

Distribution Pattern of Grey Wolf in Similipal Tiger Reserve by Camera Trapping In Similipal Tiger Reserve, Odisha.

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INTRODUCTION

Grey wolf (*Canis lupus*) is the largest member of family Canidae, with head and body length of 100-150 cm, shoulder height 68-81cm and weight 16-60kg (Roberts, 1997). The Indian grey wolf is the vast roamer occurring almost in all habitats but mainly confined to remote tracks of arid hilly regions and wide-ranging desert (Roberts, 1997). The grey wolf also inhabits open plains (semi-arid grasslands, scrublands, grazing land etc) (Shahi, 1982). Their territories range between 150 and 300 square kilometer that are a function of prey availability and denning sites in habitat (Jhala, 2003; Habib and Kumar, 2007). In Mountain areas they occupy natural caves (Roberts, 1997). They use various strategies during hunting like stalking and rushing or chasing (Jhala, 2003). The grey wolves are the predators of large ungulates in arid and semi-arid areas. The grey wolf also subsists on small size livestock, primarily goats, sheep and even on other small species like hare and rodents (Singh and Kumara 2006). In additions, a wolf also depends upon insects, birds and fruits of some plants. The Indian grey wolf has also been recorded to prey on donkeys and camel calves (Jhala, 1993). They also frequently kill domestic dogs and even show a preference for this form of cannibalism on the outskirts of mountain villages. Wolves are persecuted by shooting, poisoning and smoking den sites in retaliations of depredation on goats and sheep. The habitat destruction occurs due to high human populations, expansion of agriculture practices, urbanization, grazing pressure, forest clearing and poor wild prey availability (Jhala 2003). The wolves have a strong developed social system. They form groups known as packs, which is normally a family unit which comprises dominant male pair alpha pair. Their off springs include up to 30 individuals, but smaller sizes of 8-12 individuals are more common (Mech, 1970). Territorial

defense is done by scent marking, howling and by actual strife between neighbouring pack (Mech, 1970). Prey density and prey size regulate pack size and territory size (Jhala, 2003).

Study Area

Similipal Tiger Reserve located in the Mayurbhanj District of Odisha and spreads over 2750km² of the Chotanagpur plateau. The park is surrounded by high plateaus and hills, the highest peak being the twin peaks of Khairiburu and Meghashani (1515m above mean sea level). At least twelve rivers cut across the plain area, all of which drain into the Bay of Bengal. The prominent among them are Budhabalanga, Palpala, Bandan, Salandi, Khairi, Khadkei, Budhabalanga, West Deo, East Deo. An astounding 1078 species of plants including 94 species of orchids find their home in the tiger reserve. It host 55 species of mammals, 304 species of birds, 60 species of reptiles, 21 species of frogs, 60 species of fishes and 164 species of butterflies that have been recorded from the park. The core area comprises of ranges with an area of 1194.75km².

METHODOLOGY

The Success of camera-trapping depends on the selection of ideal locations to deploy the camera traps so as to maximize the number of captures. Prior to camera placement, survey is done along the forest paths, animal trails, dirt-trackers, dried stream bed to record carnivore presence through indirect signs (pug marks, tracks, scat, scraps, rake marks, scent deposits and kills). Potential location of camera trap stations were then mapped using ArcGIS 9.3. Camera trapping exercise lasted from November 2017 to February 2018 for 120 days. The cameras were active 24h period that accounted for one sampling occasion. Each camera was assigned a unique identification number, Date, time, temperature and camera ID was recorded for every capture.

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The locations of each photo-capture of wolf was recorded and mapped over Similipal Tiger reserve to understand their geographic distribution in the study area.

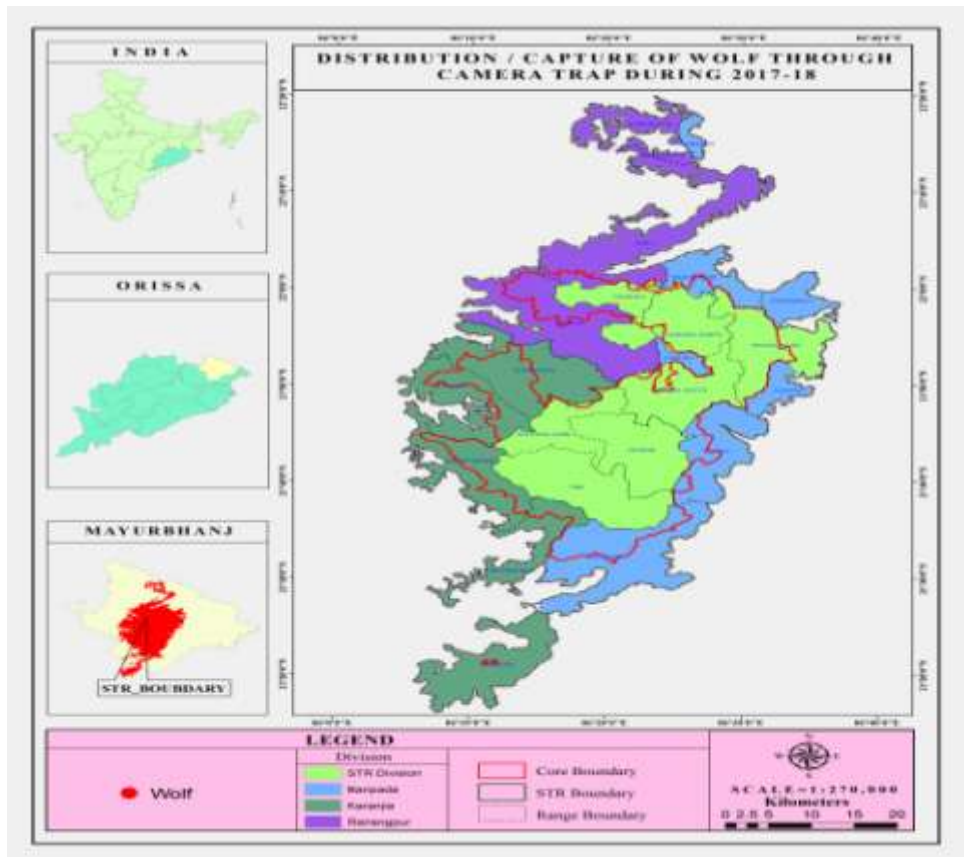


Figure1. Map showing the Study area & distribution pattern of wolf

RESULT & DISCUSSION

During the Camera trap exercise from November 2017 to February 2018 two nos of photos captured from the Satkosia Ranges of Similipal Tiger Reserve. The entire photo

captured from Buffer area of the similipal tiger reserve. The major threats to grey wolf included loss of habitat, biotic pressure by human i.e. grazing, fuel wood collection and human-wolf conflict due to depredation on their livestock.

Captured of wolf during Camera trap exercise

Range	Camera-id	No of Photo Captured	Date of Captured
Satkosia	3	02	25-12-2017
	267	02	25-12-2017



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