This study examined livestock predation patterns and economic losses suffered by farmers; estimated predator and prey densities and investigated food habits, niche overlap and prey preferences in a predator guild with high grazing pressures in Bhutan’s Jigme Singye Wangchuck National Park. Farmer interviews indicated that they lost a total of 2.3% of their livestock to predators over 12 months, primarily due to tigers (*Panthera tigris*) and leopards (*Panthera pardus*). Scat analyses confirmed that livestock dominated tiger and leopard diets, while wild ungulates dominated dhole (*Cuon alpinus*) diet. Primary wild prey such as wild pig (*Sus scrofa*), muntjac (*Munticus muntjac*) and sambar (*Cervus unicolor*) provided 37.9%, 29.8% and 71.1% of the prey consumed by tigers, leopards and dholes, respectively. The study also revealed that assuming equal availability all three predators would avoid cattle. Line transects revealed low mean prey densities: 3.68 wild pig km\(^{-2}\), 2.17 muntjac km\(^{-2}\) and 1.19 sambar km\(^{-2}\). These provided a biomass density of 379 kg km\(^{-2}\), which could support about 1.2 tigers 100 km\(^{-2}\); while more abundant livestock (6.0 km\(^{-2}\)) provided a supplementary biomass of 615 kg km\(^{-2}\). Camera trapping yielded a capture probability of 0.04 for both tigers and leopards, population estimates of 8 tigers and 16 leopards and densities of 0.52 tiger 100 km\(^{-2}\) and 1.03 leopards 100 km\(^{-2}\). Spatial analysis of habitats indicated that tigers preferred less disturbed areas located further away from settlements, while leopards were found nearer to settlements. This study...
confirmed that although predators and prey existed in low densities, farmers suffered significant losses due to predation and a high intra-guild competition and diet overlap among the three sympatric carnivores. Under these conditions, prey types and sizes did not necessarily influence prey selection especially for tigers. The study supported the feasibility of using distance sampling and camera trapping methods for studying predators and prey in Bhutan’s rugged terrain. It is recommended that managers devise conservation management strategies that accommodate the needs of both wildlife and farmers by restoring an adequate natural prey base and developing a program of compensation for livestock lost to predators.