Factors influencing the habitat choice of pangolins (Manis spp.) in low land of Nepal

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Abstract

Pangolins in the genus Manis are nocturnal, burrowing, insectivorous mammals listed as Critically Endangered or Endangered by the International Union for Conservation of Nature. Of the eight extant pangolin species worldwide, two species are found in Nepal: the Chinese pangolin (Manis pentadactyla) and the Indian pangolin (Manis crassicaudata). Despite having a great ecological role by controlling the ants or termite population, little attention has been given to the conservation interventions of both species of pangolins found in the Terai region (low land) of Nepal. The present study assesses habitat use and factors affecting the habitat choice of pangolins in low land (Terai), Nepal. The research was focused on Amritdharapani community forest of Chitwan district. Pangolin burrows were used as the indirect signs of pangolin presence. A total of thirty-nine burrows were observed at elevations ranging from 301 to 413 m asl. Burrows were frequently associated with north-west aspects, gentle slope ($15^{\underline{o}}$ to $20^{\underline{o}}$), moderate canopy cover (51 to 75%), red-colored soil, and acidic soils with pH 6.5 to 7. The burrows were most common in areas with weak human disturbance (i.e. 1500 to 1700 m from settlements), 800 to 1200 m from roads, and with-in 300 m from a water source and with-in 20 m from the nearest termitarium. This study revealed distance to settlement, distance to road, soil pH, and canopy cover as major factors affecting the habitat choice of pangolins in the study area.

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