

## CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Transfer of *Panthera leo* from Appendix II to Appendix I, in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 1, paragraphs A. i) and ii) (for the populations of West and Central Africa), and C. i)]

NB: subspecies *Panthera leo persica* is already included in Appendix I.

B. Proponent

Kenya.

C. Supporting statement1. Taxonomy

1.1 Class	Mammalia
1.2 Order	Carnivora
1.3 Family	Felidae
1.4 SpeciesGenus	<i>Panthera leo</i>
1.5 Scientific synonyms	---
1.6 Common names	English: African lion French: Lion d'Afrique Spanish: León
1.7 Code numbers	A-112.007.002.001

2. Biological parameters

## 2.1 Distribution

The size of the current geographic range of Appendix II populations of the species is approximately 7.18 million km<sup>2</sup> (Nowell and Jackson 1996). Extant populations occur in: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau (?), Kenya, Lesotho, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda (?), Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, and Zimbabwe (IUCN 2003). However, a recent inventory of African lion populations indicates that the populations of Sierra Leone, Togo, Gabon, Lesotho, and possibly Congo have gone extinct, and confirms the presence of lions in Guinea-Bissau and Rwanda (Bauer and Van Der Merwe 2004).

The species is present in a wide variety of habitats including open woodland, thick brush, scrub and grass complexes, but not tropical rain forests or the interior of the Sahara desert (Nowell and Jackson 1996).

One hundred years ago, *Panthera leo* was found in all suitable habitat in Africa south of the Sahara (African Lion Working Group 2004). Now, it is increasingly rare outside of protected areas (ibid). Reduction of the prey base, and direct persecution by humans, even in areas where suitable habitat exists, renders such areas unsuitable (Nowell and Jackson 1996).

The distribution of lions in West and Central Africa is fragmented (Bauer and Van Der Merwe 2004); populations there are small and isolated (ibid). They have disappeared from non-protected areas except in southern Chad and northern Central African Republic (ibid).

In contrast, lions occur in rural non-protected areas in East and Southern Africa (Bauer and Van Der Merwe 2004); this allows for a more or less continuous distribution in these regions (ibid, Fig. 1).

## 2.2 Habitat availability

Lions are increasingly rare outside of protected areas (Bauer and Van Der Merwe 2004). They are found in 290-350 protected areas, but this represents only 9-12 percent of their range (Nowell and Jackson 1996). Outside of protected areas, lions are heavily persecuted and their wild prey base is reduced (ibid).

## 2.3 Population status

A 2004 inventory of available information on *P. leo* populations, conducted since the most recent IUCN classification, provided a conservative estimate of 23,000 free-ranging lions, with a range of 16,500 to 30,000 (Bauer and Van Der Merwe 2004).

The regional population size for free-ranging lions in West Africa is estimated at 850 (range 450 - 1,300) in thirteen locations; for Central Africa, 950 (range 550 - 1,550) in eight locations; for East Africa, 11,000 (range 8,000 - 15,000) in 27 locations; and for Southern Africa, 10,000 (range 7,500 -12,500) in 41 locations (Bauer and Van Der Merwe 2004).

The continent's two largest populations occur in the Serengeti and Selous ecosystems of Tanzania, with an estimated 2,500 and 3,750 lions, respectively (Bauer and Van Der Merwe 2004). Other significant populations occur in southern Africa with most in Botswana's Okavango Delta (an estimated 1,438 lions) and South Africa's Kruger National Park ecosystem (an estimated 2,200 lions) (ibid). This means that approximately 43 percent of the estimated number of free-ranging lions in Africa (9,888 out of 23,000 lions) are found in four populations in three countries.

It is of concern that lion populations in 40 of the 89 locations where they exist (45% of locations) are estimated to contain 70 or fewer animals (Bauer and Van Der Merwe 2004). The minimum viable population (MVP) size for *Panthera leo* has apparently not been established. However, establishment of MVP size for all cat species is a conservation priority (Nowell and Jackson 1996). Small, isolated populations are highly vulnerable to extinction pressures (ibid). In 1961-1962, the population of lions in Tanzania's Ngorongoro Crater, which numbered 65-70 individuals during 1957-1961, suddenly dropped to nine females and one male due to a biting fly infestation that affected their ability to hunt (ibid). Although the population has rebounded it now has low genetic diversity, males with abnormal sperm, and indications of declining reproductive success (ibid).

The following population estimates (and ranges) are from Bauer and Van Der Merwe (2004, Table 1):

North Africa: All ecosystems, 0.

West Africa: Pendjari ecosystem, Benin, 45(39-52); Benin remainder, 20(12-28); Arly-Singou ecosystem, Burkina Faso, 100 (50-150); Comoe NP, Cote d'Ivoire, 30 (15-45); Gambia national, 0; Gbele Reserve, Ghana, 10 (6-14); Mole NP, Ghana, 20 (12-28); Guinea-Mali Protected Area, Guinea, 120 (60-180); Guinea remainder, 80 (40-120); Doulombi/Boe NP, Guinea-Bissau, 30 (15-45); Liberia national, 0; Mali national, 50 (25-75); Mauritania national, 0; "W" NP, Niger, 70 (49-91); Nigeria national, 200 (100-300); Niokolo Koba ecosystem, Senegal, 60 (20-150); Sierra Leone, national, 0; and Togo, national, 0.

Central Africa: Benoue ecosystem, Cameroon, 200 (100-400); Waza NP, Cameroon, 60 (42-78); Central African Republic, national, 300 (150-500); Zakouma ecosystem, Chad, 50 (25-75);

Chad remainder, 100 (50-150); Odzilla NP, Congo, 0 (0-25); Virunga NP, Congo, Democratic Republic of, 90 (60-125); Garamba NP, Congo, Democratic Republic of, 150 (100-200); Equatorial Guinea, national, 0; and Gabon, national, 0.

East Africa: Burundi, national, not available; Djibouti, national, 0; Babile/Darkata/Webe Shebeile, Ethiopia, 300 (180-420); Bale/Sof Omar, Ethiopia, 50 (30-70); Borana/L. Stephanie/L. Turkana, Ethiopia, 100 (60-140); Gambella, Ethiopia, 150 (90-210); North East, Ethiopia, 250 (200-300); Omo NP/Mago NP, Ethiopia, present but not estimated; Ethiopia, remainder, 150 (75-225); Aberdares NP, Kenya, 7 (5-15); Amboseli NP, Kenya, 20 (20-20); East of Rift Valley to the East of the Matthews/Ndotos/Mt. Nyiru, Kenya, present but not estimated; Galana game ranch, Kenya 150 (75-150); Isiolo/Barsalinga/Wamba/Shaba, Kenya, 100 (75-125); Kora National Reserve, Kenya, 40 (20-60); Laikipia Plateau, Kenya, 120 (96-144); Masai Mara NP, Kenya, 547 (492-602); Mearu NP/Bisanadi Reserve, Kenya, 80 (40-120); Nairobi NP, Kenya, 22 (22-22); Nakuru NP, Kenya, 28 (17-39); North of Tana/East of Rift Valley, Kenya, 650 (325-1300); Tsavo NP, Kenya, 675 (338-1350); Kenya remainder, present but not estimated; Akagera NP, Rwanda, 25 (15-35); Somalia national, not available; Sudan national, present but not estimated; Manyara NP, Tanzania, 20 (20-20); Ngorongoro Crater, Tanzania, 53 (53-53); Selous Game Reserve, Tanzania, 3750 (3000-4500); Buffer zone around Selous, Tanzania, 750 (500-1000); Serengeti ecosystem, Tanzania, 2500 (1750-3250); Tarangire and Ruaha ecosystem, Tanzania, present but not estimated; Kidepo Valley NP, Uganda, 25 (20-30); Murchison Falls ecosystem, Uganda, 350 (280-420); and Queen Elizabeth ecosystem, Uganda, 200 (140-260).

Southern Africa: Angola, national, 450 (270-630); Central Kalahari Game Reserve, 312 (166-458); Kgalagadi Transfrontier Park, Botswana, 458 (428-478); Southern Kgalagadi Wildlife Management Areas, Botswana, 225 (200-250); Dry North, Botswana, 223 (133-312); Kwando/Chobe River, Botswana, 213 (149-277); Okavango Delta, Botswana, 1438 (1006-1869); Makgadigadi Pans NP, Botswana, 39 (28-59); Nxai Pan, Botswana, present but not estimated; Tuli Block, Botswana, 10 (0-20); Lesotho national, 0; Malawi, national, not available; Manica Gaza, Mozambique, 25 (15-35); Niassa/Cabo Delgado, Mozambique, 175 (105-245); Zambezi Valley, Mozambique, 175 (105-245); Mozambique remainder, 25 (15-35); Etosha NP, Namibia, 230 (191-266); Namibia remainder, 680 (476-884); Eastern Cape/Addo Elephant Park/Kwande/Shamwari, South Africa, 13 (12-14); Kruger ecosystem, South Africa, 2200 (2200-2200); Hluluwe-Umfoloji NP, South Africa, 120 (72-168); Phinda/St. Lucia/Thembe/Ndumu, South Africa, 15 (15-15); Lowveld region, South Africa, 161 (153-169); Venetia Limpopo Mine, South Africa, 30 (15-45); Ligwalagwala near Malelane, South Africa, 13 (13-13); Madikwe/Pilanesberg, South Africa, 110 (99-121); Tswalu, South Africa, not available; Waterberg region, South Africa, 54 (54-54); Hlane Royal NP, Swaziland, 15 (15-15); Kafue NP/Luangwa Valley/Lower Zambezi NP, Zambia, 1500 (1000-2000); Charara Safari Area, Zimbabwe, 40 (24-56); Chete/Sijarira Safari Area, Zimbabwe, 40 (24-56); Chewore Safari Area, Zimbabwe, 100 (60-140); Chirisa Safari Area, Zimbabwe, 40 (24-56); Chizarira NP, Zimbabwe, 60 (36-84); Dande Safari Area, Zimbabwe, 50 (30-70); Doma Safari Area, Zimbabwe, 35 (21-49); Gonarezhou/Save/Chiredzi/Malilangwe/Belt Bridge/Tuli, Zimbabwe, 130 (91-169); Hurungwe Safari Area, Zimbabwe, 80 (48-112); Hwange ecosystem, Zimbabwe, 120 (72-168); Mana Pools NP, Zimbabwe, 97 (83-112); Matetsi Safari Area, Zimbabwe, 60 (36-84); Matusadona NP, Zimbabwe, 120 (72-168); Sapi Safari Area, Zimbabwe, 40 (24-56); and Zambezi NP, Zimbabwe, 25 (15-35).

According to the International Species Information System (ISIS 2004) the following numbers of *Panthera leo* are in captivity in zoos: *Panthera* 'group', 2; *Panthera* hybrid, 2; *P. leo*, 889; *P. leo* 'group', 3; *Panthera leo* hybrid, 10; *P. leo bleyenberghi*, 29; *P. leo krugeri*, 78; *P. leo leo*, 34; *P. leo maasaicus*, 5; *P. leo nubicus*, 19; *P. leo persicus*, 98; *P. leo persicus* hybrid, 2; and *P. leo senegalensis*, 8. This totals 1179 animals.

#### 2.4 Population trends

*Panthera leo* is classified by the IUCN as Vulnerable (IUCN 2003), based on meeting criterion C2a(i), which means that it is considered to be "facing a high risk of extinction in the wild," the population size is estimated to number fewer than 10,000 mature individuals, there is a

continuing decline in numbers of mature individuals, and no subpopulation is estimated to contain more than 1000 mature individuals (IUCN 2003).

All populations in West and Central Africa are small, isolated, and decreasing even in some protected areas (Bauer and Van Der Merwe 2004). Some have suggested that the populations of West and Central Africa should be categorized as regionally Endangered by IUCN (ibid).

In 2004 a conservative estimate of the number of free-ranging lions in Africa was 23,000 (range 16,500 to 30,000) (Bauer and Van Der Merwe 2004); this is a decrease from a 1996 estimate, considered to be an educated guess, of 30,000 to 100,000 free-ranging lions (Nowell and Jackson 1996).

Specific examples of population declines include the following: Niokolo Koba, in Senegal, had an estimated 150 lions in 1970 (Bauer et al. 2001) but now is estimated to have 60 (range 20-150) (Bauer and Van Der Merwe 2004); Akagera National Park in Rwanda had an estimated 250 lions before the civil war (Monfort 1992) but now is estimated to have 25 (Bauer and Van Der Merwe 2004); Etosha National Park in Namibia had 300 lions in 1996 (Nowell and Jackson 1996) but now has 230 (range of 191-266) (Bauer and Van Der Merwe 2004). Hwange National Park in Zimbabwe had 500 lions in 1996 (Nowell and Jackson 1996) but now has 120 (range of 72-168) (Bauer and Van Der Merwe 2004). The Gonarezhou National Park complex in Zimbabwe had 200 lions in 1996 (Nowell and Jackson 1996) but now has 130 (range of 91-169) (Bauer and Van Der Merwe 2004). Kgalagadi Transfrontier Park in South Africa and Botswana had 113-140 lions in 1976 but now has 92-125 (Castley et al. 2002).

## 2.5 Geographic trends

The distribution of *Panthera leo* once included Africa, Europe, and southwest Asia (Nowell and Jackson 1996), as well as North, Central and South America as far south as Peru (Turner and Antón 1997). It is now extinct in the Americas, Europe and northern Africa, while the only population in Asia occurs in the Gir Forest of western India (this population, subspecies *P. leo persicus*, is listed on CITES Appendix I) (Nowell and Jackson 1996, African Lion Working Group 2004).

One hundred years ago, *Panthera leo* was found in all suitable habitat in Africa south of the Sahara (African Lion Working Group 2004). Now, it is increasingly rare outside of protected areas (ibid, Bauer and Van Der Merwe 2004). They are found in 290-350 protected areas, but this represents only 9-12 percent of their range (Nowell and Jackson 1996). Outside of protected areas, lions are heavily persecuted and their wildlife prey base is reduced (Nowell and Jackson 1996). Habitat loss, a reduction in prey populations, and killing of "problem animals" have resulted in a dramatic contraction of their range; lions now exist in a small fraction of the area they occupied a century ago (Bauer and Van Der Merwe 2004).

## 2.6 Role of the species in its ecosystem

As a top predator, the lion affects populations of its prey species, which typically include buffalo, zebra, wildebeest, roan, sable, springbok, gemsbok, kob, impala, warthog, and hartebeest (Nowell and Jackson 1996). Lion presence and abundance impacts the carnivore guild, with inter-specific competition affecting the distribution and abundance of other large carnivores, notably cheetahs and African wild dogs.

## 2.7 Threats

Threats include direct persecution (killing) because lions threaten livestock and humans; and indirect persecution through reduction in prey base due to human activities including livestock grazing (Nowell and Jackson 1996).

Trophy hunting quotas are set at unsustainable levels in some areas and are considered unenforceable (Creel and Creel 1997, Macdonald and Loveridge 2003, Loveridge 2004, Whitman et al. 2004) (see Section 3.4 for details).

Disease, particularly canine distemper virus, can affect birth and death rates in lions (Packer et al. 1999).

Political instability is also an important threat to long-term conservation of lions (Bauer and Van Der Merwe 2004); a lion population in Akagera National Park in Rwanda that was estimated to number 250 before the civil war (Monfort 1992), numbered 25 after it (Bauer and Van Der Merwe 2004).

### 3. Utilization and trade

#### 3.1 National utilization

Lions are considered serious problem animals and killing of them to protect humans or livestock is allowed across most of the species' range (Nowell and Jackson 1996). Killing of lions that are considered to be problem or dangerous animals is not related to international trade; generally, livestock predation tends to occur at times of the year when hunters are not active and hunting takes place in hunting concessions adjacent to protected areas and not in rural areas where livestock damage tends to occur (ibid).

Lion parts (particularly bone and fat) are used for traditional medicines (CITES 1999). Lions are also consumed for other traditional practices in Africa (Bauer et al. 2001).

In South Africa, lions are reportedly captive bred for "canned hunting" operations, which have now been prohibited by the Department of Environmental Affairs and Tourism (Department of Environmental Affairs and Tourism 2003). Also, according to the South African Department of Environmental Affairs and Tourism (personal communication from Pieter Botha 30 April 2004) 800 lions are held in the captive breeding facilities in the country. However, the number of lion trophies in international trade that originate from such operations is unknown.

#### 3.2 Legal international trade

Gross exports of *Panthera leo* for the past decade (UNEP-WCMC 2004a), in order of quantity by type of specimen:

#### Hunting Trophies

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Benin	0	0	3	4	4	10	3	3	4	1	0
Botswana	145	151	49	34	9	18	9	22	30	9	2
Burkina Faso	8	3	3	6	5	7	12	12	20	10	2
Central African Republic	23	8	9	9	6	6	3	10	12	5	0
Cameroon	26	7	5	10	14	12	9	16	20	6	9
Chad	0	0	0	0	0	1	1	0	1	8	3
Congo DRC	0	0	0	0	0	0	1	0	1	0	0
Cote d'Ivoire	2	0	0	0	0	0	0	0	0	0	0
Ethiopia	1	6	13	1	0	0	1	3	0	2	2
Gabon	0	0	0	0	0	0	0	0	0	0	2
Kenya	2	1	1	0	1	1	1	1	0	1	0
Malawi	0	0	4	0	0	0	0	0	0	0	0
Mozambique	0	0	11	5	17	14	21	1	29	15	11
Namibia	30	19	22	23	7	8	10	7	11	11	6
Senegal	1	0	0	0	0	0	0	0	0	0	0
South Africa	168	137	192	105	102	108	110	107	146	134	147
Tanzania	202	195	282	230	298	276	264	272	316	230	226
Togo	0	0	0	0	0	0	0	0	0	1	0

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Zambia	118	36	51	65	50	45	82	74	47	24	3
Zimbabwe	246	189	102	123	100	93	81	123	91	95	104
TOTAL	972	752	747	615	613	599	608	651	728	552	517

## Skins

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Benin	0	0	0	0	0	0	0	1	0	0	0
Botswana	8	19	33	94	234	102	64	94	72	0	0
Burkina Faso	0	0	0	0	2	0	0	0	0	0	0
Central African Republic	0	0	0	1	1	0	0	0	0	0	0
Cameroon	0	0	2	0	0	0	0	1	0	0	0
Cote d'Ivoire	0	0	0	0	0	0	0	0	0	1	0
Ethiopia	2	12	0	4	2	0	2	0	0	0	2
Gabon	1	0	0	0	0	0	0	0	0	0	0
Kenya	0	3	0	0	0	0	0	1	1	0	1
Malawi	0	3	5	2	1	0	0	0	0	0	0
Mozambique	0	0	0	0	1	0	2	21	7	13	0
Namibia	7	6	6	8	21	18	11	9	7	1	2
Senegal	1	0	0	0	0	0	0	0	0	0	0
South Africa	26	37	34	82	32	84	71	60	85	55	32
Sudan	2	0	0	0	0	0	0	0	0	0	0
Tanzania	3	25	26	34	47	35	50	32	25	13	6
Zambia	9	6	17	19	24	8	15	11	9	4	0
Zimbabwe	13	24	37	82	35	20	31	24	68	20	7
TOTAL	72	135	160	326	400	267	246	254	274	107	50

## Skulls

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Botswana	6	56	12	1	2	0	3	2	2	0	0
Burkina Faso	0	0	0	0	2	0	0	0	0	0	0
Central African Republic	0	0	0	1	1	0	0	0	0	0	0
Cameroon	0	0	2	0	0	0	0	1	0	0	0
Kenya	1	0	2	0	0	0	0	0	0	0	0
Mozambique	0	0	0	0	0	0	2	20	9	13	0
Namibia	5	0	2	1	1	1	4	2	4	2	1
South Africa	18	18	34	14	15	18	91	93	83	69	33
Tanzania	1	9	15	33	42	35	49	35	20	10	6
Zambia	3	0	11	14	25	6	13	9	9	2	0
Zimbabwe	13	33	46	104	27	19	43	24	73	16	5
TOTAL	47	116	124	168	115	79	205	186	200	112	45

## Live

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Angola	0	0	4	0	0	0	0	0	0	0	0
Botswana	0	0	0	0	0	0	0	0	0	4	0
Egypt	0	0	0	4	0	0	0	0	0	0	0

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Ethiopia	0	0	0	2	0	0	0	0	0	0	0
Kenya	3	0	0	0	0	0	0	1	0	0	0
Malawi	0	0	0	6	0	0	0	0	0	0	0
Namibia	0	33	0	13	21	3	2	0	0	0	0
Niger	0	0	0	0	0	6	0	0	0	0	0
South Africa	10	7	7	2	0	8	2	17	0	0	18
Tanzania	0	0	1	0	0	0	2	1	0	0	0
Zambia	0	0	0	0	2	0	0	0	0	0	0
Zimbabwe	0	0	6	0	0	2	0	11	3	0	25
TOTAL	13	40	18	27	23	19	6	30	3	4	43

### Skin Pieces

Exporter	1993	1994	1992	1995	1996	1997	1998	1999	2000	2001	2002
Kenya	0	0	0	0	0	0	0	0	2	0	0
South Africa	0	0	0	0	1	0	0	0	0	1	0
Tanzania	0	0	0	2	0	3	1	0	0	0	0
Zimbabwe	2	42	0	4	0	0	0	2	0	1	0
TOTAL	2	42	0	6	1	3	1	2	2	2	0

### Bones

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
South Africa	1	0	0	0	1	0	3	0	2	0	0
Zimbabwe	0	36	0	6	0	2	0	0	4	0	0
TOTAL	1	36	0	6	1	2	3	0	6	0	0

### Bodies

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Botswana	1	0	4	0	1	0	0	0	0	0	0
Namibia	2	0	0	2	0	0	0	0	0	0	0
South Africa	21	2	5	13	1	9	4	2	3	2	3
Tanzania	0	0	0	0	1	0	0	0	0	0	0
Zambia	0	0	0	1	0	0	0	0	0	0	0
Zimbabwe	0	0	1	1	2	1	2	0	15	0	1
TOTAL	24	2	10	17	5	10	6	2	18	2	4

### Plates

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Botswana	6	0	0	0	2	0	0	0	0	0	0
South Africa	2	3	2	1	4	1	4	8	13	4	15
Zimbabwe	0	2	1	1	2	2	0	9	0	0	2
TOTAL	8	5	3	2	8	3	4	17	13	4	17

### Derivatives

Exporter	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Kenya	1	0	0	0	0	0	0	0	0	0	0

Gross imports for 2002 (UNEP-WCMC 2004b), in order of quantity by type of specimen (import figures differ slightly from export figures due to different sources):

### Trophies

Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty
AD	1	CZ	1	IT	9	PK	2	ZA	38
AE	11	DE	26	KW	4	PL	5	ZW	2
AT	10	DK	11	MC	1	PT	7		
AU	3	ES	75	MX	34	PY	1		
BE	4	FI	1	MY	1	RU	8		
BW	10	FR	47	NA	2	SK	4		
CA	8	GB	9	NG	1	SZ	1		
CH	5	GY	2	NL	2	UA	7		
CL	1	HU	2	NO	4	US	350		
CN	5	IN	1	PH	1	UY	6		

### Skins

Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty
AU	4	CN	1	GR	1	PL	2	US	34
BR	1	DE	22	IN	1	RU	3	UY	4
BW	2	DK	1	MU	1	SA	2		
CA	2	EE	1	NG	2	SG	1		
CH	2	ES	1	NL	1	TR	1		
CL	2	GB	1	NZ	1	UA	1		

### Skulls

Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty
AU	1	GB	1	NL	2	ZA	1
CH	2	IN	1	NZ	4		
DE	15	MX	1	US	33		

### Live

Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty	Importer	Qty
AE	1	CZ	19	KR	18	PE	3	UA	2
AF	2	DE	14	LY	1	PL	5	US	32
AT	2	ES	10	MC	14	PY	4	VN	1
BW	4	FR	3	MX	3	RO	1	ZA	81
BY	1	GB	5	MY	7	RU	6	ZW	25
BZ	7	GT	1	NA	3	SK	1		
CA	3	IT	2	NG	2	TH	15		
CM	2	JM	3	NL	2	TN	4		
CN	3	JO	2	NZ	2	TR	7		

### Bodies

Importer	Qty
CN	3
US	9



## Plates

Importer	Qty
US	19

The proposed amendment would allow establishment of export quotas for *Panthera leo* by the Conference of the Parties in accordance with Resolution Conf. 9.21. A Party desiring a quota would submit its proposal to the CITES Secretariat 150 days before a meeting of the Conference of the Parties. Such proposals would be examined by Parties and lion experts. This would allow the Conference of the Parties to make decisions, based on sound scientific advice and using the latest information on lion populations, to determine export quotas that will not be detrimental to the survival of the species.

### 3.3 Illegal trade

Illegal trade requires further research. Anecdotally, a lion recently poisoned in Tanzania was dismembered and the parts were sold, indicating that there is a market for such products (personal communication, April 2004, Born Free Foundation). Also anecdotally, a lion intercepted by customs officials at the Dubai airport in a crate mislabeled "cheetah" was not claimed (ibid).

### 3.4 Actual or potential trade impacts

As noted in Section 2.7, trophy hunting quotas are set at unsustainable levels in some areas (Creel and Creel 1997, Macdonald and Loveridge 2003, Loveridge 2004, Whitman et al. 2004). Trophy hunting targets older males likely to belong to a territorial male coalition which, when killed, may result in the coalition being replaced. Newcomer males may kill all cubs nine months of age or less; such infanticide increases the risk of population extinction (Whitman et al. 2004). Creel and Creel (1997) found that while the 1992 level of lion hunting in Selous Game Reserve, Tanzania, was sustainable, it would not be so if the lion hunting quota for the reserve was filled; only 28 percent of the quota was filled. Macdonald and Loveridge (2003) found that lion hunting quotas in areas bordering Hwange National Park, Zimbabwe, had to be radically cut in order to allow lions in the Park to survive. Whitman et al. (2004) found through modeling that a simulated population of ten prides would allow the off take of three males per 1000km<sup>2</sup> per year; while hunting quotas in 34 reserves in Tanzania in 1995 were set at 3.8 males per 1000km<sup>2</sup> the authors lament the fact that quotas increased in many reserves since 1995, and quotas are even higher in other parts of Africa where lion densities are even lower. Trophy hunting quotas in Tanzania are often considered to be arbitrarily set and difficult to enforce (ibid). While population modeling has suggested that no quotas would be necessary if hunters targeted only males of a certain age (ibid), this has not been evaluated empirically.

With the caveat that the 1996 population figure was considered to be an educated guess, and that many of the current population size figures are also guesses, the estimated minimum population size today is 45 percent less than that estimated in 1996 (16,500 down from 30,000), while the estimated maximum population size today is 70 percent less than that estimated in 1996 (30,000 down from 100,000). By comparison, the number of trophies exported in 1996 was 613 compared to 517 in 2002; this represents a decrease in the number of exported trophies of 96 trophies, or a decrease of 15.7 percent. Thus, while the population estimates suggest a decline of between 45 and 70 percent, trophy exports have declined by only 15.7 percent. This would suggest that trophy hunting may be having a much greater impact on lion populations today than in 1996.

As noted in Section 3.2, the proposed amendment would allow the establishment of export quotas for *Panthera leo* by the Conference of the Parties in accordance with Resolution Conf. 9.21. A Party desiring a quota would submit its proposal to the CITES Secretariat 150 days before a meeting of the Conference of the Parties. Such proposals would be examined by Parties and lion experts. This would allow the Conference of the Parties to make decisions,

based on sound scientific advice and using the latest information on lion populations, to determine export quotas that will not be detrimental to the survival of the species.

### 3.5 Captive breeding or artificial propagation for commercial purposes (outside the country of origin)

None known to the proponent.

## 4. Conservation and management

### 4.1 Legal status

#### 4.1.1 National

Lions have no legal protection in Burundi, Guinea Bissau, Lesotho, Namibia, Swaziland, or South Africa (Nowell and Jackson 1996). Hunting is prohibited in Angola, Cameroon, Congo, Gabon, Ghana, Malawi, Mauritania, Niger, Nigeria and Rwanda (ibid). Hunting is regulated or restricted to problem or dangerous animals in Benin, Botswana, Burkina Faso, Central African Republic, Ethiopia, Ivory Coast, Kenya, Mali, Mozambique, Senegal, Somalia, Sudan, Tanzania, Togo, Uganda, Zaire, Zambia, and Zimbabwe (ibid). Trophy hunting is permitted in Botswana, Namibia, South Africa, Tanzania, Zambia and Zimbabwe (ibid). Botswana instituted a four-year moratorium on killing, including killing of problem animals and trophy hunting, of lions in 2001 (Kat and Nicholls 2004).

#### 4.1.2 International

*Panthera leo* is included on CITES Appendix II under the higher taxon listing of Felidae. *P. leo persicus*, which exist only in the Gir Forest of India, is listed on CITES Appendix I.

### 4.2 Species management

#### 4.2.1 Population monitoring

Cats are notoriously difficult to count (Nowell and Jackson 1996). The degree to which the approximately 89 (Bauer and Van Der Merwe 2004) free-ranging lion populations are monitored, and the rigor applied to such monitoring, varies tremendously.

Eighteen of the 21 extant populations in West and Central Africa do not appear to be the subject of regular monitoring. Some seem never to have been surveyed until recently and most estimates of the number of lions are 'best guesses' from scientists, wildlife department personnel or conservationists (Bauer et al. 2001, Bauer and Van Der Merwe 2004). In some cases, the last surveys were conducted over thirty years ago (Bauer et al. 2001). Only the populations of "W" National Park in Nigeria, Pendjari ecosystem in Benin, and Waza National Park in Cameroon have been the subject of directed population surveys (using methods such as sampling using calling stations, mark-recapture experiments, radio collars, photo databases or spoor counts) in the last few years (Bauer and Van Der Merwe 2004). Recent population estimates are available for three other populations, based on other methods of estimation or information obtained under special circumstances (ibid).

In East Africa, sixteen of the 27 extant populations appear not to have been surveyed recently, with estimates considered to be 'best' or 'informed' guesses. Eight populations appear to have been the subject of directed population surveys (using methods such as sampling using calling stations, mark-recapture experiments, radio collars, photo databases or spoor counts) in the last few years: Laikipia Plateau in Kenya, Masai Mara National Park in Kenya, Nairobi National Park in Kenya, Ngorongoro Crater in Tanzania, Serengeti ecosystem in Tanzania, Kidepo Valley National Park in Uganda, Murchison Falls ecosystem in Uganda, and Queen Elizabeth ecosystem in Uganda (Bauer and Van Der Merwe 2004). Recent population estimates are available for four other populations, based on other methods of estimation or information obtained under special circumstances (ibid).

In Southern Africa, 21 of the 41 extant populations appear not to have been surveyed recently, with estimates considered to be 'best' or 'informed' guesses. Eleven populations appear to have been the subject of directed population surveys (using methods such as sampling using calling stations, mark-recapture experiments, radio collars, photo databases or spoor counts) in the last few years: Kwando-Chobe River in Botswana, Okavango Delta in Botswana, Makgadigadi Pans National Park in Botswana, lion populations outside of Etosha National Park in Namibia, Eastern Cape (Addo Elephant Park, Swande, Shamwari) in South Africa, Phinda-St. Lucia- Thembe-Ndumu in South Africa, Ligwalagwala (near Malelane) in South Africa, Madikwe-Pilanesberg in South Africa, Waterburg region in South Africa, Hlane Royal National Park in Swaziland, and Gonarezhou-Save-Chiredzi,-Malilangwe-Belt Bridge-Tuli in Zimbabwe. Recent population estimates are available for fifteen other populations, based on other methods of estimation or information obtained under special circumstances (ibid).

As far as population monitoring to determine the sustainability of off take is concerned, the main exporter of trophy specimens of *Panthera leo* are, in order of quantity exported: Tanzania, South Africa, and Zimbabwe (see section 3.2). The largest populations in South Africa and Zimbabwe, those of the Kruger ecosystem and Gonarezhou/Save/Chiredzi/Malilangwe/Belt Bridge/Tuli, appear to be monitored (Bauer and Van Der Merwe 2004). However, the fact that the largest population of free-ranging African lions in Tanzania, that in the Selous Game Reserve, has not been the subject of a recent directed population survey and the population estimate is a 'best guess' (ibid), is of concern.

#### 4.2.2 Habitat conservation

Lions are found in 290-350 protected areas in Africa, but this represents only 9-12 percent of their range (Nowell and Jackson 1996). Moreover, most protected areas for cat species, in general, are not large enough to contain a minimum viable population and it is impossible for most governments to protect additional land from development (ibid). Outside of protected areas, lions are heavily persecuted and their wildlife prey base is reduced (ibid). Therefore, conservation of habitat outside of protected areas, and promoting ways for lions and people to coexist, is very important (ibid). Numerous and diverse efforts are underway in range States to address human-wildlife conflict including giving value to lions through tourism and hunting, as well as employment of better methods to protect livestock and humans, and compensation for livestock loss, which will allow lions, and their prey base, to continue to exist outside of protected areas (ibid, Bauer and Van Der Merwe 2004).

#### 4.2.3 Management measures

As explained in Section 3.4, although trophy hunting quotas are set in some exporting range States, they are set at unsustainable levels for some populations (Creel and Creel 1997, Macdonald and Loveridge 2003, Loveridge 2004, Whitman et al. 2004) (see Section 3.4 for details). The procedures for the establishment of trophy hunting quotas and the mechanisms to ensure that the advice of those responsible for management is taken into account are unknown to the proponent. It is also unknown to the proponent whether any range States have quotas for other forms of offtake, such as problem animal control or traditional uses.

One exporting range State has reported to the CITES Secretariat a voluntary national export quota for *Panthera leo* specimens (CITES 2004):

Exporter	Specimens	2002	2003	2004
Ethiopia	Trophies	30	12	20
Ethiopia	Skins	--	--	80

Lion reintroduction efforts have not been successful to date because too few animals were involved in the release, resulting in low genetic variability and very low sperm quality (Nowell and Jackson 1996). Translocations, particularly of 'problem animals', have been successful in some cases (ibid); in other cases, lions traveled extensive distances to return to their original home range (ibid).

As noted in Section 4.2.2, conservation of habitat outside of protected areas, and promoting ways for lions and people to coexist, is very important (Nowell and Jackson 1996). Numerous and diverse management efforts are underway in range States to address human-wildlife conflict including giving value to lions through tourism and hunting, as well as employment of better methods to protect livestock and humans, and compensation for livestock loss, which will allow lions, and their prey base, to continue to exist outside of protected areas (ibid, Bauer and Van Der Merwe 2004).

Communities that live with lions reportedly benefit financially from tourists or trophy hunting activities (Nowell and Jackson 1996); the tourist value of a male lion in Kenya's Amboseli National Park was calculated to be USD128,750 annually while a 21-day lion hunting safari in Tanzania is worth about USD 35,000 (ibid).

#### 4.3 Control measures

##### 4.3.1 International trade

In the European Union, *Panthera leo* is listed in Annex B of Council Regulation (EC) 338/97, which requires the presentation of the original and a copy of the CITES export document from the country of origin or export at the customs office of entry.

##### 4.3.2 Domestic measures

As noted in Sections 2.7, 3.4 and 4.2.3, trophy hunting quotas are set at unsustainable levels in some areas (Creel and Creel 1997, Macdonald and Loveridge 2003, Loveridge 2004, Whitman et al. 2004) (see Section 3.4 for details). For the reasons noted in Section 3.4, there are concerns about the effectiveness of domestic control measures, particularly in regard to the establishment and enforcement of trophy hunting quotas.

#### 5. Information on similar species

Listing of *Panthera leo* on Appendix I would not result in identification problems. The main specimens in trade (trophies, skins, skulls and live animals) are readily recognizable by non-experts. The Critically Endangered subspecies *P. leo persicus*, which occurs only in the Gir Forest of India, is already listed on CITES Appendix I.

#### 6. Other comments

On 21st April 2004, Kenya sent a letter to all range States for extant Appendix II populations of *Panthera leo* informing them that an Appendix I proposal was under consideration, providing them with the substance of the proposal, and requesting their comments.

Kenya received the following responses by the deadline for submission of proposals to the CITES Secretariat: Botswana (Annex A), Ethiopia (Annex B), Namibia (Annex C), and South Africa (Annex D).

Kenya did not receive responses from the remaining range States.

#### 7. Additional remarks

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TELEPHONE: 371405  
FAX: 312354  
TELEGRAMS: GAME GABORONE  
REFERENCE: WF/MAN 13/6/2



REPUBLIC OF BOTSWANA

DIRECTOR OF WILDLIFE & NATIONAL PARKS  
P.O. Box 131  
GABORONE

PLEASE ADDRESS ALL OFFICIAL COMMUNICATIONS TO THE DIRECTOR

05.05.2004

Mr E.A. Mukolwe  
Director  
Kenya Wildlife Service  
PO Box 40241  
Nairobi  
Kenya

Fax: 00254 20 608072

Dear Mukolwe,

**Kenya proposal to transfer populations of *Panthera leo* (African lion) currently in Appendix II to Appendix I**

Reference is made to your email communiqué pertaining to the above, received by Botswana on the 27. April 2004.

Botswana as an affected range state cannot support global listing of *panthera leo* on appendix I. Botswana has a long-term viable, stable population of *panthera leo*. This is not accidental, it is due to sound management regimes in place, continuous monitoring of wildlife populations. A series of studies have been conducted on lions among them include; the Ecology, home range and population dynamics (Winterbach C. W & Winterbach H, 2001); Male Movements, territories, and lion mortality in the Okavango Region (Kat W.P, 2001); Population-ecology and demography of lions in the Kgalagadi Transfrontier Park- adaptations and prospects of survival in a harsh environment (Funston, P.J. & Herrmann, E. 2000); Relating faecal endoparasite counts to the ecology of a pride of lion in North-eastern Botswana (2003), Aerial surveys are conducted by Department of wildlife and National parks annually. The status of lion population is well known in Botswana and does not warrant any listing in appendix I. The lion population of Botswana does not meet the criteria for appendix I listing under resolution 9.24.

Botswana pride herself with an estimated population of around 3000 lions. With the current estimated numbers of lions in Africa, Botswana could contain up to 15-20 % of African lions within its boarders. Lions are not restricted by habitat in Botswana, 17 % of the total surface area is designated Game reserves and National Parks and no consumptive utilisation occurs in these areas, almost 22 % of the country surface area is set aside as wildlife management areas.

Botswana suspended the hunting and killing of lions as problem animals since November 2000 while studies on the status of lions are continuing, the ban is still in place. This demonstrates that Botswana is proactive in conservation of wildlife resources lions included.

We strongly believe that global uplisting of lions to appendix I is not a solution , but will only militate against the survival of lions. It is quite clear even from your proposal that trade in lion products is not a threat to lion population but they are other factors such as diseases, desertification of northern and central Africa has doubtless had a role in the historical decrease of lion population, expansion of human settlements into lions habitats which ought to be addressed if conservation of lions is to be attained. Most of these problems ought to be addressed at national level.

Lions are dangerous carnivores non selective in their prey, therefore sometimes human life is lost . People are running out of patience and it is not uncommon to hear in the news citizens accusing government of caring more for wildlife than humans. This sentiments militates against conservation in the long run, unless something tangible accrues to the people living with the resource.

Botswana supports Community –based Natural Resource Management (CBNRM) programmes which accords communities the right to sustainably utilize their wildlife resources. The communities are allocated a hunting quota and lion is an important component of the hunting package. This encourages the communities to actively conserve wildlife resources (lions included). If the costs of conservation outweighs the benefits it might be impossible to attain conservation objectives.

I would like to draw you attention to tables pertaining to hunting trophies,skins,skulls,plates, bodies and live lions, Botswana does not agree with the statistics quoted in the stated tables. The information quoted about Botswana is inaccurate.

In summary we can not support the global listing of lions on appendix I, because Botswana lion population does not meet the criteria for an appendix I in resolution 9.24 (Rev.12).

Diana Chimidza  
**FOR DIRECTOR OF WILDLIFE AND NATIONAL PARKS.**



**From:** Tadesse Hailu E.W.C.O@telecom.net.et <mailto:E.W.C.O@telecom.net.et>

**CITES Management Authority**

**Subject:** Kenya's proposal to transfer population of *Panthera leo* to Appendix I.

We are very grateful for your letter dated April 22, 2004.

In Ethiopia off- take of Lion from the wild for the purpose of trophy hunting is minimal and trophy hunting at present will not lead the population to decline a lot.

Threats to Ethiopian Lions are not different from that of other range states. However, threats often occur in Ethiopian due to:

- decline in prey population,
- a high vulnerability due to the species biology (or behaviour),
- fragmentation of habitats,
- large fluctuations in the of distribution, and
- decrease in habitat size and quality,

Therefore, our Scientific and Management Authority supports Kenya's document to transfer *Panthera leo* to Appendix I.

Sincerely yours,

**Tadesse Hailu**



Republic of Namibia

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**MINISTRY OF ENVIRONMENT AND TOURISM**

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Tel: +264 (061) 2842333  
Fax: +264 (061) 229936

FGI Building, 1<sup>st</sup> Floor  
Private Bag 13346  
Windhoek

28 April 2004

Mr E.A. Mukolwe  
Director  
Kenya Wildlife Service  
PO Box 40241  
Nairobi  
Kenya

Fax: +254 20 608072

Dear Mr Mukolwe

**Kenya Proposal to transfer populations of *Panthera leo*, African lion, currently on Appendix II to Appendix I**

Your communication by email on 21 April 2004, regarding the proposal being considered by Kenya to transfer all populations of *Panthera leo* to Appendix I refers.

Namibia, as an affected range State, cannot support the global listing of African lion on Appendix I. Namibia is able to successfully manage and conserve its lion population. Namibian lions have been studied and monitored intensively since 1980 (Junker & Stander 2001). Studies on population demography have been conducted on all sub-populations in protected areas, e.g. Etosha National Park (Orford *et al.* 1988; Stander 1991) and Skeleton Coast Park (Stander & Hanssen 2003), and non-protected areas, e.g. Nyae Nyae Conservancy (Stander 1997). Continuous monitoring indicates that these populations are stable (Hanssen & Stander 2003), or even increasing, such as those that live on communal conservancies in the Kunene Region, with annual growth rates of 15% (Stander & Hanssen 2003).

Partly as a result of the stable and growing lion population, there is regular conflict between people and lions. Even lions that live inside large protected areas, like Etosha National Park, occasionally move beyond the borders. Lions regularly kill livestock and some communities suffer extensive losses.

Namibia actively promotes Community-based Natural Resource Management (CBNRM) programmes that give local communities the right to sustainably utilize wildlife resources, through participation in the management of these resources and deriving of direct benefits. To date 31 Communal Conservancies have been registered, covering a total area of 82,000 km<sup>2</sup>. Most of these conservancies border on areas with resident lions, and at least 12 conservancies share their land with free-ranging lions. To varying degrees, these communities suffer livestock losses due to lions, and therefore bear the costs of conserving lions. These communities can only be expected to tolerate and conserve lions when the benefits they derive from lions outweigh the costs. Through declaring lions that cause excessive livestock losses as problem animals, these individuals are then sold for trophy hunting, with fees payable to conservancies. The trophy hunting of lions outside of protected areas, and along the borders of protected areas, is thus critical to maintaining a viable balance between cost and benefit of conserving the species.

The trade data presented in the proposal show clearly that export of trophies is the predominant form of trade. The highest numbers of trophies exported annually are recorded in a number of Southern and East African countries (coinciding with the largest lion populations). The proposal indicates, however, that the most threatened lion populations are in West and Central Africa, where little trade in this species is recorded. It is therefore unclear what purpose an Appendix I listing would serve.

Whereas we recognize that export of trophies is, in theory, permissible under an Appendix I listing, experience has shown that an Appendix I listing also affects non-commercial exports, especially through stricter domestic measures. The listing of lions on Appendix I would have economic consequences for local communities outside, and along the borders of protected areas where lions occur, which in turn will have a detrimental impact on our ability to manage and conserve this species outside of protected areas, thus effectively reducing the range over which lions can exist. We believe that this would be true in many other range States.

The lion population decline, suggested in the proposal, from the 1996 estimate (Nowell & Jackson 1996) to the 2004 estimate (Bauer & van der Merwe 2004) is unconvincing and perhaps inappropriate. The proposal makes no attempt to verify the quality, accuracy, or compatibility of the two datasets. The results from these two estimates are, in all likelihood, not directly comparable. We believe, therefore, that the suggestion of a population decline, using those references, is invalid. In addition, the proposal omitted reference to the third and important survey in 2002 (Chardonnet 2002), where the population was estimated at 28,854 – 47,132 lions.

As the proposal rightly indicates, the principal threats to the lion population are increasing pressure from human settlements (i.e. loss of range) and possibly disease. Neither of these threats will be addressed through an Appendix I listing, and in fact, such listing will most likely exacerbate the loss of range, through increasing intolerance for lions outside of formally protected areas. We feel that the conservation of the African lion will be better served through initiatives at national level to address specific threats.

In conclusion, we believe that the argument and supporting data are not sufficiently robust to justify a global transfer to Appendix I. More specifically, the lion population of Namibia

does not meet the criteria for an Appendix I listing, and should be excluded from any such proposal.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'M. Lindeque', written in a cursive style.

Dr M. Lindeque  
Permanent Secretary

cc CITES Secretariat

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**DEPARTMENT: ENVIRONMENTAL AFFAIRS AND TOURISM  
REPUBLIC OF SOUTH AFRICA**

Ref: 24/21/3/1/1/4

Enquiries: Dr Pieter Botha

**Tel:** +27 12 310 3575 **Fax:** +27 12 320 7026 **E-mail:** [pbotha@deat.gov.za](mailto:pbotha@deat.gov.za)

The Director: Kenya Wildlife Service

Dear Mr / Mrs

**KENYA PROPOSAL TO TRANSFER POPULATIONS OF *PANTHERA LEO*, AFRICAN LION, CURRENTLY ON CITES APPENDIX II TO APPENDIX I**

Please find attached South Africa's response to the draft proposal distributed by your organization.

Based on the reasoning in the attached response, South Africa can not support such a proposal.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Pieter Botha'.

Dr Pieter Botha  
DIRECTOR: RESOURCE USE (Acting)

DATE: 30 April 2004

## South African Response: Kenya's proposal to transfer populations of *Panthera leo*, African lion, to Appendix I

### Population status and trends

The lion population in western Africa might be more vulnerable than populations in other regions of Africa (eastern and southern Africa) especially because of its highly fragmented geographical dispersal. It is also recognised that the numbers of lions in western Africa are low (Bauer & Van der Merwe 2004, Chardonnet 2002), and that this situation is undoubtedly due to conflict with pastoralist livestock farmers, a situation that will not be alleviated through the transfer of the populations to Appendix I. In fact such a situation, in which utilisation is further restricted, may well lead to further declines in lion numbers in the areas as there will be even less incentive for pastoralist communities to tolerate predation on their livestock. Furthermore the size of the lion population in most western African parks is likely to be a function of park size, which are generally small. Thus it is questionable whether these parks can in fact carry larger lion populations than present. The status quo relating to park sizes is unlikely to change, therefore probably necessitating the development of a meta-population management strategy.

However, of overriding importance here may be that the figures quoted in paragraph two under the heading Population status and trends, need to be explained more clearly. The estimate of 30 000 – 100 000 lions (Nowell & Jackson 1996) that has been widely quoted as a benchmark of the population size of lions in Africa in the early 1990's, is nothing more than a speculative guess and not the result of a systematic survey. Thus it is not really a suitable benchmark. It is obvious that two centuries ago there may well have been 500 000 or more lions in Africa, and that due mainly to expansion of human populations and livestock agriculture, lion populations have shrunk into national parks and other protected areas. Lion populations are safe in these, but it may need to be managed genetically due to small populations sizes in many reserves. This is particularly true in West Africa.

Two recent systematic lion surveys (Bauer & Van der Merwe 2004, Chardonnet 2002), suggest that the lion population in Africa is currently about 16 500 – 47 000, with 30 000 being the likely actual number. The review of Bauer & Van der Merwe (2004) is widely recognised as being an underestimate, as many large hunting concession areas in East and Southern Africa were not reported on. The report of Chardonnet (2002) is thus probably more comprehensive and thus more reliable. It is therefore not possible to draw any conclusions regarding any shifts in lion population numbers in Africa over the last decade. Although populations may be vulnerable in certain areas, lions are well protected in Africa's network of protected areas, and contribute hugely to conservation of other protected areas through the dual mediums of non-consumptive and consumptive utilisation.

South Africa has a viable lion population with over 3 000 lions in protected areas and private reserves (Bauer & Van der Merwe 2004). Hunting is not allowed in the national parks, and the population of the Kruger National Park is estimated at 2 200 and the Kgalagadi Transfrontier Conservation Area has a population of 450. Furthermore there are more than 800 lions in various captive breeding facilities.

### Threats

The threats, as indicated in the draft proposal by Kenya, are pressure from human settlements, in some instances disease and political instability. According to Kenya recent research indicates that current trophy hunting levels and practices are unsustainable in some areas. These threats are however not linked to the CITES Appendix listing of the lion population, but to regulation and protection on a national level.

Article IV, paragraph 2 (a) of the Convention requires, as a condition for granting an export permit, that a Scientific Authority of the State of export has advised that this export will not be detrimental to the survival of the species in the wild. Furthermore, Article VI, paragraph 3 requires a Scientific Authority of each Party to monitor exports of Appendix II species and to advise the Management Authority of suitable measures to be taken to limit such exports in order to maintain the species throughout their range at a level consistent with their role in the ecosystem. Based on the above, if the Scientific Authorities are implementing the provisions of the Convention and trophy hunting seems to be a threat, the export of trophies should not be allowed or should be managed through a quota system. These are all national measures that can be taken to relieve the pressure on the populations. If these basic provisions of the Convention are not implemented while the populations are on Appendix II, then how will the Parties

enforce even stricter regulations as required under the Appendix I listing? Furthermore, the listing of the populations on Appendix I will not limit trophy hunting, as trophy hunting by international clients are mostly for personal purposes and therefore the import of the trophy will not be for primarily commercial purposes and most countries will issue import permits for these specimens.

It is clear that national actions must be taken to protect the lion populations in the areas where there are concern about their small population sizes and the impact of these various threats on the populations.

Although it is recognised that the hunting of older males may increase infanticide rates this has not been shown in field studies, with lion populations breeding at similar rates in harvested and non-harvested populations. Several research programs are tackling this issue in various African countries, and guidelines on sustainable use of lions (Whitman *et al.* 2004) are becoming more widely available to decision makers.

With regard to the disease threat, it has been shown that Feline Immunodeficiency Virus (FIV) is of no immediate threat to lions (Packer *et al.* 1999). As regards the early 1990's Canine Distemper Virus (CDV) outbreak in the Serengeti, this was a unique occurrence with a mutated virus and is not cause of concern generally, with the outbreak only affecting 30% of the Serengeti plains population that recovered soon thereafter (Roelke-Parker *et al.* 1996). In South Africa the threat of TB is presently being researched and unknown, but the indications are that it is unlikely to be a major threat.

#### International trade

According to the information provided by Kenya, the major exporters of lion specimens are South Africa, Tanzania, Zambia and Zimbabwe. Some trade is taking place from Central African Republic, Burkina Faso, Cameroon, Mozambique and Namibia. Trade from South Africa is sustainable and there is no detrimental impact on the survival of the species in the wild. As mentioned before the largest lion population in South Africa is in the Kruger National Park where hunting is not allowed. Animals are only removed for management purposes.

The impact of international trade on this Appendix II listed species should be investigated before any proposal can be considered. Resolution Conf. 12.8 (Review of Significant Trade in specimens of Appendix II species) provides the appropriate vehicle to address the concerns Kenya raises in its draft proposal. The significant trade review process provides an opportunity to review the biological, trade and other relevant information relating to an Appendix II species subject to significant levels of trade, and to identify problems and solutions concerning the implementation of Article IV, paragraphs 2(a), 3 and 6(a). Although South Africa do not consider levels of trade from South Africa as significant, it seems that an opportunity must be provided to other range States, especially west African range States to review their situation. It will be more appropriate to consider including the species in the significant trade review process, where all the relevant information will be made available for review, than to list the populations in Appendix I.

#### Conclusions

*Panthera leo* does not meet the biological criteria (Annex I, Criterion C 9(i) or (ii)) for inclusion in Appendix I.

It seems that human-animal conflict seems to be the most important threat and this can only be addressed at a national level. In some instances it seems that the lack of implementation of Article IV 2(a), 3 and 6(a) might be the problem and therefore it will be more appropriate to consider the species for inclusion in the significant trade review process to enable range States to provide information regarding biological status, trade status and the implementation of non-detriment findings.



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