that the cheetah is now very widespread throughout the Hoggar mountains and the surroundings and that numbers have certainly risen since 2000. Rainfall has been good in the region in recent years and was especially good last winter.

Dorcas gazelles (Gazella dorcas) were abundant everywhere, and hare (Lepus capensis) droppings were found within 50 m of every river bed. We have never seen as many free-ranging feral donkeys. In the mountains there were Barbary sheep (Ammotragus lervia) everywhere. Potential prey was thus very abundant and this was reflected in the large number of golden eagles (Aquila chysaetos) we also saw. I would say that the relative abundance has doubled since 2000.

Despite their protection status, cheetahs are still killed by the Tuareg when they attack their sheep and goats and young camels. This counts for at least 5-10 animals a year, but in good years, the population growth should be able to cope with this. The offenders are often beaten to death, even by women who are alone with their goat herds in the mountains.

Cheetahs are reported to move on constantly from one valley to another, but have a territorial behaviour by marking trees with their faeces (mostly Tamarix) and scratching them (Acacia). They rest under these trees or lie on the lower horizontal branches.

In the Hoggar they hunt at night, and this has been reported by all previous authors. It is much easier to get close to prey at night when the hunting technique is “hit and run”, and in the Hoggar the cheetah is really the top predator as there are no lions, leopards or hyenas, and so no competitors. This makes it also possible to return to prey next day. We have personally seen that occur with a big male dorcas gazelle killed by a cheetah. There are no large vultures (Gyps spp.) in the Hoggar, and jackals (Canis aureus) are widespread but certainly not abundant.

The situation in the Hoggar is very important for recolonisation of the rest of the Sahara: cheetahs could now reach the vast sand desert of the Great Eastern Erg and Tunisia within two or three years. The situation in the Tassili mountains, south of the Hoggar, should be the same; reports from this national park show that the status of wildlife is good there too.

Saharan Cheetahs in the Termit Region of Niger

by F. Claro* and C. Sissler

The Saharan cheetah (Acinonyx jubatus) survives in the Termit region of Niger. Three adults were sighted, as well as many tracks and other signs of cheetah presence during an expedition in October-November 2002 (map p. 22).

The expedition was organised by the Institut de Recherche pour le Développement (IRD), the Zoological Society of Paris, and the Paris Museum of Natural History after fresh cheetah tracks were observed in the Termit during a visit in March 2002.

The main purpose of the mission was to assess the occurrence of cheetah and addax (Addax nasomaculatus); to evaluate the feasibility of research on these species in the Termit; and to investigate the direct and indirect threats to these species.

The mission travelled more than 1,500 km around Termit Massif with two 4x4 vehicles and a team of two drivers, one guide and five observers. During the trip, the team found 48 tracks and other indirect signs of cheetah presence, three scats, several resting places, including two with fresh urine, and escape tracks.

We also found remains of 12 Dorcas gazelles killed by cheetahs, with the characteristic skin turned back, and we were once able to observe signs of hunting, with side-by-side tracks of a gazelle and a cheetah, approaching at a distance, until the tracks led to where the gazelle was brought down.

After a long search by car and several kilometres following tracks on foot, three adult cheetahs were observed. Two individuals were met by chance on 24 October, and one individual was tracked on 27 October, when it was possible to take pictures of a lone female. These cheetahs resembled pictures taken by Alain Dragesco (1993, and cover Cat News 19), with a generally pale coat and less clear tear streaks (cover picture).

During the first observation, the two cheetahs were in the shade of an Acacia torticoli and moved away immediately, while the lone female went to lie under a tuft of Panicum turgidum, after several minutes lying on its side in the sun. The animal appeared afflicted and frightened. It was observed for several minutes from the car at 10 m distance and then from 30 m for several hours without any attempt to approach and disturb it.

The habitat of the cheetah in the Termit consists of rocky mountains, and wadis, where we found several shelters that had been used by cheetahs for shade in the hot hours of the day.

Our guide, who had been a nomad herder as a child, informed us that cheetahs hunted mainly in the plains, several kilometres away from the massif, during the cold season. In the hot season, however, the animals did not move such a long distance from the mountains, where they can find shade, and where they can escape easily, as their tracks are not noticeable on the rocks.

Suitable prey for cheetahs, such as Dorcas gazelle (Gazella dorcas), young dama gazelle (Gazella dama), Barbary sheep (Ammotragus lervia), and Cape hares (Lepus capensis) were observed in the region.

Interviews with Toubou nomads indicated that they were little interested in the cheetah, which they considered a coward, since it rarely attacked herds to take a new-born camel or a goat.

The impact of strychnine poisoning campaigns against predators of domestic cattle, mainly golden jackal (Canis aureus) and striped hyaena (Hyaena hyaena), seemed to affect only carrion eating species, including Rüppell’s vulture (Gyps rueppellii). We found only three tracks of striped hyaena during the trip, and nomad tracks were very rare, and so we consider that the species is on the verge of extinction in the region. However, we were able to observe golden jackals on seven occasions.

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We conclude that there is no direct threat - such as hunting - to the cheetah. The limiting factor may be prey abundance, as we found many signs of poaching of ungulates in the area. We have recently been informed about a large poaching expedition of Arabian princes in the region.

The genetics of the North African cheetah will be extremely difficult to investigate. The collection of faeces was not very successful, and because of the special susceptibility to stress of the Saharan cheetahs that we observed in Termit, invasive sampling does not seem advisable.

There is an urgent need to protect the ungulate prey of the Termit cheetahs from poachers and to let the ungulate populations recover.

Reference

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Conserving Cheetahs Outside Protected Areas:
An Example from Namibian Farmlands

by Laurie Marker and Amy Dickman*

Namibia is home to the world’s largest remaining population of free-ranging cheetahs (Acinonyx jubatus), estimated at approximately 2,500-3,000 adult animals (Morsbach 1987). The vast majority of these cheetahs exist not in the country’s large protected areas, however, but reside instead on the commercial farmlands, where there is an abundant prey-base and a lack of large competitors, such as lions (Panthera leo) and spotted hyaenas (Crocuta crocuta). This distribution, however, places them in direct conflict with both livestock farmers and game farmers, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) reported approximately 7,000 wild cheetah removals (either killed or placed into captivity) from Namibia during the 1980s alone (CITES 1992).

In response to this situation, the Cheetah Conservation Fund (CCF) was established in Namibia in 1990, to conduct research on the reasons for such removals, and to determine whether any action could be taken to reduce the level of removal from the wild population. Assessing the attitudes of local people is clearly a critical component of effective conservation outside protected areas, so CCF conducted a baseline survey of local farmers from 1991-1993, and then conducted follow-up surveys from 1993-1999, after providing farmers with regular information regarding predator ecology, conservation, and livestock and game management techniques.

The baseline survey revealed a very high level of removal, with an average of 29 cheetahs removed annually on farms where farmers considered that they had a cheetah problem, and 14 removals per year even on farms where cheetahs were not considered problematic. The high removal rate on farms that were not suffering from cheetah depredation indicated that removals were often being performed as a preventative measure rather than in response to a specific problem. Additionally, cheetah removals were linked to the perception of problems caused by other predators, such as jackals and leopards, which suggested that farmers were removing predators opportunistically rather than targeting specific ‘problem’ animals responsible for predation.

Due to their habitual use of certain trees for scent-marking (known locally as ‘playtrees’), cheetahs can be caught with relative ease at such sites, and entire social groups can be removed at one time (Marker-Kraus et al. 1996). The importance of such trees in terms of capturing cheetahs was highlighted by the fact that all the farmers that were aware of ‘playtrees’ on their land removed cheetahs, but none of the farmers without them did.

Farm type also had a significant influence in terms of cheetah removals, with a higher proportion of game farmers removing cheetahs compared to livestock farmers ($\chi^2 = 10.68, p = 0.001$). This may be influenced by the fact that a significantly greater proportion of game farmers than livestock farmers were aware of playtrees on their land ($t = -3.622, p < 0.001$), as well as the fact that cheetahs preferentially select game species as prey (Marker et al. Submitted-d), and as such many game farmers view them as a serious problem.

Farmers cited a potential threat to their livestock or game as the reason for capturing cheetahs in 91.2% of cases (Marker et al. Submitted-b). To address this problem, CCF initiated a Livestock Guarding Dog scheme, where Anatolian Shepherd Dogs were bred at CCF and placed with local farmers as livestock guardians, where they have proved very successful in reducing losses (Marker et al. Submitted-a). Other methods of livestock protection that were encouraged included the use of donkeys to protect cattle, bringing stock in at night, using calving camps and calving seasons, keeping some cattle horned within the herd, and using local breeds of cattle that tend to be more aggressive towards predators.