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DISQUIET WAS JUSTIFIED

white rhinos on private land in south africa

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Concern has been expressed by some members of the IUCN's African Elephant and Rhino Specialist Group and by Mr Everard Read, a trustee of REF, that the situation of white rhino on private land in South Africa was being regarded with undue complacency. The survey reported on here was undertaken between September and December 1987 to provide a basis for objective assessment of the situation.

Natal Parks Board (NPB) data on the numbers of animals captured, and the destinations to which they had been translocated, were collected. Then the owners or managers of each property were approached for information on the current status of their rhino populations. The more important properties were identified, and most of these were visited. The result of marshalling all the figures were disturbing conclusions.

Even if no rhino had been hunted, there would still have been a nett decrease in the population, which obviously throws severe doubt on the ability of most landowners to manage rhino to enhance the status of the species.

The numbers

Since 1961 when the Natal Parks Board started translocating white rhino, 1 291 have been relocated to 149 privately owned properties from NPB and other sources. Forty-three were lost during or shortly after delivery; births numbered 316 of which 284 survived the weaning period. A total of 1 532 was thus suc-

cessfully established. Of these, 92 were sold or removed alive, so that the actual number of white rhino established on private land was 1 440.

Yet the 1987 survey showed that only 931 white rhino on 103 properties could be accounted for. This unexpected decrease of 509 rhino includes the loss of all rhino on 46 ranches.

This situation gives cause for concern, especially when compared with the converse situation in the Pilanesberg National Park, Kruger National Park and NPB reserves. About 250 males were delivered by the NPB to ranches in Natal for hunting, but even when this figure is subtracted from the difference between deliveries and present numbers, there is still a nett decrease.

Fate of translocated animals

The histories of 86 populations on private properties were accurately established. These ranches received 591 white rhino from various sources, but mainly from NPB. Mortality during transport and release amounted to 7,1%; a total of 203 births were recorded, of which five were stillborn and 12 died within a year. The total of surviving deliveries and young was 736, which by the end of 1987 had been reduced to 443 on 72 ranches – a nett loss of 39,8% of the population. Of the mortalities, 45,9% were described as natural deaths and the rest, 54,1%, were all shot. However, information since received indicates that some of the animals reported as having died of natural causes were in fact shot.

On a further ten properties where present population composition is known but the history is less precise, a total of 308 white rhino were released. One ranch lost all its rhino through natural causes. There were 25 recorded births (of which three died due to the poor condition of their mothers) and four live removals. The total number of rhino on these properties has, however, been reduced by 71,2% to 91 animals. While only 18 males were reported to have died, there has been a reduction of 212 males. The balance have almost surely all been shot, but it must be kept in mind that most of those rhino were specifically sold for hunting purposes. This is well illustrated in Natal where five of these ten ranches are located. These ranches received 251 white rhino (210 males and 41 females) and have 57 today (13 males, 20 females and 24 sex unknown). The remaining males are thus only 6,2% of the deliveries, a reduction which is much higher than the shooting of surplus males should account for.

It is extremely disconcerting that the number of females supplied has been reduced by 52,4%.

Many of the females lost were probably shot, but there is unfortunately no proof of this as there is no obligation to record the sex of an animal hunted.

Again on these ten ranches, there is evidence that animals reported to the senior author as having died naturally were in fact shot; for example, three rhino that one owner reported had died are known by Keith Micklejohn (NPB) to have been shot.

The situation is much better on large private reserves. Sixty-two rhino were delivered to the Sabi Sand, Timbavati and Buffelshoek private reserves in the eastern Transvaal. Aerial and ground counts indicate that there are presently about 187 white rhino on these three reserves. Seventeen males were hunted and three were sold alive for hunting. The number of deaths and births is unknown but at least 150 rhino must have been born.

Except in the Willem Pretorius Game Reserve in the Orange Free State and the Loskop Dam Nature Reserve in the Transvaal, white rhino have not fared much better in provincial reserves than on private ranches. Willem Pretorius received two males and two females in 1962 and again in 1965 from the NPB. Twenty-eight calves have since been born and no natural deaths have occurred. Six animals have been hunted, two sold live and 11 were moved to the Tussen-die-Riviere game farm; there are currently 17 at Willem Pretorius.

NPB records show that 24 rhinos were delivered to Loskop between 1963 and 1979. One female died during transport; nine were sold; six were moved to Bloemhof Dam Nature Reserve; and four young males were killed in fights during 1987. The present number at Loskop is nevertheless 48, which indicates a healthy increase.

Bophuthatswana's Pilanesberg National Park is worth considering for a moment by comparison, because despite hunting, it is the most notable white rhino success story outside the Kruger National Park and Natal's flagship parks. Pilanesberg received 248 rhinos from Natal. This population is being managed at a level of about 200 animals. Surplus animals have been translocated to other parks in Bophuthatswana or sold to



private landowners, and trophy bulls have been shot. The population in Pilanesberg is stable and those in the Botsalano (60) and Borakalalo (10) national parks are increasing. Despite having sold or hunted 158 rhino since 1980, Bophuthatswana currently has some 260.

Regional factors in re-establishment

When properties receiving rhino were assessed on a regional basis, it became clear that success in establishing a breeding group of rhino is as dependent on management as on climatological and geographical factors. It would therefore not be fair to exclude some areas totally from allocation of white rhino, but there are regions which should be considered only under very special circumstances.

The far northern Transvaal (north of Louis Trichardt and westwards to Swartwater) has suffered from severe drought during the past few years and the rhino would not have survived without feeding. Even large ranches could not support rhino without supplementary feeding.

Although conditions have improved, this is a dry region and subject to periodic severe drought. Drought conditions will inevitably again be experienced. This area should therefore not be regarded as suitable for future relocation of white rhino, even though there are exceptions where rhino were fed only during the really extreme period of 1983 and 1984.

The northwestern Transvaal (south of Swartwater, west of Pietersburg and north of Rustenburg) also suffered in the drought and many rhino had to be fed, especially in the western parts near Ellisras and the Botswana border. This was often because of overstocking rather than low rainfall. The region has the potential of carrying many more white rhino provided that proper veld management is applied. There are also good examples of successful breeding in this region.

With the exception of the area around the Kruger National Park, few white rhino are found in the eastern Transvaal (east of Warmbaths, north of Loskop Dam). The drought was also thoroughly felt in this area and even large reserves like the Timbavati and Klaserie, which have had good recruitment over the past few

years, were forced to put out supplementary feed during 1983.

Rhino reproduce well in this area although exact figures could not always be obtained. Feeding was however, necessary in many cases as a result of overstocking. Near Gravelotte, one landowner came through the drought with all his rhino, but drought was named as a cause of death of five out of the seven rhino delivered to another landowner and released during a very unfavourable period.

The region as a whole can be regarded as suitable for relocation of white rhino, although bad veld management complicates the position on many properties.

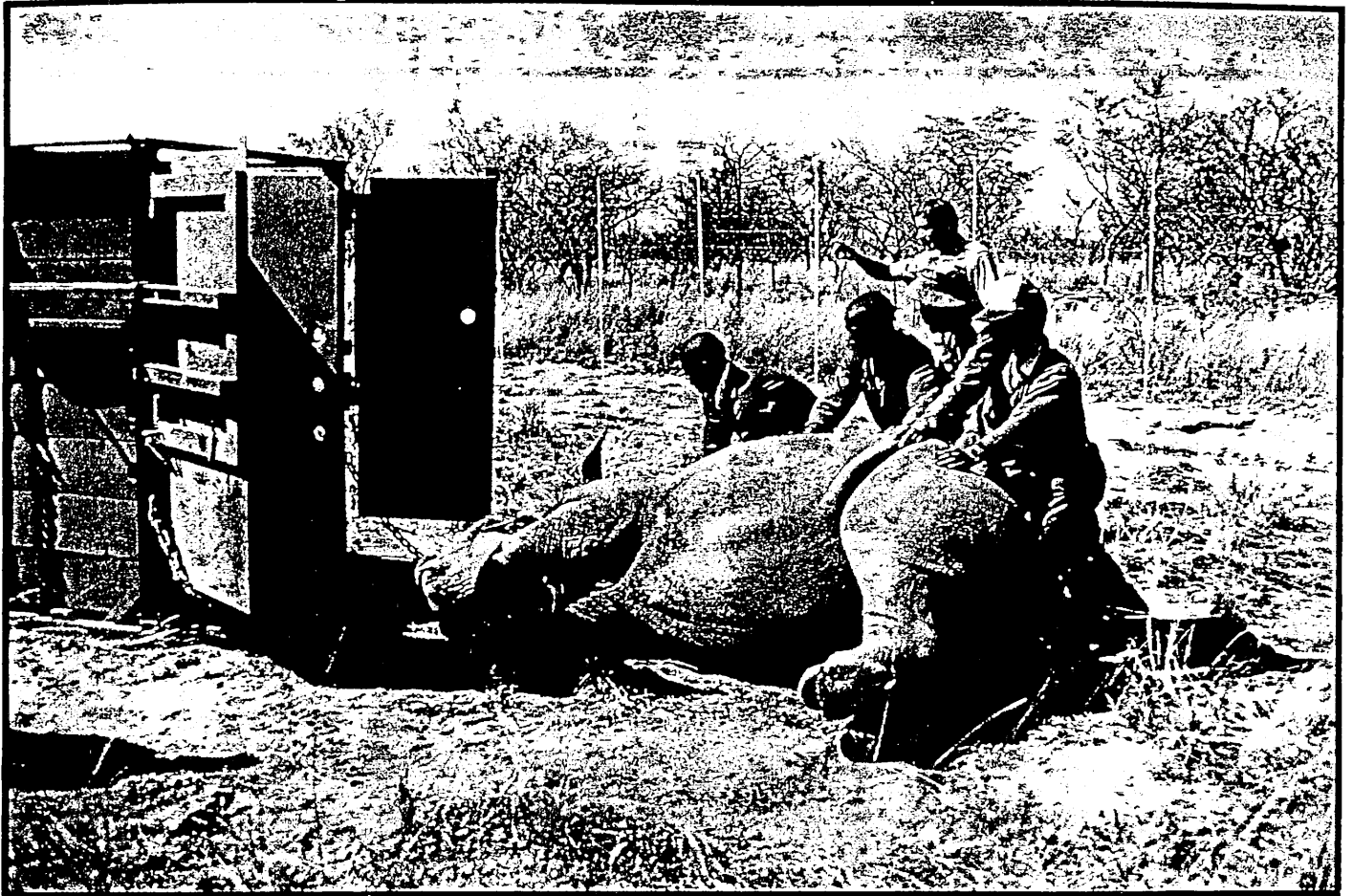
The Loskop Dam area seems to be very suitable rhino habitat as the populations of the Loskop Dam Nature Reserve and private ranches show. The rest of the south-eastern Transvaal has few rhino and conclusions cannot be drawn about its suitability.

An example of what good management can accomplish is the Overvaal Rob Ferreira resort situated in a dry region near Christiana in the south-western Transvaal. Six rhino, three males and three females, were introduced in 1970 and 1972 on 1 860 ha. The rhino were never fed and 19 calves have been born, of which only two have died. The National Zoological Gardens' game farm near Lichtenburg has also had good success with 13 calves from three females over the past ten years.

Other south-western Transvaal populations have not done well or are too young to assess, but some areas in the region are clearly suitable for white rhino.

Most of the Cape is unsuitable. The rhino of a 42 000 ha ranch near Kimberley have all died of natural causes and other introductions have also been unsatisfactory. Successful recruitment has taken place at few reserves although there are some populations too recent for comment. But it appears that in general, the Cape should not be considered if more appropriate properties are available elsewhere.

Only three private properties have white rhino in the Orange Free State. Calves have been born on all three but the chief success story, as



In the last 300 rhino translocations, the Natal Parks Board had no mortalities – a tribute to the excellent work of their capture team.

indicated, is the population at the Willem Pretorius Game Reserve. Certain parts of the Orange Free State can thus be recommended for rhino introduction, but the Division of Nature Conservation should be consulted first.

Nothing need be said about the suitability of Natal, and specifically Zululand. Unfortunately the province has a sad record concerning white rhino on private properties and examples of shortsighted management are rife.

Other factors

Survey results confirm findings by Lindemann (1982) that breeding success in populations of females with only one male is significantly lower than in populations with more than one male. Of 25 populations with one adult male, only nine recorded the production of calves (and it is possible that some of these females could have been pregnant before relocation).

Success or failure of populations is perhaps also related to the size of the founder populations.

Smaller ones obviously do not have as many advantages as larger ones. Results showed that 20,5% of the founder populations of less than ten animals are extinct and a further 51,8% have decreased in size. There are, however, many other variables which prevent clear conclusions as regards size of founder populations.

Ten per cent of the natural deaths were attributed by private owners to disease, whereas this has never been recorded as a mortality factor by any of the conservation agencies. This suggests that deaths due to other factors may have been attributed to disease rather than the true cause.

Conclusions and recommendations

Despite the fact that over the last 20 years more than 1 500 white rhino have been distributed to private landowners in South Africa, there has been a net decrease both in the number of rhino and in the number of properties on which rhino are present. Only 26 populations have increased, 16 populations are at the same



South Africa is the only country in the world where one may legally hunt rhino.

number as that introduced, 52 have decreased and the remaining 55 are extinct.

It is clearly apparent that, with few exceptions, the distribution of white rhino to private landowners in South Africa to date has not been an effective means of enhancing the status of the species. There is no evidence to suggest that the population trend on privately owned land will remain stable, let alone increase. The disquiet which gave rise to this survey therefore appears to have been justified. In contrast, the rhino distributed to official conservation bodies have increased.

Reasons for the disappointing management record include, as we have seen, problems of unsuitable conditions, lack of supplementary feeding, overstocking by more adaptable species, and reducing the number of adult males to one, thereby effectively bringing recruitment to a halt. But the greatest problem appears to be that rhino were bought by many landowners simply as a business proposition rather than for conservation reasons.



Over the last decade the safari industry in South Africa has experienced almost exponential growth, and the white rhino is perhaps the premier trophy offered. This, and the decline in the value of the rand, has enhanced the rhino's value as a trophy to an average of about R35 000 each; and the incentive to harvest rhino at a rate greater than the rate of increment (or that at which the Natal Parks Board can provide animals), has in many cases proven irresistible. The consequence is that the demand for rhino now far exceeds the NPB rate of removal.


For the NPB, this is an interesting reversal. Over the period during which most of the translocations to private land took place, the NPB was faced with the dilemma of controlling its rhino population in the face of a limited demand by purchasers. But by now many landowners have allowed all their adult males to be shot by trophy hunters, and have also provided breeding females for hunting. They have justified this on the basis that they would be allocated more rhino by the Natal Parks Board. In some cases, safari operators in Natal maintained it was the province's obligation to provide them with more rhino for hunting!

Recommendations arising for rhino management from this survey are intended for private land in South Africa, but may apply more widely. These are:

- Southern African members of the IUCN African Elephant & Rhino Specialist Group need to determine whether the current situation is acceptable, and consider a national plan for white rhino.
- Provincial conservation bodies need to review criteria under which permits to introduce rhino are allocated. Criteria should include minimum population the area can sustain, minimum population to be introduced, habitat suitability, quality of management, and objectives of the owner.
- Areas which can hold large populations, and whose owners are prepared to acquire large

founder populations, should get preference. Applicants' track records with rhino should also be taken into account. An objective system of ranking applications for rhino would be far preferable to the current "first come, first served" procedure.

- An effective system of recording the number of animals hunted each year, and the number of trophies exported, is needed.
- On the basis of their record in management, certain landowners should be "blackballed" from receiving further allocations of rhino at subsidised prices.
- Some of the poor performance in management may result from lack of knowledge on rhino management. Suitable information must be compiled and distributed to all landowners who have, or intend acquiring, the species so that all adult bulls, for example, are not shot before any juveniles have reached puberty.

In fairness, it must be acknowledged that although the more than 1 500 rhinos supplied to private lands are now reduced to under 1 000, owners *have* taken on rhinos that parks could not accommodate. But for the long-term conservation interests of the species to prevail, a re-evaluation of objectives and an overhaul of procedures are clearly required. 

Reference: Lindemann, H (1982), African Rhinoceroses in Captivity. MSc thesis, University of Copenhagen, 122 pp.

The Rhino & Elephant Foundation is compiling a rhino management brochure for distribution to rhino owners.

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