
BLACK RHINO ON PRIVATE LAND - THE EXPERIENCE OF LAPALALA WILDERNESS, SOUTH AFRICA

**The small black rhino population at Lapalala Wilderness
provides a case study for the effectiveness of private sanctuaries.**

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Between 1990 and 1992, ten black rhino (now four bulls and six cows) were re-established in the Lapalala Wilderness, a 244km² privately-owned property in the Waterberg Mountain range in the Western Transvaal, South Africa.

The reserve can be visualized as a large plateau, with a mean altitude of 11 00m, dissected by many drainage valleys. The main drainage rivers are the Lephelela (Sotho for "barrier"), and the Kgekong which flows during all but a few months of the year. The Lephelela river wanders for 55km through the reserve.

The vegetation of the reserve falls into two of the veld types described as mixed bushveld and sour bushveld. The reserve has an average rainfall of between 450 and 500mm per annum. Prior to the black rhino introduction, an area of approximately 1 0,000ha was designated as a breeding sanctuary for roan antelope and white rhino. The sanctuary is totally enclosed with an I 8-strand game-proof fence which is not electrified.

During 1990, the Natal Parks Board announced that five black rhino, two bulls and three cows, would be sold at their auction in June of that year, the first breeding herd of black rhino ever to go onto private land in South Africa. Eight reserves applied for classification and all eight were approved by the Natal Parks Board. In the case of Lapalala, the assessment was based on data collected over the previous nine years, which included a one-day evaluation by A. Marchant and P. Hitchins on behalf of the Natal Parks Board.

At the 1990 auction, Dale Parker, owner of Lapalala Wilderness, successfully bid in excess of R2,000,000 making him the first private individual to own black rhino. The animals were translocated to Lapalala holding pens, which had taken two months to construct, towards the end of August. They were kept there until after the summer rains, which did not fall before the end of

November that year. The re-establishment of black rhino at Lapalala Wilderness was due to a number of reasons. Firstly, the black rhino has been absent in the Waterberg mountains for at least 150 years. The original mission statement of Lapalala Wilderness, which was established in 1981, included the conservation of rare and endangered species. The author of the statement had been making approaches to the Natal Parks Board for seven years, asking that Lapalala be considered as a custodian of the black rhino. Up to that time it was not believed that rhino would be made available by auction or for sale to private landowners. In the case of the owner, it was the personal gratification of being involved in the conservation of a highly endangered species.

The release from the holding pens into the sanctuary was not entirely successful. One female died for reasons which have never been established. She was discovered when it was far too late to make any positive assessment of the cause of death. This was mainly due to inexperience on the part of the game scouts at the time and mistaken reports by one senior member of staff, who wrongly recorded seeing her up to a week before the body was found. In addition, the vegetation is extremely dense. The remaining four rhino settled in very well.

At the Natal Parks Board's auction, Dale Parker once again successfully bid R2.3 million to acquire a further five black rhino - three cows and two bulls. These five rhino were translocated to Lapalala within two weeks; this time there was no eight-week delay for boma construction and no difficulties were experienced in the release which took place over a period of one week, 15 days after arrival. Precautions were taken and the tips of the horns were cut. However, no serious confrontations took place initially, perhaps because the five new animals were about the same age as the resident rhino. Despite the fact that 1992 was the worst drought in more than a decade, all nine rhino coped well. The fears we had had concerning the first introduction seemed to have been unfounded.

POST RELEASE MANAGEMENT

Two questions remained unanswered, however. How would nine black rhino settle in the 10,000ha and secondly, what was the realistic carrying capacity for the area?

There are at present six game scouts who patrol the sanctuary daily in pairs, checking fencelines and water points, recording all sightings of general game and monitoring every individual rhino located. All information has to be corroborated by the second game scout and all sightings are recorded by Ms. Glynis Brown every morning and then transferred onto a computer. Monitoring is carried out seven days a week.

The diversity of plants in the Waterberg is considerable and since 1990, an ongoing programme has been in place to identify plants eaten by the rhino. A number of species that are well utilized are corkbush (*Mundulea sericea*), tamboti (*Spirostachys africana*), mountain karree (*Rhus leptodictya*), the spineless monkey orange (*Strychnos madagascariensis*) and the hornpod tree (*Diplorhynchus condylocarpon*).

HOME RANGES

The two bulls introduced in 1990 routinely overlap in their movements. However, the two most recently introduced bulls occupy separate zones with the larger bull mainly standing in the eastern area and the young bull in the western sector. The dominant bull of the 1990 introduction does not tolerate either of the two bulls introduced later. The females, with the exception of one that moves around very closely with the 1992 bull, have no difficulty in overlapping areas. While it is early to make firm predictions, there are indications that the sanctuary has reached its carrying capacity for mature bulls. In my opinion, it would be ill-advised to introduce any more bulls.

DISCUSSION

To address the question of food availability to support an excess of the present rhino population, we have

established a detailed plant collection to identify what the rhino are eating. Beyond the 10,000ha already set aside, there is a possibility of further enlargement of the sanctuary by 1,800ha at the end of 1994 and eventually an additional 4,000ha. The Iwaba Estate in Zimbabwe, which is approximately the same size as the current Lapalala rhino sanctuary, offers an interesting comparison. The first four mature bulls were introduced over a four-year period (1986-1989), and a total of 25 rhino were translocated to the estate. Every new bull introduced was killed by the resident four. Iwaba also experienced the loss of a number of introduced pregnant females. Nevertheless, 11 calves have been born since 1989 and the present population is 19. The Department of National Parks and Wildlife Management, Zimbabwe has since translocated four rhino out of the sanctuary.

RECOMMENDATIONS

In the case of Lapalala Wilderness, I believe that any potential problems which might have occurred were largely avoided by introducing rhino of roughly the same age group, and also by the size of the sanctuary - meaning little competition in terms of food and availability of good water. Even so, there are gaps in our understanding. A strong case exists for a much more thorough assessment of future private sanctuaries before any black rhino relocations take place. Furthermore, I believe that a far more detailed habitat assessment should take place. While it has been suggested that it might have been preferable to introduce all ten rhino together, our experience indicates that, providing the area is large enough and the bulls are of a comparable age, introductions at different periods should not be too problematic - as long as 50% of the estimated carrying capacity is not exceeded. Further considerations should include commitment on the part of the landowners, and, in terms of security, distance from large populations of humans and international borders.

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