

Fragrance of Himalaya: The Story of the Lost Himalayan Musk Deer from Sakteng Wildlife Sanctuary, Bhutan

‘Nature always has surprises for us and the discoveries are even more beautiful’.

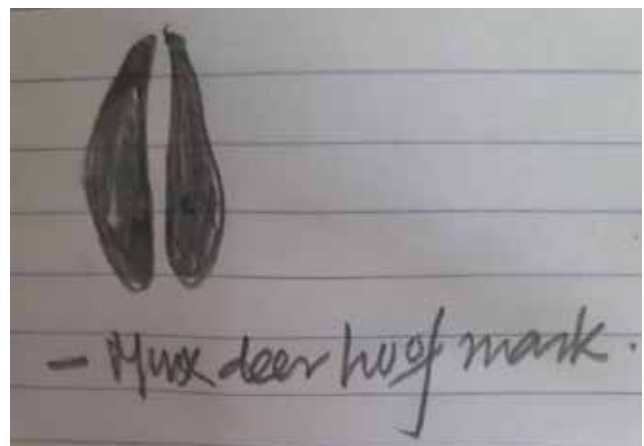
The Himalayan Musk Deer *Moschus chrysogaster* is distributed from highlands of central china to the India, Pakistan, Nepal, and Bhutan across the Himalayan region. The distribution of Himalayan Musk Deer is informed to be few because of the habitat fragmentation and the hunting pressure. It’s listed as the Schedule I species of Nature Conservation Act of 1995, that provides the maximum protection to the species.

It was suggested that the Himalayan Musk Deer was locally extinct from the Sakteng Wildlife Sanctuary (SWS) due to the habitat degradation, from livestock grazing (grazing reduces food, spreads diseases, and creates competition with wildlife, causing their population to decline), and hunting for musk pod which is used for medication and perfumes, these factors were the eye openers for the scientific community and this led to the establishment of the Sanctuary in 2003, SWS is on the eastern border of Bhutan. A survey was conducted in the same region and presence of three Himalayan Musk Deer was reported in 2014. The SWS is one of protected regions of the Himalaya which is home to the many rarest and globally threatened wild flora and fauna.

It’s the only protected region with the highest diversity of Rhododendron species in the Bhutan. The study was conducted from the broadleaved plants with bigger leaves to alpine zone where plants have spiny like leaves, less vegetation, high altitude and cooler temperature with the altitude ranging from 1,584 m to 4,488 m. In the area of 10 sq m two camera traps were placed and the total area



Himalayan Musk Deer. © Mohsin Ahmad.



Hoof mark. © Mohsin Ahmad.



Pellets of musk deer. © Mohsin Ahmad.

Simplified meaning of a few terms:

<i>Moschus chrysogaster</i>	<i>Moschus</i> derived from greek word ‘moskhos’ meaning musk and <i>chrysogaster</i> means golden belly.
Habitat fragmentation	The large forest area was divided into patches like by building roads, farms, houses,
Schedule I species	These kind of species get the highest level of legal protection by ban on hunting, capturing or trading.
Locally extinct	Due to the continuous hunting and humans disturbing their habitat, the populations no longer exists.
Wildlife Sanctuary	Area where animals and their habitats are kept safe from harm like hunting or destruction. People can visit or study these areas, but without disturbing the animals.
Camera traps	Cameras that click pictures when anything passes by.
Endangered	It is threatened in its distribution and classified under the threat category of the IUCN Red List.
Genetic inbreeding depression	When closely related animals or plants breed among themselves which lead to health issues.
Genetic traits	These are characteristics, like size, colour, or behaviour, that are passed down from parents to offspring.

surveyed was 740.60 sq km. The camera traps were placed at the place for five months from November 2014 to March 2015. The presence of the indirect evidences like pellets and hoof marks (Image 2) also indicated the presence of Himalayan Musk Deer.

Apart from the Himalayan Musk Deer other predator species like Royal Bengal Tiger, Himalayan Black Bear, and Common Leopard were captured in the camera trap. The species of the musk deer which captured in the southern and southeastern parts of Merak Range under SWS were the first ever recorded in the region.

Himalayan Musk deer is declared as Endangered on the IUCN Red List of Threatened Species due to its high poaching for the musk pod. The main threat to the Himalayan Musk Deer in SWS is competition from the large herds of free ranching livestock of ‘Brokpa’ the semi-nomadic inhabitants of the place who come to the alpine meadows during summer and this causes competition for resources leading to population decline of the Himalayan Musk Deer.

Another problem that the species may face is the genetic inbreeding depression as the area of the sanctuary is limited which may lead to the loss of potential genetic traits in the species.

JoTT Article summarised:

Tobgay, S., T. Wangdi & K. Dorji (2017). Recovery of Musk Deer *Moschus chrysogaster* Hodgson, 1839 (Artiodactyla: Moschidae) in Sakteng Wildlife Sanctuary, Bhutan. *Journal of Threatened Taxa* 9(11): 10956–10958. <https://doi.org/10.11609/jott.3280.9.11.10956-10958>

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