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**Skull cum Baculum Morphology and PCR Approach
Identification of Pipistrelles (Chiroptera: Vespertilionidae)
from Koshi Tappu Wildlife Reserve, Sunsari, Nepal**



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ABSTRACT

Identification in *Pipistrellus* Kaup 1829 is hectic because of quandary in complex at species level. *Pipistrellus* spp. from Kusaha, Koshi Tappu Wildlife Reserve, Sunsari district as well as Eastern Nepal could not be identified in the field (Thapa, 2009). This study was attempted against this background. The objective of this study was to identify the species through skull and baculum morphology and Polymerase Chain Reaction (PCR) approach comparative studies. This study was carried within September 2008 to September 2010. The skull and baculum morphology revealed the first record of *Scotozous dormeri* Dobson, 1875 while new material of *Pipistrellus coromandra* (Günther, 1838) and *P. tenuis* (Temminck, 1840) to Nepal. The initiation of PCR could not be successful. However, further detailed research deploying acoustic surveys and genetic approaches seem to discover new species to Nepal as well as to science from the study area because of assemblage of high diversity in the small area.

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ABBREVIATIONS AND ACRONYMS

CA – Conservation Area

CITES – the Convention on International Trade in Endangered Species of Wild Fauna and Flora

CNP – Chitwan National Park

DNA – Deoxy-Ribonucleic Acid

DNPWC – Department of National Parks and Wildlife Conservation

E – East

FMNH – Field Museum of Natural History

IOF – Institute of Forestry

IUCN – World Conservation Union

KTWR – Koshi Tappu Wildlife Reserve

LC – Least Concern

N – North

NP – National Park

PCP – Participatory Conservation Programme

PCR – Polymerase Chain Reaction

RFLP– Restriction fragment length polymorphism

SW – South-west

UV – Ultraviolet

VDC – Village Development Committee

W – West

WWF – World Wildlife Fund

a.s.l. – above sea level

km – kilometer

m- meter

sq. km – square kilometer

mm – millimeter

nm – nanometer

°C – degree celcius

hr – hour

sec – second

ml – milliliter

μl – microliter

μg – microgram

rpm – revolution per minute

i^{123} – upper incisors

i_{123} – lower incisors

C^1 –upper canine

C_1 –lower canine

pm^{234} –upper premolars

pm_{234} –lower premolars

m^{123} –upper molars