## World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:19, No:05, 2025

## Accessing Livestock Depredation by the Himalayan wolf in Neshyang Valley, Manag, Nepal

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Abstract: Livestock depredation by a wolf and associated financial loss suffered by herders is perhaps the most important issue leading to human-wolf conflict. As a result, recolonized wolves remained one of the most persecuted large carnivores in Nepal Himalaya suffering high mortality due to retaliatory killings by herdsmen. Reducing such depredation are crucial in gaining herder's support in conservation program to ensure the long-term survival of such carnivores. In February 2018, a study was conducted through questionnaire survey with 33 herders from different settlements in Neshyang valley of Manang district to assess the status of human-wolf conflict in terms of livestock loss and herder's attitude. A total of 36 livestock were lost to the wolf with an average loss of  $1.09 \pm 0.48$  (SE) livestock heads per herder between March 2017 to February 2018 which represents 1.5% of the total holdings. The estimated financial value of livestock loss was equivalent to US\$ 25,428 with an average of US\$ 770 per herder. Majority of the herders (80%) expressed a negative attitude towards the wolf, but only a few herders (6.06%) suggested removal of the wolf from the valley. The incidences of livestock loss differed significantly with highest in day time and seasonally highest in winter, when herders freely leaves their livestock (except goat/sheep) in the pastures. Wolf showed positive selectivity to the horse (EI=0.59), yak (EI=0.24) and cattle (EI=0.14) but strong avoidance to goat/sheep (EI=-1). This study suggests that livestock depredation by wolf could be minimized through improved livestock husbandry practices and implication of mitigation measures (e.g. coral improvement) and immediate relief to the victims. Conservation education and awareness programs to enhance herders knowledge about the ecological importance of wolf, provision of relief scheme and law enforcement.

Keywords: canis lupus canco, conservation education, human wildlife conflict, compensation schemes

 $\textbf{Conference Title:} \ \text{ICWERC 2025: International Conference on Wildlife Ecology, Rehabilitation and Conservation}$ 

**Conference Location :** Vancouver, Canada **Conference Dates :** May 20-21, 2025