

A NOTE ON THE FEASIBILITY OF INTRODUCING GIRAFFE TO THE KALAHARI GEMSBOK NATIONAL PARK

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During several visits to the Kalahari Gemsbok National Park (KGNP) the introduction of giraffe *Giraffa camelopardalis* to the Park was discussed. This note has been prepared to provide some background information for an eventual decision to be taken. Species are usually only introduced into South African national parks if they occurred there within historical times (Penzhorn 1971). However, the suitability of the habitat for the particular species should also be considered.

The distribution of the giraffe in the northwestern parts of the Cape Province, southern Botswana and the southern parts of South West Africa has been well documented and several sources going back to 1663 are quoted by Shortridge (1934), Bigalke (1951), Sidney (1965), du Plessis (1969) and Smithers (1971). Thus there are records for Namaqualand south of the Orange River and throughout the southern part of South West Africa from the Black Nossob and Gobabis down to Warmbad and the Orange River; to the east they occurred along the Orange, at Augrabies and Upington, and then northwards to Postmasburg, the Kuruman and Molopo Rivers and northwards. None of these records come from the red sand dune areas of the southern Kalahari (which includes the KGNP). However, Smithers (1971) mentions that stories have been handed down of the occurrence of giraffe in the northern parts of the Park. There is also a pan 96 km north of Tshabong called "Mpatutlwa" which translates as "the stomach of the giraffe" (Smithers 1971). The only other record of giraffe in the KGNP comes from Kloppers (1970), but this has not been verified. It is possible that the absence of any definite records from the KGNP are because this area, being waterless, was rarely penetrated by the early travellers (Leistner 1967). The nearest surviving giraffe population would seem to be that in the Central Kalahari Game Reserve (Smithers 1971) which lies some 320 km northeast of the Kalahari Gemsbok National Park.

It seems fairly certain therefore that giraffe, very likely *G.c. giraffa* Boddaert (*vide* Ansell 1971) occurred around, if not in, the KGNP within historical times. Whether this justifies their reintroduction at the present time is another matter. The most pressing need is first to establish whether the limited savanna area of Dankbaar in the northern KGNP (Leistner 1967; Bothma & de Graaff 1973) and the riverine tree savanna of

mostly *Acacia* spp. along the Nossob River will provide an adequate food supply for a permanent population of giraffe. The possible effect of the sand substrate should also be weighed up relative to past giraffe distribution in the South West Arid zone, as it would appear from the records that giraffe might have avoided the sand dune area of the southern Kalahari. It will also be appropriate to query the taxonomic status of any animals for reintroduction in accordance with principles of genetic conservation (Greig 1977), as the southern limits of *G. c angolensis* Lydekker, if a valid subspecies, is not clearly defined.

Other features of the habitat in the northern parts of the KGNP would be suitable for giraffe. Among the plants of the area are species such as *Acacia erioloba*, *A. hebeclada*, *Boscia albitrunca* and *Terminalia sericea*, all of which are recorded as being taken by giraffe in Botswana (Smithers 1971), could be expected to provide food for giraffe. Among the other species mentioned by Leistner (1967) and Bothma & de Graaff (1973) as occurring in the northern tree savanna of the KGNP there are many that would be used by giraffe. There is no natural perennial water in the KGNP, but artificial water points are plentiful; lack of water is in any case not likely to be a serious limiting factor as giraffe can apparently survive in areas where there is no surface water (Shortridge 1934; Smithers 1971).

From the limited information given above it seems that there is a reasonable case to be presented in favour of the introduction of giraffe to the Kalahari Gemsbok National Park. However, it must be stressed that a thorough survey of the proposed introduction area, and a comparison of this area with the more densely wooded and species rich savanna of the Central Kalahari must be undertaken before a final decision is reached. Finally, any animals which might be introduced must come from the nearest naturally occurring population which is in the Central Kalahari Game Reserve, and not from the eastern Transvaal.

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