Diversity of Mammals in and around of Koshi Tappu Wildlife Reserve

D. Thapa Chhetry¹ and J. Pal²

¹Department of Zoology, Post Graduate Campus, T.U., Biratnagar, Nepal
²Department of Zoology, North Bengal University, India

E-mail: thp_damodar@rediffmail.com

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Abstract

Though the Koshi Tappu Wildlife Reserve was established for the protection of wild water buffalo, there are other mammals in and around of it due to the presence of different type of habitats like rivers, oxbow lakes, seepage stream, marshlands, floodplains, ponds, swamp forest etc. This paper deals with the study of mammals in and around of Koshi Tappu Wildlife Reserve. Altogether 21 species of mammals belonging to 19 genera and 13 families were found during the study period. Among these 3 occurred commonly, 11 rarely and 7 occasionally at local level.

Key words: Koshi Tappu Wildlife Reserve, diversity of mammals

Introduction

The Koshi Tappu Wildlife Reserve belongs to terai wetlands of Nepal which extends between 86°55′-87°05′E and 26°34′-26°45′N on the alluvial flood plain of the Sapta Koshi River. Due to the presence of diverse types of wetlands, floodplain and large forest area, it consists different types of mammals though it was established for the protection of endangered species, the wild water buffalo (Bubalus bubalis arnee).

The reserve covers part of Sunsari, Saptari and Udayapur districts of the eastern development region. It is touched by twelve Village Development Committees (Fig.1). On the south of the reserve is a large expanse of open water, marshes and reed-beds, created by the construction of Koshi barrage between 1958 and 1964. Because of the Koshi barrage, a large expanse of open water remains throughout the year between the barrage and the reserve.

The climatic condition of this area is tropical monsoonal type and experiences three distinct seasons i.e., summer (February to May), rainy (June-September) and winter (October-January).

Taxonomic study on the mammals of Nepal was started by Hodgson (1831, 1833, 1835, 1836, 1837, 1838, 1839, and 1844). The contribution of Hodgson on the mammals of Nepal and Sikkim actually laid the foundation of Himalaya mammology. Later on, Blyth (1844) and Horsefield (1855) added several species to the list of mammals of Nepal. Biswas and Khajuria (1955, 1957) collected small mammals from Khumbu region of eastern Nepal and described several species of rodents and pikas. Similarly, Schaller (1977) gave an excellent account of Himalayan mammals in...

The most notable mammals of terai wetlands are Greater one horned rhino (Rhinoceros unicornis), Wild water buffalo (Bubalus bubalis), Gangetic dolphin (Platanista gangetica), Fishing cat (Prionailurus viverrinus), Smooth coated otter (Lutrogale perspicillata) etc. All these species are being decreased in number due to the loss of habitat, hunting and shortage of food.

Materials and methods
With the permission of authority of wildlife reserve, mammals were recorded in their original habitat from July, 2002- June, 2004 in every month. The animals were recorded by direct observation method. In addition to the visual observation; the presence of some species was also confirmed by their markings and droppings. Binocular and Zoom camera were also used during observation. Their identification was done by following Shrestha (1981), Corbet and Hill (1992), Shrestha (1997), and Majupuria and Majupuria (1998).

Results
Altogether 21 species of mammals belonging to 19 genera and 13 families were found during the study period. Among these 3 occurred commonly, 11 rarely and 7 occasionally at local level (Tab. 1).

Discussion
The present study area is suitable habitat for different species of mammals due to the presence of wetlands and forest area.
Table 1. Diversity of mammals in and around of Koshi Tappu Wildlife Reserve.

<table>
<thead>
<tr>
<th>Family</th>
<th>Scientific name</th>
<th>Common name</th>
<th>Local status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovidae</td>
<td>Bubalus bubalis Linnaeus</td>
<td>Wild Water Buffalo</td>
<td>Common</td>
</tr>
<tr>
<td>Platanistidae</td>
<td>Platanista gangetica Roxburgh</td>
<td>Gangetic Dolphin</td>
<td>Rare</td>
</tr>
<tr>
<td>Pteropodidae</td>
<td>Pteropus giganteus Brunich</td>
<td>Indian Flying Fox</td>
<td>Common</td>
</tr>
<tr>
<td>Cercopithecida</td>
<td>Macaca mulatta Zimmermann</td>
<td>Rhesus Macaque</td>
<td>Common</td>
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<tr>
<td>Cercopithecida</td>
<td>Semnopithecus entellus Dufrense</td>
<td>Hanuman Langur</td>
<td>Rare</td>
</tr>
<tr>
<td>Sciuridae</td>
<td>Ratufa bicolor Sparrman</td>
<td>Black Giant Squirrel</td>
<td>Occasional</td>
</tr>
<tr>
<td>Sciuridae</td>
<td>Funambulus palmarus Linnaeus</td>
<td>Three striped Palm Squirrel</td>
<td>Rare</td>
</tr>
<tr>
<td>Cervidae</td>
<td>Axis axix Erxleben</td>
<td>Spotted Deer</td>
<td>Rare</td>
</tr>
<tr>
<td>Cervidae</td>
<td>Axis porcinus Zimmermann</td>
<td>Hog Deer</td>
<td>Rare</td>
</tr>
<tr>
<td>Cervidae</td>
<td>Muntiacus muntjak Zimmermann</td>
<td>Barking Deer</td>
<td>Rare</td>
</tr>
<tr>
<td>Mustelidae</td>
<td>Lutra lutra Hodgson</td>
<td>Common Otter</td>
<td>Occasional</td>
</tr>
<tr>
<td>Mustelidae</td>
<td>Lutrogale perspicillata Geoffery</td>
<td>Smooth coated Otter</td>
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</tr>
<tr>
<td>Felidae</td>
<td>Felis chaus Gudenstaedt</td>
<td>Jungale Cat</td>
<td>Rare</td>
</tr>
<tr>
<td>Felidae</td>
<td>Prionailurus viverrinus Bennett</td>
<td>Fishing Cat</td>
<td>Occasional</td>
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<tr>
<td>Elephantidae</td>
<td>Elephas maximus Linnaeus</td>
<td>Asiatic Elephant</td>
<td>Occasional</td>
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<tr>
<td>Canidae</td>
<td>Canis aureus Linnaeus</td>
<td>Golden Jackel</td>
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<tr>
<td>Canidae</td>
<td>Vulpes bengalensis Shaw</td>
<td>Indian Fox</td>
<td>Occasional</td>
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<td>Suidae</td>
<td>Sus scrofa Wagner</td>
<td>Wild Boar</td>
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<td>Leporidae</td>
<td>Lepus nigricollis Cuviers</td>
<td>Indian Hare</td>
<td>Rare</td>
</tr>
<tr>
<td>Herpestidae</td>
<td>Herpestes edwardsii Geoffery</td>
<td>Indian Grey Mongoose</td>
<td>Rare</td>
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</tbody>
</table>

Altogether, 21 species of mammals were recorded during this study period (Tab. 1). According to the local people, the Koshi Tappu area was covered with dense riverine forest and tall grasses in the past where large carnivores such as Bengal tiger (Panthera tigris) and leopard (Panthera pardus) were abundant. But now these mammals could not be observed. However, this area contains Nepal’s last surviving population of wild water buffalo (Heinen, 1993). Gaur (Bos gaurus) and Nilgai (Boselaphus tragocamelus) are not found. Their presence was reported on earlier occasion (Suwal, 1994). The Gangetic dolphin (Platanista gangetica) was observed in Koshi barrage area. Besides the

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References


