

Kenya's Black Rhinos in Addo, S. Africa

Introduction

The black rhino population in the Addo Elephant National Park (of the subspecies *Diceros bicornis michaeli*) was established from animals introduced from Kenya in 1961 and 1962. In 1977 three bulls of the Zululand subspecies (*D. b. minor*) were introduced to augment the population. In 1980 the IUCN/SSC African Rhino Specialist Group sent a request to the Board to remove the Zululand bulls and any mixed parentage progeny so that a pure population of the Eastern Kenya subspecies (*Diceros bicornis michaeli*) could be maintained. Two of the Zululand bulls were removed in May 1981, the third animal which had been castrated in 1979 because of its undesirable congenital one-eared condition was left at Addo.

Removal of hybrids

The second phase of the removal project, which was the capture of the calves of possible mixed parentage was done during May 1983. The capture operation was preceded by a survey carried out by helicopter during which the black rhino were counted. As all individuals in the Park in 1977 were caught and marked, and all subsequent births had been recorded, it was possible to account for 100% of the known population. Some confusion in the field arose from one unmarked hybrid animal being counted twice. However, subsequent extensive flying and two repeat counts during which all known individuals were seen eliminated this problem.

Eight calves were born after the introduction of the Zululand bulls. One of these was conceived before their arrival four were conceived after their removal and three were conceived while they were at Addo. The Zululand animals look markedly different in the field being smaller and having a smooth skin, as opposed to the larger *D. b. michaeli* animals with rough and strongly grooved skin. The grooves or folds were particularly conspicuous on the flanks of the *D. b. michaeli* animals.

Of the three animals captured, two males looked like hybrids and a female looked like a *D. b. michaeli* animal. However, all three were consigned to the National Zoological Gardens in Pretoria. An adult female held by the zoo, which came from eastern Kenya was translocated to Addo during the same operation. Within three months the translocated cow at Addo had died of undefined causes. The female at the zoo died of a respiratory infection which followed on treatment to nasal injuries received during transport.

Status of animals at Addo

There are at present 14 *D. b. michaeli* animals at Addo and one castrated *D. b. minor* bull. Of the fourteen, five are adult cows born at Addo and ranging in age (as at February 1984) from 9-20 years. All of them have calved within the past four years. One cow, originally from Kenya, at least 32 years old has not calved since 1978 and may well be too old to breed again. The immature animals presently at Addo are three females and two males. The overall sex ratio of the *D. b. michaeli* animals is 5 males, 9 females. Prospects for reproduction and a rapid increase in this population are therefore very good.

Diceros bicornis michaeli in Addo National Park



Anthony Hall-Martin

Management

The Addo black rhino are confined to that part of the Park which is enclosed by the elephant proof Armstrong Fence. Since 1977 when the rhino were released from their 210 ha enclosure their available range has been expanded from 4,000 ha to 5,200 ha and in March 1984 this was increased to 6,800 ha.

Conclusion

Initial management problems discussed in detail by Hall-Martin and Penzhorn (1977) severely limited the population growth potential of the Addo *D. b. michaeli* population. The unfortunate introduction of *D. b. minor* animals and its aftermath was a further setback to this population. However, these problems have all been overcome, the available range has been enlarged and the prospects for the future of this population are excellent.

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REFERENCE

Hall-Martin, A J and Penzhorn, B L (1977) Behaviour and recruitment of translocated black rhinoceros *Diceros bicornis*. *Koedoe* 20,147-162

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