

The Importation of Eight Square-Lipped Rhinoceros (*Ceratotherium simum*) to Southern Rhodesia

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Cormorants on a tree in the Chobe River.
(Photo: Bruce Little)

Johannesburg one travels to Bulawayo and then on to Livingstone. En route one can pass through Wankie Reserve. From Livingstone there is a good sound road to Kazungula. A punt takes you across the Zambezi and it is approximately 15 miles to Kosane where the recently erected Chobe River Hotel is situated. One can stay in the Hotel itself, in a bungalow, or camp in the allotted area near the hotel. A new road follows the river and every now and again there are tracks down onto the flood plains. All the game can easily be seen from this new road during the winter season. It is well worth the visit especially as one sees the Victoria Falls en route.

Visitors should be sure not to miss the afternoon scene from the bar-terrace of the hotel. There one can peacefully watch the later afternoon wild life. In the distance are the lechwe slowly fading as their surroundings assume the reddish glow of the West.

African Folklore

SUPERSTITIONS ABOUT GROUND HORN BILLS

THERE are many superstitions associated with ground hornbills, especially to do with ceremonies in relation to rain-making. For instance, certain tribes use the hornbill to induce rain to fall. Because it does not fear thunder, they say, they kill one and throw it into a pool, believing that this causes heaven to become "soft" and to "wail" rain—a funeral wail. Others consider that the hornbill is such a dirty bird that there will be copious rain to wash away the pollution following the throwing of the bird into the water. If many ground hornbills boom in the open, say other Natives, it foretells rain. They also believe that anyone who strikes one of these birds will die; and if one alights on a hut, it is an evil omen; a witchdoctor is consulted at once.

THE Square-Lipped Rhinoceros, the largest land mammal in the world after the elephant, was to be found in Central Africa from the earliest times. A pre-historic rock painting in the Matopos National Park is almost certainly of a white rhinoceros, judging from the length and shape of its skull.

Selous (1881, 1893), Le Roux (1925), Coryndon (1894), Nicholls (1892) and others, record that white rhinoceros were common up to 1890 in Matabeleland, Mashonaland and Gazaland, but from that date there was a rapid decline in their population and by 1900 only a few stragglers remained. There is no accurate record of when the last one was shot.

In August, 1962 eight white rhinoceros were imported into Southern Rhodesia from the Umfolosi Game Reserve, Natal. Four of these animals (1 male and 3 females) were released in the Matopos National Park, and four (2 male and 2 females) were released in the Kyle Dam Game Reserve. This importation of a rare animal to an environment where it had occurred previously is an historic event in the annals of wild life conservation, and as it entailed a 1,200-mile journey overland, the longest land journey to which this species has ever been subjected, a report on the journey and how the animals behaved is worthy of record.

The Route chosen from Umfolosi to Rhodesia was not that originally planned. Due to heavy rains and the bad conditions of all Zululand roads, it was necessary to keep to main roads, and details of the journey are given in Table I.

Capture and pre-journey treatment. The animals were caught by the staff of Umfolosi Game Reserve using the technique described by Harthoorn (1962). A projectile syringe with a standard immobilising dose of 3 grammes "Thermalon", (diethylthiambutene), 100 milligrams Hyoscine hydrobromide and 14 cc. "Largactil" was used (*Chlorpromazine hydrochloride*) on all animals.

The white rhinoceros appears to be a very much more sensitive, and probably a more intelligent creature than the black rhinoceros. After capture a great deal of persuasion is necessary before it will eat either teff hay or lucerne in the pens, and it is often necessary for a human to remain with it constantly for the first 3-4 days. Some will only eat when offered hay in the hand, and if the attendant stops talking to the animals and moves away, the rhino will



A rock painting in the Matopos National Park.

stop eating. Some will not eat hay for several days, and to ensure their not starving, a gruel consisting of maize meal, glucose, condensed milk, molasses, salt and sugar has been devised by staff of the Umfolosi Game Reserve. Most of these temperamental animals take readily to this gruel, and within a few days are eating hay.

The reluctance on the part of most white rhinoceros to take readily to pen feeding is very noticeable, compared with the experiences gained on Lake Kariba with black rhinoceros. The latter have been known to eat lucerne hay within six hours of being captured, and no cases have occurred of the animals refusing food for more than 12 hours.

From previous experiences, in stocking other game parks and reserves in the Republic of South Africa, it has been found that white rhinoceros, if captured, moved immediately to their new environment and when released, settled down to grazing natural pastures without any trouble. The long journey to Rhodesia, however, necessitated transporting only animals which had been accustomed to pen feeding. This is essential if they are to be crated for any length of time.

For at least a week before the journey commenced, all the rhinoceros had been fed and watered in their crates which were tied to the entrance of the pens. They became quite accustomed to entering and even sleeping in these crates. At least twenty-four hours before leaving Umfolosi, each rhinoceros had been confined to its respective crate, and the crates were finally loaded so that the animals' heads faced the rear end of the vehicle.

Method of Travel. Eleven vehicles comprised the convoy. Each rhinoceros was carried on a five-ton diesel truck; and three Land-Rovers, equipped with two-way radio, transported the staff of veterinary surgeon, game rangers and mechanic.

The rhinoceros were transported in stout wooden crates reinforced by metal bands. These crates were of two different patterns. The most recent and best design used by the Umfolosi Game Reserve staff was a crate with three doors at each end. These comprised, in addition to the common type of stable door, another door one foot high which gave access to the bottom of the crate. Through this, feeding, watering and cleaning were carried out with ease.

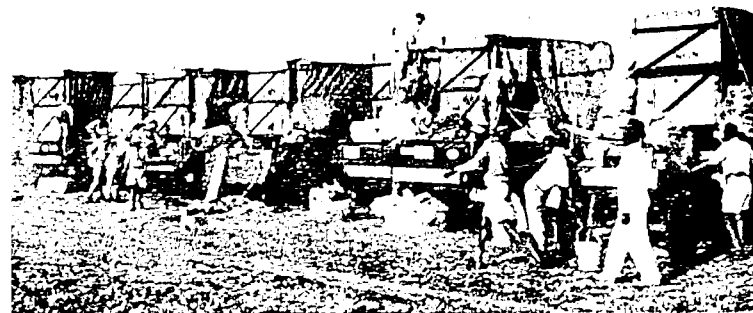
Canvas sails were secured over the entire front and half of the top of the crates, an opening of 42 in. by 30 in. over each animal's head being left open at all times.

From the commencement of the journey a careful watch was kept on all animals. After having travelled the first 20 miles, some were noticed to be lying down, and some were standing and eating, obviously quite at ease.

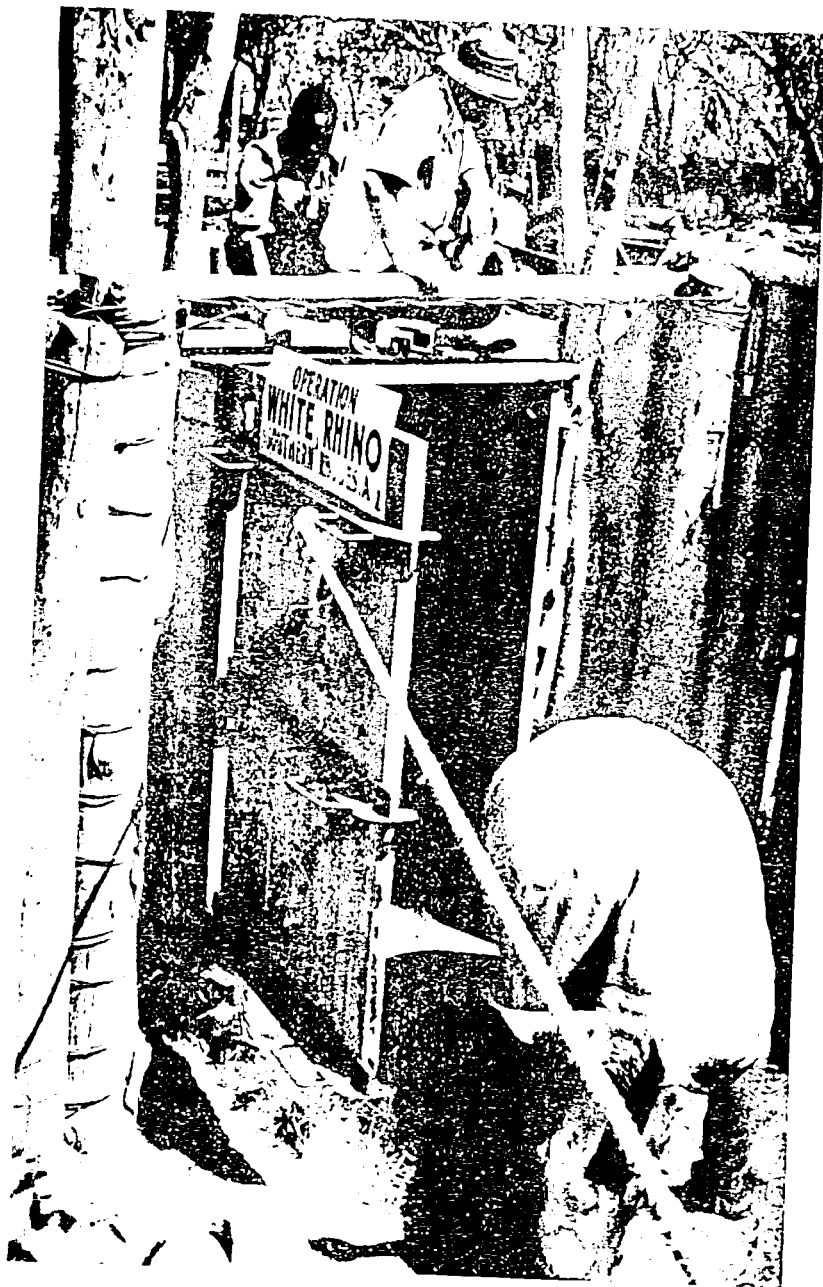
At various times of both day and night the animals were observed while the trucks were in motion. At no time did they appear restless, and various individuals were often to be seen standing and eating, even at midday.

Adequate ventilation of the crates was ensured all the time, and during the hard frost in Pietermaritzburg, the open portion on the top of the crate over each rhinoceros's head was not covered over. At one stage the tarpaulin of one crate was rolled forward to leave an opening on the top of the crate at the end near the cab of the truck. There appeared to be no advantage in doing this, as dust particles were noticed to be almost stationary in this opening while the vehicle was in motion.

Feeding. Several bales of telf hay were carried on each truck. Due to soiling of much of the fodder during the journey it was not



The convoy halts en route.



Ngoloti being released from her crate into a pen.

possible to obtain accurate records of the total fodder consumed by each animal each day. On two occasions en route extra fodder was bought from local farmers.

During daylight travel the convoy stopped at least once per day for refuelling and other business. At all stops, an attendant saw that there was fodder available to the animals. By this time individual preferences were known, some only ate teff hay whereas some ate teff and lucerne hay.

Table 11 shows records of feeding habits of two males and two females, while the trucks were actually in motion. It will be seen that three ate both during morning and afternoon travel, while one, Ngazana, never ate while the trucks were in motion in day time. He was seen, once, at 8.30 p.m. on the 3rd day of travel, to be eating oat hay while lying down.

Watering was carried out in plastic baths, and although they were given access to water both morning and evening, it was observed that most animals drank more in the evening, some not consuming any water in the morning. One animal, Mashayazonke, had taken an intense dislike to the plastic bath, and would only drink water off the floor of its crate.

Weather conditions varied from a frost during the first night at Pietermaritzburg, to very warm weather while crossing the Northern Transvaal. During the night of frost, it appeared from observations on the respirations and general behaviour that at no time were the animals distressed. No rain occurred during the journey, and the change in altitude from sea level to $\pm 6,000$ ft. appeared to have no effect on the animals.

Veterinary Treatments. Tranquillisation was carefully considered. Two animals, Mashayazonke and Chianna, were nervous and had fought their pens, the former breaking off her anterior horn. The two were therefore given 300 mgms. each of Chlorpromazine an hour before the journey commenced. As they appeared settled later in the day, no further tranquilisers were administered. It was decided to interfere with nature as little as possible, and only introduce treatment when necessary. All the remaining six animals appeared at ease throughout the journey and no further tranquillisation was necessary.

Nyoni and Mashayazonke both had large suppurating lesions due to a previous infection on the skin. Both had courses of Penicillin before the journey. Nyoni was therefore given 2.5 gms. oxytetracycline daily for the first two days of travel, and Mashayazonke was given the same treatment during the last two days of travel. Their skin lesions were dressed twice daily, with a Sulphanilamide-iodoform powder.

The serum of one female (the only animal from which it was possible to obtain serum) was subjected to the routine agglutination test for Brucellosis, and found to be negative. Recently two black rhinoceros from Lake Kariba have shown positive reactions to this test.



Nyoni eating contentedly in her crate.

On arriving at the Kyle Game Reserve the four rhinoceros had abrasions on the hocks which were treated with wound dressing powder. These abrasions were apparently due to a shortage of bedding.

Examination of the faeces of all animals revealed moderate to heavy infestations of nematodes. Bot fly larvae of the genus *Gyrostigma* are known to occur in White Rhinoceros at Umfolosi. As these eight rhinoceros being imported to Rhodesia were to be released in an area where rhino (and their parasites) had not occurred for many years, an opportunity arose to try to reduce their parasite burden to below the critical level necessary for their survival. Accordingly they were all dosed with an anthelmintic very successfully, the detailed results of which are being published elsewhere.

All eight animals received 1,000 units of vitamin B₁₂ before being released.

The Umfolosi Game Reserve and surrounding country had been a Trypanosomiasis area up to 1950. As all the eight rhinoceros concerned were under four years old it was considered unnecessary to use a trypanocidal drug.

Release. After having been in their crates for eight days, journey's end arrived on 3rd September. The trucks carrying the crates were reversed into pits at the entrance to the pens, and after securing the crates to these entrances, the sores and abrasions on all animals were treated before release.

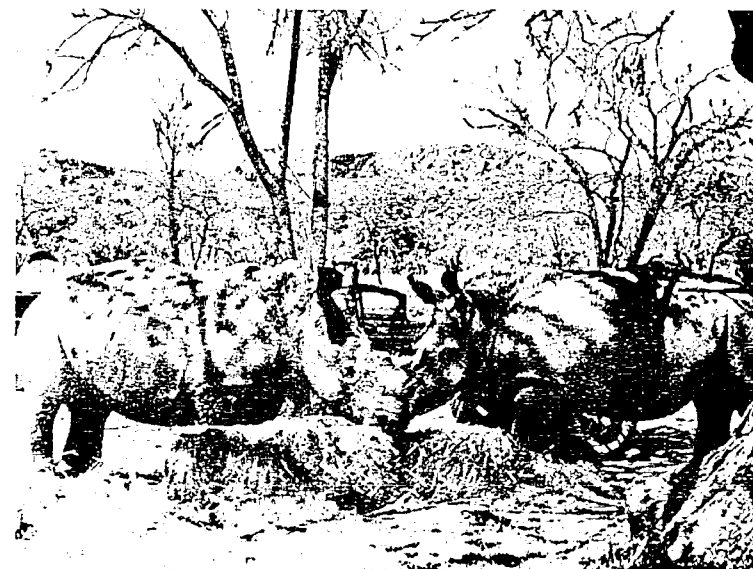
The reactions of most of the animals was to enter the pens after a preliminary sniff. Umfaan, however, refused to leave his crate for nine hours after the door was removed.

At varying times after arrival in Rhodesia they were treated with an anthelmintic, and on 21st September the four at the Matopos National Park were the first group to be finally released from their pens into an enclosure of 250 acres in the 2,000-acre Game Park section. Within an hour of release they were grazing the natural pastures. They established their "territory", which was a relatively small one of their own choice, not extending more than half a mile from the pens, and returned daily to the pens to feed on tef hay, sleeping in the same place every night. They made no attempt to wander until the first rains brought on a flush of new grass. When this happened they explored the whole area of the fenced game camp.

At the Kyle Dam Game Reserve an unusually dense and dry mat of natural pasture, in places four foot high, constituted a fire hazard which endangered the lives of all animals. The rainy season was not far off, so the four rhinoceros were retained in their pens until the first rains fell.

Conclusion. From the success of Operation White Rhino—Southern Rhodesia, it must be concluded that, with reasonable care, these animals can be transported over very long distances by land. Apart from supplying ample bedding to prevent abrasions, it is difficult to recommend any improvements on the method of crating, feeding, watering and transport.

In view of the apparently fairly high level of internal parasitism of white rhinoceros in their natural habitat at Umfolosi, it would be a wise precaution to treat all rhinoceros that are



The first two white rhinoceros to be released busily engaged eating near their pens.

captured in this reserve, against internal and external parasites, before they are removed to other areas.

The white rhinoceros was to be found in most areas of Southern Rhodesia during the last century, and was even very common in some parts up till 1890. There is no reason to believe that they will not do very well in the two game parks where the eight were released in September 1962.

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TABLE I
DETAILS OF THE JOURNEY

Night Stops	Arrival	Departure
Umfolosi	—	0800 hrs. 30.8.62
Pietermaritzburg	2030 hrs. 30.8.62	0900 hrs. 31.8.62
Fort Mistake	1730 hrs. 31.8.62	0700 hrs. 1.9.62
Marble Hall	2000 hrs. 1.9.62	0700 hrs. 2.9.62
West Nicholson	} 2200 hrs.	0700 hrs. 3.9.62
Lion and Elephant Motel		
Fort Victoria	} 1200 hrs.	—
Matopos		

TABLE II
FEEDING HABITS OF FOUR RHINOCEROS WHILE VEHICLES WERE IN MOTION

	1.9.62		2.9.62		3.9.62	
	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.
Babs	+	+	+	+	+	
Ngoloti	—	+	+	+	+	
Ngazana	—		—	—	—	
Nyoni	—	—	+	+	+	

+ = fodder consumed
 — = no fodder consumed.

TABLE III

Rhinoceros	Sex	Approx. age	Weight in lb.	Height at withers in inches	Anterior horn in inches	Ear Tag
Umfaan	M	3½ yrs.	1960	60	10.5	Green and white in both ears.
Mabaleni	F	3½ yrs.	1820	56.5	10	3 Green in left ear.
Chianna	F	3 yrs.	1680	46	12	2 Orange in right ear.
Mashayazonke	F	3 yrs.	1800	53	9.75	2 Orange in right ear 2 Blue in left ear.
Babs	F	3½ yrs.	2200		12.5	3 Yellow in right ear.
Ngazana	M	2½ yrs.	1526	49	7½	
Nyoni	M	3½ yrs.	2211		12	
Ngoloti	F	2½ yrs.	1736	47	8.75	2 Yellow in left ear.

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