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First record of dhole (*Cuon alpinus*) by camera trapping in Similipal Tiger Reserve, Odisha, India

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ABSTRACT

The dhole *Cuon alpinus* is one of the least studied large carnivores in the world. Dhales occur at low densities in tropical forests. They are wary, and difficult to capture and radio-tag, thereby posing challenges in the field for tracking their movements or making behavioral observations. During camera trap exercise Dhole was recorded first time in Similipal Tiger Reserve (STR) Odisha.

INTRODUCTION

The Asiatic Wild dog or Dhole (*Cuon alpinus*) is one of the top predators in tropical forests of Asia (Mivart 1980; Karanth & Sunquist 2000; Grassman et al. 2005; Kamler et al. 2012). It is also the only pack-living wild canid in Asia that primarily occurs in forested habitats. Historically, dhales were widespread across Asia and hunted as vermin.

Globally population of dhales has declined drastically in recent decades. Despite being listed as Endangered on the IUCN Red List, dhole remains one of the least studied species among large carnivores (Kamler et al. 2015). In India, dhales have been extirpated from 60% of their former range in the last 100 years (Johnsingh 1982; Karanth et al 2010).

Dholes run down their prey biting as they chase and feeding while the prey is still alive. As expected this behavior has led to unjustified revulsion and calls for their extermination and were highly persecuted in the past. Within peninsular India, Dholes are encountered specifically in dense forests and thick scrub jungles (Krishnan 1972; Davidar 1975) making them difficult animals to find and to document them. The prime factors that determine dhole habitats are prey abundance, water availability, interspersion of forests with grassy openings (Johnsingh 1985). Dholes are extremely fond of water and are often seen resting or

METHODOLOGY

Prior to camera placement, survey was done along the forest paths, animal trails, dirt-trackers, dried stream bed to record carnivore presence through indirect signs. Potential locations of camera trap sites were mapped using Arc GIS 9.3. Camera trapping

RESULTS AND DISCUSSION

During the Camera trap exercise from November 2017 to February 2018 Dholes were captured. 07 Photos of dholes were captured from four ranges in Similipal Tiger reserve. In chahala, pithabata and upper barakamuda range have two nos of photo captured where as in Nawana (South) only one photo captured. Dholes are listed as threatened according to the Indian wildlife protection Act of 1972 (Schedule 11) & vulnerable by the IUCN (Appendix 11 of CITES). Dholes have been facing a variety of threats from humans. Encroachments by humans in to its forested habitat for agriculture, stealing of kills, cattle-grazing, fodder, fuel wood and non-timber forest product collection have pushed the double to high degree of isolation and even local extinction more so increasing cases of poisoning of kills, den

playing in shallow waters. Dholes are predominantly diurnal in habit hunting mainly in the morning and evening (Johnsingh 1983). Adult male dholes weigh between 15 to 20 kg standing around 50cm at the shoulder. The total body length comes to around 130cm, including the 40-45 cm long tail. Females are slightly smaller than males (Prater 1980). During the camera tapping practice, author captured the Dhole during the period of Nov 2017 to Feb 2018 in STR (Similipal Tiger Reserve). After literature survey it was concluded that it was a first scientific captured or sighting of Dhole in STR.

exercise was carried out from November 2017 to February 2018. The cameras were active 24 hrs and it was accounted for one sampling occasion. Date, time and temperature were recorded for every capture. The locations of each photo-capture of dhole was recorded and mapped to understand the geographic distribution in STR.

digging and killing of pups, disease, poaching and resultant prey depletion may have contributed greatly to hasten the dhole decline.

History on the Dholes in STR

Status of Dholes in 1970s

Choudhury (1974:12) mentioned in the first Management Plan for Similipal Tiger Reserve that "Wild dog occurs in a few groups' 'only.

Status of Dhole in 1980s

In the next Management Plan for Similipal Tiger Reserve (Mohapatra, 1986) the population density of dhole is stated as low. During the 1980s and 1990s wild dogs were often sighted near Range Offices of Upper Barha Kamuda (UBK) and Chahala were frequent in this period. These two locations are the Southern and Northern borders of the core area of Similipal. During the same period, there were also

instances of depredation on chital fawns in Chahala, one of the prime areas for chital in Simlipal.

Status of Dhole in 1990s

During the late 1990s it was a growing feeling among the field staff of Simlipal that the sightings of dhole have become rare. Data on dhole coming through daily diary forms has been scant to make any conclusion about the status except that the sightings are rare.

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Table 1: Territorial range of dhole in STR during camera trap

Range	Camera-id	No of encounters
Chahala	353	02
Nawana-south	148	01
Pithabata-WI	139	02
UBK	47	01
UBK	49	01

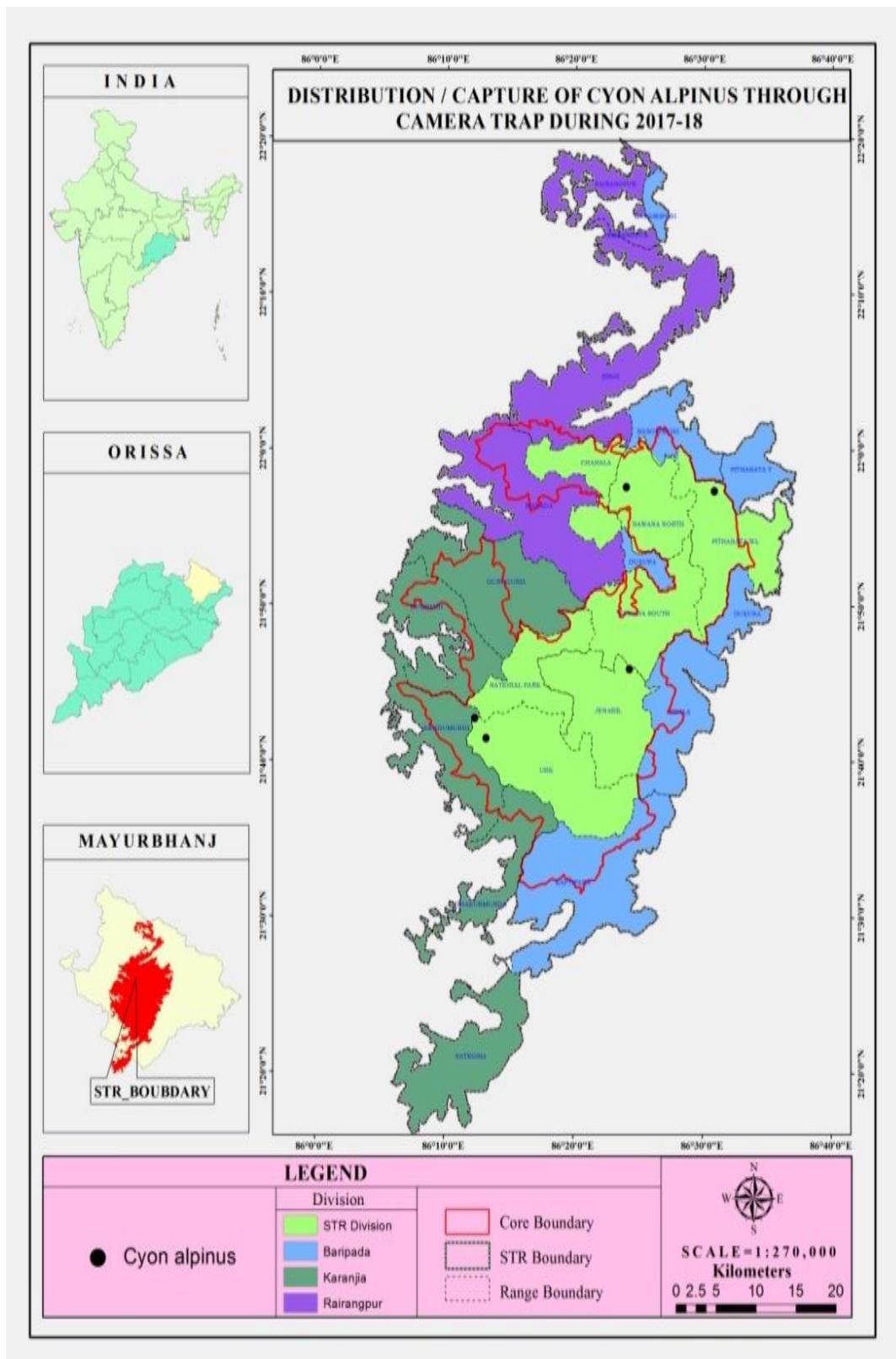


Figure 1: Distribution and capture locations of Dhole in STR



Plate 1: Dhole in Similipal Tiger Reserve (STR)