



White Rhinos Return to Rhodesia

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By the end of the last century the white rhino was extinct in Rhodesia. But by the 1960s South Africa had a surplus in the Umfolozi Game Reserve, and since 1962 140 white rhinos have been taken to Rhodesian national parks, reserves and private ranches. In 1975 numbers were estimated at about 150 and the future of the species in Rhodesia should be secure. This paper, written in 1975, has not been brought up to date, as the author has left the Rhodesia National Parks Department, where he had access to records, on taking a post-graduate degree.

All indications are that before 1900 the white or square-lipped rhino *Ceratotherium simum simum* was widespread in Rhodesia. But after 1880 numbers began to decline rapidly owing to the increase of commercial hunting for the horn;¹⁰ Coryndon felt that by 1892 it was virtually extinct,² and Lang gave the last authentic record in Rhodesia as 1895.⁶

In 1897 the Umfolozi Game Reserve in Zululand, South Africa, was proclaimed, and in 1922 it was estimated there were 20 white rhinos there. By 1959 these had increased to 607,⁸ and in 1961 it was decided to remove some and re-establish them in some of their known former habitats.

Operation Rhino was mounted in 1962 and eight animals translocated from Umfolozi to Rhodesia, four each to the Kyle and Matopos National Parks. The success of the operation, as Davison and Condy pointed out, showed that 'with reasonable care these animals can be transported over very long

Above: the first baby rhino conceived and born in Kyle National Park Roger Bull

Distribution, Population Dynamics and Internal Translocations –

Area	Year	Capture area	Introductions		Total
			♂	♀	
(A) McIlwaine National Park	1967	Umfolozzi	1 imm.	2	5
	1972	Kyle	1	1	
(B) Victoria Falls National Park	1967	Umfolozzi	2	2	4
(C) Matetsi Safari Area	1975	Kyle	1	4	10
	1975	Matopos	2	3	
(D) Wankie National Park	1967	Umfolozzi	15	20	35
(E) Matopos National Park	1962	Umfolozzi	1	3	13
	1966	Umfolozzi	4	4	
	1967	Umfolozzi		1	
(F) Kyle National Park	1962	Umfolozzi	2	2	33
	1965	Umfolozzi	1	5	
	1966	Umfolozzi	11	12	
(G) Southern Sun Lodge	1973	Umfolozzi	4	5	9
(H) Lion Ranch	1974	Umfolozzi	4	4	8
(I) Good Luck Ranch	1972	Umfolozzi	2	2	4
(J) Inhlaba Ranch	1972	Umfolozzi	2	2	4
(K) Doddieburn Ranch	1972	Umfolozzi	5	5	10
(L) Iwaba Ranch	1975	Inhlaba	2	2	4
	1974	Umfolozzi	4	4	
(M) Mkwasine Ranch*	1974	Umfolozzi	2	3	5
(N) Sarvo Estates*	1974	Umfolozzi	2	2	4
Totals			68	88	156

* Animals which escaped have been resighted on neighbouring ranches (Humani Ranch –2, Lone Star Ranch –2)

distances by land', and that there was every reason to believe these eight rhino would do well in the two game parks where they had been released.³ Since then 140 animals have been taken from Umfolozzi to Rhodesia; the table above shows the areas of release within the country and also the internal translocations. In addition, the original eight rhino have now increased to the point where some can be safely removed on a sustained yield basis.

Population Trends

Since the original introductions there have been notable changes in the various populations, and the table is an attempt to follow population trends for each area.

A. McIlwaine National Park

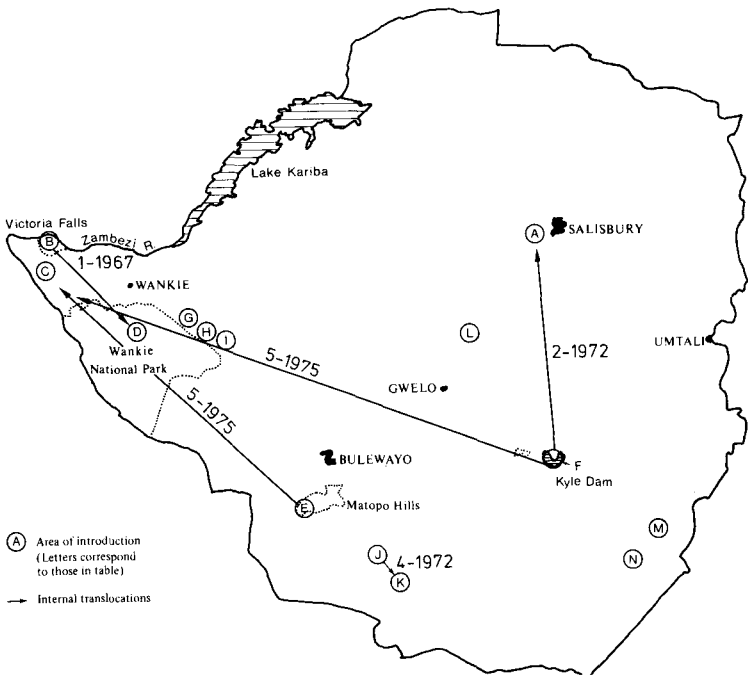
The original introduction of three animals in 1967 comprised one mature female with a female calf and one immature bull. The calf lost condition and died the same year. As adolescence in males is only reached after about 12 years,⁷ the bull was not capable of insemination and no calves were produced. An adult bull and mature cow were introduced from Kyle in 1972, resulting in the birth of two calves. The animals are in excellent condition and a steady increase in numbers can be expected.

B. Victoria Falls National Park

In 1967 one adult female with a calf and two immature bulls were introduced and confined in a fenced paddock. One bull was gored to death by the female

Square-lipped Rhino *Ceratotherium simum simum*

Adult Deaths and disappearances				Calves births/deaths			Internal translocation				Total 1976
♂	♀	Total		♂	♀	Total	From	To	Numbers		
		♂	♀					♂	♀		
—	1	1		1 born	1 born	2 born	—	—	—	—	6
1	2	3		—	—	—	(B)	(D)	1	—	—
—	—	—		—	—	—	—	—	—	—	10
—	13	13		± 18		± 18 born	—	N I L	—	—	± 41
}		2	2	5 born 1 died	11 born 1 died	{ 16 born 2 died	(E)	(C)	5	—	20
}		3	8	9 born 1 died	13 born 2 died	{ 22 born 3 died	(F)	(A) (C)	2 5	—	34
3	4	7		—	—	—	—	—	—	—	2
1 escape	2	3		{ 1 born 1 died		{ 1 born 1 died	—	—	—	—	5
—	—	—		{ 3 born 2 died		{ 3 born 2 died	—	—	—	—	5
—	—	—		—	—	—	(J)	(K)	4	—	—
1 for safari	—	}		3 born		3 born	—	—	—	—	16
1	2	3		—	1 born	1 born	—	—	—	—	6
1	2 escaped	2		—	—	—	—	—	—	—	2
2	2 escaped	4		—	—	—	—	—	—	—	—
13	13	25	50	Births 15 21 30		66	—	—	17	—	147
				Deaths 2 6 8							+ 4 escapees resighted = 151



and the other died, apparently from snake bite. The other two animals escaped on to a neighbouring ranch, and were darted for translocation to Wankie National Park, but the calf died from drug overdose.

C. *Matetsi Safari Area*

In April 1975 ten animals (five from Kyle and five from Matopos) were taken to the Matetsi Safari Area. They showed a wide dispersal pattern with a tendency to form small groups of 2–3 animals, four of which moved into the Wankie National Park where they have been sighted in the Robins and Sinamatella areas.

D. *Wankie National Park*

Between November 1966 and March 1967, 35 animals were released into the Wankie park and immediately dispersed throughout the park. At least six moved into Botswana,⁵ two of them travelling 140 miles from the release point to the vicinity of Makgadikgadi pan where they died of thirst. Three animals were shot, one by a farmer, one by a poacher and one by a guerrilla; one was killed by a train; one was found stuck in the mud, and five others have died from unknown causes. One was killed accidentally in an attempt to dart it and move it back into the park. A census by National Parks staff in 1971 estimated about 32 animals in the park, including numerous calves and sub-adults which suggested that a viable population had been established. In 1975 the estimated number in the park was about 40.

E. *Matopos National Park*

In 1962, 1966 and 1967, 13 animals were brought to the Matopos in three operations. One adult cow died in her crate on arrival;¹¹ in 1971 a cow and a calf died after becoming wedged between rocks, and another calf died at birth. Sixteen calves have been born, and five animals have recently been translocated to Matetsi, leaving a total of 20 in the park. Indications are that a sustained calf yield can be expected and the area can now be considered a viable breeding station for the species.

F. *Kyle National Park*

Thirty-three animals were introduced in three operations in 1962, 1965 and 1966. There appears to be some confusion as to the numbers originally introduced from Umfolozi and Natal Parks Board records show that 27 animals were destined for Kyle. There are 14 recorded deaths. Soon after release a number of animals died from accidents indicating unfamiliarity with their new environment: in 1968 five animals died during a cold snap when bad frosts following a drought severely depleted the availability of food.^{4,12} Births number 22 with three deaths. Condy has shown that the species tends to be a seasonal breeder in Kyle with most conceptions taking place during the dry season and most births occurring during the rains.¹ Two animals have been moved to McIlwaine and five to Matetsi. Like Matopos, Kyle has now reached the stage where a sustained calf yield can be expected and a number of animals can be removed annually.

G. *Southern Sun Safari Lodge*

Nine animals were introduced of which seven have died. The two survivors are

a mature female and a sub-adult bull, so that no increase can be expected until the bull reaches maturity or an adult male is introduced.

H. Lion Ranch

Eight animals were introduced, of which one adult male escaped into Wankie and two adult females died, apparently as a result of external abscesses developing septicaemia. The one calf produced died soon after birth.

I. Good Luck Ranch

Four animals were introduced, and have since produced three calves. One was gored to death by a bull and another died of unknown causes; the third is doing well and another is expected. Indications are that this group of animals is highly prolific and a rapid increase is expected.

J. Inhlaba Ranch

The four animals originally introduced have all been moved to Doddieburn ranch. No calf drop was recorded prior to the translocation.

K. Doddieburn Ranch

In 1972 ten animals were introduced, and in 1974 four were taken from Inhlaba. One bull was shot by a hunter on safari; three calves have been born. The herd is expected to increase and bulls will be offered to hunting clients.

L. Iwaba Ranch

In 1974 eight animals were introduced. Three broke their horns in transit and unfortunately died after an insecticide had been used to kill parasites on the horn stumps. One calf has been born and another is expected.

M. Mkwasine Ranch

Five animals were introduced two of which immediately dispersed on to neighbouring farms where they have been sighted. One death has occurred. As there are only two females left the owner applied for a bull from Natal. The aim is to establish a breeding population so that trophy animals can be offered.

N. Sarvo Estates

Of four animals introduced, two have died and two have been sighted on Lone Star Ranch.

Discussion

Deaths among the white rhinos have been due to a number of causes, most of them related, directly or indirectly, to their release into a new environment after translocation. Even if they are penned before release the tendency is to disperse widely soon after they are free. Accidents are a common cause of mortality although extremes of environment have taken their toll. Once the animals have overcome the initial effects, bulls have tended to establish territories and cows, adolescents and calves to form cohesive social groups as described by Owen-Smith.⁷ Calving has been frequent and calf mortality low, especially in the older populations.

A steady increase can be expected in the national parks, and certain areas have already reached the stage where some can safely be captured and

introduced into other areas. In private areas the aim appears to be establishment of a viable breeding nucleus to provide trophy animals for visiting hunters.

Summary

Study of the population trends of white rhino since their introduction shows that initially mortality tends to be high. Once the populations have settled down, cohesive social groups are established and the species appears to be a prolific breeder. The national population now stands at about 150 animals, and it can be concluded that the future of the species in Rhodesia is secure.

Acknowledgments

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