

**PREY SELECTION BY BENGAL TIGER (*Panthera tigris tigris*,  
Linnaeus 1758) IN CHITWAN NATIONAL PARK, NEPAL**



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A thesis submitted in partial fulfillment of the requirement for the award of the degree of  
Master of Science in Zoology with special paper ecology and environment.

**Submitted to**

Central Department of Zoology

Institute of Science and Technology

Tribhuvan University

Kirtipur, Kathmandu

Nepal

September 2014

## RECOMMENDATIONS

This is to recommend that the thesis entitled “Prey selection by Bengal Tiger *Panthera tigris tigris*, Linnaeus 1758 in Chitwan National Park, Nepal” has been carried out by Shivish Bhandari for the partial fulfilment of Master’s Degree of Science in Zoology with special paper ecology and environment. This is his original work and has been carried out under my supervision. To the best of my knowledge, this thesis work has not been submitted for any other degree in any institutions.

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Date: 13<sup>th</sup> Nov. 2014

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## CERTIFICATE OF ACCEPTANCE

This thesis work submitted by Shivish Bhandari entitled “Prey selection by Bengal Tiger *Panthera tigris tigris*, Linnaeus 1758 in Chitwan National Park, Nepal” has been accepted as a partial fulfilment for the requirements of Master’s Degree of Science in Zoology with special paper ecology and environment.

### EVALUATION COMMITTEE

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## LETTER OF APPROVAL

On the recommendation of supervisor “Dr. Mukesh Kumar Chalise” this thesis submitted by Shivish Bhandari entitled “Prey selection by Bengal Tiger *Panthera tigris tigris* Linnaeus 1758 in Chitwan National Park, Nepal” is approved for the examination and submitted to the Tribhuvan University in partial fulfilment of the requirements for Master’s Degree of Science in Zoology with special paper Ecology and Environment.

Date: 14<sup>th</sup> November, 2014

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Prof. Ranjana Gupta PhD

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## DECLARATION

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

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Date: 12<sup>th</sup> September 2014

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Shivish Bhandari

## **PREY SELECTION BY BENGAL TIGER (*Panthera tigris tigris*, Linnaeus 1758) IN CHITWAN NATIONAL PARK, NEPAL**

### Abstract

The Tiger is a top carnivore of forest and grassland ecosystem. Prey selection by Bengal Tiger (*Panthera tigris tigris*, Linnaeus 1758) was studied in the Chitwan National Park (CNP), Nepal from February to April 2014. The CNP represent a huge numbers of Tiger in Nepal. The overall objective of this study was to find out the baseline information on prey selection by Tiger in CNP. The specific objectives of the study were a) To describe the contribution of domestic animals to the diet of Bengal Tiger and b) To examine the diet composition of Bengal Tiger. In the study site, 85 scats of Bengal Tiger were collected by opportunistically in fire land area, grass land and river bank and scat sampling method (scat analysis) was employed. From the each scat sample, 20 hairs were selected randomly for treatment and both cuticle and medulla were treated. Tiger selected 08 different taxa and Chital was a major prey species (44.95 %) to diet of Tiger. Other principal prey species were Sambar (22.93 %), Wild Pig (14.67 %), Hog deer (9.17 %), Barking deer (3.66 %), and Gaur (1.83 %). Small component (2.73 %) of the Tiger's diet was domestic livestock (buffalo 1.83% and cattle 0.9 %). The result of the study suggests that there might be domestic animals in component of Tiger's diet would be illegal grazing in some areas of CNP by domestic livestock.

**Key words:** *Scat sampling, Chital, domestic livestock*



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## LISTS OF ABBREVIATIONS

<b>Abbreviated from</b>	<b>Details of abbreviations</b>
BNP	Bardia National Park
BANP	Banke National Park
BTR	Bandipur Tiger Reserve
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CNP	Chitwan National Park
DNPWC	Department of National Park and Wildlife Conservation
INGO	International Non Government Organization
IUCN	International Union for Conservation of Nature and natural Resources
KMTNC	King Mahendra Trust for Nature Conservation
NGO	Non Government Organization
NSTR	Nagarjunasagar Srisailam Tiger Reserve
PNP	Panna National Park
PTR	Panna Tiger Reserve
PWR	Parsa Wildlife Reserve
TAL	Tarai Arc Lansscape
WWF	World Wildlife Fund