

Status of Human-Leopard Interactions in Nuwara Eliya District within the Central Highlands of Sri Lanka over the Past Twenty Years

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Leopard (*Panthera pardus kotiya*) remains the top carnivore in central highlands of Sri Lanka. Human-leopard interactions amplified due to the increased sharing of leopard habitats by humans, especially in plantation landscapes in central highlands. Increased media reporting and community awareness may also be contributing to the knowledge and reporting the incidents. Incidents causing life loss or injuries to people, domesticated animals or leopards over the past 20 years were studied with the support of a questionnaire survey. The study was conducted in upper reaches of Kelani river basin within Nuwara Eliya District, with reference to 65 tea estates in Kehelgamuwa Oya and Maskeliya Oya sub-basins. Forty-five leopard deaths out of 64 human-leopard incidents have been recorded in the study area between 2001 and 2020, with an average of 3 ($\pm 1.18\text{SE}$) incidents and an average of 2.25 ($\pm 0.35\text{SE}$) deaths of leopards per year. A majority (90.6%) of incidents were reported in unprotected landscapes while 45.3% of leopard deaths occurred due to snaring. There were 11 leopard attacks associated with domestic dogs, while leopards had attacked people in nine occasions in defensive acts, causing one human death within the study area. However, zero leopard attacks in the study area were reported on livestock, while such incidents have occurred elsewhere from unprotected estate lands in Nawalapitiya and Pussellawa. Human-leopard incidents in the study area have shown a four-fold escalation with a six-fold increase in leopard deaths over the past 20 years, indicating signs of the issue developing into a conflict unless effective management actions are implemented. A blend of actions including behavioural and safety precautions for human and domestic animals, inculcating positive perception on leopards and involving to reduce snaring can lead to a solution, mitigating negative interactions and supporting wider human-leopard coexistence in Study area.

Keywords: *Central highlands, Human-Leopard interactions, Panthera pardus kotiya, Unprotected landscapes*