

# REARING OF ILLEGALLY IMPORTED EAST AFRICAN CHEETAHS (*ACINONYX JUBATUS*) IN SHARJAH, UNITED ARAB EMIRATES

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## Summary

East African cheetahs are imported into the United Arab Emirates for the pet trade and for hunting game. They originate primarily from Somalia and are imported illegally as 4-8 week old cubs. Sharjah government has received 39 confiscated cheetah cubs between 1998 and 2002. 26 cheetahs were successfully reared to adulthood and have since started breeding. Seven cheetahs were returned to their importers, five died and one was euthanized. The long-term outcome of the reared cheetahs was good however the stress of capture and transfer remains a serious welfare issue.

## Introduction

The species *Acinonyx jubatus* was once widely distributed from Palestine and the Arabian peninsula to India, and throughout most of Africa (Guggisberg, 1975). However in the past 50 years, the species has become extinct from Asia, except for Iran and possibly adjacent areas, and is rare in North (Saleh *et al.*, 2001) and West Africa. The cheetah is not as adaptable as other felids to human interference. To further aid its decline, it is also caught for live trade, hunting game, fur trade and protection of livestock. The species is recognized by the IUCN as vulnerable and is listed on appendix I of the Convention of International Trade in Endangered Species (CITES, 1998).

Cheetahs are imported into the United Arab Emirates for the pet trade and for hunting game. They are often ordered as gifts but are also available through pet traders. The value of a six-week old cheetah ranges between US\$ 3,000-5,000 but wealthy people will often organize a more valuable exchange for the suppliers. This provides a lucrative profession for the few East Africans that are able to secure such business deals, and is responsible for the perpetuation of the cheetah trade in the UAE.

Being one of the less busy airports of the UAE, Sharjah is a favoured port of entry for illegal wildlife. Custom's officials at Sharjah ports confiscate cheetahs that are imported with incorrect paperwork and send the animals to the government's Breeding Centre for Endangered Arabian Wildlife. Surprisingly, there has been no officially imported East African cheetah into Sharjah in the last 10 years.

## Rearing of Cheetahs

The cheetahs described in this report were all official confiscations at Sharjah airport, United Arab Emirates. It is assumed that only a small percentage of illegal imports are actually confiscated and that owners have ways in which they retrieve the shipment. The Breeding Centre has received 39 juvenile cheetahs between 1998 and 2002. 67% of the cheetahs were shipped from Somalia, 23% from Sudan and 10% arrived from private collections. The actual countries of origin are not known.

The cheetahs arrived as 4-8 week old cubs in cardboard or ply-wooden boxes and were occasionally accompanied by other illegal imports such as African bustards. The body condition of all arriving cheetahs was poor. They had been denied access to food and water during the transport and time spent at customs, which has been up to three days. Their coats were invariably soiled with faeces and urine.

The procedure on arrival aims to restore hydration status and reduce the bacterial and parasitic load of the cub. They were washed with chlorhexidine scrub and treated with fipronil when dry. They were dewormed using fenbendazole (50mg/kg po sid, 3 days) and were given doxycycline (10mg/kg po bid, 21 days) as a prophylaxis for feline infectious anaemia.

Nutritional deficiencies account for 7% of the mortality in captive cheetahs less than 6 months of age (Marker-Kraus, 1997). There is a considerable amount of literature available on cheetah cub nutrition (Eaton, 1973; Grisham and Lindburg, 1992; Meehan, 1980; Meltzer, 1993) and we have adopted a supplemented fresh meat and milk diet. It has been recommended to introduce solids at 28 days (Grisham and Lindburg, 1992) and this was readily accepted by all cubs on arrival. The protein source for the cheetah cubs was provided by a commercial cat milk replacer (Cimicat, Petlife, UK), fresh poultry (quail, chicken and guinea fowl) and fresh red meat (beef, horse and camel). We have found that a 25% portion of tinned cat food was necessary to prevent constipation. Cubs were susceptible to food intolerance colitis and the use of cow milk or commercial baby foods were avoided. Minced feathers, hair and meat provided the fibre component of the diet. A commercial mineral supplement (Carmix, Hope Farms, The Netherlands) was used at 2% of the meal. At 4 weeks of age they were fed 15% of their body weight as milk and 10% of their body weight as meat daily. By 14 weeks of age they were fed only on solids at 15% of their body weight.

Cubs were housed indoors to protect them from the large variation in diurnal temperatures. They were vaccinated at 14 and 17 weeks of age against feline rhinotracheitis, calici virus and panleukopaenia. All cheetahs were screened and found to be serologically negative for FIV, FeLV and FeCoV at 14 weeks. At 18 weeks they were transferred to an outdoor cage within sight of adult cheetahs. By 6 months of age they were introduced to older cheetahs and maintained in all male or female groups.

## Results

Of the 39 incoming cubs one was dead on arrival, three died with signs of panleukopaenia and one died for unknown reasons soon after arrival. All the cubs were dehydrated and had empty gastro-intestinal tracts. Seven suffered from upper respiratory tract disease and five had diarrhoea. The pathogens involved were not diagnosed. Five had skeletal abnormalities (valgus deformities, coxo-femoral dysplasia and fractures), six were in a severely collapsed state and needed prompt treatment, 14 carried fleas and 10 carried a heavy burden of *Taenia sp.* and/or *Toxascaris sp.*

Two unrelated cheetahs suffered from unilateral coxo-femoral dysplasia with intermittent lameness. Luxation and deformation of the femoral head, flattening of the articular surface and increased width of the medial joint space were found radiographically. One further unrelated cheetah suffered from bilateral coxo-femoral dysplasia and was euthanized. To the authors knowledge this form of dysplasia has not been previously reported in cheetahs. The cause is suspected to be a combination of poor nutrition, genetics and trauma in the young cubs when first caught.

It was requested to return seven cheetah cubs to their importing owners within two weeks of their confiscation.

Twenty-six cheetahs were successfully reared to adulthood. The older cheetahs have now been used for breeding and one female has since produced four healthy cubs.

## Discussion

The long-term outcome of the illegally imported East African cheetahs is reasonably good. Despite being hand-raised, the cheetahs were successfully socialized with other cheetahs and were able to be used as breeding stock. This allows these unfortunate victims of illegal trade to serve a reproductive function and play a role in the world's captive cheetah population. The North American captive cheetah population has increased its effective breeding population and reduced its infant mortality since the introduction of East African cheetah (Marker-Kraus and Grisham, 1993). The extreme genetic monomorphism at MHC loci in the cheetah lead to the suggestion that the East African cheetah may provide the much needed genetic variation in captive breeding (O'Brien *et al.*, 1985).

The stress involved in capture and transfer of the cheetahs was manifested in the high incidence of dehydration and starvation. As long as the trade in cheetahs remains this will continue to be a serious welfare issue. However, the incidence of serious disease was low and few suffered chronic health problems.

Despite the successful enforcement of international law at Sharjah ports, there were still seven cheetahs that were handed back to their owner following an official confiscation. These incidents are frustrating and are best regarded as a compromise for setting up conservation efforts in this region.

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**Figure 1.** (below left) Cheetah cub soon after arrival showing hairloss.

**Figure 2.** (below right) Cub with bilateral hip abnormality showing poor stance.



**Figure 3.** (below left) Radiograph of an adult cheetah showing unilateral coxo-femoral dysplasia.

**Figure 4.** (below right) Radiograph of a juvenile cheetah showing unilateral coxo-femoral dysplasia.

