

## THE WILD ELEPHANTS OF THE ROYAL BARDIA NATIONAL PARK, NEPAL

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### INTRODUCTION

Very little is known of the wild elephant population of Nepal. In the last two years, however, there has been a steady increase of wild elephants in the Royal Bardia National Park where previously no resident populations were recorded. Could there be a resident population of elephants? The Royal Bardia National Park encompasses a total area of 968 km<sup>2</sup>, which makes it the largest protected area in western Nepal. It is situated in the Bardia and Banke districts of southern and mid-western regions of Nepal (Upreti, 1994). Due to a diverse topography the area consists of numerous habitat types which are equally rich in flora and fauna. There are five main types of vegetation found in these ecosystems, namely, riverine forest, evergreen forest, 'Sal' (*Shorea robusta*) forest, Grassland and pine forest.

The Churia Hills to the north of the Park mark the boundary of the area, followed by the foothills of the Bhabar area, then the alluvial flat land, and the riverine flood plains on its southern boundary. The Geruwa river, which stems off the Karnail river, and the Babai river, are the dominant river systems of the Park.

The main species of wildlife found are spotted deer, barking deer, hog deer, swamp deer, sambar, wild boar, sloth bear, jackal, jungle cat, tiger and leopard. Amongst the endangered species of fauna are the blue bull, rhinoceros, gangetic dolphin, hispid hare, striped hyena and the Asian elephant. There are also over 300 species of birds and 60 species of fish (Upreti, 1994). The Royal Bardia National Park officially earned its title in 1988 and has become one of Nepal's finest protected areas.

The presence of wild Asian elephants in the Royal Bardia National Park makes this area one of the last habitats in Nepal where these giants still roam. An actual population status is unknown, as it was believed that many of the elephants were temporary residents when migrating from India. Although Nepal used to support a large population of elephants, most of these have all but vanished due to habitat destruction. The few existing resident herds can be found in the Royal Chitwan National Park, and the adjoining Parsa wildlife Reserve in mid-western Nepal. Recently however, the Royal Bardia National Park witnessed a sudden increase in wild elephant numbers. Where these elephants were coming from, and why the sudden increase in number is unknown. An assumption can only be correlated when relating an increasing amount of habitat destruction in India, to the movement of elephants into Nepal. If these elephants are in search of better habitat, and have arrived

in the Royal Bardia National Park, could this mean that they are here to stay? Will their numbers steadily increase in the coming years? As no attempt has ever been attempted to study the migratory herds of elephants between India and Nepal borders, a brief investigation was made at the Royal Bardia National Park to collect the details of elephant movement and use of the National Park's area. The information was collected from various sources working in the Park.

The following account is an assimilation of data collected in the three day investigation. Although the information may appear rudimentary, this report is an attempt at opening the way for future study on the wild elephants of Nepal. If the conservation of the wild Asian elephant is of importance, their needs should be met across country borders. This means migrating elephants from India to Nepal should be a matter of concern, when seeking to protect the remaining habitats available to these herds. Moreover, should the resident population of wild elephants in Nepal increase, what kind of management will be needed to be implemented in such protected areas as the Royal Bardia National Park? It is hoped that this brief investigation and report would create an awareness amongst the wildlife managers, elephant specialists and related governments, about the need to carry out research on the wild population of elephant in Nepal, before any conclusion be made on their status in the country.

## STATUS OF THE WILD ELEPHANTS

Between 30-40 years ago much of the terai area in south - western Nepal was covered by thick jungle. The area was mostly unsuitable for human habitation due to the prevalence of malaria. For this reason the government decided to clear large tracts of forest in order to eradicate malaria. This attracted people from the hills to settle down there, which caused further degradation of the natural forest cover. By the end of the 1960's, up to 80% of the natural habitat was fully destroyed (Santiapillai & Jackson, 1990). As a result the wild elephant population of Nepal was nearly exterminated. The last resident herd of elephants in the Royal Bardia National Park was seen in 1975, after which the only elephants seen were sporadic migrants from India.

### *Raja Gaj and Kancha*

Until recently, the only resident elephants of the National Park were two large bulls named "Raja Gaj" or King elephant and "Kancha" a name given to a younger one. What is peculiar about Raja Gaj is that he may be one of the largest Asian bull tuskers ever recorded. He stands 11.3 ft. tall at the shoulder and has a massive body weight. His appearance has been compared to that of a mammoth due to his high bi-domed shaped head. The forehead and domes are more prominent than other in asian bull elephants. Both animals have good sized tusks, which ages them to be more than 50 years old. These bulls were first spotted in 1985 and have been in the Park ever since. They usually roam the Park's area together and make occasional visits to the females. They have also been seen visiting the paddy fields of nearby villages.

A British expedition of wildlife film producers who came across these bulls while on a visit to the National Park claimed Raja Gaj to be the largest bull elephant ever recorded in Southeast Asia. On what grounds this claim was made is vague as no further scientific investigation was done. Although picture documentaries and articles have been made on this large bull, the information has not been properly channeled. It is ironic to think that if Raja Gaj is the largest Asian elephant and is claimed to be "mammoth-like," that the Government of Nepal and other concerned departments are not aware of it. Why these bulls have chosen to remain in the Royal Bardia National park where they, until recently, were the only resident elephants, is questionable. Further research on these bulls should be carried out to verify the claims made about them.

### *Recent arrivals*

In the last two years the number of resident elephants in the Royal Bardia National Park has increased. According to sources, five elephants were seen entering the Park in November 1993 while one year later sixteen elephants entered the Park. In May/ June of 1995 the total number of elephants counted in the Park was 41. This was the largest number to be recorded in many years. All the elephants were seen entering the Park from its most western boundary, where the village of Gola is situated. Here the elephants crossed over the agricultural plots in to the Royal Bardia National Park. The elephants have now dispersed into various herds inside the park, and have not yet left the area. Complaints of crop-raiding have already been made by the villages located on the fringe area of the National Park. According to the former wildlife warden, the elephants have recently been seen occupying the Babai valley area. The habitat of this valley is well-suited to the elephants' needs since water is plentiful here, as is the growth of bamboo, wild banana and elephant grass. The Babai river flows from east to west for 40 km, inside the Park, as it paves its way to create this pristine valley. It is the remotest area of the Park and therefore makes up the core zone (Upreti, 1994).

Nothing else is known about the herds which have come to stay within the boundary of the Royal Bardia National Park. They do not appear to be in the Park on a temporary basis, as was formerly believed. On October 14, 1995 a 10 cm footprint was recorded in the Park, which shows that the elephants may be breeding in the Park.

## CONCLUSION

In investigating the route by which the elephants are migrating into Nepal there are two possible routes: 1. *Dhudwa National Park - Sukla Phanta Wildlife Reserve - Churia Hills - Royal Bardia National Park*: The elephants are migratory, coming from the Dhudwa National Park in Uttar Pradesh, where they enter the Royal Sukla Phanta Wildlife Reserve, directly on the western border of Nepal, and Bardia National Park. According to sources, from the Royal Sukla Phanta Wildlife Reserve, moving north-east, the elephants have to cross approximately 8 km of villages/ agricultural lands before entering the protected area of the Churia Hills, belonging to the Royal Bardia National Park.

2. *Kaarnian Ghat - Royal Bardia National Park*: The elephants may be coming from Katarnian Ghat, which is situated south of the National Park in Uttar Pradesh. There is a small wildlife sanctuary here which may act as one of the corridors through which the elephants migrate, while on their way to Nepal. Here again the elephants need to cross human habitation before entering the protected area of the Royal Bardia National Park.

These are the two ways by which the elephants are believed to be moving. The first way seems to be more evident, since the elephants were seen entering the Park on its western boundary. Also, the Royal Sukla Phanta Wildlife Reserve is one of the main areas where migrating herds from Dhudwa National Park move in yearly. Therefore it could well be that these herds have made their way to the Bardia National Park from Sukla Phanta Wildlife Reserve. There are many questions to be addressed when asking where these herds are coming from. Was there a formerly existing migratory route between Dhudwa National Park and Royal Bardia National Park, which is why these herds have found their way back there? Why have these herds come and will their number continue to increase, if it is due to lack of good habitat in India?

The total resident population of elephants at the Royal Bardia National Park now stands at 41. Could a resident population of elephants have a future in the Park and if so, what is the minimum viable population of elephants for the area? In order to answer these questions long term research will need to be initiated to come up with a suitable management plan for both the migratory and resident elephants of the Royal Bardia National Park. Moreover, if the Park is home to one of the largest bull elephants in Southeast Asia, attention should be given to protect his lineage.

#### REFERENCES

- Santiapillai, C. & Jackson, P. 1990. *The Asian Elephant: An Action Plan for its Conservation*. IUCN, Gland, Switzerland.
- Upreti, B.N. 1994. *The Royal Bardia National Park*. IUCN Report.