



## Progress Report

Assessment of the status, distribution and  
conservation issue of Forest owllet  
(*Heteroglauxblewitti*) in Gujarat, India.

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Prepared by Jenis Patel (PI)

## **Overview**

Status and Distribution of Forest owl in the Dang region is assessed by 2 km transect to find out the potential area for forest owl and then systematic 500 m<sup>2</sup> Grid based survey was carried out for intensive survey. Ecological information, behavior information, anthropogenic pressure and level of habitat alteration were also noted while conducting these surveys; meanwhile we also run a MAXENT model on the bases of gathered information and BIOCLIM Images as a test model to facilitate for our further analysis. While still ongoing this research have been extremely positive as we have found large population of rare and critically endangered forest owl in this region which was unknown to everyone including forest authorities. Thus we are planning to revisit the surveyed area and continue this survey to locate other key sites. Since the project plans to develop awareness materials for local forest staff and graduate and undergraduate students of forestry and agriculture which is already in process and will begin to distribute during the July end.

## **Project activities**

### **Literature review:**

Compilation and a review of all previous studies of forest owl in India were carried out to acquire current knowledge regarding various aspects of the species.

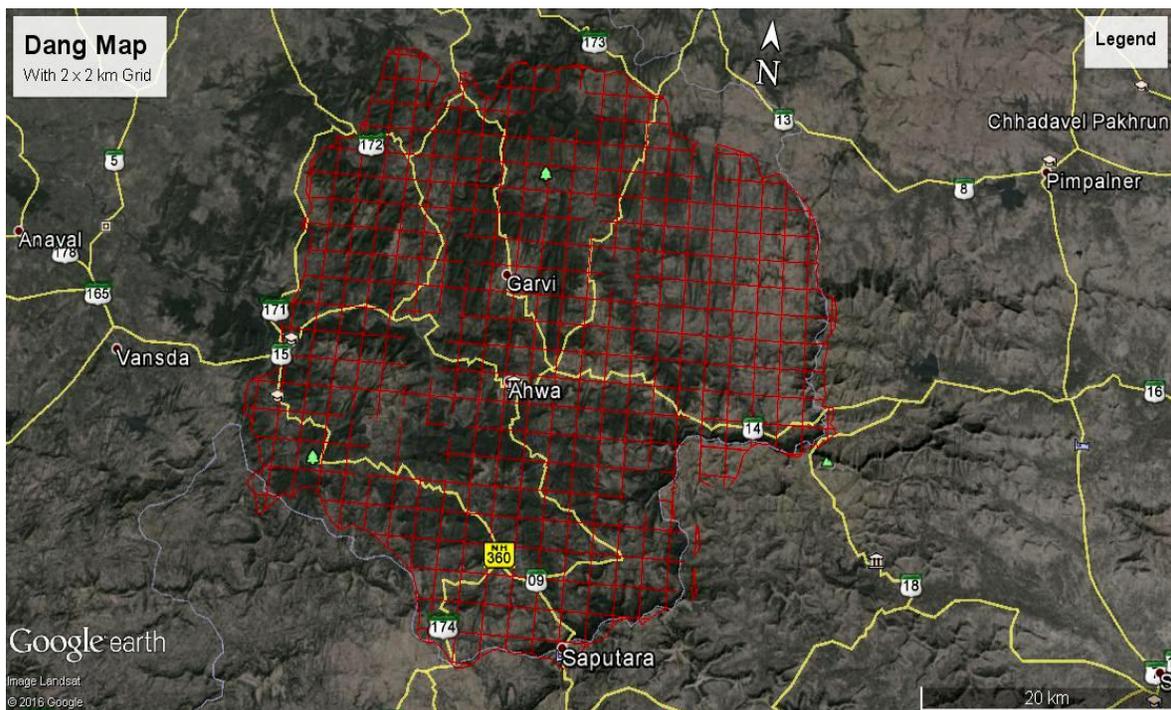
### **Status and Distribution surveys**

This objective is achieved by a combination of transect survey and grid based survey.

Till now 43 transects of 2 km were randomly laid in Dang region including two PAs (Vansda national park and Purna wildlife sanctuary) to identify major key sites. On each transect we broadcast forest owl call at regular interval of 500 m calling stations to locate the species. This distance between the calling stations was used to also avoid overlapping. At each station we followed the call playback protocol suggested in previous Forest owl research projects. After identifying key sites we systematically laid 2x2 km grids with sub grid of 500x500 mts for intensive survey.

Until now we have covered 183 grids of 500x500 m. and have created a distribution map of forest owlet from the collected data. The analysis is still in nascent stage, since we are still collecting data from some parts of the study region.

These surveys have resulted in an unexpected outcome. We have found a very good population of this endangered species and as per available literature this could be the second largest population of forest owlet after the Melghat tiger reserve in the world. We also believe that this area needs more surveys and for that reason we wish to continue our status and distribution surveys.



(Fig 1: Study area map with 2 km<sup>2</sup> Grid)



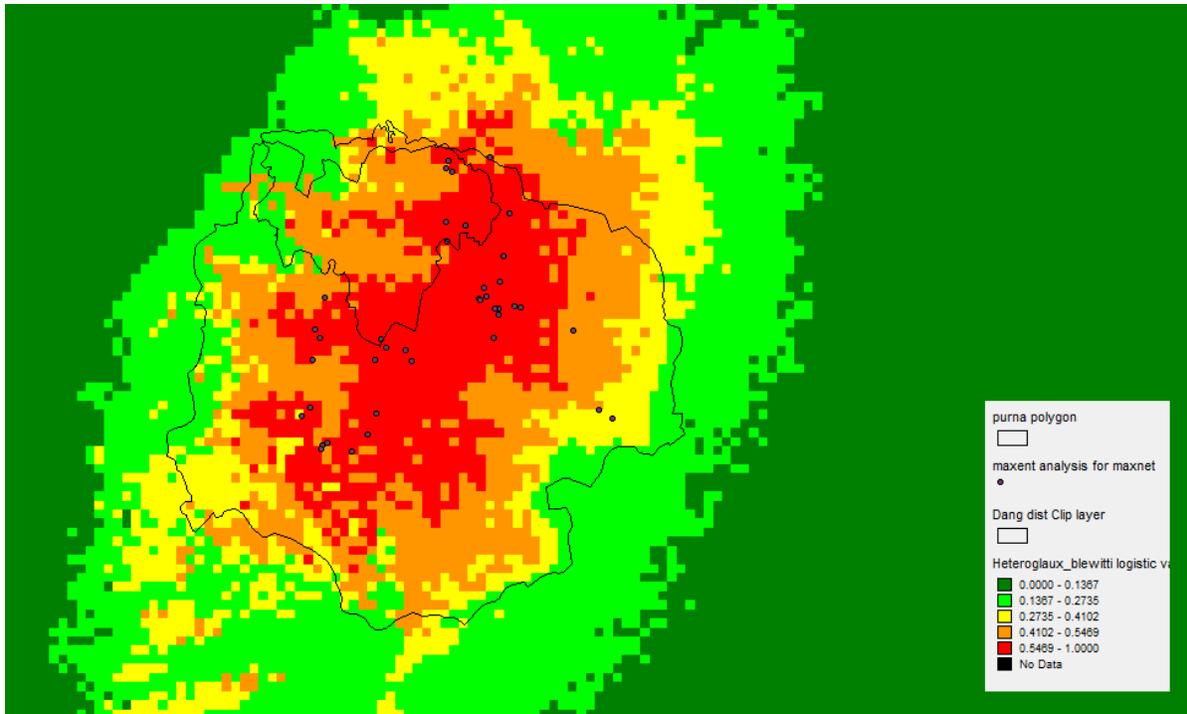
(Status and distribution survey)

### **Habitat and Threat assessment**

Habitat and ecological variables have been collected at each sub grid while behavioral notes were also taken with these variables where owlet is present. Climatic Data have been downloaded as BIOCLIM images. LANDSAT images are yet to be acquired. From this LANDSAT images we will be able to analyze patterns of Land/Forest cover and Land use in past few years in forest owlet habitat. This data will also help in MAXENT modeling. Threats and anthropogenic pressure such as logging, logging, Hunting and grazing were noted at each grid cell.



(Habitat assessment and behavioral observation)



(Fig 2: MAXENT model for prioritizing the area for Forest owlet (using just the climatic variable))

## **Capacity building of forest staff and local communities**

Once the population and habitat surveys are concluded and results produced, we will go as planned to initiate participatory monitoring program for the forest owl to be implemented in priority conservation areas. Forest Department staff will be trained systematically to monitor forest owl population and its habitat. Some students have also taken interests in work we are carrying out and volunteered with us to assist us in the project. I am already creating a connections with the village heads, so that interested local villagers could be identified who can be trained to monitor nesting and roosting areas. We are already on the way to design posters and brochures for the awareness and education programs to make the villagers/local communities aware of the threatened status and conservation needs of this species. We are also designing and dissemination of pocket guide for owl identification which are found in Dang Forest. **Future activity**

1. Acquisition of LANSAT images to model the occurrence and habitat use by Forest owl
2. Revisit of surveyed area and continue our search for new key sites.
3. Workshop for the forest department staff and villagers

## Photo documentation



(Forest owllet mobbed by a Black drongo)



(Jungle owllet which responded to a Forest owllet call)



(Grazing in Forest owllet habitat)



(Logging in Forest owllet habitat)

## Team Members Information

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## Volunteer information

Volunteer who have been participated in various activity during this project are below.

1. Brinky Desai (Research assistant at Naja.in)
2. Dr. Shashank Patel (Wildlife enthusiastic)
3. Dr. Mayank Patel (Wildlife enthusiastic)