Journal of Entomology and Zoology Studies

Available online at www.entomoljournal.com

E-ISSN: 2320-7078
P-ISSN: 2349-6800
www.entomoljournal.com
JEZS 2021; 9(4): 218-226

Received: 13-05-2021
Accepted: 15-06-2021

**MI Dahya**
BKM Science College, Valsad, Gujarat, India

**AA Kazi**
College of Forestry, Navsari Agricultural University, Navsari, Gujarat, India

**AI Shah**
B. P. Baria Science Institute, Navsari, Gujarat, India

**KR Rajput**
KBS Commerce and Nataraj Professional Science College, Vapi, Gujarat, India

**Corresponding Author:**
**MI Dahya**
BKM Science College, Valsad, Gujarat, India

# Livestock depredation by leopard (*Panthera pardus fusca*) in Vansda Taluka, South Gujarat

**MI Dahya, AA Kazi, AI Shah and KR Rajput**

**DOI:** https://doi.org/10.22271/j.ento.2021.v9.i4c.8762

**Abstract**
Human-wildlife conflict is of growing concern because it threatens the survival of many wildlife species. This is especially true in case of large felids, most of which are threatened primarily due to anthropogenic causes, with conflict accounting for the highest mortality. Due to the increase in number of leopard and reduction of land area, the human-leopard conflict has increased, though the direct human interference with leopard is not seen but indirect use of the land and reduction of the natural prey to leopard and decreased prey base drastically have increased the indirect conflict with humans in many forms and the major one is the livestock depredation. In this study, we attempt to elucidate the ecological and social factors that drive such conflict in agricultural landscape in Vansda taluka of South Gujarat. We report an average 21.8 incidents of livestock depredation a year by the leopard. The depredation of Goats 43.12%, poultry 27.06 and Cow 19.72% formed the frequently attacked livestock and amongst the regions, the highest number of attacks (n=62) were in North zone followed by the Central zone (n=26) of Vansda taluka. Leopard's highest attack on livestock near sugarcane field was recorded during early morning (49.59%) followed by late evening (28.46%). The study revealed that a total of 50.46% attacks were in the evening, 80.20% infants of livestock were attacked and 75.63% attacks were when livestock is tied in the shed. The useful recommendations were concluded out of the study for forest department, local NGOs and farmers/villagers of the study area.

**Keywords:** leopard, livestock, depredation, Vansda taluka

## Introduction
Leopard is one of the most common animals in human-animal conflict (Khorozyan *et al* 2015; Karanth *et al.*, 2017; Naha *et al* 2018; Puri *et al* 2019) [39]. Reasons for high human-leopard conflict are due to the greater adaptability of leopard's diet- from mammals, arthropods, rodents, amphibians to rotting carcasses (Daniel 1996; Karanth 2013; Athreya *et al* 2014; Odden *et al* 2014; Majgaonkar *et al* 2019) [6, 55], as well as easier access to left out cattle and dogs in neighborhoods of Indian villages and towns (Athreya *et al.*, 2007) [5]. Openly available cattle are huge temptation to wandering leopards (Karanth *et al.*, 2017) [41]. Food scarcity, depletion of the natural prey base, degradation and fragmentation of leopard habitat, and human modified landscape same as the leopard habitat are also responsible factors for leopard's intrusion in human dominated landscapes and creating conflict. Scarcity of site-specific detailed study on this most occurring problem in many parts of India disables us to scientifically comprehend the exact process behind increasing rates of human-leopard conflict (Bhatia *et al* 2012; Kalle *et al* 2014; Kshettry *et al* 2018) [42]. One common assumption is that rainfall regions are getting lesser and forests density is getting scarce day by day, and that is why this wild cat is entering in human territories where negative interaction with people is experienced. (Karanth *et al.*, 2019).

Leopards, like other felids have a well-defined land tenure system- where the basic layer of land used in the territory of other females, and this layer is superimposed with the territories of males which are much larger, and can either contain or overlap with many female territories (again no tolerance is accepted towards other males). The final layer is of the transients, usually sub-adults in search of new or vacant territories. Female sub-adults settle close to their mother whereas males are driven out to search for new territories, a strategy that prevents reproduction among close relatives. This large and constant pool of transients and their habit of ranging far make the species difficult to manage when some individuals come into conflict with humans (Athreya & Belsare, 2007) [5].