Elephant

Volume 2 | Issue 1 Article 6

5-2-1982

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Recommended Citation
Koen, J. H. (1982). The Knysna Elephants: A Relict Population. Elephant, 2(1), 131-134. Doi: 10.22237/elephant/1521731901

THE KNYSNA ELEPHANTS: A RELICT POPULATION

by Julius H. Koen

ABSTRACT: Population estimate for the Knysna elephants in 1876 was 500-600. By 1910 there were 40 elephants, by 1920 18, in 1970 between 11 and 13, and in 1981 this number further declined to 3: a mature bull, a cow and a calf. Poaching and human encroachment into elephant habitat are believed to be the major contributing factors for this decimation.

INTRODUCTION

The Knysna area in the Cape Province of South Africa has the privilege of harboring the most southern elephant population on the African continent. It is also the meeting point of the Afromontane and Indian Ocean Belt forests and the resulting high forest is locally known as the Knysna forest (Fig. 1 and Fig. 2).

The Knysna forest occurs on the narrow coastal shelf between the Indian Ocean and the Outeniqua and Tsitsikamma mountain ranges as well as in sheltered places on the lower, especially southern, slopes of the mountains. Because of the low rainfall (600-1200 mm) and the generally poor soils the canopy height does not extend much beyond 25 m.

Encounters with the Knysna elephants or with their spoors have been well documented (Anonymous, 1958; Croeser, 1981; Koen, 1980a, 1980b; Thesen, 1963, 1981; Urry, 1951; Woods, 1952, 1958). The present day home range of the Knysna elephants is basically confined to an area of approximately 30,000 hectares (ha); 22,000 ha. being indigenous high forest and the rest consisting of Pinus and Eucalyptus plantations and various fynbos (macchia) islands, most of the area being State-owned (Hey, 1962).

HISTORY OF THE KNYSNA ELEPHANT HERD

Elephants were previously widespread along the coastal areas of the Cape Province (Skead, 1980). In 1702 the last elephant in the vicinity of Cape Town was shot on the Cape flats. The earlier explorers in the Southern Cape mentioned the presence of elephants in the forest at all times of the year although it is not known if they stayed there permanently. The population estimate for elephants for 1876 in the area was 500-600.

Gold was discovered in the Knysna area during 1860 and the gold rush continued until 1890. At the end of this era the many miners who had flocked there from all over the world found themselves without a ready source of income. Many of them then turned to poaching and smuggling ivory, which at that time fetched fairly good prices.

In 1908 the elephants were proclaimed Royal Game, but due to the lack of personnel, strict control could not be exercised. By 1910 there were 40 elephants left and by 1920 only 18. In that year Maj. P.J. Pretorius, a famous elephant hunter of the time who had been commissioned to exterminate the Addo herd, obtained permission to shoot one elephant to settle the long-

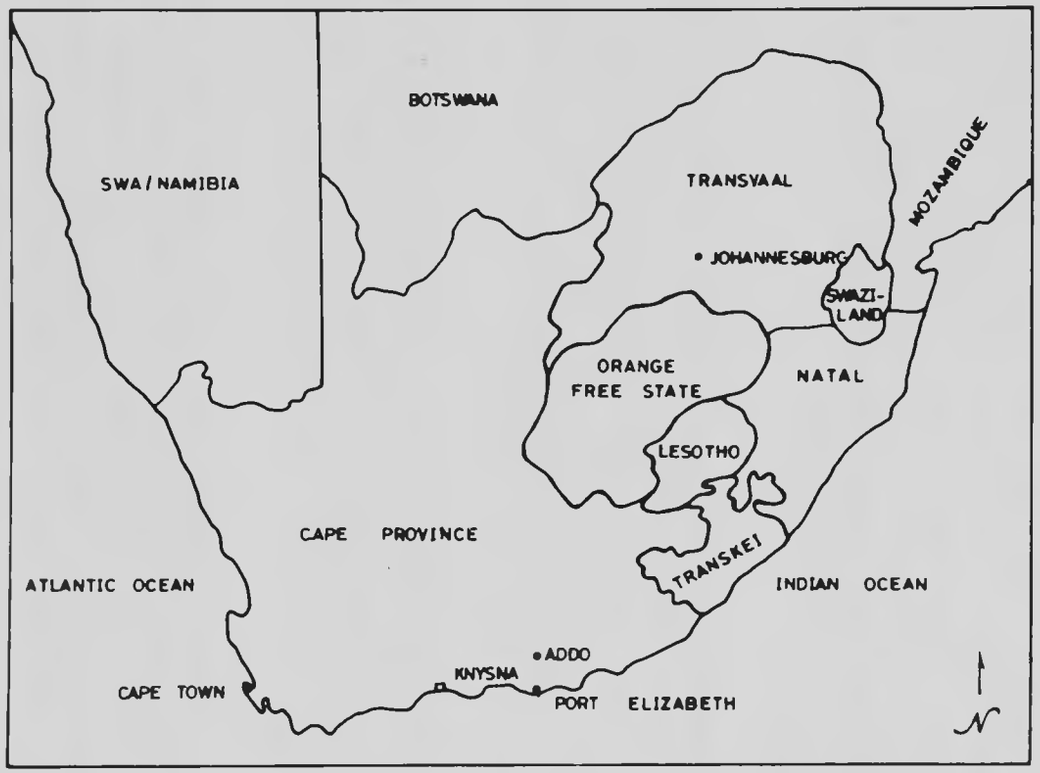

Fig. 1. Republic of South Africa and the Knysna Area (square) at its South Indian Ocean coast. 1 inch equals approximately 300 miles. Knysna Area is enlarged in Fig. 2 (to the right).

standing question of a different sub-species. Maj. Pretorius got into difficulty on the day of his hunt and eventually shot 5 animals, leaving only 13. It was still not shown that these were the largest of the African elephants.

From 1920 to 1970 when the next major survey was undertaken the population numbers remained static at between 11 and 13 individuals (Carter, 1971; Dommisse, 1951; Jarvis, 1952; Kinloch, 1968; Woods, 1952) and then declined to the present 3 in 1981 (Walker, 1981). The present population is comprised of a mature bull, a cow and a calf of 5-6 years.

REASONS FOR THE POPULATION DECLINE

Poaching has most probably been the major contributing factor to the decline in population during the previous century, leaving only a small nucleus for the present century. The encroachment of agricultural lands and human habitation has, no doubt, also contributed in forcing the elephant into a permanent life in the forest (Thesen, 1981; Woods, 1952).

There is no evidence of poaching during the past fifty years or more. On their seasonal wanderings the elephants have done a limited amount of damage on the small holdings adjoining the forest. During these raids shots have been fired with small caliber rifles to scare them off, and although it is possible that they could have been wounded, no deaths have been related to these shootings.

During the late 1970's the then Directorate of Forestry and Environmental Conservation initiated a research project to determine the status, population composition, movements, limiting factors, and other elements of the herd. It was determined that the elephants feed on a large number of plants ranging from ferns to trees, the most preferred being the exotic Acacia melanoxylon. Analyses were done on the major food plants and showed a possible phosphorous deficiency and a calcium/phosphorous imbalance. Due to their forced permanence in the forest these nutritional deficiencies may have a major effect on the elephants' reproduction or on calf survival.

SEASONAL MOVEMENTS

In previous years the elephants migrated regularly between the northern parts of the forest and the sea coast in the Harkerville area (see Figure 2), moving down to the sweeter veld at the coast during winter. They usually crossed the national road to Plettenberg Bay at the Garden of Eden where a thin belt of indigenous forest connects the forests to the north and south.

Since the initiation of the research project in 1979 the elephants have not crossed the national road to the south. The last definite sighting of elephants in the vicinity of the Garden of Eden might possibly have been at the end of 1977. During the course of the study no movements could be determined that could be linked to any seasonal phenomenon. The elephants seem to wander in the northern forests on a very erratic basis, spending most of their time on the Diepwalle and Gouna forest stations (Koen, 1980a).

FUTURE OF THE HERD

The two remnant populations of elephants in the Cape Province (Knysna and the Addo Elephant National Park) may once have been part of the same population in this region. The Addo elephants have been saved and are today the population with the highest growth rate in Africa (Hall-Martin, 1979). An Elephant Working Group for the Knysna elephants was founded in 1981, comprised of members of all the major conservation bodies and universities in South Africa (Croeser, 1981). It is hoped that with this combined expertise a solution may be found for the future conservation of this relict and important elephant population.

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