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Abstract: Some wildlife experts and naturalists have voiced an opinion that Asiatic (or Indian) cheetah was not native to the Indian sub-continent but that it was introduced by the earlier Muslim invaders, or later by the Mughals, in order to keep them animals in captivity and use them for the sport of hunting. But there is no evidence for this hypothesis of origin. The cheetah has been present in India since pre-historic times. Not only India has lost the cheetah, but also the Arabian peninsula, and the rest of the Asiatic range countries.

THE ORIGIN, RANGE AND STATUS OF THE
ASIATIC (OR INDIAN) CHEETAH OR HUNTING LEOPARD
(Acinonyx jubatus veneticus)

A Tentative Position Paper
by
Divyabhanusinh

1984

Origin & Range

Some wildlife experts and naturalists have voiced an opinion that the Asiatic (or Indian) cheetah was not native to the Indian sub-continent but that it was introduced by the earlier Muslim invaders, or later by the Mughals, in order to keep them animals in captivity and use them for the royal sport of hunting blackbuck or Indian Antelope (Antelope cervicapra), chinkara or Indian Gazelle (Gazella gazella), etc. According to this opinion the cheetahs subsequently went feral over a period of time.

It is not clear to me on what precise historical evidence this opinion is based. In all probability two factors seem to have lead to this belief. Firstly, the fact that Indian Princes of the former princely states, such as Bhavnagar (Dharmakumarsinhji, 1981), Kishangarh (Singh, 1964), Kolahpur (Krishnan 1965) and also I believe Baroda among others, imported cheetahs from Africa in this century, presumably because the animal was not available easily in the sub-continent either in the feral or in the domestic state by that time. In fact, import of cheetahs from Africa seems to have become a regular feature among the Princes by 1927 (Finn, 1929). Secondly, the absence of identifiable mention of this animal in Sanskrit literature i.e. before the Muslim invasions of the sub-continent.

Let us look at these factors a little closely. The import of cheetahs in this century from Africa is no evidence of the animals being imported in earlier times whose progeny went wild subsequently. On the other hand, the cheetah was very difficult to breed in captivity. When one pair bred in captivity and produced three young it was precisely recorded by Emperor Jahangir (Jahangir, 1978) and by Mutamad Khan in his Iqbalnama (Abul-Fazal Allami 1977). It was obviously a matter of joy to the Emperor since the event was so rare and Mutamad Khan considered it to be "among the curious events" that occurred in the reign of Jahangir. Under such circumstances it is difficult to contemplate that the cheetah was prolific enough to multiply rapidly and successfully to the extent that it was found all over the sub-continent in a feral state even if it was imported by the early Muslim invaders of India, say 300 years before the Mughals arrived on the sub-continent.

The Mughals have left vast records of their glorious empire and their memoirs and biographies are replete with detail, for example, in 1555 A.D. Akbar was first introduced to hunting with a cheetah, when one named Fatehbaz (the gamester of Victory) was presented to him (Abu-l-Fazl, Vol. I, 1979). In 1573 A.D. two of Akbar's special cheetahs (for they were classified into various categories) named Daulat Khan and Dilrang were drowned in the Ganges while crossing the river in a storm (Abu-l-Fazl, Vol. III, 1977) and so on. Emperor Jahangir was by far the best observer of nature and he recorded at great length descriptions of animals, birds, plants, etc, in his memoirs. He describes in detail a white cheetah presented to him by Raja Bir Singh Deo in 1608 A.D. and goes on to record white birds such as falcons, sparrow-hawks, etc, and white animals such as blackbuck and chinkara which the emperor had seen in his lifetime. On the 16th anniversary of his reign he was presented

with a zebra; this too he records in detail. Since the animal was strange he decided to give it to Shah Abbas of Persia (Jahangir, 1978) after making sure that the stripes were genuine and Mansur his master painter was commanded to preserve its likeness. Turkeys and a dodo, imported from abroad, were painted (Alvi & Rehman, 1968) along with any interesting bird or animal that caught his fancy, including a Siberian crane attributed to Mansur (Das, 1978).

Further, hunting with cheetahs was a favourite sport of the Mughals and numerous records of this activity from Akbar to Aurangzeb (Bernier, 1983) are extant. Akbar is recorded as having devised a new method of trapping cheetahs in the wild in India and also of training them at his court for hunting (Abul-Fazal Allami, 1977). He is known to have had 1000 cheetahs at one time in his menagerie (Jahangir, 1978) and Mutamad Khan records that in his lifetime Akbar had collected 9000 cheetahs (Abul-Fazal Allami, 1977). If these animals were collected in one reign alone it would have resulted in a flourishing and lucrative import trade which would not have gone unnoticed in the various chronicles. In fact, there is no mention of import trade of cheetahs in the Akbarnama, Ain-i-Akbari or Tuzuk-i-Jahangiri - an impossible omission considering the fact that these chronicles are quite detailed, particularly Jahangir's memoirs as far as Nature is concerned. To put the problem differently: if Jahangir went to such length to describe a white cheetah, and a zebra, and commanded strange birds to be painted, would he and his chroniclers have neglected to record the rigours of the cheetahs' journeys by sea or overland or the logistics of the import trade? During his reign some animals certainly came by sea. A turkey reached the Imperial court via Goa, a dodo via Surat and a zebra via, probably, the Gujarat coast. Yet another zebra reached Aurangzeb from Ethiopia and an elephant referred to as a 'dariyai hathi' in the Jaipur records. The word 'dariyai' - of the water - may be an allusion to the mode of arrival of the animal or simply it may mean from overseas. (Das, 1984). One cannot therefore rule out the possibility of one or a few cheetahs coming this way. But a regular trade either by sea or land is another matter altogether.

This brings me to Sanskrit literature. It is notorious for its descriptive inaccuracy, the bane, for instance, of scientists working to identify roots, fruits, flowers, leaves, etc, for ayurvedic medicines. When one tries to identify animals and birds one is on equally slippery grounds. A recent study of flora and fauna in Sanskrit literature (Banerji, 1980) records 50 species of animals with more or less accurate identifications including seven species of domestic animals. Prater (1980) on the other hand records 136 species of animals (not including domesticated ones and marine mammals) found on the sub-continent. If one is to accept the proposition that cheetahs were not found in India before the Muslim period on the basis of their not being identifiably recorded in Sanskrit literature, one inescapably reaches the conclusion that some 90 species of animals known to us to-day were imported by the Mughals or their successors, the British, if not the Indians themselves...

Further, according to the same study (Banerji 1980), the word Dvipi could denote a tiger (Panthera tigris), a leopard (Panthera pardus) or a snow leopard (Panthera uncia). The word Harina (also Mrga, Kuranagama, Rsyā, Nyanku Ena) could denote a musk deer (Moschus moschiferus), a spotted deer or cheetal (Axis axis), a barking deer (Muntiacus muntjak), a blackbuck or Indian antelope (Antelope cervicapra), a swamp deer (Cervus duvauceli) and a sambar (Cervus unicolor). On the other hand, the one animal lion (Panthera leo) is referred to as Simha, Mrigendra, Mrgadhipa, Mrigaraja, Hari and Kesrin. At the best of times accurate identification of the cheetah in Sanskrit literature would be very difficult if not impossible. It is not out of place to mention here that there was much confusion about the animal denoted by the words

panther, leopard and hunting leopard even among British naturalists and sportsmen for a long time (Forsyth, 1975), in spite of the fact that they were far more accurate as a rule.

The cheetah, according to T.J. Roberts (1977), is among "those animals having greater affinity with the Ethiopian region" and "it must have invaded Pakistan from the west, and presumably entered along the Mekran coastal belt". Three other members of the cat family belong to this group who presumably came likewise: the lion (Panthera leo), the caracal cat (Felis caracal) and the jungle cat (Felis chaus). The question is, when did they cross? With regard to the cheetah T.J. Roberts (1984) feels that the real facts cannot be known as there is no sufficiently conclusive proof. As such his views are "speculative or putative". He writes: "However, it is an established zoogeographical fact and historically proved that many birds and mammals of essentially Ethiopian faunal origin have been able to spread and colonise the Indian sub-continent even after the so-called continent of Gondwanaland broke off from Africa 30 million years ago" and drifted across the sea to collide with Asia forming at the point of impact the Himalayan Mountain chains. Some very primitive family may have had a continuous world distribution and simply arrived as passengers aboard the floating landmass of Gondwanaland. Many examples can be cited of similar but slightly different shared forms - they are different because they have been genetically separated or isolated for millions of years. The examples are the adjutant stork in India, its nearest relative the marabou stork in Africa, now considered distinct species. Similarly, the saddlebill stork in Africa and the black-necked stork of India. Storks are palaeontologically very ancient - more than 30 million years old. The cheetah, in an evolutionary sense, is more modern - but none questions the statements made by experts that the honey badger or ratel, the lion and the cheetah probably spread from Africa through the drier parts of the Middle East and eventually into the Indian sub-continent. The movement was not in an east to west direction.

"I personally believe that the Indian cheetah was not significantly distinct from the African, but animals moving wild in Las Bela-Mekran and Western Sind in 1850-70 certainly formed part of a continuous population from Iraq-Palestine-Persia-they were not feral escapees from Indian Princes", declares Roberts.

Ms. Daphne M. Hills (1984) of the Mammal Section of the British Museum (Natural History), London, informs me that the remains of a large pre-historic species - Acinonyx pardinensis - have been recovered from sites in India, China and Europe. Early Minoans, Egyptians, Assyrians and Sumerians in Mesopotamia (Iraq) kept cheetahs in captivity. They were also kept for hunting in Syria and Palestine in the early 13th century and by the king of Armenia in the 15th century. There is evidence as well that hunting with 'leopards' was known in Iran in the 11th century. Qabus-nama not only records it but also advises a king on how he should go about the business of hunting with these animals (Digby, 1984). The description leaves no doubt that the animal was the cheetah. Certainly Kublai Khan hunted with 'leopards' and lynxes in the second half of the 13th century (Marco Polo, 1948). The Great Khan is reputed to have had a thousand cheetahs and when they were taken out for hunting they were made to wear leather caps over their heads (Salvadori and Florio, 1978).

The classification and nomenclature of the cheetah has had a confused history as with many other species. As late as 1929 this animal was classified under the latin name Cynailurus - dog-cat - and it is so referred to in technical literature, e.g. Journal of the Bombay Natural History Society Vol. XXXIV. It was referred to as Cynaefelis - also dog-cat - as well

because of the opinion held by many that the animal in question was an intermediate species connecting the dog and cat families (Pocock, 1976). Similarly, the number of sub-species of the cheetah have also been in doubt. At one time it was believed that there was the African cheetah (Acinonyx jubatus jubatus), the Transcaspian cheetah (Acinonyx jubatus raddei), the Asiatic cheetah (Acinonyx jubatus veneticus) and the King cheetah (Acinonyx jubatus rex) having distinct striped markings described in 1927. However, the last mention is now accepted as an aberrant colour variant (Hills, 1984, Pocock, 1976).

Today, however, the position seems to have settled down as follows: cheetahs from Africa, south of the Sahara are probably best considered to be of one sub-species, Acinonyx jubatus jubatus, the name currently used for cheetahs north of the Sahara and those in Asia being Acinonyx jubatus veneticus (Hills, 1984). The Asiatic sub-species is similar to the African but is slightly smaller according to Salvadori & Florio (1978). On the other hand, T.J. Roberts (1984) states that "cheetahs from Afghanistan and Iran averaged longer in size and had longer fur than the African population because of adaptation to a colder climate - Globers Rule".

The Asiatic cheetah once ranged "from Rio de Oro eastwards across North Africa to Egypt, into Arabia, Palestine and Syria, through Iran, Iraq, southern Turkmenistan, Afghanistan, Pakistan and into India, including areas of Sind, Gujarat, Punjab, Rajputana, Central India and Deccan and possibly as far south as Mysore. This distribution probably relates to the availability of gazelle, a major prey item, which had a similar distribution" (Hills, 1984). Dharmakumarsinhji (1984) also feels that the distribution of the species would be closer to that of the gazelle than the blackbuck.

STATUS

Our enlightened century has spelt only doom for the cheetah, as indeed for many species of animals on earth. The African cheetah was believed to be as numerous as 100,000 about a hundred years ago, but today its range is believed to be between 8000 and 25,000 (Salvadori and Florio 1978). The story of the Asiatic cheetah is much worse, particularly with reference to the Indian sub-continent. On going through records of naturalists and hunters of the British period one reaches the conclusion that by the time they started recording their observations and experiences, the situation had become critical. Vast numbers of cheetahs trapped and kept in captivity by the Mughals must surely have depleted their numbers in the wild, and in captivity they did not breed as already noted. Cheetahs continued to be kept in captivity by many Indian Princes for hunting. Sterndale (1982) recorded in 1884 that cheetahs were being caught for this purpose and a class of men devoted themselves to trapping them, but by 1927, as already stated earlier, import of cheetahs from Africa for hunting purposes appears to have become an established practice (Finn, 1929).

With the evidence available it would be hazardous to make a guess at the cheetah population or the rate of its decline. Forsyth (1975), writing in 1889, states that he had come across and shot cheetahs 'several times' in Central India. Russell (1900) records having seen five cheetahs in August 1882 in Berrambadie forest of Mysore district, of which he shot one. He also records that the animal was not seen to be numerous anywhere though it was more common in Jaipur and Hyderabad. G.O. Allen (1919) states that he saw in 1916 the skin of a cheetah killed by villagers 30 miles south of Mirzapur. Only five animals were recorded in 25 years prior to that in the region. R.G. Burton (1920) states that he never saw a cheetah in the feral state. In one instance he saw tracks in Buldana district of Berar. He records seeing three

skins of animals shot in Melghat forest. One was shot at Damangao in 1894 and one in 1895. He quotes Buchanan Hamilton, who believed the cheetah to be found all over the hilly parts of India but numerous only around Hyderabad.

Referring to Sir Samuel Baker's "Eight Year's Wanderings in Ceylon", published in 1885, he records that cheetahs were common there and frequently caught at Nuwera Elia, whereas Frank Finn (1929) categorically states that the cheetah was not found in Ceylon and the word was used to denote leopard or panther (Panthera pardus). Sir Montague Gerard told Burton that he had ridden and speared cheetahs in Central India. Raj Kumar (later Maharaja) Sardulsinghji of Bikaner shot three cheetahs out of a bunch of five seen by him in Rewa state around 1925 (Finn, 1929).

L.L. Fenton (1920) records that in Bombay Presidency cheetahs occurred in limited numbers in the Kathiawar province. In 17 years of his stay in Kathiawar he had heard of only nine cheetahs. Two were shot by "natives" in Chotila, two by S.A. Strip of Wadhawan Garassia School at Wadhwan, and of the remaining five cheetahs, one each was speared by Mr. Waddington, Principal, Rajkumar College, Rajkot, and himself, and three were despatched by other officers. In the same vicinity the late Maharana Raj Saheb Sir Amarsinhji of Wankaner shot two cheetahs between 1900 and 1910 (Y. Digvijay Singhji, 1984). J.M. Richardson (1929) shot a specimen in Chindwara district, and was informed by the Commissioner of the Division that for 50 years a cheetah had not been reported in those parts. R.C. Morris (1935⁽¹⁾) records his father as having seen one in Attikalpur in Mysore District. He also refers to F.W. Jackson's "Mammals of the Coimbatore District" published in 1875, which records that the cheetah was sparsely distributed there (Morris, 1935⁽²⁾). The last record of cheetahs in the wild in India is of 1948 when the ruler of Korwai state (wrongly referred to as Korea in the Journal of Bombay Natural History Society) senselessly destroyed three of them while these animals were transfixed in strong headlights at night (Robert, 1977).

While the foregoing does not purport to be an exhaustive record of the cheetah in India in the last 100 years or so, it is certainly a representative one. It is obvious therefrom, that cheetahs were well on their way to total destruction during that period. It is therefore, not surprising that the Indian Princes resorted to imports of these animals from Africa for the regal sport of hunting with cheetahs in this century.

In Pakistan the situation is not much better. T.J. Roberts (1977) believes that the animal enters the country in the extreme south west of Baluchistan even if it is not permanently resident in the region. In 1912 an animal was collected from Schorab in the southern part of Kalat State and the skin is in the British Museum collection. In the extreme south west of Fars province of Iranian Baluchistan cheetahs have been recently discovered to be still surviving. The Chicago Field Museum has a specimen from Bampur close to the Kharan district in Pakistan. The Street expedition obtained a specimen in 1963 in Damin in Kerman Province. The nephew of the Khan of Khalat claimed to have shot a cheetah in February 1968. In 1972 J.A.W. Anderson obtained a skin which is lodged with the Royal Scottish Museum. Two skins were received by traders in 1970 and 1972 in Peshawar and Lahore respectively. "Both these specimens had extremely long soft belly fur and could have come from mountainous colder steppe regions of Afghanistan bordering U.S.S.R. They were both sub-adult specimens with a fairly pronounced dorsal crest of longer hairs from the nape down to the shoulders". From the evidence it becomes clear that though the cheetah may still survive in Pakistan, authentic information available is scanty. One may safely conclude that there is a possibility of a few stragglers in the westernmost area of Baluchistan in Pakistan. I have approached H.E. Mr. Riaz Piaracha, Ambassador of Pakistan to India for

information and await a response from the embassy. As far as Afghanistan is concerned, I have no information though I await a response to my enquiry to the Afghan Embassy in Delhi.

In Iran, as mentioned earlier, Asiatic cheetahs do survive, but there again the information available is scanty. Salvadori and Florio (1978) record a population between 200 and 300 and there was one specimen in the Tehran Zoo as late as 1974. Paul Joslin (1984) records a possible cheetah population of 30 in the Khosh Veilagh protected region in North Eastern Iran south of the Elburz Mountains. The rest of the population is scattered all over with a "reasonable guesstimate" of a hundred plus in the whole country. This is based on information obtained in 1973-76. With the subsequent political uncertainty in the country the question is again wide open. I await a reply to my enquiry to the Iranian Embassy in Delhi.

As far as the U.S.S.R. is concerned, I have no information to date though some animals may survive in Turkmeniya (Hills, 1984). The Arabian population may have been wiped out. There is a record however by Norman L. Corkill (1928) of cheetahs in Iraq. The local Arabs could not identify the cub in question and referred to it as 'fahad' i.e. leopard. That was in 1928. It is possible that a few animals may have survived in the Qattarah Depression in Egypt and in Tunisia (Hills, 1984).

In conclusion, one can only say that Asiatic cheetah survives in the region where the international boundaries of Afghanistan, Iran and Pakistan meet, with a possibility of some survivors in the U.S.S.R. in the areas bordering this region.

This position paper has been written with the purpose of putting together such information as was available to me in the hope that it would generate sufficient interest to examine the history and status of the Asiatic cheetah afresh. In my opinion the issues raised in this paper must be pursued on the following lines:

1. The ascertainment of the exact status of the Asiatic cheetah i.e. its population, range, availability of prey species, condition of its habitat, its status as a protected species in the countries concerned, human activities in the animal's range, extent of poaching for fur or sport etc. is of paramount importance.

Unfortunately, the geographical areas where the animal exists or is believed to exist, are difficult of access, and divided among four countries - Iran, Afghanistan, Pakistan and U.S.S.R., which in turn are politically disturbed or sensitive.

An exhaustive search must simultaneously be made in Egypt and Tunisia as well. If any headway is to be made it will have to be through an international agency such as the IUCN. To say that the matter is urgent is an understatement of the first order.

2. The Asiatic cheetah still awaits proper study, particularly with reference to how it differs from the African sub-species. This must be done by observing these animals in the wild. It may be a difficult proposition but it has to be attempted.

We know for a fact that British Museum (Natural History), Royal Scottish Museum and Chicago Field Museum have skins of Asiatic cheetahs. The Indian Museum and Zoological Survey in Calcutta and the Natural History collection in Bombay may have skins too. Some skins may be available in the private

collections of Indian Princes, particularly from Bikaner, Korwai, Hyderabad and Deccan states. It is also possible that skins are available in Iran, Pakistan, Afghanistan & USSR. In short, an effort must be made to trace all skins of the Asiatic cheetah; their individual histories must be established, authenticated and studied for taxonomic differences. Only then the question of the distinct Asiatic sub-species can be conclusively settled. It is interesting to note that T.J. Roberts (1977) does not give the cheetah in Pakistan the identification of 'venetica' or 'veneticus'. Whether there was an 'Indian' sub-species distinct from the Asiatic one is yet another matter, though it appears to be doubtful to me.

3. On the basis of the evidence we have (and in the absence of solid proof to the contrary) it would be safe to conclude that the cheetah has been with us in India from pre-historic times along with the lion, the jungle cat, caracal cat, ratel etc. However, the question of the cheetah being 'Indian' or not can still be pursued. It calls for a study of the words used for the cheetah in local regional languages e.g. in the Makrani language leopard is 'abtar' and cheetah is 'gurk'. In the Brahui language leopard is 'khaleja' and cheetah is 'yeoz' (Roberts, 1977). Abul-Fazal Allami (1977) uses the words 'yuz' or 'cita' in his Ain-I-Akbari. In India some regional languages had/have a distinct name for cheetahs e.g. Bengali "Kendua Bagh", Telugu "Chita-puli", Kanada "Chircha", "Sivulgli" according to Russell (1900). Some of these words were surely used to denote a panther (Panthera pardus). In Gujarati the words 'chito' (singular) and 'dipdo' (singular) are interchangeably used for panther (Panthera pardus) though shikaris with a keen eye would perhaps have used the words with discretion, using only the word 'dipdo' for a panther and 'chito' for a hunting leopard. An etymological enquiry of these and other such words would be most instructive.

Earlier in this paper I discussed the matter of Sanskrit language. However, to the best of my knowledge, this literature (or for that matter the literature of other ancient languages of India) has not been examined with a specific object of tracing the cheetah through history. A systematic search of surviving manuscripts may reveal facts not known to us today. A similar search or examination of various sculptures and monuments could be indicative as well.

It would be correct to say that hunting with cheetahs, in one form or another, has been known almost throughout the recorded history of Man. When were the cheetahs first kept in captivity, and when were they first used for hunting in India? All we seem to know is that the Mughals were quite at home with the sport. Did the sport come with them to India? Did it come with earlier Muslim invaders? Was it known to the Indians earlier? These are open questions and again a sustained systematic search through historical records is called for. To the best of my knowledge this had not been attempted yet.

5. It has been noted earlier that fossil remains have been reported in India and elsewhere of the pre-historic animal Acinonyx pardinensis. The Zoological Survey of India must take immediate steps to have these studied in conjunction with evidence available elsewhere, particularly China and Europe.

6. This brings me to the all-important question of the reintroduction of cheetah in India in the wild state. I have no doubt that this would be a commendable move. However, the following aspects of the problem must be settled at the outset:

i) The cheetahs to be reintroduced must preferably be of the Asiatic variety from Iran for the sake of recreating an authentic situation. However,

can these animals be spared from Iran when their own status there is precarious ? Possibly not. If not, I do not think there should be any reservation in introducing the African sub-species on a purely pedantic ground of racial purity for the simple reason that all known sources point to very minor differences between the two sub-species. Surely, the African sub-species would adapt to differences of habitat quickly and efficiently. Cheetahs are known to adapt themselves to a wide range of climatic and geographical conditions. Their eating habits can be vastly different as well. In Iran they are recorded as preying on urial, Ovis orientalis (Schaller 1977).

ii) Prey animals of the cheetah are predominantly the gazelle and antelope. Both these have practically disappeared along with our grass lands and the forests of the plains from the sub-continent. They survive in protected areas and they are none too plentiful. For the sake of their survival, new areas must be set aside first, preserved and stocked with prey animals before cheetahs can be introduced so as not to expose existing parks and reserves to experiments with possibly unexpected results. In other words, precisely those conditions have to be recreated in large tracts of land, the disappearance of which caused the demise of the cheetah in the first place, before we try to reintroduce the animal. Initially, artificial feeding may be necessary but it must be stopped at the earliest possible. One would hate to see the spectacle of a lion show resurrected in a new garb.

All this requires an attack on two fronts. First: a proper management study of the project would be required in consultation with the best experts in the field. This may not be an insurmountable problem, for expertise can always be bought from anywhere on earth. Second: the successful execution of the project would require management skills and dedication of the highest order in our bureaucracy, both of which appear to have been sadly lacking in our experiment in transplanting Indian lions from the Gir in Gujarat to Chakia near Benares in U.P. some 20 years ago.

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Supplementary Note given by Shri Divya Bhanusingh
Chavda to Director, Wildlife Preservation

Thank you for taking the trouble of writing detailed critical comments on my paper on the cheetah. I must confess I have learnt much from it. It is rather unfortunate that I shall not have the time to do a thorough job of revision of the paper in the short span of time now left. I give below my reaction to your comments:

1. I entirely accept your suggestion that the word "origin" in the title is misleading. It must be "Past and Present Status of the Asiatic Cheetah".
2. You are quite correct that the conclusion given in the paper that the cheetah has been with us from pre-historic times has been supported by the evidence. You may note the sub-title of the article "A tentative position paper". You may also note that I have reached this "tentative conclusion in the absence of solid proof to the contrary".

The points not to be missed are:

- a) There are remains of a pre-historic animal Acinonyx pardinensis in India as well as in China and Europe. How did these come about if the animal was imported later on? Also, historical records show the ancients to be acquainted with the animal from Egypt to Iraq. We do not have any evidence to suggest that the animal did not exist eastward to Iran and the Indian sub-continent from the earliest historical times. Unfortunately, we Indians have been plagued with a singular lack of historical records, to the extent that even genealogies of our major dynasties are in doubt and we are still battling over the date of Vikramaditya's birth or accession to the throne, from which begins the Vikram era followed in many parts of the country. In my opinion absence of identifiable reference to the cheetah in Sanskrit literature in no way rules out its existence on the sub-continent.
- b) There is also a continuous Muslim tradition of hunting with these animals in Iraq, Iran, China and ultimately India from at least the 11th century onwards to 16th century, the latter being the first known references in India, i.e. of Akbar. There may be earlier ones which at present I do not know about. I know this does not prove the existence of the cheetah from pre-historic times in the sub-continent, but it does not disprove it either.
- c) If you read carefully the Akbar Nama you will find that when Akbar was presented with a cheetah Fatehbaz" the event is mentioned as a matter of course. It seems to have happened in Punjab and no eyebrows were raised about hunting with a cheetah. By this you can infer that the animal and the sport were known in India by them. Abul-Fazl describes in detail how cheetahs were classified, how they were kept in captivity, how they were fed and trained, what their keepers were paid, etc. In his Ain-i-Akbari Abul-Fazl goes into the detailed histories of the various provinces of the empire, its religions, customs, etc. And yet there is no mention that either the animal or the sport were alien to the land. It would be a strange omission in view of the Emperor's personal interest in the sport with the cheetah. It is possible that the tradition of hunting with cheetah was so deeply rooted in the Moghul/Muslim tradition that, even if it entered India with them, he would have taken it for granted and hence may have not thought it strange enough to mention. But surely systematic, continuous and obviously lucrative import trade or Imperial Monopoly of imports of cheetahs, if it existed at all, would not have gone unnoticed in the annals of this careful chronicler or in the later Imperial memoirs of Jahangir. Successful transportation of these delicate animals in large numbers overland or by sea involving a rigorous

journey of thousands of miles and many weeks would be a marvellous feat of which any Emperor would have felt truly proud and would have been considered a matter worthy of being recorded for posterity.

d) Jahangir and Mutomad Khan in Tuzuk-i-Jahangiri and Iqbalnama respectively recorded the fact that Akbar had 1000 cheetahs in his menagerie at one time and he collected 9000 cheetahs in his lifetime. He also devised new ways to trap them in the wild in India and is recorded with a painting as having done so personally. He also devised new methods to train them for hunting. It would be safe to conclude that there was no import trade of these animals in the 16th century as there is no evidence for it, whereas there is evidence that cheetahs were in the wild in India by that time. I would like to ask: What could have been the population of these animals in the sub-continent to enable one emperor to collect 9000 of them in a span of less than half a century? Whatever the answer, it would be "substantial", whatever that may mean. Then, how many years, (decades, centuries?) would it take for the cheetah to multiply to this level by the 16th century so that Akbar could collect 9000 of them in 50 years? The known range of the animal in India was from Baluchistan to Bihar and the Deccan in the south. Geographically it is a vast area to say the least. We know that the animals did not breed in captivity without the aids available to us to-day. Did the cheetah come with the Muslims in the 12th century in India? Was it already there and they just caught it for hunting as they were used to doing in their homeland? A conclusive answer on the evidence we have is difficult. But on the same evidence one can say that in all probability the cheetah was alive and well in the wild in India for a long, long time before Akbar arrived on the scene.

e) You have suggested that I enquire into the literary and epigraphic evidence for the cheetah. I have written to Prof. S.C. Banerji and Prof. Irfan Habib on the subject. Unfortunately, my query has not evoked a reply from them yet. The search would be difficult and extremely time-consuming. In addition, all of us have looked at only the major published literature. It requires a countrywide search into the written records of the lesser nobles, merchants and the common man, a daunting task but a possible one, as shown by Mr. Atre and the Itihas Somshodhan Mandal at Poona. Only a full time team of dedicated researchers can go into it in any meaningful manner. In the short time at my disposal and my other pre-occupations it is beyond my reach at the moment.

f) This brings me back to the cheetah being (or not being) with us from pre-historic times. Frankly, I feel we are putting the cart before the horse. At the risk of sounding polemical I would draw your attention to the following: of the 136 species of animals (excluding domestic ones and marine mammals) recorded by S.H. Prater, how many species can we trace without any room for doubt from numismatic, epigraphic or literary evidence? Possibly not more than 50, but certainly not 136. Then, are we to doubt the evolution and presence of the rest of the species on the sub-continent ?

The crux of the matter is: what evidence is there to prove that cheetahs were imported in historical times on a large enough scale from Africa or elsewhere to enable them to arrive, go feral, multiply profusely enough to supply 9000 in 50 years to Emperor Akbar, and spread over almost the entire sub-continent of India by the middle of the 16th century ? I have tried to look for it but I can't find any. Those experts who have questioned the cheetah being "Indian" would be doing yeoman service to us all by setting the record straight by furnishing such evidence. Till that time this matter should not detain us unduly. After all no one has questioned the presence of the caracal cat or the ratel on the sub-continent from the earliest historical times.

Twentieth century evidence can speak only for its time (for we know cheetahs were imported by Indian princes from Africa for hunting), just as 16th century can speak for itself or a later period.

3. Please let me have the copy of the "Red Data Book" published in USSR in 1978. I have found a translator who will do the needful. I shall be delighted to return the book to you along with relevent portions of it translated as soon as it is done.

It is interesting to note that the Russians classify their cheetah as A.j.raddei. If I remember correctly the description was first recorded in 1920's and that they should still be using it is significant. As mentioned in the article, the description is no longer accepted by Ms. Daphne M. Hills. You mention that a recent study concludes that the African and Asian cheetahs are not separate species. I would very much like to get hold of a copy of it for my information and I shall be grateful if you can obtain it for me. Actually, this conclusion is not in contradiction to T.J. Robert's statement that this animal has greater affinities to the Ethiopian region and his "speculative and putative" comment that the animal could have come with Gondwanaland i.e. the movement was in a west to east direction. In fact, in his book "The Mammals of Pakistan" he does not describe the cheetah as veneticus or venetica.

If the study you mention is based on taxonomic evidence, it could settle the matter once and for all. There would always be some difference based on local geographical and climatic difference of its range. Take for instance Panthera pardus of Kutch and of the south Indian or central Indian jungle. Colouration, weight, height, length of this animal would be different on average.

Finally, I feel the question of the cheetah's history in India should not detract us for long, for it can be of little more than academic interest. The real problem is how and where it should be reintroduced. Its reintroduction in one or two or more new areas would mean a chance for our grasslands and forests of the plains to revive, and subsequently the prey population which has virtually disappeared would find a new home. These would be the conditions and benefits precedent to any scheme for the cheetah coming back. For this reason alone it is worth the trouble.

It is indeed unfortunate that I shall not be able to go to Kanha for the Cat Group Meeting. All I can say is that please feel free to use the article and this letter for the group's deliberations. If it evokes a discussion and a plan of action, I shall feel amply rewarded.