# LEARNING BEHAVIOUR OF HORSE [*Equus ferus caballus* Linnaeus 1758] IN NEPAL CAVALRY BARRACK, SINGHADURBAR, KATHMANDU



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A thesis submitted in partial fulfillment of the requirements for the award of the degree of Master of Science in Zoology with special paper [Ecology]

> Submitted to Central Department of Zoology Institute of Science and Technology Tribhuvan University Kirtipur, Kathmandu Nepal

> > September, 2015

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#### RECOMMENDATIONS

This is to recommend that the thesis entitled "LEARNING BEHAVIOUR OF HORSE [*Equus ferus caballus* Linnaeus 1758] IN NEPAL CAVALRY BARRACK, SINGHADURBAR, KATHMANDU" has been carried out by Kamal K.C. for the partial fulfillment of Master's Degree of Science in Zoology with special paper [Ecology]. 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 to any institutions.

Date.....

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Date: 9/29/2015

#### LETTER OF APPROVAL

On the recommendation of supervisor, Professor Dr. Nanda Bahadur Singh. Central Department of Zoology, Tribhuvan University, this thesis submitted by Kamal K.C. entitled "LEARNING BEHAVIOUR OF HORSE [*Equus ferus caballus* Linnaeus 1758] IN NEPAL CAVALRY BARRACK, SINGHADURBAR, KATHMANDU" 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.

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Date: 9/29/2015

#### **CERTIFICATE OF ACCEPTANCE**

This thesis work submitted by Kamal KC entitled "LEARNING BEHAVIOUR OF HORSE [*Equus ferus caballus* Linnaeus 1758] IN NEPAL CAVALRY BARRACK, SINGHADURBAR, KATHMANDU" has been accepted as a partial fulfilment for the requirements of Master's Degree of Science in Zoology with special paper Ecology.

#### **EVALUATION COMMITTEE**

Supervisor Professor Dr. Nanda Bahadur Singh Head Professor Dr. Ranjana Gupta

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Date of Examination: .....

#### 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 references to the authors or institutions.

Date: 9/29/2015

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Kamal K.C.

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## Abstract

Scientists and equestrians continually seek to achieve a clearer understanding of *Equus* learning behaviour and its implications for training. Behavioural and learning processes in the horse are likely to influence not only *Equus* athletic success but also the usefulness of the horse as a domesticated species. However, given the status and commercial importance of the animal, *Equus* learning behaviour has received only limited investigation. Indeed this experimental research on learning behavior of horse colts studies on different behaviors of horse colt during learning stage. Learning ability index (LAI) is selected as major statistical tool for the comparison of learning ability of different age groups of colts.

Learning behavior of *Equus ferus caballus* was studied at NCB (Nepal Cavalry Barrack) by the direct observation, field survey and questionnaire method. Field research was conducted mainly from June 2014 to August 2014 to explore the learning behavior of colt.

The total populations of horses in NCB were 101 among them 50 were gelds, 6 colts, 13 stallions, 4 fillies and 28 mares. Expert trainers give training to horses having age below 4 years and above 2 years. Horse school in NCB is rectangular having height 3m, length 60 m and breadth 20m. On the ground of horse school there is sand, wooden dust and horse dung up to 15cm height. Each horse is controlled by single trainer. Training is given every day until they do not complete their training.

This research includes the learning behavior of six colts in NCB. During training colts show different behavior like fighting, flighting, kicking and bitting. Trainers of horse teach to horse by repeating every event for many days and they reward to horse if it does nice and punishes if it does mistake (fighting and bitting). They reward by giving food. Every trainer takes stick to punish them. Learning ability test does not show any significant difference among six colts due to the less difference in their age group. Punishment and reward given to the colt don't effect for their learning.

The major recommendations of this study are to use scientific technology and tools in NCB for the training of horses. Horse breeding and training should be improved for the local people, horse club and horse school for the improvement of horse sports. It may help in the development of country in the field of sports.

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### LIST OF ABBREVIATIONS

Abbreviated form	Details of abbreviations
cm	Centimeter
CUCVM	Cornell University College of Veterinary Medicine
ICZN	International commission on Zoological Nomenclature
JC	Jockey Club
m	Meter
m <sup>2</sup>	Meter Square
LAI	Learning Ability Index
NCB	Nepal Cavalry Barrack
USEF	United States Equestrian Federation
UOC	University of California
VCE	Vivo Colostate Education