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Sloth bears (*Melursus ursinus)* in Nepal: Ecology, genetic diversity, and human- sloth bear conflict

（ネパールにおけるナマケグマ（*Melursus ursinus*）：生態、遺伝的多様性および人との軋轢）

The Sloth bear (*Melursus ursinus*) is listed as globally 'Vulnerable' species but has received very low conservation attention in Nepal. This study was conducted to develop an understanding of their ecology, genetic diversity, and interactions with humans. Distribution and determinants of habitat use by sloth bears were described using the occupancy methods. The genetic status of sloth was elucidated using microsatellite and mitochondrial DNA analysis. The dietary composition of was explored using the percent frequency of occurrence of food items in feces. Human-sloth bear interactions were explored using the questionnaire survey with victims and analysis of human death and injuries from sloth bear attacks.

Sloth bears have moderate to high occupancy in Chitwan National Park. The probability of habitat occupancy by sloth bears increased with the presence of termites and fruits and in rugged, dry, open, undisturbed habitats. Genetic diversity was relatively low (H_E = 0.48) compared to the sloth bear populations in central India and the tiger population in Nepal. A minimum of 37 individuals in an area of approximately 1000 km^2 was found. The sloth bear population in Nepal has a relatively low genetic diversity compared to other bear populations across its range. Population differentiation was not detected but multiple haplotypes corresponding to the geographic locations and presence of unique alleles suggest the potential for evolutionary unique sub-populations. The sloth bears showed a high myrmecophagous and less frugivorous diet dominated by termites and ants. On average, 6.17 (SD = 2.96) human casualties from bear attacks occurred every year. Various social and ecological factors characterized these conflict events. Madi municipality was identified as a hotspot for human-sloth bear conflict. The study findings provide a valuable baseline for future actions and strategies for sloth bear conservation and management in Nepal.