AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Transfer of Loxodonta africana from Appendix II to Appendix I.

B. PROPONENT

The United States of America.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Mammalia

12. Order: Proboscidea

13. Family: Elephantidae

14. Species: Loxodonta africana (Blumenbach, 1797)
Subspecies according to Western, 1986: L. a. africana, "bush" or "savannah" elephant
L. a. cyclotis, "forest" elephant

[According to Ansell (in Meester and Setzer 1971), there are actually four subspecies of bush elephant: L. a. africana, southern Africa; L. a. knochenhaueri, eastern Africa; L. a. orleansi, Ethiopia and Somalia; and L. a. oxyotis, open country of western and North-central Africa; and two subspecies of forest elephant: L. a. cyclotis, forested areas of western and central Africa; and L. a. pharaohensis, originally in northern Africa, now extinct.]

15. Common Names: English: African elephant
French: éléphant d'Afrique
Spanish: Elefante africano

16. Code number: (ISIS) 530 1415 001 002 001 001

2. Biological Data

African elephant is the largest living land animal. It differs from the Asian elephant (Elephas maximus) in its larger size, larger ears, concave back with highest point at the shoulder, and two fingerlike processes at the trunk-tip (one in the Asian), and in that both sexes usually carry tusks (Laursen and Bekoff, 1978).

Adult male African elephants weigh from 4,700 to 6,048 kg and measure from 3.2 to 4.01 m in height at the shoulder. Adult females are smaller, weighing 2,160 to 3,232 kg and measuring from 2.2 to 2.6 m. The forest elephant differs from the bush elephant in its smaller body size, smaller, more rounded ears, straighter, downwards-pointing tusks, and brown, hairier skin (Laursen and Bekoff, 1978). Although classified as subspecies, characteristics of one kind may be seen in individuals among populations of the other, leading some authors (e.g. Haltenorth and Diller, 1980) to refer to them as ecotypes.

The tusks are modified incisor teeth which grow continuously throughout the life of the elephant. After a conical cap of smooth enamel has worn away, a tusk is composed of solid dentine, apart from the hollow pulp cavity in the root. The dentine of elephants, better known as ivory, is recognizable by its grain - a series of criss-crossing lines which in cross-section produce a diamond-shaped pattern (Laursen and Bekoff, 1978). The elephant uses its tusks for two main purposes: (i) as weapons for threat displays and actual combat, and (ii) as tools for digging up roots or mineral-rich earth, and for stripping bark or lifting objects in conjunction with the trunk.

Elephants live in a matriarchal society in which family groups are led by a dominant female, and males live in bachelor herds or alone (Moss, 1988; Sikes, 1971). Females usually reach sexual maturity at about 10-15 years, but puberty may be delayed in adverse environmental conditions to as late as 22 years (Moss, 1988; Laws, et al., 1975). Although males reach puberty at roughly the same time, they are unlikely to reproduce until they reach a high status in the male hierarchy - between 35-55 years of age (Poole, 1988). The gestation period is about 22 months, and birth interval is 4-6 years; the number of calves borne by a cow may vary from 1 to 9 in a lifetime (Laws, 1967).

21. Distribution: Distribution: The elephant ranges from southern Mauritania to Ethiopia and South Africa (36 sub-Saharan African countries - see Table 1). Historically it occurred in North Africa, but is presently extinct in this region. Western (1986) recognizes two subspecies: the forest elephant (L. a. cyclotis), distributed throughout equatorial forests from western Uganda/northern Rwanda to Zaire and Sierra Leone, and the bush elephant (L. a. africana), found throughout the savannas and bushlands characteristic of most of Africa North, East, and South of the forest elephant's range.

Table 1. Alphabetical list of African countries with elephants

COUNTRY	
Angola	Mali
Benin	Mauritania
Botswana	Mozambique
Burkina Faso	Namibia
Cameroon	Niger
Central African Republic	Nigeria
Chad	Rwanda
Congo	Senegal
Côte d'Ivoire	Sierra Leone
Equatorial Guinea	Somalia
Ethiopia	South Africa
Gabon	Sudan
Ghana	United Rep. of Tanzania
Guinea	Togo
Guinea Bissau	Uganda
Kenya	Zaire
Liberia	Zambia
Malawi	Zimbabwe

22. Population: There is considerable divergence in estimates of past and present elephant numbers due to a number of factors. Some populations have been well-studied, especially in open habitats of eastern and southern Africa. In western and central Africa, elephant populations have been studied less because dense forest cover makes censusing efforts more difficult. While biologists differ as to the numbers of elephants remaining in Africa, population demographics or trends can more accurately reflect the health of elephant populations.

Although there is disagreement regarding precise population figures, there is no dispute about the fact that numbers in most parts of Africa have declined drastically. The elephant originally inhabited all of Africa except for the Sahara and Namib Deserts. In most regions it now occupies a fraction of the former range and remaining habitat is fragmented and shrinking. Even around the year 1500, prior to the European colonization of sub-Saharan Africa, there may still have been about 10,000,000 elephants (World Wildlife Fund, 1989). In 1978, the year that the U.S. classified the species as threatened and established certain protective regulations, there were an estimated 1,500,000 elephants. But the conservation measures initiated then and subsequently, both in the United States and elsewhere, have generally failed.

Since 1979, long-term studies by the Elephant Working Group and independent investigators have been carried out. The United Nations Environment Programme has generated a data base and conservation organizations, notably the TRAFFIC Network and World Wildlife Fund, have documented trade in elephants/their parts/and derivatives, notably ivory. In 1987, the African Elephant and Rhino Specialist Group (AERSG) in a series of reports, presented population trends to the CITES Secretariat at the 6th meeting of the Conference of the Parties (Ottawa). Population estimates by region are given in Table 2. Individual country population numbers are listed in the AERSG Report (1987).

Table 2: Elephant Population Estimates by Region 1979-1987

Region	1979	1981	1985	1987
WEST AFRICA	17,090	17,780	16,900	16,290
CENTRAL AFRICA	497,400	436,200	666,200	375,800
EAST AFRICA	547,650	438,521	296,000	190,720
SOUTHERN AFRICA	210,500	311,000	202,800	181,600
TOTALS	1,272,640	1,203,501	1,181,900	764,410

Note: *denotes AERSG figures (1979 = Douglas-Hamilton, 1979). 1981 * = Cumming and Jackson, 1984. 1985 * = Martin, 1985. 1987 * = AERSG, 1987.)

Douglas-Hamilton is cited by Bohlen (WWF 1989) as having estimated 2 years ago that the total number of elephants in Africa had plummeted by 50 percent to between 700,000 and 750,000. This figure corresponds closely with an estimate of 764,000, issued by the IUCN African Elephant and Rhino Specialist Group (1987). Even that estimate was based in part on extrapolations of censuses carried out nearly a decade earlier. Moreover, Douglas-Hamilton and others have calculated

that over-all numbers are declining at a rate of at least 8 percent annually. Such a drop would mean that an optimistic current estimate of total numbers would be around 600,000. This in turn agrees closely with a statement issued by the World Wildlife Fund (1989), that the total number is now fewer than 700,000 and may soon drop to 500,000.

Although the declines of the last decade are associated in part with long-term trends of increasing human population, agricultural expansion, and loss of suitable habitat, the primary cause is killing of elephants to obtain ivory for international trade. Where elephant populations have been well studied, particularly in East Africa, there have been widespread and devastating losses even in areas of suitable habitat and often in protected parks and reserves. Such famous protected areas as the Tsavo and Selous already have lost most of their elephants to poaching. While lasting conservation measures are needed to save habitat and develop programmes that will maintain large natural elephant populations in coming centuries, the immediate priority must be to combat poaching and control the international trade that stimulates such activity.

Although the rate of habitat destruction and over-harvesting has been documented, it is difficult to ascertain the total number of animals that have been lost. It is evident that certain populations of elephants have been drastically reduced noted by to the change in age-class structure and illustrated by the weight of tusks entering trade (both legal and illegal). With the increase in availability of weapons and prices paid per kilogram for ivory, some populations have been severely depleted or totally eliminated. It is also reported that only approximately two percent of the population live in effectively protected areas, most of which are in Southern Africa (Burrill and Douglas-Hamilton, 1987; Douglas-Hamilton, 1988b).

23. Habitat: The African elephant is an extremely adaptable species and it thrives in a wide variety of habitats. Within the more recent historical time, the species occupied virtually all of sub-Saharan Africa except the very driest parts. Today the elephant's preferred habitats are the dense rainforests of western and central Africa and the open savanna of eastern and southern Africa. Over-grazing, desertification, and deforestation have significantly reduced its range in the Sahel, deforestation and agriculture in western Africa, and population pressure in eastern Africa. Continued development has led to further fragmentation of its habitat.

3. Trade Data

31. National Utilization: The elephant has traditionally been exploited throughout its range for meat, hides, and ivory. Ivory carving industries exist in Zimbabwe, South Africa, Zambia, Botswana, Côte d'Ivoire and Malawi. It is reported that this industry consumes 30 tons of ivory annually. Zimbabwe and South Africa until recently culled approximately 1,800 animals per year to reduce populations in protected areas.

32. Legal International Trade: Although there is some trade in hides and parts (Thomsen, 1988), ivory constitutes the major element in international trade. In 1986, the CITES Parties instituted an ivory quota system to implement legal trade (see Table 3 for quotas). A few countries (Botswana, Cameroon, Ethiopia, Namibia, South Africa, United Republic of Tanzania, Zambia and Zimbabwe) allow a limited sport-hunted harvest (Martin, 1985).

33. Illegal Trade: Since 1970, the single most important factor in the decline of African elephant numbers has been the illegal ivory trade. This has come about through a combination of factors: 1) a sudden increase in the price of ivory, 2) an increase in the number of modern weapons, and 3) the ease with which ivory is now transported (Douglas-Hamilton, 1987). Control of the illegal ivory trade is hampered by the difficulty in distinguishing between legally and illegally taken ivory, especially after the ivory has been worked. At the 6th meeting of the Conference of Parties, the African Elephant Working Group was established to investigate and analyze the ivory trade. This group will meet in July, 1989 in Botswana, to present their findings.

Table 3. Ivory Quotas in Number of Tusks
(Unlisted countries have zero in all years)

	1986	1987	1988	1989
Central African Republic	0	800	800	800
Cameroon	300	300	250	298
Burkina Faso	0	0	0	46
Chad	0	320	520	289
Congo	1,200	3,784	1,302	1,042
Gabon	0	2,600	1,281	0
Zaire	10,000	15,000	15,000	0
Ethiopia	700	530	798	870
Kenya	2,000	2,000	0	0
Somalia	17,002	0	8,000	0
Sudan	12,971	21,500	0	0
Tanzania, United Rep. of	16,400	18,150	13,214	0
Uganda	0	302	0	0
Botswana	520	520	0	1,000
Malawi	20	150	560	238
Mozambique	120	200	18,045	17,961
Namibia	1,376	1,033	0	0
South Africa	12,100	14,000	8,000	2,236
Zambia	5,800	8,500	9,068	3,772
Zimbabwe	14,000	9,000	10,000	5,000
TOTAL	94,509	98,689	86,838	31,316

The ability of ivory dealers to circumvent the existing CITES quota system obscures the fact of "what is legal ivory allowed in trade by CITES and what is illegal". It has been reported that as much as 1,000 tons of ivory moves annually in international trade of which about 80 percent is illegal trade (Parker: in AERSG, 1987).

Early in the 1970's tusks of 10 to 12 kg were recorded as average for the trade. By 1976, tusk size fell to about 9 kg each which required the killing of some 45,000 elephants to supply the trade

of about 800 tons. By 1984, average tusk sizes fell to 6 kg, and presently average tusk sizes are below 5 kg (Humane Society of the United States, 1989).

The total value of the U.S. imports of elephant products (skins as well as ivory) in the years 1984-1986 averaged $ 29 million per annum (Thomsen, 1988). TRAFFIC (U.S.A.) estimated that the total retail value was in excess of $ 100 million. The ivory trade is divided into 2 sections - raw and worked ivory. The worked ivory trade is more important in the United States. In 1982, the United States was the second largest importer of worked ivory after Japan. The U.S. imports accounted for 17 per cent of the minimum number of pieces and 32 per cent of the volume by weight; 97 percent of this trade came from Hong Kong, and not from domestic carving industries of African nations. Table 4 lists the amount of worked and raw ivory imported into the United States from 1985-1987.

According to TRAFFIC (U.S.A.) records of raw ivory for the years 1979 to 1985 there were twice as many tusks (whole and pieces using a conversion of 1 kg of raw ivory = 0.155 tusks) imported into the United States from South Africa than from Botswana.

Lesser but significant imports from Africa into the United States came from the Central African Republic, the United Republic of Tanzania, Zambia, and Zimbabwe during that same time period. In 1985, when approximately 2,650 tusks (whole and pieces) were imported into the United States from Africa, twice as many tusks came from Botswana than from any other African country, with significant but lesser amounts from South Africa, Zaire, and Zimbabwe.

34. Potential Trade Threats:

341. Live Specimens: The trade in live specimens is insignificant and is primarily for zoological parks (zoos). The numbers involved are extremely low and captured calves are usually from controlled culling operations. In 1986 and 1987, 8 and 31 live animals respectively were imported into the United States.

342. Parts and Derivatives: The trade in elephant parts other than ivory is limited. The trade is largely in the form of skins which originate from culling operations. There is no evidence of any illegal market in skins. In 1986, the United States (largest importer of skins), imported $ 1,099,000 (declared import value) worth of skins. This compares with a total annual import of elephant products (chiefly worked ivory) of approximately $29 million for the years 1984-1986 (Thomsen, 1988).

4. Protection Status

41. National: The African elephant is a protected species in nearly all African range states. Most countries prohibit any taking of animals or trade in parts and derivatives. A few states allow the harvest of elephants through sport-hunting programmes or culling operations.

Table 4: Reported Ivory Imports into the U.S.

(1985-1987)[1/]

1985

WORKED IVORY[2/]	RAW IVORY[2/]	TROPHIES
Carved Ivory - 78,413 kg Jewelry - 65,256 to 107,205 kg Piano Keys - 523 kg	Tusks - 1,222 Raw Ivory - 419 kg	170
TOTAL 144,192 to 186,142 kg	18,046 kg	

1986

WORKED IVORY	RAW IVORY	TROPHIES
Carved ivory - 189,160 kg Jewelry - 67,477 - 133,144kg Piano Keys - 694 kg	Tusks - 954 Raw Ivory - 483	150
TOTAL 257,331 to 322,998 kg	6,922 kg	

1987

WORKED IVORY	RAW IVORY	TROPHIES
Carved Ivory - 140,840 kg Jewelry - 27,906 to 54,632 kg Piano Keys - 816 kg	Tusks - 1,935 Raw Ivory - 384 kg	116
TOTAL 169,612 to 196,338 kg	13,220 kg	

1/ From U.S. Office of Management Authority CITES Annual Report (1985-1987)
2/ Amounts based on the following Conversion Factors

Carved Ivory - 3 pieces = 1b.
Jewelry - 20-50 pieces = 1b.
Piano Keys - 10 pieces = 1b.
Raw Ivory - 1 piece = kg
Tusk - 1 tusk = 6.5 kg

42. International: Currently, the African elephant is listed in Appendix II of CITES. It is also listed as "threatened" under the U.S. Endangered Species Act of 1973. In October 1988 the U.S. passed the African Elephant Conservation Act. This act prohibits the importation of ivory from any country which presently does not have a management or conservation programme for the species or from any country dealing in ivory from such a nation. It also prohibits the importation of ivory from non-CITES nations, nations allowing importation from non-producing nations, or countries violating the CITES ivory control system.

43. Additional Protection Needs: Due to declining populations and the large volume of illegal ivory in international trade, the African elephant should be transferred from Appendix II to Appendix I of the Convention.

5. Information on Similar Species

The Asian or Indian elephant (Elephas maximus) is the only other extant species of proboscidean. It is totally protected within all range states and has been listed in Appendix I of CITES since 1975. It has also been listed since 1976 as "Endangered" under the U.S. Endangered Species Act.

Although some experts claim that they can readily distinguish between African and Asian elephant ivory, this claim is not widely accepted.

6. Comments from Countries of Origin

Questionnaires were sent to all African nations where the elephant occurs soliciting their opinion on whether the elephant should be uplisted (from Appendix II to I). To date, the Service has received one comment (Botswana) objecting to the uplisting of the African elephant to Appendix I.

7. Additional Remarks

None at this time.

8. References

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