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Abstract: Human persecution on cheetah and its prey caused the cheetah population decline after the World War II. It disappears from many of its former ranges and was limited to some remote areas in the 80's. Today, in the main desert areas around Dash-e-Kavir at the eastern half of the country, cheetah population is estimate to 50-60 individuals distributed in five areas. Some recent surveys conducted in Estahan and Yazd provinces revealed the presence of the Asiatic cheetah in four areas. The Iranian cheetah society currently works to save the last Iranian cheetah through conservation measures and particularly local education.

La persécution du guépard et de ses proies par l'homme a causé le déclin de la population de guépard après la seconde guerre mondiale. Il a disparu de plusieurs zones de son ancienne aire de distribution et était limité à des zones reculées dans les années 80. Aujourd'hui, dans les principales zones désertiques autour de Dash-e-Kavir de la moitié est du pays, la population de guépard est estimée à 50-60 individus distribués dans cinq zones. Des enquêtes récentes dans les provinces d' Estahan et de Yazd ont révélées la présence du guépard asiatique dans quatre zones. La «Iranian Cheetah Society» travaille actuellement à la sauvegarde des derniers guépards iraniens à travers des mesures de conservation et particulièrement des actions d'éducation locales.

# The Last Stronghold: Cheetah in Iran

by *Mohammad S. Farhadinia*<sup>1</sup>

## Introduction

Once distributed from the Indian subcontinent through Afghanistan, Turkmenistan and Iran to the Arabian Peninsula and Syria, the Asiatic cheetah (*Acinonyx jubatus venaticus*) is now one of the most endangered members of the family Felidae in the world. The last physical evidence of the cheetah in India was of three shot in 1947 by the ruler of the then Korea state. Since then, the cheetah has rapidly disappeared from most of its range (Nowell & Jackson, 1996). Over the past 20 years, Iran has been the last stronghold for the Asiatic cheetah, known in Iran as *yuz*, although there have been occasional reports of cheetahs across the border in Pakistan.

## Background in Iran

Before World War II, the cheetah population was estimated to be around 400, ranging in almost all of the steppes and desert areas of the eastern half of the country and some western terrains near the Iraqi border (Harrington, 1971), but the advent of the jeep after the war marked the beginning of a decrease of this animal, largely through slaughter of their essential prey species, the gazelle (Lay, 1967). As a result, the cheetah population declined greatly in number.

In 1956, the former Iranian Game Council gave legal protection to the gazelles, and, in 1959, protection was extended to the cheetah. The gazelle population recovered in many areas and so did the cheetah. Cheetah sightings increased in different localities, particularly inside the gazelle habitats, revealing a remarkable resurgence of its population and the efficacy of conservation measures.

In the late 1970s, the cheetah population was estimated to be 200-300 for the whole of the country (Firouz, 1976), while some other experts, believing it to be an over-estimate, suggested about 100, including 30 cheetahs in the Khosh Yeilagh area (Joslin, 1984), where cheetah sighting was common (e.g. in 1970 and 1973, 13 and nine cheetahs were seen just in a couple of hours). The cheetah range appeared to include all the desert areas of the eastern half of the country, which consists of vast expanses of largely unpopulated terrain.

In 1979, the country witnessed a revolution, which interrupted wildlife conservation for a few years. Many areas were occupied by livestock, and the flat plains and steppes became a place where armed 4WD vehicles and motorbikes chased desert species, such as Persian gazelle *Gazella subgutturosa*, Jebeer gazelle *Gazella bennettii*, onager *Equus hemionus onager*, as well as the cheetah. Gazelles declined in many areas, so the cheetahs had to move toward the foothills and mountainous habitats to avoid persecution. On the other hand, because of the remarkable reduction in gazelle numbers, cheetahs had to look for a new food source, wild sheep *Ovis orientalis* and wild goat *Capra aegagrus*, which, in their mountain habitat, had not suffered the same pressures as the gazelles. Khosh Yeilagh Protected Area, which was once con-

sidered the best cheetah habitat in Asia, was devastated and the last cheetahs were observed there in 1983. The cheetah disappeared from many other of its former ranges and was limited to some remote areas where there was still a reliable prey population and relative safety.

### Present status

Today the Iranian cheetah is one of the most endangered felids in the world. Its population is estimated to be around 50-60, restricted to the main desert areas around Dasht-e-Kavir in the eastern half of the country:

1. **Ariz&Bafq Protected Area:** Bordering the city of Bafq in eastern Yazd province, this is one of the most important cheetah reserves, with an area of 250,000 ha. The area has large numbers of wild sheep, wild goat and Jebeer gazelle. Persian leopard *Panthera pardus saxicolor*, the largest subspecies, occurs in relatively high numbers. It is estimated that there are at least 10 cheetahs in the area, and because of the size of the region; cheetah density is fairly high compared with the other reserves. Unfortunately, because of conflict between humans and the cheetah, two tragedies took place in recent years: in 1994, two cubs were killed and the third was captured, named Marita, and kept in Pardisan Park in Tehran as the only captive Asiatic cheetah in the world (Cat News 28 cover photo). Marita died on 23 December 2003. In June 2003, three two-month-old cubs were burned by a local herder.
2. **Daranjir Wildlife Reserve**, with an area of 150,000 ha, is some 100 km northeast of the city of Yazd. As a result of protective measures, the region has recently been improved and herds of Jebeer gazelle, wild sheep and wild goat can be observed. It is estimated that the area is home of around 7-10 cheetahs. In 2002, camera traps twice photographed a mother accompanied by two yearling cubs, in August and November.
3. **Naybandan Wildlife Reserve**, 180 km south of Tabas, Yazd province, is the largest reserve in Iran covering 1.5 million ha. Naybandan has recently been given legal protection and is known today to hold the highest population of the Iranian cheetah – at least 15. A fairly low population of Jebeer gazelle, wild sheep and wild goat inhabit the area. Furthermore, the striped hyena (*Hyaena hyaena*) is the only large carnivore present and is common. Naybandan has been a traditional passage for drug smugglers from Iran's eastern border with Afghanistan, so that fear of being caught by the smugglers inhibited poachers. Thus the cheetah survived without protective measures in the area. At present, preventive activities by the Iranian Army on the Afghan border has limited smuggling activities, while conservation has been enhanced remarkably by the Iranian Department of the Environment (DOE).
4. **Kavir**, covering 670,000 ha, is 50 km southeast of Tehran. Once called "Iran's Little Africa", Kavir was the habitat of almost all the Iran's desert species, but after the revolution in 1979 human persecution led to eradication of the onager and a decline in the Persian gazelle to a few dozen each. It is estimated that there is a population of fewer than 10 cheetahs in the area, often seen in the valleys and

dried river beds looking for wild sheep and Jebeer gazelle.

5. **Khar Turan National Park** lies southeast of Shahrud, Semnan province, and has an area of 1.4 million ha. Khar Turan is the second largest reserve in Iran, and because of its large size and remote desert situation, most of its species were safe from poachers during the critical period of the early 1980s. The area has one of the richest diversities in its mammal species in the country, and has the largest population of onager in Iran as well as a good number of both species of gazelles, wild sheep and wild goat, which ensure cheetah survival. The area is estimated to be home for 12-15 cheetahs and occasional sightings of the animal with cubs indicates a growing population.

The above five areas are fragmented reserves located in the deserts of the eastern half of the country, but it does not seem that cheetah range is limited to them. Since August 2002, the Iranian Cheetah Society (ICS) has been carrying out continuous surveys to establish cheetah existence in four more areas, covering more than one million ha, in Esfahan and Yazd provinces between Kavir NP in the north and Dareh Anjir to the south:

1. **Abbas Abad Protected Area** is a desert habitat of more than 400,000 ha, located near the city of Naein. The reserve is a habitat for wild sheep, wild goat and a small population of Jebeer gazelle. Apart from some skins recovered there in the past decade, four cheetah tracks have been found between October 2002 and November 2003.
2. **Ardestan Free Area**, with an area of more than 400,000 ha just south of Kavir NP, the region has been considered to be a possible cheetah habitat and ICS has gathered many reports in the past decade, including a reliable report on a few cheetahs killed three years ago to protect livestock. Last July, ICS received a report that a cheetah had killed some small livestock in the area, but surveys revealed that the animal was actually a lynx.
3. **Desert Free Area** of Northern Karkas Mountain covers around 200,000 ha and has the least chance of being cheetah habitat, particularly due to its very low number of prey species. A reported observation of a cheetah among tamarix jungle in mid-1990s could not be considered reliable. However, Mooteh WR, the best gazelle habitat in the country and a possible cheetah area in the past is only a few dozen km to the west.
4. **Siahkuh PA** was recently given legal protection. The 200,000 ha reserve is near the city of Ardakan. Fairly good populations of prey species occur in the area and there have been a few reliable reports on cheetah sightings, including a mother with two cubs.

Moreover, in Miandasht WR, near the northeastern border of Khar Turan, a group of three (mother with two yearling cubs) was filmed recently – more than a decade since cheetah was reported in the area.

Today, the Iranian cheetah is on the verge of extinction. The fastest land animal in the world runs toward a gloomy future unless humans help it. Since September 2001, a joint project, "Conservation of the Asiatic Cheetah and its Associated Biota" has been launched by the Iranian DOE and UNDP/

GEF, in which the New York-based Wildlife Conservation Society (WCS), IUCN Cat Specialist Group (CSG) and the Namibia-based Cheetah Conservation Fund (CCF) have been involved.

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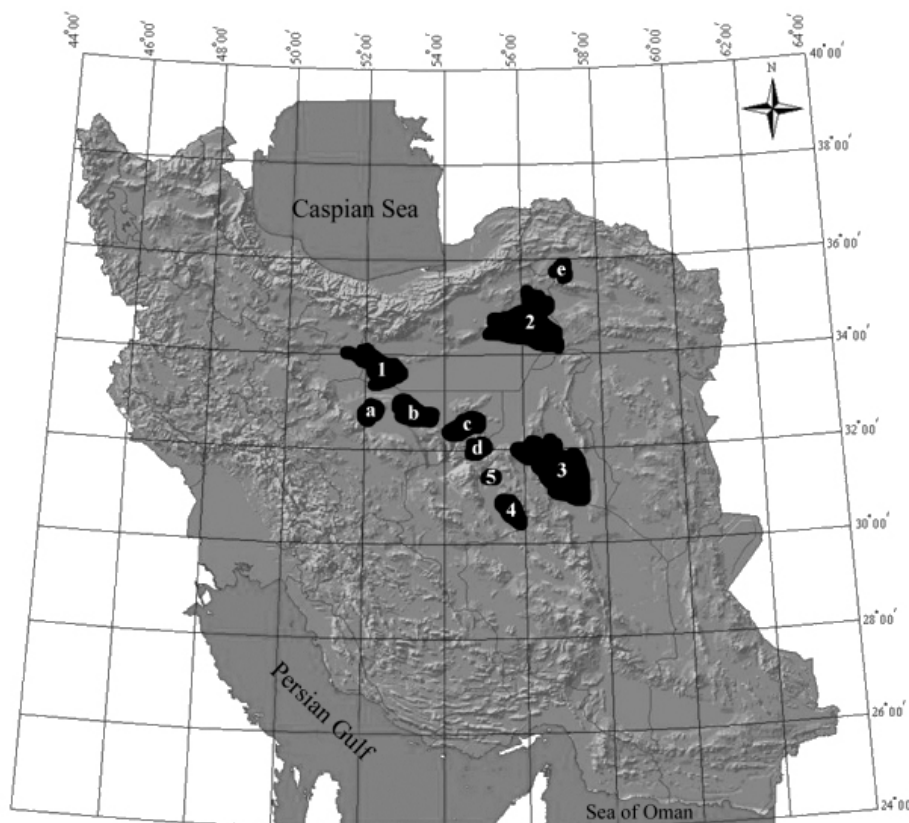


Fig. 1. Cheetah distribution in Iran

## Selected areas

- 1) Kavir NP
- 2) Khar Turan NP
- 3) Naybandan WR
- 4) Bafq&Ariz PA
- 5) Daranjir WR

## Potential areas

- a) Desert FA of Northern Karkas Mountain
- b) Ardestan FA
- c) Abbas Abad PA
- d) Siahu PA
- e) Miandasht WR

## Notes

FA: Free Area  
HPA: Hunting Prohibited Area  
PA: Protected Area  
WR: Wildlife Refuge  
NP: National Park

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## **The Iranian Cheetah Society (ICS)**

The ICS is an Iranian, non-profit NGO established in August 2001, works to save the last Iranian cheetahs,. The society was founded by three young, enthusiastic students of natural resources with five years' experience in studying the cheetah before its official establishment, ICS has made remarkable progress in its activities to save the cheetah in Iran in the past two years. ICS is based in Tehran and has 300 members from all over the country. Its main goals are:

- Public awareness about the cheetah and its associated biota through education, mainly in local communities
- Reducing human-cheetah conflict by implementing socio-economic programmes
- Biological surveys to learn more about the Iranian cheetah
- Conservation of the cheetah in its natural habitat, particularly with public participation.

ICS has focused a large part of its activities on education, mainly for juveniles and youth in local communities where people are in direct conflict with the cheetah and need to co-exist, and also in cities where informing people about this invaluable wealth is so necessary.

On the other hand, since less is known about the Asiatic cheetah compared with its African cousin, it needs to be studied in the wild and ICS has given a lot of attention and energy to this aspect. Recent surveys have shown that one of the cheetah's main prey species is wild sheep, and so a plan to study wild sheep behaviour and demography has been undertaken by ICS since winter 2002. Also, long-term surveys have been conducted since December 2001 on wolf and hyaena, which are the cheetah's main competitors in Iran. At present, local education has the highest priority for the ICS, and fundraising is the most important concern.