
SESSION TITLE: THE NEW IUCN LISTING CRITERIA

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INTRODUCTION

The IUCN Red Listing system has changed completely since the last list was compiled in 1994. The African elephant was listed as “Vulnerable” under the old system, but had to be re-evaluated with the new listing system (IUCN Species Survival Commission, 1994). Eight categories are listed in the new system. They are “Extinct” (EX), “Extinct in the Wild” (EW), “Critically Endangered” (CE), “Endangered” (EN), “Vulnerable” (VU), “Lower Risk” (LR), “Data Deficient” (DD) and “Not Evaluated” (NE).

The new IUCN Red List categorisation of the African elephant was discussed on Tuesday 6 February 1996 at a plenary session. The session was chaired by Simon Stuart. Consensus of all the issues was not achieved during the session and a working group chaired by Nigel Leader-Williams was tasked with finalising the categorisation that evening. Other persons in this working group were Colin Craig, Iain Douglas-Hamilton, Marion Garai, Amar Inamdar, Kadzo Kangwana, Malan Lindeque, Cynthia Moss, Steve Njumbi and Ian Whyte.

CRITERIA FOR CATEGORISATION

Under the new listing system, the categorisation of any species can be conducted on any one of the following three criteria:

1. Indices of abundance
2. Reduction in the area of occupancy
3. Levels of exploitation

As indices of abundance existed for most of the range states (Burrill & Douglas-Hamilton, 1987, Cumming *et al.*, 1990, Douglas-Hamilton, 1977-1979, Douglas-Hamilton *et al.*, 1992, Said *et al.*, 1995), these were used for the basis of the categorisation.

The categories EX, EW, DD and NE are clearly not applicable to the African elephant and it thus falls in to one of the other four categories. The categorisation is dependant upon the percentage reduction of the

population over the last ten years or three generations (see below), whichever is longer. While it is accepted that some regional populations would qualify as “Lower Risk”, IUCN is still in the process of developing guidelines for use of national Red List categories (IUCN Species Survival Commission, 1994 page 8); the listing requires global consideration, and as this trend has been downward the discussion was to decide whether this species falls in CE, EN, VU or LR.

For a species or taxon to be categorised as CE, there should have been an observed, estimated, inferred or suspected reduction of at least 80% of the population over the past ten years or three generations, whichever is longer.

For a species or taxon to be categorised as EN, there should have been an observed, estimated, inferred reduction of at least 50% of the population over the past ten years or three generations, whichever is longer.

For a species or taxon to be categorised as VU, there should have been an observed, estimated, inferred or suspected reduction of at least 20% of the population over the past ten years or three generations, whichever is the longer.

A species or taxon is LR when it has been evaluated and does not satisfy the criteria for any of the above categories.

GENERATION TIME

In terms of the definition provided by the IUCN Species Survival Commission, (1994), a generation is considered to be “the average age of parents in the population”. This is greater than the age at first breeding. As no data were immediately available, a generation for elephants was subjectively estimated by Group members to be about 20 years, or 60 years for three generations (a later calculation on all the adult female elephants (n=385) randomly culled in the Kruger National Park during 1989, 1990, 1991, and 1992 yielded a generation time of 26.3 years (I.J. Whyte, own data).

POPULATION TRENDS AND THE “MOVING WINDOW”

An apparently unique problem with the categorisation of elephants is that during the past three generations, the population was known to increase initially but then to decrease dramatically due to the illegal killing of these animals for their ivory. This creates difficulty in interpreting the trend over the past three generations. A special option was thus agreed to by the IUCN for elephants - any period equivalent to three generations (60 years) could be used. The choice can be either:

1. The trend over the past 60 years
2. The expected trend over the next 60 years
3. Any period of 60 consecutive years between the above two extremes

There was general agreement that the continental population had increased to a “consensus” high point of 1.1 million in 1981 (Cumming & Jackson, 1984) and that the present level was 0.521 million. This included all total counts, sample counts, dung counts and “informed guesses” in the 1995 African Elephant Database (Said *et al.*, 1995), but excluded “speculations”. It was further agreed (with cautious hope) that with the current Appendix I CITES listing, the population was not expected to decline much below this point until 2040 (the remainder of the 60 year-period after 1981). The calculated percentage decline is therefore:

$$\frac{1981 \text{ total} - 1995 \text{ total}}{1981 \text{ total}} \times \frac{100}{1} = \frac{1,100,000 - 521,000}{1,100,000} \times \frac{100}{1} = -52.6\%$$

The estimated decline of the continental population falls between 50% and 80% and thus the African elephant must be considered “Endangered” due to an estimated reduction of the population of at least 50% over the past three generations, based on indices of abundance appropriate to the taxon.

The working group therefore proposed to the AfESG membership that the African Elephant’s IUCN Red List Categorisation should be: *(EN) A.I. (b)*.

This categorisation was accepted by the AfESG during a plenary session of their meeting on 7 February 1996.

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