DISTRIBUTION AND POPULATION STATUS OF HIMALAYAN MUSK DEER (*Moschus chrysogaster*, Hodgson 1839) IN DHORPATAN HUNTING RESERVE, NEPAL

BY

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Recommendation

It is my pleasure to mention here that Mr. Man Bahadur Karki has carried out dissertation entitled "**DISTRIBUTION AND POPULATION STATUS OF HIMALAYAN MUSK DEER (*Moschus chrysogaster*) IN DHORPATAN HUNTING RESERVE, NEPAL**" under my supervision and guidance. This is the candidate's original work and as far as my knowledge it has not been submitted for any other degree. Therefore, I recommend that the dissertation be accepted for the partial fulfillment of the requirement for the degree of Master's of Science in Zoology specialization in Ecology.

Date: 28th Dec. 2008

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Approval

On the recommendation of Supervisor **Mr. Hari Prasad Sharma**, Lecturer, Central Department of Zoology, Tribhuwan University, the dissertation work entitled "DISTRIBUTION AND POPULATION STATUS OF HIMALAYAN MUSK DEER (*Moschus chrysogaster*) IN DHORPATAN HUNTING RESERVE, NEPAL" submitted by **Mr. Man Bahadur Karki** has been approved for the partial fulfillment of the Master's Degree in Zoology with Ecology as specialization paper.

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Declaration

I hereby declare that the work presented in this dissertation has been done myself and has not been submitted elsewhere for the award of any degree. All sources of information have been specifically acknowledged by references to the authors or institution.

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Acceptance

The dissertation work entitled "DISTRIBUTION AND POPULATION STATUS OF HIMALAYAN MUSK DEER (*Moschus chrysogaster*) IN DHORPATAN HUNTING RESERVE, NEPAL" submitted by **Mr. Man Bahadur Karki** has been accepted for the partial fulfillment of the Master's Degree in Zoology with Ecology as specialization paper.

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Abstract

The Dhorpatan Hunting Reserve (DHR), the only hunting reserve of the country, serves as an ideal habitat for Himalayan musk deer. The DHR allows the trophy hunting of the blue sheep but poaching of other species including the musk deer is ever increasing in the reserve. The research aimed to explore the distribution and population of the musk deer in the few blocks of the reserve. One seasonal study was done from March–May, 2007. 3 musk deer were counted during a silent drive in the Dharkharka and Khokriban of Barse block and this indicated the population density of the musk deer in the Barse block with 1.5 ind./sq.km. Musk deer in the study area mostly utilized the 60° slopes and were almost uniformly distributed along the North-East, North-West and South-East aspects. The musk deer in the DHR were distributed within the narrow altitudinal range of 3400-4000 m and mostly concentrated within 3600-3800 m due to different factors like availability of most coveted vegetation and other external interferences at other elevations. 25 species of trees, 20 species of shrubs and 30 species of herbs were recorded in the study area. Among the tree species *Abies spectabilis, Rhododendron* spp. and *Betula utilis* were most prominent with high IVI values. The musk deer in DHR mostly preferred the forest area followed by the shrub land and then the grassland. The musk deer in the reserve were mostly threatened with poaching and habitat destruction by deforestation and fire. The deer were also highly threatened by the livestock encroachment in the habitat. The musk deer poachers mostly preferred snare for trapping them while in the past the poachers used poisons, dogs, bow and arrow, etc. for killing the musk deer. Musk deer population has been decreasing in the reserve. The reserve authority should encourage the local residents towards the musk deer conservation and should increase the guard posts and patrolling in the reserve area with active participation of local people.

Key words: Musk deer, habitat, population, Dhorpatan Hunting Reserve, Poaching

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Abbreviations

BPP	:	Biological Profile Project
CITES	:	Convention on International Trade of Endangered Species of wild flora and fauna
DHR	:	Dhorpatan Hunting Reserve
DNPWC	:	Department of National Park and Wildlife Conservation
GIS	:	Geographic Information System
HMG	:	His Majesty Government of Nepal
IUCN	:	International Union of Conservation of Nature and natural resources
NRDB	:	Nepal Red Data Book
VDC	:	Village Development Committee
Sq. km.	:	Square kilometer
d.f	:	degree of freedom
m	:	meter
cm	:	centimeter
Kg	:	Kilogram
ha	:	hectare
ft.	:	Feet
ind.	:	Individual
R.H	:	Relative Humidity
Pers.	:	Personal
Comm.	:	Communication
Max.	:	Maximum
Min.	:	Minimum