

Project Update: October 2016

As of plan to collect DNA sample data, it was very difficult to get adequate data within the stipulated period. Because it required very fresh scats which will have mucus fluid associated with it. And during that part of season if caught by monsoon showers scats get washed out let alone the fluid attached to it. So, in light of this difficulty, particular exercise of DNA sample data collection was foregone in the interest of other achievable activities' data quality.

A total of 46 images obtained from camera traps were used to supplement other evidence of dhole occurrences. All of this evidence was obtained from 170 locations inside the park. A total of 609 evidences of dholes were collected from different vegetation covers or habitat types within Jigme Dorji National Park. The vegetation types are: cool broad-leaved (CBL), alpine meadow (AM), fir forest (FF), hemlock forest (HF), chir pine forest (CF), and blue pine forest (BF). The highest number of evidences ($n = 426$) were collected from cool broadleaved forest (CBL). Dhole evidences were observed between the altitudinal range of 1,468 m and 4,620 m. It is observed that the dholes' images were obtained more from the lower elevations and closer to human settlements.

The MaxEnt (maximum entropy) model was run to assess the dhole distribution based on the occurrence data along with the environmental variables collected from certain locations (presence-only) without systematic data collected from regular grids such that there is not enough evidence to collect true absence data. The result shows that currently 13.2% ($a = 57125.6$ ha) of the study area having high probability of dhole distribution and 8.9% ($a = 38416.8$ ha) of the study area with moderate dhole distribution. The remaining 77.9% ($a = 336,667.24$ ha) of the study area shows with low distribution of dholes, these are area corresponding to scrub forest, alpine meadows, glacier snow and rocky outcrops. (Below).

Probability of dhole distribution in Jigme Dorji National Park. The blue and brown colours show areas with better prediction

