.

6. Acknowledgement



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Jigme Singye
Wangchuck
National Park
@JSWNP



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