# 14

# Pets and Pelts: Understanding and Combating Poaching and Trafficking in Cheetahs

Patricia Tricorache\*, Kristin Nowell\*\*, Günther Wirth<sup>†</sup>, Nicholas Mitchell<sup>‡,§</sup>, Lorraine K. Boast<sup>¶</sup>, Laurie Marker<sup>††</sup>

\*Cheetah Conservation Fund, Islamorada, FL, United States

\*\*Cat Action Treasury and World Conservation Union (IUCN) Red List Programme,

Cape Neddick, ME, United States

†Independent Researcher, Hargeisa, Somaliland

†Zoological Society of London, London, United Kingdom

\*Wildlife Conservation Society, New York, NY, United States

\*Cheetah Conservation Botswana, Gaborone, Botswana

††Cheetah Conservation Fund, Otjiwarongo, Namibia

# INTRODUCTION

Illegal wildlife trade is the sale, purchase, or exchange of wildlife species, which is prohibited by law and, therefore, by definition, operates outside government regulations (Nellemann et al., 2014). It has a substantial impact on both global biodiversity and the economic and structural growth of developing countries (Haken, 2011). It is estimated to be the fourth most valuable global illegal activity after narcotics, counterfeit products, and human trafficking (Haken, 2011), and is valued at US \$50–150 billion per year (UNEP, 2014). Unfortunately, the rates

of detection, arrest, and conviction for wildlife crime are low (Akella and Cannon, 2004), and illegal wildlife trade has been associated with the decline of large carnivore species, including tigers (*Panthera tigris*) (Goodrich et al., 2015) and most recently cheetahs (*Acinonyx jubatus*) (Nowell, 2014).

Historically, cheetahs were kept by the aristocracy as pets or as coursing companions to hunt antelopes for sport (Chapter 2). This demand for hunting pets continued in modern times, and is believed to have significantly contributed to the near disappearance of cheetahs in Asia by the mid-1980s (Divyabhanusinh, 1995; Chapter 4).



FIGURE 14.1 (A) Pet cheetah in car in Kuwait. (B) Cheetah cubs at School Pet Day, International School in Sana'a, Yemen. Source: Part A, VICE Media LLC; part B, David Stanton.

Wild African cheetahs were commonly exported from Africa for zoo exhibits; available data indicate that 677 cheetahs were imported to supply zoos, mostly in Europe and North America, between 1955 and 1975 (Marker-Kraus, 1829; Chapter 22). Cheetahs were also traded internationally for their skins, which were popular as clothing and ornaments in Europe and North America, where an estimated 3000–5000 skins were imported annually in the 1960s (Nowell and Jackson, 1996).

Although knowledge of wildlife trade prior to the 1970s is sparse, the trade is considered to have been substantial. In response to advocacy by conservation groups, in 1971, the International Fur Trade Federation recommended to its members to cease trade in skins from many endangered big cat species (Nowell and Jackson, 1996). In 1975, all international trades in cheetahs were formally addressed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This international agreement regulates the trade of species whose collection from the wild would endanger their

survival. Cheetahs are listed as Appendix I species, meaning Parties signatory to CITES cannot trade cheetahs internationally for commercial purposes. Botswana, Zimbabwe, and Namibia since 1992 have had limited noncommercial annual export quotas of 5, 50, and 150 wild cheetahs, respectively, for live specimens or hunting trophies (CITES, 1992). In addition, captive-bred cheetahs may be traded for both commercial and noncommercial purposes (Chapter 21).

Although international legal trade in wild cheetahs (with the aforementioned exceptions) ceased for participating Parties in 1975, cheetahs are still taken from the wild to be exploited as pets (Fig. 14.1A–B) or tourist attractions, entered into illegal captive breeding operations, killed in illegal trophy hunts, or their body parts sold as ornaments, traditional medicines, and clothing (Nowell, 2014). Illegal trade, in conjunction with other threats, such as habitat loss (Chapter 10) and human-cheetah conflict (Chapter 13), is considered a threat to the survival of the remaining populations throughout their range (IUCN/SSC, 2007a,b, 2012; RWCP & IUCN/SSC, 2015).

Combating illegal trade in cheetahs was first tabled for discussion at the CITES 16th Conference of the Parties in 2013, and designated a priority at their 27th Animal Committee Meeting in 2014 (CITES, 2014; Chapter 21). In 2016, the CITES 66th Standing Committee Meeting adopted a number of recommendations to be taken by the Parties to improve their ability to monitor illegal cheetah trade and enforce trade restrictions. These included improving communications and collaboration in the areas of enforcement and disposal of confiscated animals, as well as developing public awareness campaigns to reduce demand. Subsequently, two decisions were adopted at the CITES 17th Conference of the Parties (CoP17): to commission the development of a cheetah trade resource kit for law enforcement agencies (recommended best practices, procedures, and protocols, especially concerning live cheetahs), and to assess the feasibility of creating a web-based Cheetah Forum for all stakeholders to share information about cheetah (CITES, 2016a). A third decision of the CITES Secretariat to engage online services to address e-commerce of live cheetahs and raise awareness was adopted as part of the broader Combatting Wildlife Cybercrime decisions, which apply to all CITES species (CITES, 2016b).

Due to the clandestine nature of poaching and illegal trade, it is difficult to establish the exact numbers of cheetahs lost to illegal trade, or to precisely establish the main sources and supply routes. This chapter provides an overview of the illegal trade in cheetahs. We will discuss the drivers of the demand for cheetahs, and then look at how the demand is supplied from range countries, focusing on the regions which have been identified as the major areas for illegal trade, that is, the Horn of Africa and the Gulf Cooperation Council States [GCC; e.g., Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates (UAE)] (Nowell, 2014). Live animal trade within southern Africa destined for the South African captive cheetah export industry is a secondary concern that we will also discuss.

The information summarized in this chapter is based on data collected between 2005 and 2015 from:

- the CITES trade database (UNEP/WCMC, 2016);
- a commissioned report on the trade and its impacts on wild cheetah populations (Nowell, 2014) which arose from the recent CITES initiative to address illegal cheetah trade;
- 3. a subsequent survey of all CITES Parties about illegal cheetah trade (CITES, 2016c)—the survey was completed by 33 countries: 16 cheetah-range countries (48%) and 17 nonrange countries from Europe, North America, and Oceania, including 6 from the Arabian Peninsula (18%); and
- 4. records compiled by Cheetah Conservation Fund (CCF) of all reports of illegal cheetah trade based on direct observations, information gathered from conservationists, government officials, and members of the public, as well as publicly available information on media articles and the Internet.

CCF makes every effort to carefully establish the veracity of these reports, and to cross-reference all sources in its illegal trade database to remove any duplications. It is important to note that the data contained in this chapter are limited to the extent to which information is available.

# ILLEGAL TRADE OVERVIEW

Until 2016, Parties were not required to report annually on illegal trade to CITES (CITES, 2016d). As a result, data in the CITES trade database cannot be viewed as comprehensive, and from 2005 to 2015, only 27 live cheetahs were reported as being confiscated or seized (Source Code I) in the database (UNEP/WCMC, 2016). Moreover, data are not collected on domestic seizures because the Convention

TABLE 14.1 The Number of Cases and Number of Cheetahs Poached or Trafficked in Cheetah-Range Countries Recorded by Cheetah Conservation Fund Between November 2005 and December 2015<sup>a</sup>

Region	Country	Live animals			Parts and products <sup>b</sup>		
		Cases	No. of cheetahs		Cases	No. of cheetah units	
			Observed	Confiscated		Observed	Confiscated
Asia	Iran	2	1	1	0	0	0
Eastern Africa incl. Horn of Africa (HOA)	Djibouti (HOA)	2	0	6	0	0	0
	Ethiopia (HOA)	25	87	16	0	0	0
	Kenya (HOA)	4	0	10	27	0	44
	Somalia <sup>d</sup> (HOA)	7	54	26	0	0	0
	Somaliland <sup>e</sup>	65	192	96	1	1	0
	South Sudan (HOA)	0	0	0	2	0	3
	Tanzania	2	0	4	8	0	9
	Uganda (HOA)	0	0	0	2	0	2
	Total	105	333	158	40	1	58
Southern Africa	Angola	0	0	0	3	7	0
	Botswana	5	0	18	4	0	4
	Namibia	4	0	20	4	0	5
	South Africa	4	2	3	3	0	5
	Zambia	0	0	0	1	0	1
	Zimbabwe	2	0	4	0	0	0
	Total	15	2	45	15	7	15
Central and West Africa	Benin	0	0	0	1	1	0
Total		122	336	204	56	9	73

<sup>&</sup>lt;sup>a</sup>Data were compiled from the CITES trade database, Internet searches, personal correspondence with informants, and CITES (2016c).

covers only international wildlife trade. As a result, the recording of illegal trade in cheetahs is incomplete and vastly underestimated.

Reports collected by CCF between 2005 and 2015 identified 280 cases of trafficking (i.e., trade and/or transportation) in live cheetahs or their skins and other body parts, involving a minimum of 1108 individual cheetahs (Tables 14.1 and 14.2); the majority (89% of the total cheetah

numbers shown in the two tables) involved live animals, and these mainly consisted of young cubs (Nowell, 2014). Most of the illegal trade recorded herein was not detected or intercepted by law enforcement authorities (672 cheetahs, including live cheetahs and body parts, 61%). Only the remaining 39% (436 cheetahs) were confiscated, which makes up the only data for some countries. The low percentage of confiscations

<sup>&</sup>lt;sup>b</sup>Only reports involving cheetah parts/products that are equivalent to a minimum of at least one animal are included (e.g., whole skin, whole skeleton, one skull).

<sup>&#</sup>x27;Observed incidents were those where cheetahs or cheetah parts and products were not confiscated

<sup>&</sup>lt;sup>d</sup>Excluding the autonomous region of Somaliland.

<sup>&</sup>lt;sup>e</sup>Autonomous region of Somalia.

TABLE 14.2 The Number of Cases and Number of Cheetahs Trafficked Outside Cheetah-Range Countries Recorded by Cheetah Conservation Fund Between November 2005 and December 2015<sup>a</sup>

Region	Country	Live animals			Parts and products <sup>b</sup>		
		Cases	No. of	No. of cheetahs		No. of cheetah units	
			Observed <sup>c</sup>	Confiscated		Observed <sup>c</sup>	Confiscated
Americas	Mexico	1	0	4	0	0	0
	USA	0	0	0	13	0	22
	Total	1	0	4	13	0	22
Arabian Peninsula incl. Gulf Cooperation Council (GCC)	Iraq	1	2	0	0	0	0
	Kuwait (GCC)	7	11	7	1	0	3
	Oman (GCC)	1	0	7	0	0	0
	Qatar (GCC)	3	2	1	0	0	0
	Saudi Arabia (GCC)	11	107	37	0	0	0
	UAE (GCC)	30	77	52	3	0	3
	Yemen	8	120	5	0	0	0
	Total	61	319	109	4	0	6
Asia	Afghanistan	0	0	0	4	4	0
	India	0	0	0	2	0	1
	Singapore	0	0	0	1	0	Unknown
	Total	0	0	0	7	4	1
Africa	Cameroon	1	2	0	0	0	0
	Egypt	1	2	0	0	0	0
	Morocco	1	0	4	0	0	0
	Sudan	0	0	0	1	0	1
	Total	3	4	4	1	0	1
Europe	France	0	0	0	1	0	Unknown
	Greece	1	0	1	0	0	0
	The Netherlands	0	0	0	1	0	1
	Portugal	0	0	0	1	0	1
	Spain	0	0	0	2	0	2
	Switzerland	0	0	0	1	0	3
	United Kingdom	1	0	1	4	0	4
	Total	2	0	2	10	0	11
Total		67	323	119	35	4	40

<sup>&</sup>lt;sup>a</sup>Data were compiled from the CITES trade database, Internet searches, personal correspondence with informants, and CITES (2016c).

<sup>&</sup>lt;sup>b</sup>Only reports involving cheetah parts/products that are equivalent to a minimum number of animals are included (e.g., whole skin, whole skeleton, one skull).

<sup>&</sup>lt;sup>c</sup>Observed incidents were those where cheetahs or cheetah parts and products were not confiscated.

by enforcement authorities demonstrates the need for greater monitoring efforts.

Table 14.1 summarizes illegal trade cases recorded within cheetah-range countries, 81% (145 cases involving a minimum of 550 cheetahs) of which were in eastern Africa. Within eastern Africa, the greatest numbers of illegally traded live cheetahs (288 cheetahs, 59% of the regional live total) were recorded in Somaliland, an autonomous region in northeast Somalia. As a self-declared state, Somaliland does not consider itself to be part of the Federal Republic of Somalia nor is it a member of the United Nations, the African Union or a Party to CITES. Following Somaliland were Ethiopia (103 live cheetahs, 21%) and the remainder of Somalia (80 live cheetahs, 16%). Kenya was the country with the greatest number of illegally trafficked cheetah parts reported in the eastern Africa region (44 parts; 75%), and 54% in all cheetahrange countries. The majority of live animals detected in illegal trade in southern Africa were in Namibia (20 cheetahs, 43%) and Botswana (18 cheetahs, 38%). In eastern and southern Africa more illegal trade was detected in live animals than parts and skins. Data are sparse for other cheetah-range countries: 1 cheetah skin was reported in Benin (Table 14.1). In addition, 8 live animals and 1 cheetah skin were recorded as having been illegally trafficked in four formercheetah range African countries (Table 14.2).

Although there is some demand for pet cheetahs in cheetah-range countries (as reported by Kenya, Somalia, and South Africa in the CITES survey on illegal cheetah trade; CITES, 2016c), all available information points to a major export trade from Ethiopia, Somalia, and Kenya in the Horn of Africa to the Gulf States, with Yemen serving as the transit point (Nowell, 2014). Outside cheetah-range countries, 97% of the live cheetahs recorded as being illegally traded occurred in the Arabian Peninsula (GCC States, Yemen and Iraq: 428 out of 442 animals; Table 14.2). Within this region, the countries with the greatest numbers of known illegally traded

live cheetahs were Saudi Arabia (144 cheetahs, 34%), the UAE (129 cheetahs, 30%), and Yemen (125 cheetahs, 29%), nearly all were observed (75%) rather than confiscated.

Although there is possibly some overlap between the recorded cases in the cheetahrange and nonrange countries (e.g., a cheetah observed in illegal trade in the Horn of Africa may have later been confiscated in the Arabian Peninsula), many more cases are likely to remain undetected.

# THE DEMAND: DRIVERS AND REGULATIONS

## Live Cheetahs

Unlike other big cats, cheetahs are relatively docile and do not present a threat to the life of adult humans, making them a highly prized pet. Images of people in the Arabian Peninsula posing with their pet cheetah are often circulated on social media (Nowell, 2014). Owning cheetahs and other exotic pets in this region is thought to convey social and economic status, in emulation of individuals in positions of power or leadership (Mohamed, 2016). Other motivating factors are the intent to rescue sick-looking cubs kept by dealers (as revealed by direct interviews with pet cheetah owners and veterinarians), or to protect animals from the threats they face in their natural environment (as revealed by comments on social media). These purchases, although well intentioned, keep the demand up and the smuggling of cheetahs profitable.

Cheetahs once roamed areas of the Arabian Peninsula (Chapter 4), and were commonly kept as pets or hunting companions (Chapter 2). This centuries-old tradition, along with a solid economy throughout the region, has supported a high demand for cheetahs and other exotic animals among the region's affluent population. A live cheetah can be sold for up to US \$15,000, substantially more than the average asking price

of US \$200–300 received by dealers in the Horn of Africa.

Cheetah owners tend to have insufficient knowledge about cheetah care and cheetahs are often kept in inappropriate conditions (e.g., small indoor rooms without suitable exercise). Poor diet, in particular, has been linked to a host of health problems including ataxia and hind limb paralysis (Kaiser et al., 2014). As a result, cheetah survivorship is low; for example, a veterinarian in Jeddah, Saudi Arabia, stated that approximately 100 pet cheetah cubs had died in Jeddah and Riyadh over a 6-month period in 2007 (Bahrain Tribune, 2007).

All of the GCC States are Parties to CITES, all prohibit the import of CITES-listed species or predators in general, and all have stated that captive cheetah imports are only permitted to licensed facilities, such as zoos (CITES, 2016c). The low numbers of cheetahs legally imported into the region or born within its borders do not tally with the apparently high numbers of cheetahs in private hands. It can be difficult to breed cheetahs in captivity, and therefore, it is unlikely that private facilities or individuals are successfully breeding cheetahs to fulfill the demand. The International Cheetah Studbook (ICSB) comprises approximately 250 cheetah-holding facilities worldwide, including 6 breeding facilities in 2 Gulf States (UAE and Qatar). Between 2005 and 2015, these 6 facilities produced 161 viable cubs (217 cubs minus 56 deaths <6 months); all but 3 were placed in facilities reporting to the ICSB. It is therefore likely that the majority of pets in the GCC were taken from the wild. Although some cheetah owners undoubtedly operate under the assumption that their animals are captive bred, others are well aware that their animals are illegally sourced (Nowell, 2014).

Some GCC countries highlighted their difficulties in policing online trade in the CITES cheetah survey (CITES, 2016c). An investigation initiated by CCF in September 2015 has shown that online trade, particularly on social media (Instagram in particular), is a major facilitator for

illegal wildlife trade in the region. The investigation has identified 369 user accounts advertising live cheetahs for sale online. Often, these dealers also offer other endangered species, including tigers, great apes, reptiles, and birds. Most of these dealers are based in the Arabian Peninsula: 135 in Saudi Arabia, 119 in Kuwait, 77 in the UAE, 34 in Qatar, and 1 in Bahrain. Cheetah sellers were also found in Yemen (1) and Pakistan (2). Ninety-three of the dealers were identified as frequent sellers. Prices asked online range between US \$5,000 and 15,000 for individual cheetahs. An ongoing analysis of advertisements by these sellers has recorded at least 1000 cheetahs offered for sale over a 4-year period (2012–16) (CCF, unpublished data).

Recently there has been a welcome trend toward greater restrictions and policing of exotic animal ownership in the GCC countries. In 2011, after growing concerns for human safety, Ajman became the first of the seven emirates in the UAE to ban the breeding and keeping of dangerous animals in private homes (UAE Ministry of Climate Change and Environment, 2016). In December 2014, the Sharjah emirate introduced a similar regulation banning the breeding and private ownership of dangerous predators in residential areas (WAM, 2014). A 1-month amnesty following the implementation of this law resulted in hundreds of animals of various species being handed over to zoos and sanctuaries, although many more were reported to have been moved to neighboring Emirates (Ali, 2014). In June 2016, the Sharjah Environment and Protected Areas Authority announced the construction of a new center to house animals handed over or confiscated as a result of the ban (EPAA, 2016). In December 2015, the Kuwait's National Assembly unanimously passed the Animal Rights Bill that penalizes the illegal ownership and sale of predators (KUNA, 2015). Subsequently, in late December 2016, the UAE enacted Federal Law No. 22/2016, which regulates the trade and private possession of exotic animals, including cheetah, nationwide, and carries jail terms





FIGURE 14.2 (A) Confiscated cheetah skin at the Ministry of Wildlife Conservation and Tourism in Juba, South Sudan. (B) 3 cheetah cubs confiscated in Berbera, Somaliland, in 2012. The cub at the bottom had just died when this image was taken. Source: Part A, Nick Mitchell; part B, Günther Wirth.

and/or penalties from 10,000 to 700,000 Emirati Dirhams (US \$2,700–190,000) (Mohamed, 2017).

CCF has also received email enquiries from private individuals in eastern Europe and Asia asking about the acquisition or care of cheetahs, most likely sourced through illegal trade. These enquiries are answered with information about international laws and conservation issues, in an attempt to discourage potential buyers.

In Africa, live cheetahs are in demand for many of the same reasons as described earlier for the Arabian Peninsula, although the volume is probably lower. Cheetah pets have been observed at the homes of high-ranking officials in the Horn of Africa region (CCF, unpublished data). In addition, they are in demand as tourist attractions, particularly in South Africa (Marnewick, 2012).

# **Cheetah Parts**

Demand for cheetah pelts and other body parts is rarely specifically aimed at the species (Fig. 14.2A) and is instead generalized for spotted or big cat products (such as leopard *Panthera* 

pardus or lion Panthera leo). Big cat skins, including cheetah, are in demand as whole skins for decorative or ceremonial purposes or in pieces for garments and accessories (e.g., shoes, bags, and garment trim). In Sudan traditional men's shoes made of spotted cat fur (markoob) are highly prized. Big cat skin or parts are also used in traditional medicine (magie médicale, as it is known in West Africa, or muti in southern Africa). Their use encompasses a range of practices from medical (seeking to cure a physical ailment) to spiritual and mystical (Nowell, 2014; Chapter 2). In Benin, where cheetahs are rare, Sogbohossou (2006) was able to document one use for a cheetah part: its anus will purportedly attract the man or woman of the user's desire. Although some people may have had positive experiences using big cat parts, real or fake, as spiritual or consumptive medicine, this is not only illegal but also potentially dangerous to the consumer if it replaces appropriate medical care.

A complicating factor in understanding the scope of the trade in cheetah skins is the prevalence of fakes. Fake skins (skins of common domestic animals painted with black spots) have

been observed in West Africa and Sudan. Some of these fake examples have been mistakenly reported by well-intentioned observers as actual cheetah products (Nowell, 2014); while not representing loss of animals from the wild, they do indicate enterprising attempts to meet demand.

# THE SUPPLY: TRAFFICKING WITHIN AND OUT OF AFRICA

### The Horn of Africa

The Horn of Africa is the region where illegal trade is likely having the greatest impact on wild cheetah populations, due to both the sheer magnitude of the trade and the threatened status of cheetah populations in the region (Nowell, 2014). Not much is known about the suppliers or the specific source populations because trade is usually intercepted further downstream: in transit or at the final destination. However, all available information indicates that cheetah cubs are largely taken from ethnic Somali regions in parts of Ethiopia, possibly Kenya, and Somalia itself. Most cheetah smuggling cases across the region are organized or supported by groups of individuals from within a clan (interrelated family groups). In addition, if cheetahs are perceived as a threat to their livelihoods (Chapter 13), herders may catch and sell them to passing traders, further perpetuating the illegal trade market.

A haven for piracy, the ca. 1100-km northern coast of Somalia is the way out of Africa for poached live cheetah cubs. From here, they are transported by boat to the coast of Yemen and on to the GCC (Nowell, 2014). A 2006 survey on illegal wildlife trade in Somalia (Amir, 2006) and recent interviews conducted in Somaliland and Kuwait (CCF, unpublished data) also indicate that animals and animal products are flown by private aircraft into the Arabian Peninsula from private airstrips in Somalia.

Of particular concern is the autonomous region of Somaliland. Somaliland covers over

50% of the northern Somali coastline facing Yemen, and shares a border of ca. 500 miles with Ethiopia to the southwest. Sixty-two percent of live cheetah illegal trade cases in eastern Africa were recorded in Somaliland (Table 14.1). With the fourth lowest gross domestic product per capita in the world (World Bank, 2014), rampant poverty is compounded by easy access to wealthy consumer markets and a lack of understanding of the conservation plight of wildlife, such as the cheetah. Some cheetahs are confiscated by officials, but instances of cubs being sold back to the smugglers have been encountered (CCF, unpublished data). It should be noted that monitoring networks are better in Somaliland than in the rest of eastern Africa, and therefore, the territory's relative importance as the main cheetah trafficking area may be partially due to underestimation in other countries. Even so, the actual number of live cheetahs smuggled through Somaliland could be much higher than the recorded 288 live cheetahs between 2005 and 2015; informants in Somaliland estimate that up to 300 cheetah cubs may be exported every year.

The asking prices for cheetah cubs in Somaliland vary greatly, from as little as US \$80 for an unhealthy cub to US \$1000 for a healthy cub; however, most traders ask for US \$200–300 per cub. Cubs are often inadequately cared for (Fig. 14.2B). In the 33 Somaliland cases involving 142 cheetahs with known outcomes (i.e., where the cheetah was reported as being alive at the time of confiscation or where it is known whether the cheetah lived or died in observed cases), the survival rates were 17% compared to >33% across all regions. Somaliland has had some success with confiscations in recent years, confiscating 96 cheetahs (33%) of the recorded 288 live cheetahs trafficked between 2005 and 2015 (Table 14.1). However, of these 96 confiscated cubs, only 21 were transferred to safety, while the rest were reported by officials as dead or missing. In general, limitations in implementing and policing government policy, largely due to weak government institutions and lack of resources in the territory, are allowing the cheetah trade to continue.

### Southern Africa

Namibia, Botswana, and Zimbabwe are the only countries from which wild cheetahs may be legally exported. From 2002 to 2011, their wild cheetah exports averaged 153 per year, mainly from hunting trophies from Namibia (Nowell, 2014). This trade is considered overall to be well regulated and sustainable, and is not thought to have had a negative impact on cheetah populations (Nowell, 2014).

The majority of legal trade in captive-bred cheetahs also originates in southern Africa (Marker, 2015). South Africa is the world's largest exporter of captive-bred cheetahs, and the only country to have registered commercial cheetah breeding facilities (two) with the CITES Secretariat (as is required for the commercial breeding of Appendix I species: Nowell, 2014). Between 2005 and 2015, CITES export permits were issued for 1065 live cheetahs worldwide. Of these, 780 (747 captive bred, 13 ranched, and 20 wild-born) were issued in South Africa (CCF unpublished analysis of CITES trade data, adjusted for duplicates and reexports). The legal trade creates a potential mechanism by which wild-caught cheetahs could be miscoded as captive bred and illegally exported, and there is anecdotal evidence that this is taking place (Nowell, 2014). A CITES Inter-Sessional Working Group investigated the causes and effects of such miscoding, an issue that has been tabled at various Convention meetings under the title "Implementation of the Convention relating to captive-bred and ranched specimens" (CITES, 2016e).

According to the Model Law by CITES (CITES, 2016f) (parts of which have been adopted into South African law) for an Appendix I captive-bred, live animal to be exported, it must be "individually and permanently marked in a manner so as to render alteration

or modification by unauthorized persons as difficult as possible" (Department of Environmental Affairs, 2010). Microchips are currently used for this purpose, but there are concerns over the legitimacy of this method, as microchips could also be inserted into wild-caught cheetahs (Nowell, 2014). To improve controls on captive-bred cheetahs, South Africa is currently making regulatory amendments including the requirement to supply parental DNA when a cheetah is exported, thereby, proving its captive-bred status (CITES, 2016c).

A draft resolution tabled at CoP17 entails a review of significant trade in specimens declared as produced in captivity, which could reveal unusually high export volumes of cheetahs by some countries. In addition, requiring that captive breeding facilities report to a regional or international cheetah studbook, which is currently not mandatory, would improve trade controls while also improving strategies to maintain genetic diversity in captive populations. A comparison between the CITES trade data and the international studbook data for South Africa for the period 2005–14 showed only 28% of the cheetahs issued export permits by CITES were registered in the studbook; the 72% difference indicates that a vast number of cheetahs are being traded between facilities not reporting to the international cheetah studbook, which could be facilitating illegal trade (CCF, unpublished data).

In addition, incidences of cheetahs being illegally caught and transported between Botswana, Namibia, and South Africa have been recorded (Marnewick et al., 2007) and investigated (CITES, 2016c). Twenty-four cases of illegal trade between these countries (43 live cheetahs and 14 skins/skeletons) were recorded between 2005 and 2015 (Table 14.1). However, the numbers could be much higher with some conservationists estimating 50–60 cheetahs being removed annually for illegal trade from Botswana alone (Cilliers, NCMP, personal communication; Houser, CCB, personal communication;

REDUCING DEMAND 201

Klein, 2007). The trade is thought to primarily exist to supplement existing captive breeding operations in South Africa (Marnewick, 2012). In addition, cheetahs may be captured to feed the demand for tourist attractions, trophy hunting, body parts, or the greater illegal trade of cheetahs beyond their natural range. In Namibia, farmers who resort to killing captured cheetahs have been reported to sell them to the Chinese medicinal market as a substitute for tiger bones. This practice could be on the rise.

# REDUCING THE SUPPLY OF CHEETAHS FOR ILLEGAL TRADE

Poverty, corruption, weak legislation, and inadequate enforcement are considered as some of the main drivers of illegal wildlife trafficking in supply countries (UNEP, 2014). Reducing the supply of cheetahs for the illegal trade market may require the development of alternative forms of income (Chapter 16) while also increasing law enforcement, prosecution, and penalties to deter individuals from capturing and selling cheetahs. Penalties for being convicted of poaching, trafficking, or illegal possession of cheetah specimens vary across the cheetah-range states. The reported maximum sentence ranges from 6 months, in Somalia, to life imprisonment in Kenya, and the reported maximum fines range from US \$839 in Chad to US \$752,431 in South Africa (data available from 13 countries) (CITES, 2016c). However, data indicates that most illegal trade is undetected, let alone investigated, prosecuted, and penalized. Lack of resources and funding continue to be a major issue in policing wildlife trafficking in cheetah-range countries (CITES, 2016c). To act as a sufficient deterrent, penalties should reflect international recommendations to consider wildlife crime as a serious transnational crime on par with drugs and human trafficking (TRAFFIC, 2013) and monetary fines should be above the retail value of the animal on the international market.

With illegal cheetah trafficking now being recognized as a significant issue under CITES, the species should receive greater attention from African regional and subregional bodies and collaborative platforms established to focus on transnational wildlife crime. These platforms include the Nairobi-based Lusaka Agreement Task Force, the Wildlife Enforcement Network being established in the Horn of Africa, the Law Enforcement Action Plans in Southern and Central Africa (Nowell, 2014), and possibly the Trade in Wildlife Information Exchange in Central Africa (TRAFFIC, 2015). Programs driven by non-governmental organizations in cheetahrange countries are seen as key to help improve the capacity of governments to control domestic and transboundary poaching and trafficking in wildlife. In the Horn of Africa, organizations such as the Range Wide Conservation Program for Cheetahs and African Wild Dog (a project of the Wildlife Conservation Society and the Zoological Society of London), the International Fund for Animal Welfare (IFAW), TRAFFIC, and the African Wildlife Foundation work with relevant government agencies and international institutions to, for instance, train personnel and strengthen environmental legislation. In Ethiopia, the Born Free Foundation launched the Border Point Project in 2015 to facilitate intergovernmental dialogue between Ethiopia and its neighbors, through cooperation between the Ethiopian Defense Forces, Customs, and Federal and Regional Police. However, lack of capacity and funding continue to be a major issue in policing wildlife trade in cheetah-range countries (CITES, 2016c), thus deterring their ability to enforce international treaties and conventions.

# REDUCING DEMAND

To combat the illegal trade in cheetahs, it is essential to understand who the consumers are and what drives their attitudes and motivations. Targeted public awareness campaigns should be designed to modify behaviors by addressing the relevant drivers of demand in each region, such as medicinal or ceremonial use, or an individual's need to highlight social status and personal success. In the case of pets, the keeping of dangerous animals is increasingly being prohibited. However, in instances where they are still allowed, it is important to make potential buyers aware that cheetahs do not do well in the same settings as domestic animals and will probably perish despite well-meaning intentions. Thus, developing appropriate educational messages that wild animals should not be pets should be the priority. Demand reduction should also be addressed through social media with campaigns that publicize the conservation impacts of cheetah poaching and trafficking, and law enforcement outcomes (CITES, 2016g). And greater efforts should be made to involve religious authorities in education efforts, as the public often turns to these figures for guidance. For example, Sudan reported asking religious figures to discourage the wearing of shoes made from endangered species (CITES, 2016c). And there have been questions on Internet sites whether the eating of meat from an animal killed by one's hunting cheetah is in conformity with Islam (Nowell, 2014). Substitution can be an effective tool for big cat skins, such as the provision of quality fake leopard furs to a religious community in South Africa (AFP, 2014). In addition, international opinion makers, media in particular, must continue to increase public engagement. Similarly, governments and community leaders in consumer countries must actively discourage and counteract the perception that a big cat pet is a symbol of prestige. The public must understand not only that it is illegal to purchase a cheetah cub, but also that it was likely taken from the wild and has major impacts on the chances of survival of the species.

Several efforts are currently underway in the Gulf States to address illegal wildlife trade and exotic pet ownership. For example, the campaign "Belong to the Wild," aimed at 10–11-year-old

learners, is being conducted by IFAW in collaboration with authorities in the UAE, Kuwait, Bahrain, and Lebanon. Children are targeted as anecdotal evidence suggests that the motivation for an exotic pet often comes from them, and as such they can be influential in communicating environmental messages to their parents. Approximately 100,000 learners have learned about conservation and the human costs (safety and zoonotic diseases) associated with ownership of exotic pets (Mohamed, 2016). However, more work needs to be done in the region to specifically research and target the motivations for exotic pet ownership.

Regarding cheetahs that are already in captivity, both as pets and in registered facilities, CCF is working to improve their care by training Emirati cheetah-holding facilities and veterinarians. The organization has also trained veterinarians and biologists in the collection and viable storage of reproductive samples and initiated the first Genome Resource Bank for cheetah in the country. Captive specimens in the UAE are of great genetic value as they are believed to originate mostly in areas of Ethiopia and Kenya adjacent to Somalia, where cheetah populations are small. Building a genetic database can assist with determining the origin of confiscated cheetahs not only to ensure that they can be included in legitimate captive breeding programs, but, importantly, to support enforcement investigations. Therefore, a collaborative effort to collect genetic samples from confiscated cheetahs in Somaliland, Ethiopia, Yemen, and the UAE has begun to build a database that will assist with identifying the origin of confiscated cheetahs.

The international community through global programs, such as the Coalition Against Wildlife Trafficking, the 2014 London Conference on the Illegal Wildlife Trade (UK Government, 2014), and the International Consortium on Combating Wildlife Crime (ICCWC)—a collaborative effort of CITES, INTERPOL, UNODC, World Bank, and the WCO—has recognized the need to deploy a broader spectrum of government

REFERENCES 203

resources to counter illegal wildlife trafficking. The continued goal should be to ensure that, in addition to iconic species, such as elephants *elephantidae spp.*, rhinoceros *rhinocerotidae spp.*, and tigers, cheetahs are consistently included in all initiatives, policies, legislation, and enforcement actions, relevant to wildlife trafficking.

# **CONCLUSIONS**

Due to the very nature of illegal trade, collecting detailed information on the extent of poaching and trafficking in cheetahs is difficult. Yet available data suggest that the magnitude of the trade is likely to be substantially impacting wild cheetah populations, particularly those in Ethiopia and northern Kenya; an area with less than 300 cheetahs (Durant et al., 2017). The recorded loss of at least 50 cheetah cubs from the Horn of Africa into the Arabian Peninsula every year (with online research by CCF and informants in the region indicating that the actual numbers could be significantly higher) has the potential to decimate cheetahs in this region where populations are already fragmented (Chapter 10).

Increased law enforcement and stricter repercussions for convicted traffickers are required in the primary source, transit, and demand regions to tackle the trade. In particular, countries with the greatest demand are urged to support and assist cheetah-range states with cheetah conservation and prevention of poaching and trafficking.

In addition, international cooperation to detect and police illegal wildlife trafficking, including the effective monitoring of transboundary activities, must be improved by encouraging the utilization of existing resources. In particular, law enforcement personal should utilize INTERPOL's policing capabilities, including use of the secured information network, deployment of Investigative Support Teams, and other operational support. Wildlife Incident Support Teams (led by INTERPOL in collaboration

with ICCWC partners) could be requested to form a multiagency team. International antipiracy crews already patrolling the Indian Ocean, particularly the Gulf of Aden, a well-known route for transporting illegal wildlife and wildlife products between East Africa and Yemen, should be able to exchange information with relevant stakeholders.

It is generally accepted that enforcement alone will not stop poaching and trafficking, but that interventions must also focus on the factors that are driving illegal wildlife trafficking (Challender and MacMillan, 2014), along with community-driven approaches in range countries (IUCN SULi, IIED, CEED, Austrian Ministry of Environment and TRAFFIC, 2015). These should include an evidence-based understanding of the motivations and patterns of consumer behaviors in demand countries (TRAFFIC, 2016).

Whether as pets, shoes, rugs, or medicine, cheetahs throughout their range are being poached, captured, and traded for status, healing, or fashion. The supply is largely driven both by the low risk and high profit of the trade, along with poverty and the lack of alternative livelihoods in rural Africa. Simple ignorance regarding the origin of cheetahs available for sale and the impact of the poaching and trafficking in such a wideranging and thinly distributed species is also a major factor contributing to the continuation of the illegal trade in cheetahs. Focused education outreach and strong, international, cooperation to enforce international treaties and conventions to better police CITES provisions will be crucial to halting the poaching and trafficking of cheetahs and other endangered wildlife.

# References

AFP, 2014. Zulu false dawn: Shembe faithful swap leopard skin for faux fur. Agence France Presse, The Guardian 19th February. Available from: https://www.theguardian.com/world/2014/feb/19/zulu-shembe-leopardskin-south-africa.

Akella, A., Cannon, J., 2004. Strengthening the Weakest Links: Strategies for Improving the Enforcement of

- Environmental Laws Globally. Conservation International, Washington, DC.
- Ali, A., 2014. Deadline for exotic pet-owners in Sharjah ends on Tuesday, Sharjah: Gulf News, 22nd December. Available from: http://gulfnews.com/news/uae/crime/deadline-for-exotic-pet-owners-in-sharjah-ends-on-tuesday-1.1430428.
- Amir, O.G., 2006, Wildlife trade in Somalia. A report to the IUCN/SSC/Antelope Specialist Group—North-east African Subgroup. Darmstadt, Germany.
- Bahrain Tribune, 2007. 100 Smuggled Cheetahs died in Saudi in six months, 16th September. Available from: http://article.wn.com/view/2007/09/16/Wild\_practice/#/fullarticle.
- Challender, D.W., MacMillan, D.C., 2014. Poaching is more than an enforcement problem. Conserv. Lett. 7 (5), 484–494.
- CITES, 1992. Amendments to appendices I and II of the convention adopted by the Conference of the Parties at its eighth meeting in Kyoto (Japan), 2–13 March. CITES, Geneva, Switzerland.
- CITES, 2014. Illegal Trade in Cheetahs (*Acinonyx jubatus*) (Decision 16.72) (Agenda item 18). AC27 WG3 Doc 1. CITES, Geneva, Switzerland.
- CITES, 2016a. Species-specific matters: illegal trade in Cheetahs *Acinonyx jubatus*. COP17 Doc. 49. In: Seventeenth meeting of the Conference of the Parties Johannesburg (South Africa), 24 September–5 October.
- CITES, 2016b. Combatting Wildlife Cybercrime. COP17 Doc. 36. In: Seventeenth meeting of the Conference of the Parties Johannesburg (South Africa), 24 September–5 October.
- CITES, 2016c. Questionnaire results on combating illegal trade in cheetahs, SC66 Doc. 32.5 Annex. CITES, Geneva, Switzerland.
- CITES, 2016d. New annual illegal trade report. Notification 2016/007. CITES, Geneva, Switzerland.
- CITES, 2016e. Summary record of the eighth session of committee II, CITES CoP17 Com. II, Rec. 8 (Rev. 1). CITES, Geneva, Switzerland, pp. 2–3.
- CITES, 2016f. Model Law on International Trade in Wild Fauna and Flora. CITES, Geneva, Switzerland.
- CITES, 2016g, Illegal trade in cheetahs (Acinonyx jubatus) report of the working group—SC66 Doc. 32.5. CITES, Geneva, Switzerland.
- Department of Environmental Affairs, 2010. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations. Government Gazette, Pretoria, South Africa.
- Divyabhanusinh, C., 1995. End of a Trail: The Cheetah in India. Banyan Books, New Delhi, India.
- Durant, S., Mitchell, N., Groom, R., Pettorelli, N., Ipavec, A., Jacobson, A.P., Woodroffe, R., Böhm, M., Hunter, L.T.B., Becker, M.S., Broekhuis, F., Bashir, S., Andresen, L., Aschenborn, O., Beddiaf, M., Belbachir, F., Belbachir-Bazi, A., Berbash, A., Brandao de Matos Machado, I., Breitenmoser, C., Chege, M., Cilliers, D., Davies-Mostert,

- H., Dickman, A.J., Ezekiel, F., Farhadinia, M.S., Funston, P., Henschel, P., Horgan, J., de Iongh, H.H., Jowkar, H., Klein, R., Lindsey, P.A., Marker, L., Marnewick, K., Melzheimer, J., Merkle, J., M'soka, J., Msuha, M., O'Neill, H., Parker, M., Purchase, G., Sahailou, S., Saidu, Y., Samna, A., Schmidt-Küntzel, A., Selebatso, E., Sogbohossou, E.A., Soultan, A., Stone, E., van der Meer, E., van Vuuren, R., Wykstra, M., Young-Overton, K., 2017. The global decline of cheetah Acinonyx jubatus and what it means for conservation. Proc. Natl. Acad. Sci. USA 114 (3), 528–533.
- EPAA, 2016. Hearing the Call of the Wild. Environment and Public Areas Authority, Sharjah, June. Available from: http://www.epaashj.ae/news/hearing-call-of-the-wild/.
- Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y., Karanth, U., 2015. Panthera tigris. The IUCN Red List of Threatened Species 2015, e.T15955A50659951. Available from: http://dx.doi.org/10.2305/IUCN. UK.2015-2.RLTS.T15955A50659951.en.
- Haken, J., 2011. Transnational Crime in the Developing World. Global Financial Integrity, Washington, DC.
- IUCN SULi, IIED, CEED, Austrian Ministry of Environment and TRAFFIC, 2015. Beyond enforcement: communities, governance, incentives and sustainable use in combating wildlife crime. In: Symposium Report, 26–28 February. Glenburn Lodge, Muldersdrift, South Africa.
- IUCN/SSC, 2007a. Regional Conservation Strategy for the Cheetah and African Wild Dog in Eastern Africa. IUCN/SSC, Gland, Switzerland.
- IUCN/SSC, 2007b. Regional Conservation Strategy for the Cheetah and African Wild Dog in Southern Africa. IUCN/SSC, Gland, Switzerland.
- IUCN/SSC, 2012. Regional Conservation Strategy for the Cheetah and African Wild Dog in Western, Central and Northern Africa. IUCN/SSC, Gland, Switzerland.
- Kaiser, C., Wernery, U., Kinne, J., Marker, L., Liesegang, A., 2014. The role of copper and vitamin A deficiencies leading to neurological signs in captive cheetahs (*Acinonyx jubatus*) and lions (*Panthera leo*) in the United Arab Emirates. Food Nutr. Sci. 5, 1978–1990.
- Klein, R., 2007. Status report for the cheetah in Botswana. Cat News Special Issue 3, 14–21.
- KUNA, 2015. National Assembly Approves Animal Rights Bill. Kuwait News Agency, Kuwait.
- Marker-Kraus, L., 1829. History of the Cheetah (*Acinonyx jubatus*) in zoos. Int. Zoo Yearbook 35, 27–43.
- Marker, L.L., 2015. 2014 International Cheetah (Acinonyx jubatus) Studbook. Cheetah Conservation Fund, Otjiwarongo, Namibia.
- Marnewick, K., 2012. Captive Breeding, Keeping and Trade of Cheetahs in South Africa. Endangered Wildlife Trust, South Africa.
- Marnewick, K., Beckhelling, A., Cilliers, D., Lane, E., Mills, G., Herring, K., Caldwell, P., Hall, R., Meintjes, S., 2007.

REFERENCES 205

- The status of the cheetah in South Africa. Cat News Special Issue 3, 22–31.
- Mohamed, E.A., 2016. Tiger loose in Doha: exotic pet ownership, trade must stop in Middle East. International Fund for Wildlife, 11th March. Available from: http://www.ifaw.org/united-states/news/tiger-loose-doha-exotic-pet-ownership-trade-must-stop-middle-east.
- Mohamed, E.A., 2017. Victory: UAE Bans Personal Ownership of Wild Animals. International Fund for Animal Welfare, 5th January. Available from: http://www.ifaw.org/international/news/victory-uae-bans-personal-ownership-wild-animals.
- Nellemann, C., Henriksen, R., Raxter, P., Ash, N., Mrema, E. (Eds.), 2014. The Environmental Crime Crisis—Threats to Sustainable Development from Illegal Exploitation and Trade in Wildlife and Forest Resources. A UNEP Rapid Response Assessment. United Nations Environment Programme, Nairobi, Kenya and GRID-Arendal. Available from: http://hdl.handle.net/20.500.11822/9120.
- Nowell, K., 2014. An assessment of the conservation impacts of legal and illegal trade in cheetahs *Acinonyx jubatus*. In: IUCN SSC Cat Specialist Group report prepared for the CITES Secretariat, 65th meeting of the CITES Standing Committee, Geneva, 7–11 July. CITES SC65 Doc. 39. Available from: http://cites.org/sites/default/files/eng/com/sc/65/E-SC65-39.pdf.
- Nowell, K., Jackson, P., 1996. Wild Cats: Status Survey and Conservation Action Plan. Burlington Press, Cambridge, ITK
- RWCP & IUCN/SSC. 2015. Regional conservation strategy for the cheetah and African wild dog in southern Africa; revised and updated, August 2015. RWCP & IUCN/SSC.
- Sogbohossou, E.A., 2006. Conservation des grands carnivores en Afrique de l'Ouest: Perception par les populations et commerce des sous-produits. Technical Report.

- Wildlife Conservation Society Small Grant for Africa. Calavi, Bénin.
- TRAFFIC, 2013. Two year jail sentence in Malaysia's biggest tiger part smuggling case, TRAFFIC, 7th February. Available from: http://www.traffic.org/.
- TRAFFIC, 2015, Groundwork laid for intelligence information exchange in Central Africa. TRAFFIC, 21st December. Available from: http://www.traffic.org/.
- TRAFFIC, 2016. Changing Consumer Choice Advice a Few Clicks Away, TRAFFIC, 25th July Available from: http://www.traffic.org/.
- UAE Ministry of Climate Change and Environment, 2016. Illegal Trade of Cheetahs in the UAE. UAE Ministry of Climate Change and Environment, Abu Dhabi.
- UK Government, 2014. Declaration on Illegal Wildlife Trade. In: London Conference on the Illegal Wildlife Trade. London, UK. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/281289/london-wildlife-conference-declaration-140213.pdf.
- UNEP, 2014. UNEP Year Book 2014: Emerging Issues in Our Global Environment. United Nations Environment Programme, Nairobi, Kenya.
- UNEP/WCMC, 2016. CITES Trade Statistics Derived from the CITES Trade Database. UNEP World Conservation Monitoring Centre, Cambridge, UK.
- WAM, 2014. EPAA: Tuesday is the deadline for delivery of dangerous predators in implementation of Sharjah Ruler's Order. Emirates News Agency, 22nd December. Available from: http://www.wam.ae/en/print/1395274162497.
- World Bank, 2014. New World Bank GDP and poverty estimates for Somaliland. Hargeisha, Somaliland, 29th January. Available from: http://www.worldbank.org/en/news/press-release/2014/01/29/new-world-bank-gdp-and-poverty-estimates-for-somaliland.