

Spatial Distribution and Habitat Preference of Indian Pangolin (*Manis crassicaudata*) in Madhesh Province, Nepal

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Abstract : Indian pangolin, locally called as 'Salak', 'Sal machha', 'Pakho machha', is a globally endangered species, nationally categorized as a critically endangered species, protected under the National Parks and Wildlife Conservation (NPWC) Act 1973 and appended in Appendix I of CITES. Indian pangolins occur in the tropical areas of Terai region and Chure foothills of eastern Nepal, and India, Bangladesh, Pakistan, and Sri Lanka. They utilize a wide range of habitats, including primary and secondary tropical forest, limestone forest, bamboo forest, grassland, and agricultural lands. So, in regard to this fact, this research is aimed to provide detailed information regarding the current distribution pattern, status, habitat preference, prevailing threats and attitude of local people towards species conservation in Madhesh Province, Nepal. The study was conducted in four CFs, two from Bara district and two from Dhanusha district. The study area comprised of Churia range and foothills with tropical and sub-tropical vegetation. A total of 24 transects were established, each of 500*50 m², where indirect signs of Indian pangolin, including active/old burrows, pugmarks and scratches, were found. Altogether 93 burrows were found, where only 20 were active burrows. Similarly, a vegetation survey and social survey was also conducted. The data was analyzed using Stata 16 and SPSS software. Distance from settlement, ground cover, aspect, presence/absence of ants/termites and human disturbance were the important habitat parameters having statistically significant relationship with the distribution of Indian pangolin in the area. The species was found to prefer an elevation of 360 to 540m, 0-15° slope, red soil, North-east aspect, moderate crown and ground cover, without fire and rocks, vicinity of water, roads, settlement, Sal dominated forest and minimum disturbed by human activities. Similarly, the attitude of local people towards Indian pangolin conservation was found to be significantly different with respect to age, sex and education level. The study concludes that majority of active burrows were found in Churia hills, which indicates that Indian pangolin population is gradually moving uphill towards higher elevation as hilly area supports better prey availability and also less human disturbance. Further studies are required to investigate microhabitat preferences, seasonal variability and impacts of climate change on the distribution, habitat and prey availability of Indian pangolin for the sustainable conservation of this species.

Keywords : conservation, IUCN red list, local participation, small mammal, status, threats

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