



PROJECT CHEETAH

Q&A with the Cheetah Conservation Fund

1. What is the status of the cheetah? What are the most recent census details, and where are the populations distributed?

According to the study, [*Disappearing spots: The global decline of cheetah *Acinonyx jubatus* and what it means for conservation*](#), published in Proceedings of the National Academy of Sciences (PNAS), fewer than 7,100 cheetahs remain in the world. CCF believes the number should be a little higher, but still less than 7500. This accounts for several micro-populations in the Horn of Africa that were not included in the PNAS study, some of which CCF is currently studying.

The cheetah is listed as Vulnerable by the World Conservation Union (IUCN) Red List of Threatened Species. Two subspecies, the Asiatic cheetah (*Acinonyx jubatus venaticus*) and the Northwest African cheetah (*Acinonyx jubatus hecki*) are listed as Critically Endangered. The cheetah's historical distribution in Africa covered a substantial portion of the continent, but because of range contraction in the last century, the cheetah is found in only 9% of its historic range, of which 77 % is outside of protected areas. The species is nearly extinct in its entire Asian range, except for a remnant population in Iran, about 20 individuals or less. *Acinonyx jubatus jubatus* is the southern/eastern African cheetah, and its range includes the eight countries of Namibia, Botswana, South African, Zimbabwe, Angola, Zambia, Tanzania, and Kenya. This is the largest population of wild cheetahs in the world. Smaller, fragmented populations of *Acinonyx jubatus soemeringii*, the Horn of Africa cheetah, also called the Somali cheetah, are found in some parts of Ethiopia and some of the Horn of Africa countries, although their numbers have never been officially recorded.

2. With regards to a proposed plan of translocating African cheetahs to India, what is the ideal checklist for selecting suitable habitat. Please elaborate on:

- ***the type of habitat most suitable***
- ***type of prey base needed (what species, how often do cheetahs need to eat)***
- ***How many sq. km. per adult required; do cheetahs travel, are they territorial?***

Our research shows that in semi-arid regions of Namibia, cheetahs utilize huge home range, of about 1500km². The home range size requirements in India will likely be lower due to the more productive habitats. It is imperative that potential threats to cheetahs at release sites be addressed, or plans are in place to mitigate the threat. A habitat suitability study should be conducted at each site to ensure there is sufficient vegetation to support viable prey populations to sustain the introduced cheetahs for the long-term. Such studies have already been conducted at potential release sites. The reintroduced population needs to be protected from anthropogenic threats, and the potential impact of unnaturally high competition among cheetahs and with other predators needs to be managed. Due to the cheetah's large home ranges and tendency to occur at low densities, release sites should be part of a larger suitable landscape or meta population management is necessary.

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3. **Would you know how and when the African and Asiatic cheetah diversified into separate subspecies? Online research tells me the Southeast African and Asiatic cheetah are believed to have diverged from each other 50,000-100,000 years ago.**

The time of divergence between *A. j. venaticus* and *A. j. jubatus* was estimated at 4,700 – 67,400 years ago. The extent of the separation of *A. j. venaticus* from the African subspecies was not clear-cut. mtDNA data placed the split between *A. j. jubatus* and *A. j. venaticus* slightly more recently than that of *A. j. jubatus* and *A. j. soemmerengii*, while microsatellite data suggested that the divergence with *A. j. soemmerengii* was the more recent event. It is important to keep in mind that divergence values between *A. j. venaticus* and the other subspecies could have been stochastically increased due to a postulated recent bottleneck in *A. j. venaticus*. O'Brien et al (2017) estimates a time of divergence between *A. j. venaticus* and *A. j. jubatus* of approximately 6500 years ago.

4. **What type of climates do African cheetahs currently survive in, and would they be able to adapt to India's climatic conditions?**

Cheetahs are very adaptable and had a wide distribution until a hundred years ago including being found throughout some areas of India. They will be able to survive most of the climate conditions in India. In the parts of Africa where cheetahs are found, the temperatures can vary between very, very hot in the day to cold at night, and cheetahs can adapt to the seasonal shifts. They also contend with extreme rain and wet seasons in Africa, much like in India. For hunting, cheetahs do well in open savannahs and grassland environments and can also occur in areas with moderate woody vegetation cover. Cheetahs also benefit from high grass areas or bush areas that enable them to remain undetected while stalking prey. The habitat at the release sites in India is an important consideration, and CCF believes the cheetah will do very well on India's landscapes.

5. **What are the factors to be considered for translocation success and individual survival?**

Evaluating the success of cheetah translocations is complicated. The outcomes of many incidences are unpublished and those that are published potentially suffer from positive publication bias. Successes are more likely to be published than failures. Success is generally based on reproductive output, but programmes often use different definitions of this term. A meta-analysis of documented cheetah translocations determined that at least 727 cheetahs were translocated into 64 sites in southern Africa between 1965 and 2010. Six of the 64 release sites were considered successful based on natural recruitment (births) exceeding adult mortality three years after introductions began. In many of the other projects, the number of cheetahs released was small and long-term monitoring was not conducted. If such long-term monitoring had been implemented and documented, additional sites might have been deemed successful.

The principal factor associated with reproductive success in a carnivore translocation program is the suitability of the release site for the target species, and in the case of free-range releases, the suitability of the surrounding area. Important characteristics of the release site include habitat and prey availability, the potential for intra and interspecific competition, and the animal's ability to leave the site.

6. Can you also provide examples of past cheetah translocations you have done, within Africa or to other continents?

In Namibia, CCF began research on translocations in the early 1990's, and our teams have translocated over 100 Namibian cheetahs to help support populations in other regions of Namibia and in South Africa. Our rehabilitation research began in 2005 and since then, we have rehabilitated over 65 orphan cheetahs and evaluated and released more than 650 trapped wild cheetahs back onto the landscape in Namibia. CCF research has provided a way forward for India.

The first translocated cheetahs in Namibia were released into fenced and unfenced nationally protected areas in the 1960s and 1970s in South Africa, to reintroduce or reinforce existing populations. Legislation passed in South Africa in the 1960s returned the right to utilise wildlife to landowners, paving the way for the development of private game reserves. In 1991, landowners in South Africa began stocking private reserves with cheetahs for tourism purposes, and translocations intensified during the mid 1990's-mid-2000's.

A trial conflict mitigation method, a compensation-relocation programme was carried out in South Africa between 2000 and 2006. Cheetahs perceived to be preying on livestock were captured by landowners and relocated to private reserves and national parks. But vacant territories encourage immigration of new individuals, which may increase human-wildlife conflict. Removing predators is counterproductive to encouraging landowners to coexist with large carnivores, and the impact of repeated removals on wild populations was the primary reason for suspending this programme in South Africa.

7. What is the protocol for cheetah translocations -- safety protocols, duration, how to ensure minimal human-cheetah interactions during transit and why etc.

In 2010, CCF's Dr Laurie Marker drafted a document that outlines the logistical steps of bringing a small group of male and female cheetahs from southern Africa or other range state with wild cheetahs to begin the process of introduction. The animals would be first placed into large, fenced holding areas for adapting to their new environment. They would be fitted with satellite collars to enable scientists to track their movements and monitor their health status. After a short stay, they would be released into a larger enclosure, to become familiar with their new environment, where they would remain for a month or more before being released into the National Park. Their movements would be monitored by research teams, and if an individual cheetah strays too far afield, the animal would be brought back into the Park. This document was expanded upon over the years, and now, it has been absorbed into the 310-pp [Action Plan for Introduction of Cheetah in India.](#)

8. What role is CCF playing in India's Cheetah Project at present?

Cheetah Conservation Fund (CCF) is assisting the committee of conservation experts appointed by the Supreme Court of India in introducing the African cheetah to the landscape of India by participating in site visits, conducting assessments, training field officers, identifying suitable cheetahs for the project. CCF is also assisting the Namibian government in preparing the Namibian cheetahs that will make the transcontinental journey. Members of CCF's introduction team will accompany the cheetahs to India, from the CCF Centre in Otjiwarongo, Namibia, to Kuno National Park.

Once in India, the CCF team will monitor the cheetahs as they are released into their bomas (fenced holding areas) for a period of acclimation. The team will observe and provide assistance with veterinary care and handling through their transition into the National Park. The CCF team will also support the Kuno National Park staff and field officers for Project Cheetah for an indefinite period once the cats arrive in India.

9. What are your opinions on how to make this translocation more convenient for the cheetahs in terms of climate, habitat etc.

CCF is very excited about the project and the hope it provides for long-term cheetah survival. The reintroduction will be a long process, but we know that our colleagues in India are up for the challenge. The potential for bringing the cheetah back into the wild can help conserve the endangered grasslands that form prime cheetah habitat and support various other endangered species living on these grasslands, helping them to prosper. We believe Project Cheetah will be very worthwhile, with cascading benefits through the ecosystems where cheetahs will live.

10. Lastly, do elaborate on the human-cheetah conflicts situation in Africa. What are the main reasons (habitat loss, prey loss)? And if cheetahs translocated to India, how can such conflict situations be avoided, if at all? What are your views on this?

Habitat loss along with loss of prey base directly threaten the cheetah's existence, and they are also drivers of farmer-carnivore conflict. Conservation organizations are often under pressure to translocate cheetahs that are believed to be responsible for livestock depredation, to prevent them from being killed, and as such, translocation is often considered a strategy in conflict mitigation. However, the demand for cheetah removal outweighs the availability of suitable introduction sites and resources. Thus, most cheetahs captured due to perceived or actual depredation on livestock are translocated within existing cheetah populations in Africa, without assisting reintroduction projects.

To mitigate conflict between livestock farmers and cheetahs in India, sustainable tourism should be promoted so that jobs and business opportunities for the local communities can be created. India can simultaneously boost its local economies and ensure its cheetah introduction is successful by taking the approach of Community Based Natural Resource Management (CBNRM). It is very important that enthusiastic and committed rangers, researchers, and veterinarians be selected for the project. Through proper training, these persons will become India's cheetah experts and be central to the success of the project. They will work with local communities and farmers to mitigate conflict.

QUOTE from Dr Laurie Marker, CCF's Founder and Executive Director:

"To save cheetahs from extinction, we need to create permanent places for them on Earth. India has areas of grassland and forest habitat, which are appropriate for this species. The government has a progressive mind-set, and they believe in the concept of introducing cheetah to encourage healthy biodiversity. We think they are setting a marvellous precedent with Project Cheetah. However, the process of bringing a species back that has gone locally extinct is a huge challenge. The cheetah needs massive amounts of support to survive, and it is my hope that we, as conservationists, can provide what the species requires for success".