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Mammals of the UAE mountains

by Chris and Tilde Stuart

Introduction

Between March and May 1995, the first detailed scientific study of the animals of the UAE's Hajar Mountains was undertaken by two expert South African trackers, Chris and Tilde Stuart, of the organisation African Carnivore Research in South Africa.

The study was undertaken for the Arabian Leopard Trust, established in 1994 by Emiri Decree by Sharjah Ruler and UAE Supreme Council member His Highness Dr. Sheikh Sultan bin Mohammed al Qassimi.

*Following the completion of the study, the Stuarts produced a report for the ALT, entitled '**Minute to Midnight,**' from which this article is taken.*

ARABIAN LEOPARD *Panthera pardus nimr*

The original objective of this survey was to establish

i. the distribution of the leopard within the United Arab Emirates and adjacent areas of Oman
ii. at what densities they occur, and
iii. what measures could be taken to ensure their long-term survival in the region.

Although we covered extensive areas within the mountain ranges of the UAE and adjoining sector of Oman, leopard signs (fresh tracks) was only found at one location. We examined several hundred trees for evidence of claw scratchings, checked numerous locations that we considered would be utilised by leopards if they were present, and walked in excess of 300 km along trails and 4WD tracks. In our experience in areas with low leopard densities one can expect to find some evidence of their presence, either in the form of droppings, urine scratch patches, tree scratchings, remains of larger prey (for example goat) and pug marks. In an arid environment, such as the mountains of the UAE, droppings remain intact for several months, as do the remains of larger kills, particularly as in this case where large scavengers are absent. As dung, urine and tree scratchings almost certainly serve a territorial marking function, had there been leopards resident in the area surveyed, we are confident that we would have found at least some evidence of this!

It is clear from reports of leopard distribution that the extreme northern territory of the Rus al Jibal (often referred to as the Musandam) is of critical importance to the continued survival of the leopard in this part of the Arabian Peninsula. Although it was beyond the brief of this survey to examine in any detail the situation in Omani territory some comments are necessary.

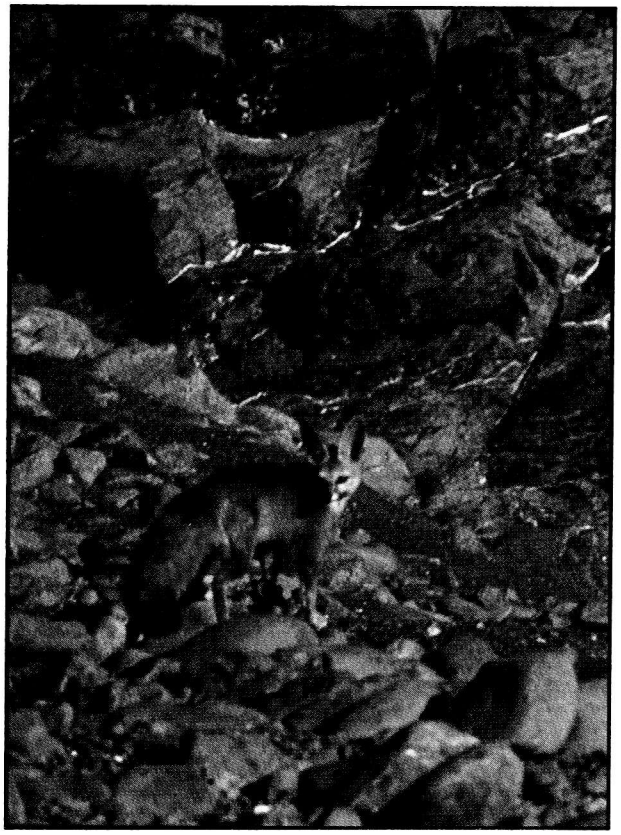
حتى الآن لم تلـق الحيوانات البريـة الجبلية فى دولـة الامارات العربية المتحـدة نصيبها من الدراســة الكافية.. هذا المقـال يلقي الضوء على دراسة اجريت في مطلع هذا العام وتؤكد وجود فصيلة من الحيـوانات لم ترصد مـن قبل في شرق شبه الجزيرة العـربية بأكملهـا بالإضافـة الى فصيلة أخرى كـان يعتقد سابقـاً أنها قد انقرضت.

The Musandam as a whole is rugged, deeply incised, mountain country, with very low human population density. Little remains of the wild ungulate assemblage by all accounts, but remnant populations of wild goat, wild sheep, Arabian tahr and Nubian ibex could possibly occur. However, the few records available are old and no detailed survey of the mammal fauna of this area has been undertaken. Although leopards are opportunistic feeders there is little in the way of natural prey available to them and they almost certainly have to rely on domestic and feral stock, principally goats, thus placing them in constant conflict with man.

Although leopards are said to have been killed in the UAE sector of the Rus al Jibal, *(one was shot and wounded near Shimal, in Ras al Khaimah, in August 1995. Eds)* from evidence examined it would seem these animals were actually hunted within Omani territory. Nevertheless, given adequate protection in the form of a hunting moratorium and the proposed international reserve, leopards and natural prey numbers would almost certainly increase. Given the extent and limitations of our survey and based on our experience in other locations, it seem unlikely that more than 20 adult leopards survive in these mountains, and in fact there could be far less then this figure.

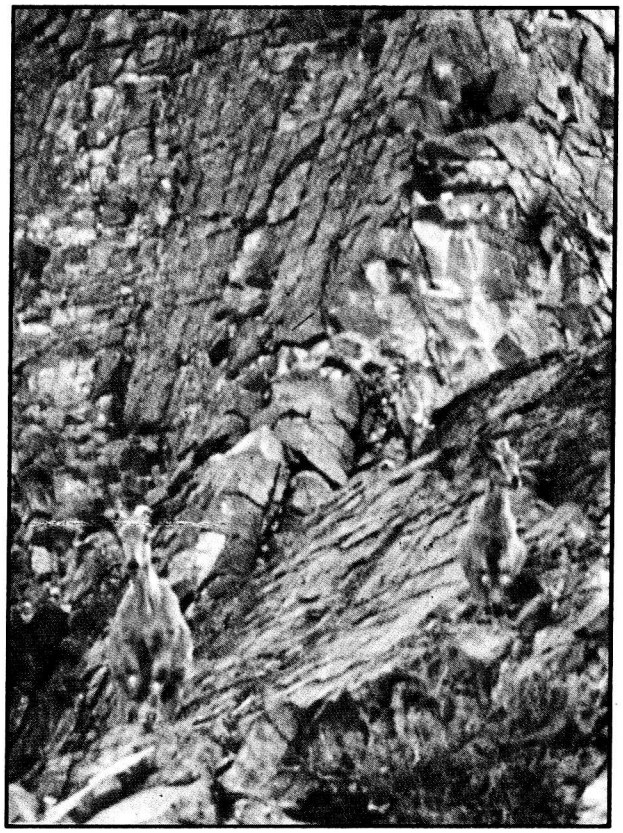
If one examines the remaining records one finds that they all fall to the west of the Dibba/Masafi/Fujairah road; two of these records are relatively old. We discarded a number of available records, because of lack of hard evidence and doubts about validity. We personally doubt whether there are at present any leopards resident in this north/south corridor, but the little available evidence indicates that individuals do move into the area on a temporary basis. Within the proposed "Hajar" reserve to the east, although the authors found no evidence of leopards, hunters reported that leopards do enter these mountains during the summer months, visiting the few permanent wadi pools. This makes them highly vulnerable to hunting, and naturally this applies to other species, such as the tahr, as well.

It is not clear whether these are animals dispersing from the Musandam but this seems most likely, as no verified records are further than 150 km from that range.



Blanford's Fox *Vulpes cana.*

Picture by C. & T. Stuart /Arabian Leopard Trust . (see p. 20)



Female **Arabian Tahr** *Hemitragus jayakari* with young.

Picture by C. & T. Stuart /Arabian Leopard Trust . (see p. 20)

Egyptian Spiny Mouse *Acomys cahirinus.*

Picture by C. & T. Stuart /Arabian Leopard Trust . (see p. 20)

Certainly movement between the Musandam and the Hajar would present no difficulty to leopards and, given protection, it is almost certain that they would repopulate the latter range. What must be remembered is that leopards living in arid areas with low prey densities occupy home ranges of several hundred kilometres and therefore the proposed mountain reserves alone would be inadequate to conserve a viable number of these cats. This is why we strongly urge the authorities to proclaim the corridor to allow free and unhindered movement of leopards between the two proposed reserves. Because of the limitations of time it was not possible to adequately survey the area adjoining the Sultanate of Oman in the south, but this should be considered in order to establish what, if any, leopard movement is taking place from this area.

CARACAL *Felis caracal schmitzi*

The caracal has a wide distribution within the area surveyed and although concern has been expressed about its status, particularly the numbers killed by farmers, it is our feeling that the population can sustain these losses as yet. They would, of course benefit from the establishment of the reserves proposed in this report. In areas of South Africa where persecution of this cat is extremely high, numbers are maintained. Despite this it would be worthwhile to include this species within the hunting moratorium, but with the proviso that proven stock killers could be hunted under permit/guidance.

We collected a number of droppings, mainly from the Hajar study area, and these will be analysed as to content. Cursory examination indicates a high incidence of goat hair, with some bird and reptile remains.

GORDON'S WILDCAT *Felis silvestris gordoni*

During the current survey we caught one male within the Hajar study area and tracks of this species were located to the north-east of Jebel Dad. The distance from any settlement would rule out a domestic or feral cat.

BLANFORD'S FOX *Vulpes cana*

This is a new record for the United Arab Emirates and constitutes a considerable extension of this fox's known range. The records included three individuals trapped and released at one locality, as well as tracks, hair samples and droppings at other sites. A complete report has been submitted to **Canid News** (IUCN/SSC Canid Specialist Group).

RED FOX *Vulpes vulpes*

This is by far the most widespread and abundant of the carnivores occurring within the areas surveyed. Although red foxes penetrate the larger wadis into the higher mountain ranges, densities were at their highest in the foothill area and in close proximity to small rural settlements. A large sample of scats was collected and the contents will be analysed in due course and the findings published.

ARABIAN TAHR *Hemitragus jayakari*

The sighting (photographic voucher material) of a female Arabian tahr accompanied by a kid of between two and three months of age during the survey was the first positive evidence that this ungulate still survives in the United Arab Emirates. This observation was made in the central area of the proposed "Hajar" reserve. This species is highly vulnerable to hunting as it needs to drink every day and the perennial water holes are well known to local hunters. Another problem faced by the tahr, and the only other wild ungulate surviving here, the Arabian mountain gazelle, is severe competition for grazing with the high densities of feral goats and donkeys.

As we have suggested previously, the few permanent waterholes remaining during the dry season, both in the Hajar and the Musandam, should be located and monitored in order to attempt to establish surviving numbers of tahr and other species. The implementation of an effective preliminary three year hunting ban and the establishment of montane reserves are essential to the survival of this and a number of other species in the UAE.

ARABIAN GAZELLE *Gazella gazelle cora*

The only evidence of this small antelope discovered during the course of the survey was in the form of distinctive dung middens in the northern sector of the Hajar, within the proposed reserve. The middens were located on wadi plateaux but none contained fresh droppings. It is likely however, that small numbers do survive here.

EGYPTIAN SPINY MOUSE *Acomys cahirinus*

The first verified live records, with voucher specimens, of this spiny mouse from the United Arab Emirates, were collected during the course of the survey. They are now known to be present in the Musandam and the Hajar and further collecting will almost certainly show them to occur more or less continuously through these mountain ranges.

BRANDT'S HEDGEHOG *Paraechinus hypomelas*

This hedgehog was found to occur widely in the montane areas surveyed, as evidenced by roadkills, live captures and tracks. Densities were particularly high in the Wadi Shawka area where they were caught in traps set for foxes. The hedgehogs seemed to make extensive use of 4WD tracks for their excursions.

LOCALITIES OF THE MAJOR SURVEY AREAS

1.	Wadi Halilah	25°58'36"N	56°09'37"E
2.	Wadi Shah	25°53'27"N	56°07'32"E
3.	Wadi Hayl	25°51'05"N	56°03'55"E
4.	Wadi Bih	25°47'50"N	56°09'46"E
5.	Wadi Bih	25°48'49"N	56°11'16"E
6.		25°47'23"N	56°13'07"E
7.	Wadi Qada'a	25°46'29"N	56°05'31"E
8.	Wadi Qada'a	25°45'21"N	56°07'29"E
9.		25°35'25"N	56°08'30"E
10.		25°30'23"N	56°04'39"E
11.		25°30'47"N	56°07'28"E
12.	Wadi Ziqt	25°29'45"N	56°16'21"E
13.	Wadi Wurreyah	25°24'36"N	56°14'45"E
14.	Wadi Wurreyah	25°23'05"N	56°17'33"E
15.	Wadi Wurreyah	25°21'54"N	56°14'37"E
16.	Marbad	25°20'41"N	56°05'20"E
17.	Safad	25°13'17"N	56°18'00"E
18.	Wadi Farfar	25°09'47"N	56°11'46"E
19.	Wadi Sahem	25°06'52"N	56°12'45"E
20.	Wadi Shawka	25°05'37"N	56°03'23"E
21.	Fili breeding site	25°01'59"N	55°58'18"E
22.		24°59'01"N	56°16'00"E

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