

I - NAMES

1-Common names

Arabic: El Fahd
Tamazight: Ammayas, Aguerzam
English: Cheetah

2 -Scientific name

Acinonyx jubatus SCHREBER 1776

3- Other names for the cheetah in North Africa

<i>Acinonyx jubatus guttatus</i>	HERMANN
<i>Cynofelis guttata</i>	LESSON
<i>Cynatlurus guttatus</i>	HERMANN
<i>Cynatlurus jubatus</i>	ZIM
<i>Cynatlurus jubatus guttatus</i>	
<i>Felis guttata</i>	HERMANN
<i>Felis jubata</i>	ERXLEBEN
<i>Gepardus jubatus</i>	SCHREBER

II -DESCRIPTION

Descriptions provided by various authors do not apply specifically to the cheetah of North Africa in general or of Algeria in particular. There are 8 subspecies of cheetah in the world, including six in Africa. In the Maghreb Sahara, depending on authors, the subspecies are *A. jubatus hecki* HILZHEIMER, *A. jubatus venaticus* GRIFFITH, or *A. jubatus jubatus* SCHREBER. We include the description given by Aulagnier and Thévenot (1986). The cheetah is a large cat the size of a panther, but as slender as a greyhound with long, slim legs. The head is small and rounded with a short muzzle. The ears are short and round. The sandy-coloured tail and coat are dotted with dark brown spots. Unlike other cats, the claws are not retractile (except for young animals less than six months old). There are some other distinctive features: deep chest, high shoulders and haunches, a deep black streak running from the inner corner of the eye to the mouth (giving the cheetah its characteristic sad, gentle expression). The longer fur on the neck and shoulders forms a kind of coarse mane which is more pronounced in young specimens and covers the whole length of the body from the head to the shoulders and down the whole back. We cite the body dimensions of the North African cheetah based on several authors' reports:

Authors	Cabrera (1932)	Hufnagel (1972)	Aulagnier and Thévenot (1986)
Head and body (cm)	115		110-140
Tail (cm)	65	76	65-80
Total length (cm)		201	
Back foot (cm)	28		
Ear (cm)	7.5		
Height at shoulder (cm)		76	75-85
Weight (kg)		30-45	

Panouse (1957) gives the following cranial measurements:

Overall length	177 mm
Overall width	123 mm
Interorbital width	53 mm
Jawbone	114 mm
Upper teeth	65 mm
Lower teeth	59 mm

III - HABITAT

Cheetah have never been reported outside the Sahara. In Algeria (and throughout North Africa from Morocco to Egypt) it lives in the dunes and ergs, and in the central Saharan mountains (Hoggar and Tassili-n-Ajjer).

IV - BIOLOGY

Little is known of the biology of the cheetah in North Africa. The literature only contains fragments of information from chance encounters.

1 -Diet

The cheetah does not eat carrion, mainly preferring fresh meat. Its great running abilities allow it to hunt gazelle, addax and hare, with gazelle as its major prey in most of its habitat. There are isolated reports of attacks on domestic herds of sheep and goats. It also feeds on antelopes, rodents, rock hyraxes, young jackals, young wild sheep, and also lizards and birds (bustards, etc).

2- Hunting techniques

The cheetah hunts during the day, especially in the morning and at sunset, and sometimes during moonlit nights. Unlike other cats, it does not stalk, but relies on its top speed (almost 110 km/h) to run its prey down. After making a stealthy approach to within a few dozen metres, all the while skilfully remaining hidden, it charges at a very fast speed. However, it has no stamina, and will give up the chase after just a few hundred metres. Apparently it adopts another technique in regions with no wide open spaces, such as the Saharan mountains; here, the broken terrain which would prevent it from running down prey forces it to stalk. The cheetah has a sharp inward-facing claw on all four paws which can inflict deep wounds, and can also be used to restrain its prey.

3- Reproduction

Females reach sexual maturity at 9-10 months, males at 14 months. The female has a litter of 2-4 cubs after 90-95 days' gestation. She rears her young alone, but the male brings them prey when they are older.

4- Social life

The cheetah lives alone, in pairs or in groups of up to six individuals. Groups consist either of adults, a female and cubs, brothers and sisters, or independent young animals.

V- GEOGRAPHICAL DISTRIBUTION

In the XIXth century cheetah were probably to be found throughout the Sahara. They were regularly seen in the mountains of central Sahara, especially the Hoggar and the Tassili-n-Ajjer. Several authors reported sightings in various locations: Sebdou (Loche 1867; Pomel 1856); Biskra (captive specimen) and Ghardaia (skin at a market); Mzab (Lataste, 1885); El Golea ((Dybowski 1893); Adrar Ahnet (Monod 1931).

The cheetah could still be found in much of the Sahara in the first half of the XXth century. Heim de Balsac (1936) even reported that the animal could regularly be seen on the Orano-Moroccan high plateaux. Foley (1922) reported a sighting in 1909 in Beni Smir, north of Figuig, on Moroccan territory. Strohl (1923) reported a dozen cheetah captured between Figuig and Beni Ounif, and claimed to have sighted ten within a week near Figuig in the early 1920s: the presence of cheetah at Beni Ounif and, maybe, Beni Abbes on Algerian territory can thus not be ruled out. Joleaud (1927) reports cheetah in the Hoggar and at Boussaâda; Heim de Balsac (1928 and 1936) reports them at Aïn Sefra (5 specimens killed, including one at Wadi Namous) and Boussaâda; Lhote (1954) considers that they live in the ergs, and can be found in a few remote parts of the Hoggar and the Tassili-n-Ajjer. Regnier places them at Adenek, (a specimen at Wadi Telouhat), Imadouzen and Tin Tarabine. Dupuy (1966, 1967 a and b) reports them at Tindouf, Mouydir (Djebel Tadjemout), in the Hoggar and Tassili-n-Ajjer (Zaouatallaz). Tefedest, Atakor, Garet El Djenoun and Amguid were also part of the habitat in the first half of the century (in Kowalski and Rzebik-Kowalska 1991).

Today the cheetah has practically disappeared in many places and is seriously endangered. Dupuy (1967) considered that it had disappeared north of a line through Tindouf and In Salah. The populations in North Africa are small and fragmented, or at least were so until recently. Severe desert conditions are already a cause of thinly scattered small populations. The central and south Saharan mountains seem to provide refuge for the cheetah, but probably only for a few individuals. Seurat (1934) carried out a mission to the Hoggar in February-May 1928. His expedition sighted several mammals and reported sightings of others but the cheetah is not mentioned. Malher (1982), on the basis of interviews with local people, reports a few individuals remaining in the Hoggar. Tassili National Park managers told Kowalski and Rzebik-Kowalski (1991) of the regular presence of cheetah in the Park in 1981. De Smet (1989), on the basis of surveys, spoke of several specimens in the south-eastern mountains. The latest sightings of cheetah in Algeria are due to Seddiki (1990), who studied higher vertebrates in the Tefedest, in the Hoggar, whilst preparing her engineering thesis. She reports sighting a female with two young in Adjellil in December 1989, and two individuals at Wadi Amgah in 1990. She also reports tracks at Abdinizi and Wadi Abezzou in 1989 and several signs (spoor and droppings) at Hassi Dehine and the confluence of Wadis Dehine and Igharghar in February 1990. She also reports a female taking a kid in January 1990. It seems highly likely that there are still cheetah in Tassili-n-Ajjer and the Hoggar today.

VI- RELATIONS BETWEEN MAN AND CHEETAH

The cheetah is easily tamed and can be a pet if taken young. Together with its great predatory skills this led man to train the cheetah for hunting. However Lavauden (1926) doubts that it was ever used for that purpose in Africa. Panouse (1957) reports that hooded cheetah were brought close to herds of gazelle either on a cart or on horseback behind a rider: the hood was removed and the cheetah closed in on the herd to attack. Man has always been a serious threat to cheetah through hunting. Laurent (1935) often saw cheetah hides in the souks of Morocco. Animals were either shot (with bullets or buckshot), or caught with various sorts of traps, and also hunted down in off-road vehicles. Hunting for cheetah is now much less frequent because there are so few animals left and they have taken refuge in inaccessible regions. Furthermore, because they do no damage people have no incentive to hunt them. Cheetah are also very wary animals and thus difficult to find.

PROGRAMME POUR LA REHABILITATION DU GUEPARD (*Acinoyx jubatus*) EN ALGERIE

I - PRELIMINARY PHASE

Duration: 2 months.

Action in this phase will essentially cover two aspects:

- * collection and analysis of published and unpublished data on observations of cheetah;
- * definition of a general programme of action for species rehabilitation.

1 - BIBLIOGRAPHICAL SUMMARY

A bibliographical summary of distribution data and other observations published on the cheetah in North Africa will be prepared during the preliminary phase. Particular attention will be given to dates and places of sightings, and types of habitat. All this information will be put into a data bank which will be built up as new data become available.

A summary will be compiled on the basis of the data bank. A programme of action will be defined on the basis of the main conclusions drawn therein, and will be focussed principally on the regions where the species is still believed to be present.

2- PREPARATION OF THE PROGRAMME OF ACTION

The programme of action will have three parts:

- * description of action to be undertaken;
- * schedule;
- * financial evaluation.

The work plans and the actions to be undertaken will be adjusted as the project is executed depending on results and actual time required.

II- STUDY

Duration: 17 months.

The study proper will be carried out in three phases

1- PHASE 1

Action for phase 1 of the study will consist in the preparation of a questionnaire asking for information on the presence of cheetah. The questionnaire will have to be presented as simply as possible to allow for its use with the whole population, particularly nomads and peasants. To avoid any possibility of confusion with other cats (panther, wildcat, etc), a description and photograph will be attached to the questionnaire.

The questionnaire will be sent to all the regions referred to in the literature as habitats for cheetah populations. All people who may have information on the presence of cheetah will be approached. We have already asked all the local authorities under the Ministry of Agriculture and Fisheries (forestry, farming, national parks, etc), the Ministries of the Interior, of the Environment, of Local Communities and Administrative Reform (wilaya, commune, etc), as well as nature conservation and environmental associations to contact the population to obtain information.

Information obtained from this geographical survey will serve to take stock of and update data on the existence of cheetah and to identify those areas where the species is still to be found. Data from the first questionnaires returned will be subjected to a preliminary analysis, in order to highlight the following essential points:

- * regions, areas or localities where cheetah are reported;
- * dates of latest sightings and precise locations.

2- PHASE 2

Preliminary data from phase 1 will allow for the programming and planning of the first field trips, which will constitute phase 2 of the study. The project follow-up committee will be responsible for on-site surveys during the field trips. People to be questioned and regions and places to be prospected will be specifically designated, and reports will thus be confirmed or invalidated.

Together with data collection by questionnaire and on-site survey, field trips will be made by project follow-up committee members to prospect those regions and places which the surveys show still contain or are likely to contain cheetah populations.

The main aim of the field missions and surveys will be to locate cheetah populations.

In the meantime, a network of permanent investigators and observers will be set up, consisting of researchers, engineers, students, foresters and volunteers who will be responsible for, or assist in, the execution of the various phases of the study.

3- PHASE 3

This phase of the study is important since it will round off the whole project. It also depends on the results of the first two phases, since the aim will be to establish close contact with individual animals and populations. This phase should last six months. Prospecting and research will be intensified and concentrate on sites where the presence of cheetah is confirmed. Films and photographs will be shot during field missions, which will have to increase in number.

Phases 2 and 3 of the study will lead to the collection of the following data:

- * observations (direct and indirect) of cheetah;
- * census of real or approximate numbers;
- * description of the species' habitat;
- * relationship between man and cheetah and identification of direct or indirect threats to the survival of the species.

III- EVALUATION

Quarterly reports will provide a summary of action taken and of sightings and other information on cheetah, providing a regular objective evaluation of work done and results obtained. Subsequent actions can thus be reoriented, if necessary, as a function of results. The final report will be written on the basis of the periodic reports.

IV- DATA BANK

Duration: throughout the project.

Data will be included into the data bank as the project proceeds. They will be classified under the following major headings:

- * bibliographical report;
- * cheetah sightings from 1990 onwards;
- * date and location of recent sightings;
- * type of sighting (direct or indirect);
- * animals sighted (sex, number, etc);
- * description of habitat(s);
- * notes on animal behaviour;
- * local threats, poaching, etc;
- * evaluation of status of prey, particularly gazelle;
- * source of information: name and address of person, copies of written evidence (where possible);
- * legal status of cheetah and prey species (title of legislative act).