

Black and white rhino introductions in north-west Zimbabwe

V.R. Booth, M.A. Jones and N.E. Morris

Conservation strategy for the vast Matetsi Parks and Wild Life Area in north-west Zimbabwe, part of which was once ranch land, includes the reintroduction of species believed to have occurred there in the recent past. Indeed, in IUCN's 1982 report *Elephants and Rhinos in Africa: a time for decision*, the area was recommended as a priority area for translocation of surplus white rhinos from the newly flourishing populations in some southern African national parks. The authors, who are employed as ecologists by the Department of National Parks and Wild Life Management, describe the results of some earlier introductions of black and white rhinos into the area.

The Matetsi Parks and Wild Life Area extends over 4446 sq km in the north-west of Zimbabwe and includes the Kazuma Pan National Park, Kazuma Forest, Matetsi Safari Area, Pandamasui Forest and Zambezi National Park. Until 1974 land which now forms the Matetsi Safari Area was occupied by cattle or cattle and game ranches that in general were poorly developed or un-economic. As the area was unsuitable for other agricultural pursuits the land was purchased by the Government, incorporated within the Parks and Wild Life Estate and declared a safari area in 1973. Conservation strategy for the area includes the reintroduction of species that are believed to have occurred in the recent past.

Although there are no historical records of either
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black rhinoceros *Diceros bicornis* or white rhinoceros *Ceratotherium simum* occurring in Matetsi, they were both recorded along the Deka River on the south-east border (Roth, 1967). Habitats within Matetsi are similar to those along the Deka River and it seems likely that both species had occurred in Matetsi. In 1967 four white rhino were introduced to the Victoria Falls (Zambezi) National Park but two died and the remainder were removed to Wankie (Hwange) National Park (Tomlinson, 1977). In 1968 two white rhino whose place of origin is uncertain were resident in parts of the Matetsi ranching area, but they were translocated to Hwange (Herbert and Austen, 1972).

Black rhino

Between August and October 1975 black rhino were captured in the Siabuwa area south of Lake Kariba where they were coming under increasing pressure from an expanding human population. Four adult males and two adult females, one with a male calf, were released directly from translocation crates at Saminungu in the Zambezi National Park (Figure 1). Upon release the rhino scattered and by November sightings had been reported from up to 16 km east and 14 km south-west of Saminungu. The male calf became separated from its mother and was eventually taken by lions at Saminungu 13 days after release.

Black rhino sightings since the introduction have been very infrequent due to their shy habits and preference for thick bush, but reports indicate that the rhino have settled in thick Kalahari sandveld woodland and *Acacia* belts in the north of the Matetsi Safari Area and west of Zambezi National

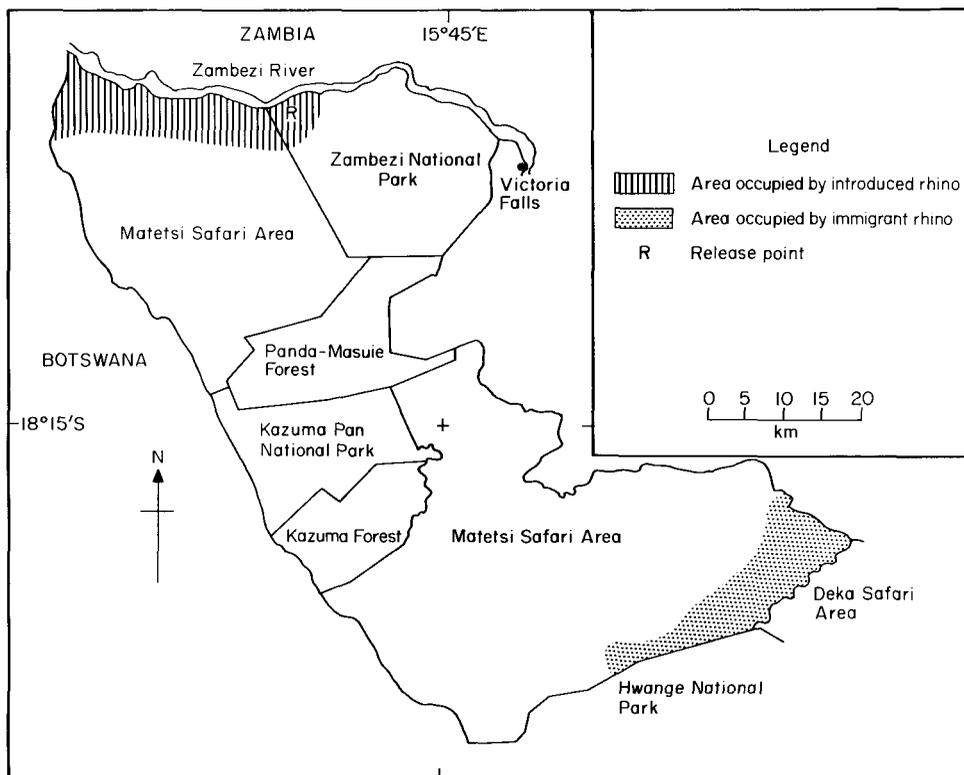


Figure 1. Release point and present distribution of black rhino in the Matetsi Parks and Wild Life Complex.

Park. In 1979 one adult male was found dead; the cause of death was possibly due to collision with a military vehicle. In 1980 a cow and calf were seen on two occasions and in 1981 a bull, cow and calf were seen regularly. Of the original introduction three adult males and two adult females seem to have survived. At least one of the females has calved.

In addition to those introduced in the north, four black rhino have been seen during the last two years, in the south-east of Matetsi. It seems likely that these sightings were of rhino which migrated from the Deka Safari Area and possibly reflect an expanding population of black rhino in this area and in Hwange National Park.

White rhino

In April 1975 10 white rhino, five each from Matopos and Kyle National Parks, were translocated to Matetsi (Grobler *et al.*, 1975; Tomlin-238

son, 1977). One adult male, one adult female, two sub-adult males and six sub-adult females were released in the Kazuma Pan National Park (Figure 2). It was intended that the rhino be held in pens and then a boma (enclosure) until they had become acquainted with each other. This plan was abandoned when the rhino refused to feed and they were released in two groups according to their park of origin.

On release the rhino split up into groups of one to three individuals. These groups tended to reflect associations between individuals prior to translocation, although in one case a Kyle animal joined two from Matopos. The immediate post-release movements are shown in Figure 2. The adult male and two sub-adult females established themselves on the western boundary of the Kazuma Pan National Park adjacent to Botswana. As they tended to stray over the international border they were recaptured and relocated in the Zambezi National Park 35 km to

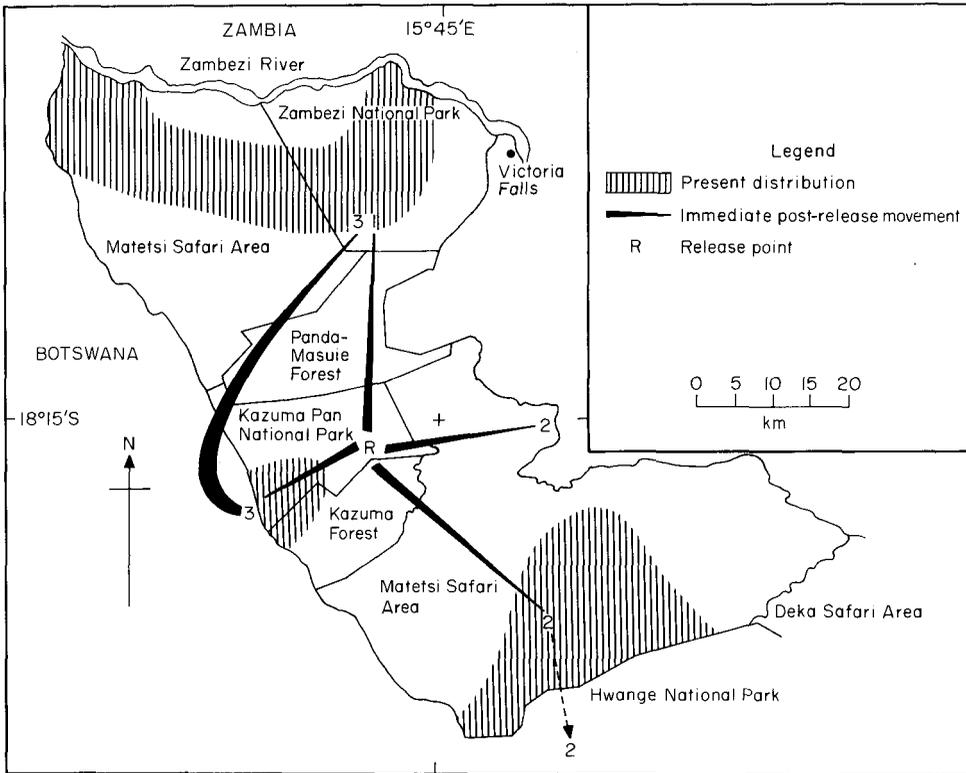


Figure 2. Release site, immediate post-release movements and present distribution of white rhino in the Matetsi Parks and Wild Life Complex.

the north-west of the release point, with the adult female who had walked there. One sub-adult male and one sub-adult female settled in the Safari Area, 22 km to the east of the release point. Two sub-adult females went 36 km to the south-east and roamed between the Safari Area and Hwange National Park. The remaining sub-adult male and sub-adult female were eventually found near Main Camp, Hwange National Park 130 km from the release point. Reported sightings of white rhino in 1976 and 1977 showed that the two animals in the east of the Safari Area had returned to the west and established themselves in an area encompassing parts of Kazuma Pan National Park, Kazuma Forest and the Safari Area. They were occasionally seen with a large male thought to have come from Botswana. One other female rhino was seen on the Kazuma depression but there is some doubt as to her origin.

The four rhino in Zambezi National Park wan-
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dered extensively across the northern part of the Safari Area in groups of varying composition. Their numbers were increased by the birth of a calf to the adult female in May 1976 and the arrival of two adult males, also thought to have come from Botswana. The two Botswana males remained in the west while the four introduced rhino plus offspring eventually established a range across the centre of the northern part of Matetsi. In the south, sightings were less frequent but a pair of sub-adult rhino were seen periodically and thought to range widely across the southern end of the Safari Area and the north of Hwange National Park.

Records were very infrequent during the height of the war in 1978 and 1979 but by 1980 there were three more calves in the northern population. In April 1981 one adult female died from unknown causes. There are now 15 rhino in the north and six at Kazuma. The sex and age structure is five

adult males, five adult females, two adults of undetermined sex, five sub-adults and four calves. Records for the southern areas are still very fragmentary but suggest there are between two and four rhino that probably range between Matetsi and Hwange National Park.

Summary

White rhino travelled considerable distances after release and took up to two years to settle down. Black rhino also travelled widely but sightings were too infrequent to determine the full extent and duration of these movements. Both species have become established and at least seven white and one black rhino have been born. The populations of both species have been increased by immigration from adjacent populations.

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*V.R. Booth and M.A. Jones, Matetsi Research Unit, Private Bag 5926, Victoria Falls, Zimbabwe.
N.E. Morris, Star Route A, PO Box 160, Punta Gorda, Florida 33950, USA.*

Abbreviations and acronyms used in this issue of *Oryx*

AAZPA	American Association of Zoological Parks and Aquariums	IWC	International Whaling Commission
ACF	Australian Conservation Foundation	MAFF	Ministry of Agriculture, Fisheries and Food
BTO	British Trust for Ornithology	MGP	Mountain Gorilla Project
CEE	Center for Environmental Education	NCC	Nature Conservancy Council
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	NWT	Namibia Wildlife Trust
CNPPA	Commission on National Parks and Protected Areas	ORTPN	L'Office Rwandais du Tourisme et Parcs Nationaux
EEC	European Economic Community	RSNC	Royal Society for Nature Conservation
FAO	Food and Agricultural Organisation	RSPB	Royal Society for the Protection of Birds
ICBP	International Council for Bird Preservation	SSC	Species Survival Commission
ICF	International Crane Foundation	UNDP	United Nations Development Programme
IUCN	International Union for Conservation of Nature and Natural Resources	WHO	World Health Organisation
		WWF	World Wildlife Fund