

Patterns and determinants of Elephant attacks on humans in Nepal

Ashok Ram¹, Samrat Mondol², Naresh Subedi³, Babu Ram Lamichhane³, Hem Baral⁴, N. Laxminarayanan², Rajan Amin⁵, and Bivash Pandav²

¹Department of National Parks and Wildlife Conservation

²Wildlife Institute of India

³National Trust for Nature Conservation

⁴Zoological Society of London, Nepal Office

⁵Zoological Society of London

March 5, 2021

Abstract

Attacks on humans by Asian elephant (*Elephas maximus*) is an extreme form of Human-elephant conflict. It is a serious issue in southern lowland Nepal where elephants kill more humans than any other wildlife. Detailed understanding of elephant attacks on humans in Nepal is still lacking which affected in devising appropriate strategies and actions for human elephant conflict mitigation. This study documented spatio-temporal pattern of elephant attacks on humans, factors associated with the attacks and human/elephant behaviour contributing to deaths of victims when attacked. We compiled all the documented incidences of elephant attacks on humans in Nepal for last 20 years across Terai and Siwalik region of Nepal. We also visited and interviewed 412 victim families (274 fatalities and 138 injuries) on elephant attacks. Majority of the victims were males (87.86%) and had low level of education. One fourth of the elephant attacks occurred while chasing the elephants. Solitary bulls or group of sub-adult males were involved in most of the attack. We found higher number of attacks outside the protected area. People who were drunk and chasing elephants using fire-crackers were more vulnerable to the fatalities. In contrast, chasing elephants using fire was negatively associated to the fatalities. Elephant attacks were concentrated in proximity of forests primarily affecting the socio-economically marginalized communities. Integrated settlement, safe housing for marginalized community and community grain house in the settlement should be promoted to reduce the confrontation between elephants and humans. Conservation of elephant should be carried out in entire landscape, extending beyond the boundary of protected areas to reduce threats of elephant extinction.

Hosted file

2021-02-03_Patterns & Determinants of human attacks by elephants in Nepal.pdf available at <https://authorea.com/users/399616/articles/512123-patterns-and-determinants-of-elephant-attacks-on-humans-in-nepal>