

**HERPETOFAUNA AND ETHNOHERPETOLOGY OF
BEESHAZARI LAKE COMPLEX, CHITWAN DISTRICT**



PRAKASH DHUNGANA

SYMBOL NO. 341

BATCH NO. 2063/2064

T.U. REGD. NO. 5-1-19-642-99

**A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Master's of Science Central Department of
Zoology-Ecology Program Institute of Science and Technology
Tribhuvan University
Kirtipur, Kathmandu, Nepal**

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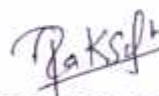
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DECLARATION BY THE CANDIDATE

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

Date: May 12, 2011



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LETTER OF RECOMMENDATION

This is to recommend that the dissertation entitled "**Herpetofauna and Ethnoherpetology of Beeshazari Lake Complex, Chitwan District**" has been carried out by Prakash Dhungana for the partial fulfillment of M.Sc. Degree of Science in Zoology (Ecology). This original work was conducted under our supervision. To the best of our knowledge this dissertation work has not been submitted elsewhere for any other degree purpose.

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LETTER OF APPROVAL

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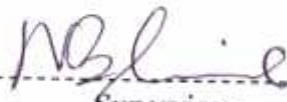
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This dissertation work submitted by Prakash Dhungana entitled "**Herpetofauna and Ethnoherpetology of Beeshazari Lake complex, Chitwan District**" has been approved for the partial fulfillment of requirements for the Master's Degree of Science in Zoology with Ecology as specialization paper.

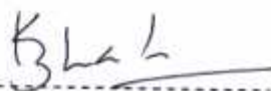
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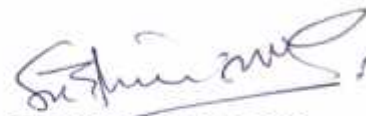
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ABSTRACT

The study was conducted in the Beeshazari lake complex and its surrounding settlements. The lake lies in Buffer Zone of Chitwan National park (CNP). The study was conducted from June 2008 to December 2009. The study basically aimed at enumerating the diversity of herpetofauna, ethnoherpetology and conservation threats. Beeshazari Lake covers an area of 180 hectare (BPP, 1995). There are 242 recorded wetlands in Nepal. However, herpetofauna of these wetlands are not well known so far. The herpetofauna of the Nepal is extremely rich. The herpetofauna are distributed a wide altitudinal range from 80m to 5490m. Though only a little information is known about their status and distribution in the country. Beeshazari Lake is one of the important wetlands of Nepal.

Altogether 32 species of herpetofauna were recorded from Beeshazari lake complex. Among them 9 species of Amphibians belonging to 3 families and 5 genera and 23 species of Reptiles (including 7 species of lizards, 1 species of crocodile, 10 species of snakes and 5 species of turtles) belonging to 13 families and 19 genera were recorded from the study area. Among the recorded species of herpetofauna, 2 species are fully protected by the Government of Nepal, National Park and Wildlife Conservation Act, 1973, 10 species are listed in different Appendices of CITES categories, 9 species are included in different threat categories of IUCN Red Data Book and 12 species are listed in National Red Data Book.

Some of the herpetofauna species recorded from the Beeshazari lake complex are used for both food and medicinal value. Common bull frog, monitor lizard, Crocodile, python and almost all species of turtles are used for food and medicinal value by local inhabitants of the study area. *Varanus* species and turtles species are highly exploited for food and medicinal purposes in that area. Habitat loss, water pollution, forest fire, over grazing, deforestation, collection of eggs, natural predator, disturbances by the local people, wanton killing, and leaching of the inorganic fertilizers and pesticides from farmland are found to be the major threats to the survival of the herpetofauna species in Beeshazari lake complex.

Equally important in this context is the problem of conservation. In order to increase the population of the herpetofauna in the study area management scheme has to be applied. For this purpose killing of herpetofauna species, their products and also fishing should be strictly prohibited. Awareness for the conservation of herpetofauna species should also be augmented among the people. Human disturbances should be addressed for long term conservation of threatened species of herpetofauna.

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ABBREVIATIONS AND ACRONYMS

| | |
|-------|--|
| ARVES | Amphibian and Reptilian Visual Encounter Surveys |
| BPP | Biodiversity Profiles Project |
| CNP | Chitwan National Park |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| DNPWC | Department of National Parks and Wildlife Conservation |
| EIA | Environmental Impact Assessment |
| DADO | District Agriculture Development Office |
| DOAD | Department of Agriculture Development |
| GoN | Government of Nepal |
| HMG | His Majesty's Government |
| IUCN | International Union for Conservation of Nature and Natural Resources |
| MoFSC | Ministry of Forest and Soil Conservation |
| NGO | Non-Government Organization |
| NRDB | National Red Data Book |
| NPWC | National Parks and Wildlife Conservation |
| TU | Tribhuvan University |
| TUDE | Tourism Development Endeavors |
| VDC | Village Development Committee |