

## Plans for Breeding Colonies of Large Mammals in India

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### A NEW HOME FOR THE GREAT INDIAN RHINOCEROS

The great Indian rhinoceros (*Rhinoceros unicornis*), which comes next to the elephant in size and mass, occurs naturally in the forests of Assam and Nepal. In these areas, the numbers of rhinoceros have dwindled to such low levels that these animals will be threatened with extinction if proper care is not taken at once to ensure their protection and multiplication. Since the total population of Indian rhino in the two areas is estimated at only a few hundred, urgent measures must be taken to permit an increase in their numbers before it is too late. In order to avoid the possibility of unforeseen epidemics or other natural calamities, any protected colony of rhinos would necessarily have to be housed in one or more areas far away from the present natural abodes of Assam and Nepal.

The founding of a new colony of this kind is not an easy task, since adequate attention must be paid to the living conditions of these animals to encourage them to thrive in their new home. This requires a comprehensive study of the ecological conditions enjoyed by the rhinos in Assam, so that a comparable tract of forest can be located in South India. Since fossil remains of rhino have been found in the United Provinces, in the Narbada Valley and near Madras, it may be assumed that rhinos were common in these areas as well in prehistoric times. The Geological Survey of India has excavated skulls and skeletons of the rhino at a site near Gokak in the State of Karnataka. However, with the passage of time, it is likely that there has been considerable change in the climatic conditions and other aspects of the natural surroundings. Consequently, these areas cannot be assumed to provide suitable alternative homes for the rhino without careful consideration. This has naturally prompted a fresh attempt to locate an entirely new abode in South India with conditions suitable for rhinos.

In this connection, special mention should be made of the temperate climate prevailing in the State of Karnataka, where the rich forests are entirely adequate to provide a tract of the size required. Given the cooperation of the Karnataka State Forest Department, it should not be difficult to locate a suitable area of about 5000 acres of forest to act as the "Rhino Home". It should be noted that

the Mysore Zoo in Karnataka State has successfully been able to breed the great Indian rhino, with two recorded births: one on 13 February 1968 and the other on 16 April 1971 (Figs. 1 and 2). Scrutiny of the records of other zoos in the world which have been able to breed this species shows that Mysore Zoo enjoys a special position. Only 25 zoos throughout the world at present have great Indian rhino on display, and the total captive population is 44. Of these 25

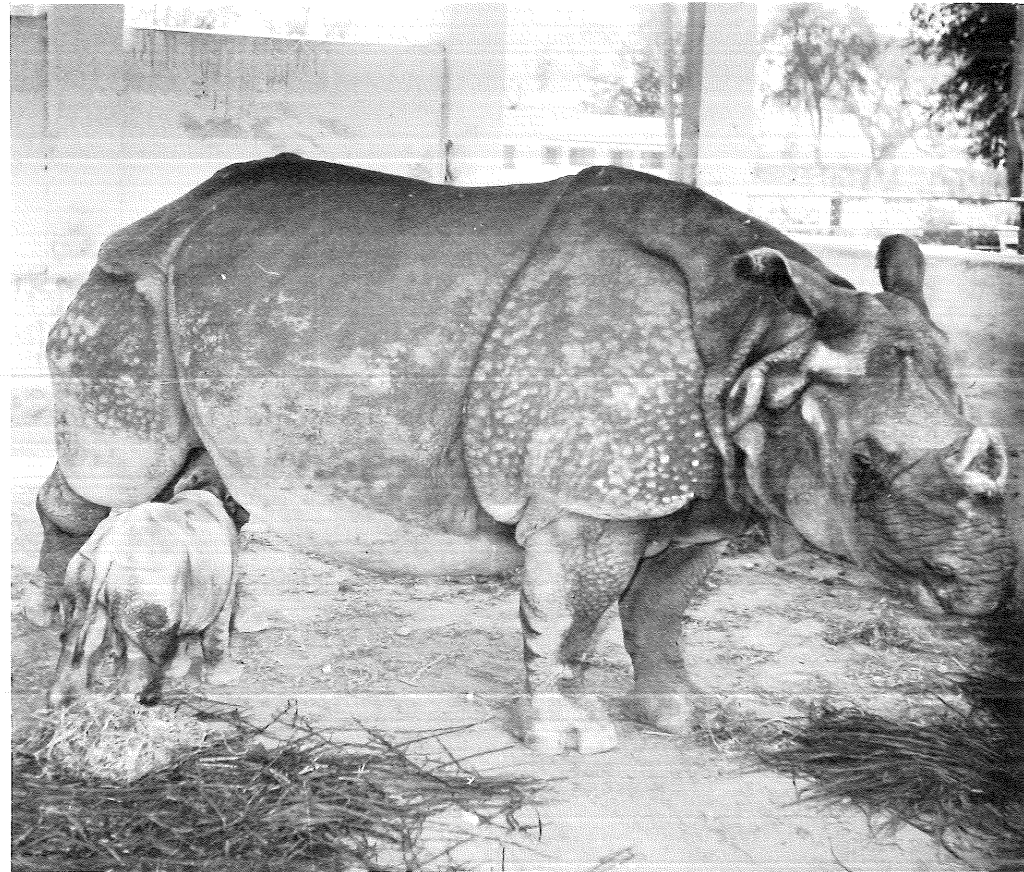


FIGURE 1. Female great Indian rhinoceros at Mysore Zoo with an infant born on 16 April 1971. The infant, here only a few weeks old, is seen in the typical suckling position.

zoos, only five have been able to breed Indian rhino in captivity: Basle Zoo; Whipsnade Park; Hamburg Zoo; West Berlin Zoo and Mysore Zoo. In having bred two calves, Mysore Zoo is prominent in this list, and this should provide encouragement for reaching a decision about plans to establish a new home for the rhinos in South India. The project could be effectively supervised by the authorities of the Mysore Zoo in conjunction with the officers of the Karnataka State Forest Department.

It is planned that an area of about 5000 acres in the forest, containing swamps, streams and extensive patches of elephant grass, would be set aside as the

“Rhino Home”. Within this area, about 200 acres would be fully protected against external intervention of any kind, and an appropriate fence would be built. This core area would similarly need to contain swamps, pools, streams and patches of elephant grass, and it is in this area that a founding stock of two bulls and six cows would be initially housed and permitted to live in full freedom. The animals would be kept completely secluded from human beings in order to

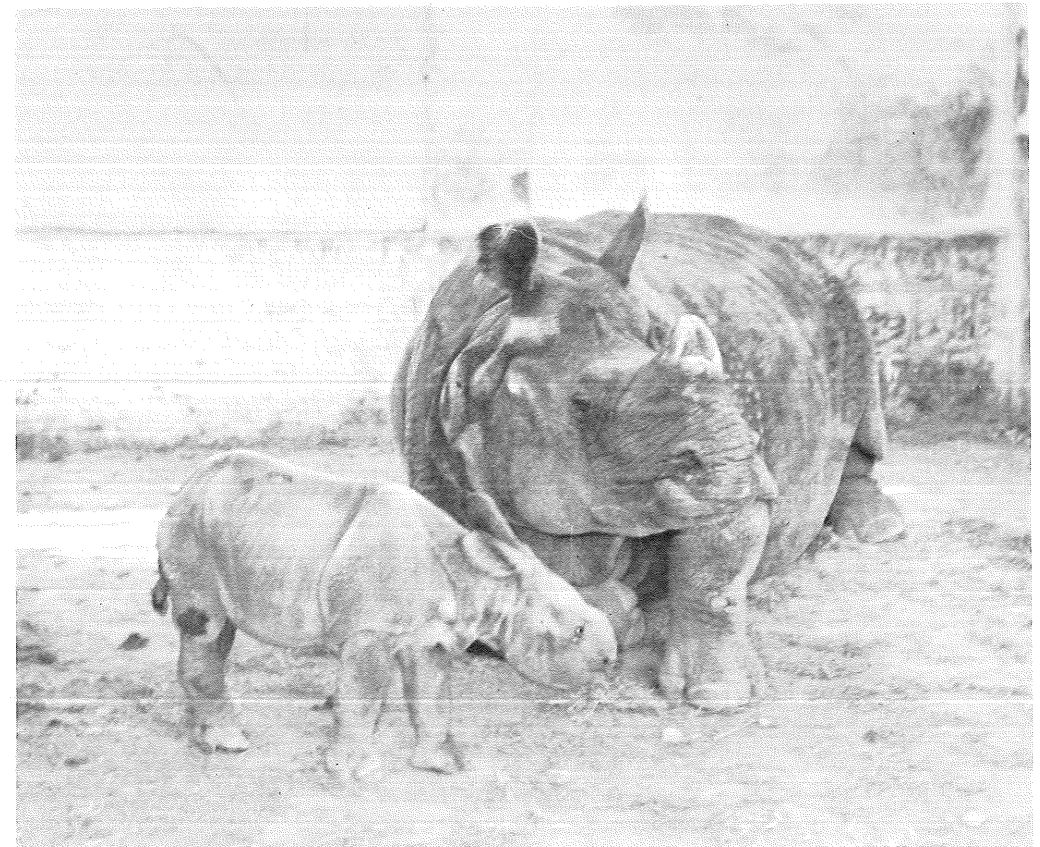


FIGURE 2. Female and infant photographed at a later date. Note that there is still little sign of development of the horn in the offspring.

reduce their fear of the new surroundings, but a discreet watch would be kept on the progress of mating and other activity.

As the initial stock increases through fresh births, surplus calves would be unobtrusively channelled off into the remaining part of the 5000-acre forest area as soon as they become independent. However, the founding stock of eight animals would continue to be retained within the fenced core area.

#### A BREEDING ENCLOSURE FOR CARACALS

The caracal or desert lynx (*Caracal caracal*), one of the smaller members of the cat family, is an inhabitant of the forests of the Punjab, Rajaputana,

Uttarpradesh and the dry region of Central India. It preys upon birds, rodents, small deer and antelopes, and its habitat is desert terrain and scrub jungle. Sightings of the species are becoming increasingly uncommon, and this indicates that it may well be on the way to extinction. Immediate measures are therefore necessary to increase the numbers of caracal through breeding from the presently available captive stock under careful supervision. Ideally, any project should be set up in close proximity to the natural homeland of these animals, that is to say in North-West India.

An appropriate plan would be to establish a breeding enclosure in an area of about 25–50 acres on an island including burrows, hollow trees and rock crevices. The island should first be stocked with fair numbers of birds, rodents and deer to provide natural food. After the potential prey stocks have settled down well, a few caracal could be introduced to serve as a parent stock. In fact, the Mysore Zoo, which has been breeding this species regularly, is in a convenient position to spare a suitable parent stock for this purpose. Any offspring born and reared on the island could subsequently be moved to a suitable area of the natural habitat which is effectively protected against poaching.

As explained above, the island enclosure would have to be located in Rajasthan, the Punjab, Uttarpradesh or Central India. Therefore, this project could be conveniently supervised by the Jaipur Zoo authorities or the Delhi Zoo authorities in cooperation with the State Forest Departments.

#### A BREEDING PROGRAMME FOR HUNTING CHEETAH

The famous Indian hunting cheetah (a subspecies of *Acinonyx jubatus*) once reigned over the plains and hills of Northern and Central India, and their geographical range extended up to the Deccan Plateau and to Mysore. But the present picture of the status of this famous animal is a distressing one. For example, not a single cheetah has been sighted in the forests of India over the last few decades. It would seem that the species is extinct or almost extinct in India, and it is necessary to start at once on a programme for captive maintenance, breeding and reintroduction to suitable habitat areas. The only solution would seem to be the introduction of wild or captive-bred specimens of the African subspecies.

The cheetah, being an animal which moves very swiftly, requires a considerable area for the performance of its natural activities, preferably a flat forest area containing many rodents and birds. A suitable forest zone could be located in one of the two districts of Bellary and Tumkur in Karnataka State.

At this point, it should be emphasized that hunting cheetah have been bred only very rarely in captivity. Only two zoos, namely Whipnade Park and Montpellier Zoo, claim the distinction of having bred the African subspecies of this animal in captivity.

Thus, it would seem that the most promising strategy for re-establishment of the cheetah lies in protection of a colony in a natural forest area. For this purpose, it is necessary to select and fence off about 100–200 acres to serve as a breeding

area. The area would have to be stocked with various birds and rodents before the cheetah are introduced. After the rodents and birds have settled down well, a foundation breeding stock of two male and four female hunting cheetah could be introduced into the fenced area and provided with complete protection against external intervention of any kind. Even the officials involved in the breeding programme for these animals should reduce their visits to a minimum in order to avoid frightening the animals. The original foundation stock of the African subspecies of the cheetah could be obtained from the Mysore Zoo or directly from Africa. Given scope for unlimited movement and full protection against disturbance from outside, it is quite possible that the cheetah would breed well in the fenced area. Any offspring could subsequently be moved into the larger surrounding forest area to live in complete freedom, though protection against poaching would be essential.

This project could be supervised by the Forest Range officers with the guidance and cooperation of the Mysore Zoo authorities. Needless to say, all such projects depend on full and wholehearted cooperation from the Karnataka State Forest Department to ensure their success.