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Abstract: To see the cheetah back into the Indian wilds has been a fond hope and dream with many an Indian wildlifer and conservationist. Cheetah is the only large mammal of India to have gone extinct within historical times. According to the Journal of the Bombay Natural History Society, it was only in 1947 that the last cheetah was shot in the Ramgarh area of north-east Madhya Pradesh. During the seventies and eighties of the 20th century a serious attempt was made by the Government of India, to procure some numbers of cheetahs from the relict free-ranging population in Iran. The scheme for some reasons, failed to materialize, but does there exist a case for yet another attempt now? Misonne X. Analyse zoogeographique des mammifères de l'Iran.

REINTRODUCTION OF "CHEETAH" INTO THE WILD IN INDIA IS THERE A CASE ?

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INTRODUCTION

Conservation of species and ecosystems and their rehabilitation, wherever feasible is one of the major items on the global agenda today. Keeping in view the need to conserve genetic resources and biotic diversity, it is not only an ecological necessity but an essential developmental strategy.

For a country like India, undergoing major and swift economic changes to find its rightful place within the community of nations, there is a real danger of conservation issues getting relegated to the background, if timely, comprehensive and systematic attention is not placed on the problems and opportunities of species conservation.

To see the Cheetah back into the Indian wilds has been a fond hope and dream with many an Indian wildlifer and conservationist. Cheetah is the only large mammal of India to have gone extinct within historical times. According to the Journal of the Bombay Natural History Society, (Vol. 47), it was only in 1947 that the last cheetah was shot in the Ramgarh area of northeast Madhya Pradesh.

During the seventies and eighties of this century a serious attempt was made by the Government of India, to procure some numbers of cheetahs from the relict free-ranging population in Iran, for reintroduction into a suitable wilderness area in India. The scheme, for some reasons, failed to materialise, but does there exist a case for yet another attempt now ?

THE CHEETAH

The Cheetah is a special and unique cat. Scientifically called *Acinonyx jubatus*, there are two extant sub-species, the African Cheetah (*Acinonyx jubatus jubatus*) and the Asiatic Cheetah (*A. j. venaticus*). The fact that the Cheetah fossils reported from as early as the lower Pleistocene, differ little from the modern cheetahs, indicates that the species separated from the other felids at an early period of felid evolution.

Popularly called the Hunting leopard, the Cheetah is a diurnal species, adapted physically for running at high speeds (upto 115 km. per hour) over short distances (500 metres). Being the only living representative of the genus *Acinonyx*, it has a small, highly arched head with a short, blunt nose and a short neck joined to a long, extremely slender body on long, thin legs. Although the same length as most large felids it is much lighter in build and weighs only 35-60 kg. It is an animal built for speed. Coat is tawny and covered with small, round, black spots. Facial marking in the form of a 'tear' stripe running from the corner of the eyes to the nose on either side of the head, is very prominent and distinctive. The claws are non-retractile and as a result, its tracks bear claw marks like canids. It is largely solitary except for breeding, although all male groups of 2 - 4 and females with cubs are not uncommon. Cheetahs reach sexual maturity around 24-30 months. Gestation is 90-95 days and litter size is from 1-8 (average 3). Longevity in captive conditions is 15 years.

Fossil records point to cheetah's distribution in N. America and Europe too, but within historical times cheetahs were distributed across all of Africa, excepting the rain forests and the most arid parts of the Sahara, and also across much of Asia Minor, Arabian Peninsula, Afghanistan, Iran and India. In Africa the population is now estimated to be around 7,000 animals mainly concentrated in east and South Africa. The Asian sub-species is now found only in Iran and probably numbers less than 100 individuals.

No other felid hunts like the cheetah. It is the fastest terrestrial animal on earth and its incredible speed enables it to go after fleet-footed prey like gazelle, impala, waterbuck, reedbuck in Africa and blackbuck, chinkara, saiga and dwarf antelope in Asia.

Since cheetahs have been easy to tame, there are evidences to suggest that the swift cats were hunting companions to the Sumerians around 3000 B.C. and Egyptian Pharaohs from 1600 to 1200 B.C. Marco Polo (1256-1344 A.D.) reported that Kublai Khan kept about 1000 cheetahs for hunting purposes at his summer residence in Karakorum. Russian princes hunted with cheetahs in the 11th and 12th centuries when this hunting technique was also used in Syria and Palestine. Akbar in India during the 16th century is reported to have kept 1000 cheetahs as hunting companions.

Genetic examination of the African cheetah has intrigued scientists for its lack of variability between individual animals. It has been suggested that the present population resulted from a genetic bottleneck of just a few animals at some point of time in the past. Another suggestion is that a special requirement of a highly specialised animal -- as cheetah is to speed -- cannot withstand even a slight variation from the normal.

As a result, scientists such as Stephen O'Brien, who have worked extensively on the genetic make-up of large cats, like Lion, they are of the opinion that the Asiatic and African Cheetah could be genetically equivalent.

Whatever be the scientists' verdict the fact remains that simply because of its genetic homogeneity, the cheetah as a species is highly vulnerable to extinction pressures and hence requires special care and management at the hands of man.

The Indian cheetah, which roamed the scrublands of the country as top carnivore, preying mainly on blackbuck and chinkara, and shared its habitat with wolf, fox, nilgai and the Great Indian bustard, was a flagship species for the scrub-grassland ecosystem, an ecosystem gravely endangered due to neglect and rising anthropogenic pressures. So, a step to rehabilitate cheetah shall insure a focus on the entire ecosystem. This ecosystem, incidentally, has not only a lot to offer to economically deprived strata of the society like the no-

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madic tribals, but also plays a crucial role in arresting the onward march of deserts in western India.

SOME INTERESTING FACTS

Sri Divyabhanusinhji Chavda has spent over a decade in researching the cheetah in India, and his research has brought forth some very interesting facts, like the following passage from Maasir-i-Jahangiri, recording a mutant white Cheetah.

"Raja Bir Singh Deo brought to the emperor a white cheetah. Its spots which are normally black, were of blue colour, and the whiteness of its body was also inclined to bluishness".

In 1926, a strange skin was discovered from southern Rhodesia in Africa which had stripes and blotches in place of the usual spot pattern. It corresponded closely to the legend of 'nsulifisi' a large cat that preyed on the kraals at night that was "neither lion, leopard, nor cheetah". Reginald Pocock, the then curator of mammals at the British Museum in London, named it (*Acinonyx rex*), or King cheetah. Later on, however, captive breeding of cheetahs at the Dowltd Cheetah Breeding and Research Centre near Pretoria, established that the so-called King cheetah is only a variant form of the common cheetah. There is also a report of a black cheetah, seen in Kenya in 1925. (Zoo Nooz, March 1989).

REINTRODUCTION IN INDIA

Identification of a suitable site and the founder population, in addition to deciding on the exact protocol, is *sine quo non*, for any planned wildlife translocation. IUCN, or the World Conservation Union, has devised through its Reintroduction Specialist Group, detailed guidelines, to be followed during any reintroduction operation.

Reintroduction is an expensive and a risky operation. Even in South Africa where reintroduction attempts with cheetah in its former range have been made in at least five sites, it has succeeded only in Hluhluwe/ Umfolozi game reserve complex. Therefore it is necessary to fully evaluate the objectives of the exercise and the relative costs and benefits, before any attempt at reintroduction is made. In addition, widespread social acceptability of the project also is crucial for establishment of any viable population in the wild.

Another matter of vital importance for successful cheetah reintroduction shall be availability of cheetah husbandry expertise, since back-up founder and subsequent supplementa-

tion population shall need to be built up at strategic captive breeding facilities. Unfortunately, the record of Indian zoos at keeping cheetahs up to now has not been good.

Dr. M.K. Ranjitsinh carried out a preliminary feasibility study of various potential cheetah reintroduction sites in India in the states of Rajasthan, Gujarat, Madhya Pradesh, Andhra Pradesh, Karnataka and Tamil Nadu. As a result of these studies, it was found that the site with greatest promise was the Khadir Island, in the Great Rann of Kutch in Gujarat, where cheetah occurred until the 19th century.

Regarding the founder population, attempts could be made to procure suitable animals, from the relict Asiatic Cheetah population in Iran, in absence of which bringing even the African Cheetah into India could be considered. According to feline geneticist Stephen O'Brien, "there is no genetic reason to preclude use of African Cheetah for introduction in Asia."

Such introduction shall result in filling a 'vacant' ecosystem in India, that of scrub-grassland, which for want of a legitimate top carnivore, is facing a skewed future. The Karera Great Indian Bustard Sanctuary in Madhya Pradesh is a case in point, where a spurt in blackbuck population, in addition to various other causes, has put the very survival of the sanctuary, as one of the finest Great Indian Bustard areas in the country, in jeopardy.

And yet, there is a great difference in what is desirable and what is feasible. Cheetah is a single feeder, i.e., it does not hoard its kill like other cats and hence needs to hunt more often, at an estimated frequency of one reasonably sized kill every 3rd day. Cheetah also lives at lower densities than other large cats and hence shall require large areas. Daniel Kraus of the Cheetah Conservation Fund, 1994 suggests as a rough estimate that to sustain a population of about 50 Cheetahs, a prey base of over 40,000 ungulates on an area of about 1500 sq. km. may be required.

So in the final reckoning, if Cheetah reintroduction in India is to be more than a conservationist's pipe dream, then a socially accepted wilderness area and prey base of large dimension has to be found. And the bitter truth is that getting the animals may not be so difficult as finding such a site.

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CHEETAH LOGO

Zoo Outreach Organisation selected the Indian cheetah as the animal to symbolise our objectives because of its extinction and the great regret virtually all Indian conservationists feel as a result of it. The over-riding objective of Zoo Outreach Organisation has been to improve the image and management of zoos so that they could be used to save species in deep trouble -- like the cheetah -- so that we don't have to have regrets. Today, we have no options for the Indian cheetah -- it is no more; we are reduced to consider less-than-desirable means, such as bringing in other subspecies. Had there been cheetahs in zoos, the story might have been different.

Manoj Mishra, the author of this article, is one of the young D.F.O.'s to receive ZOOS' PRINT from its first issues, when we sent it free to all p.a. managers. Manoj began writing for us, ran a column, became our book review editor and now has had a book published and has written many articles for other publications. He is also a member of the Managing Committee of Zoo Outreach Organisation.



Zoo Outreach Organisation