

Left: Mountain zebra were saved from extinction before 1931 by farmers in the Karroo; the Parks Board then took over the task, and their largest herd now numbers 60. Above: A black rhinoceros brought from Kenya to the Addo Elephant Park. The adult weighs about 2 tons

# RESETTLING SOUTH AFRICA'S GAME

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Nowadays people tend to take national parks for granted. Yet little more than a century ago, much of the South African fauna had become extinct in certain areas, and was in danger of total annihilation. This is the exciting story of the struggle for the protection of the animals, and the enormous task of game resettlement carried out in seven national parks by the National Parks Board of South Africa

When the white man moved into the South African hinterland in appreciable numbers, in about the middle of the 19th century, he found the country teeming with game of all sorts. Evidence of human habitation was sparse, all the Bantu in the area having been murdered by the Matabele tribe, under their king, Moselekatse.

The herds of game were rapidly reduced by professional hunters who often made it difficult for individual farmers to preserve game on their own farms. They exacted an appalling toll in the free hunting areas, and it soon became apparent that some measure of control would have to be exercised to prevent the complete annihilation of all game in the area between the Vaal River and the Limpopo.

By the year 1858, a proper state with all the paraphernalia of modern government had been set up, and the *Volksraad* (literally, assembly of the people) issued the first game laws in the history of the territory. This was the first stage of game conservation in South Africa—but it soon proved to be ineffective.

A redoubtable fighter for the cause of game conservation now comes into the picture—Paul Kruger. Immediately after his election as president of the Zuid-



Above right: Map shows the location of the South African National Parks. Below right: The gemsbok (oryx) a species of antelope, was in danger of extinction when the Kalahari Gemsbok Park was proclaimed in 1931. Today they roam the Park in their thousands.

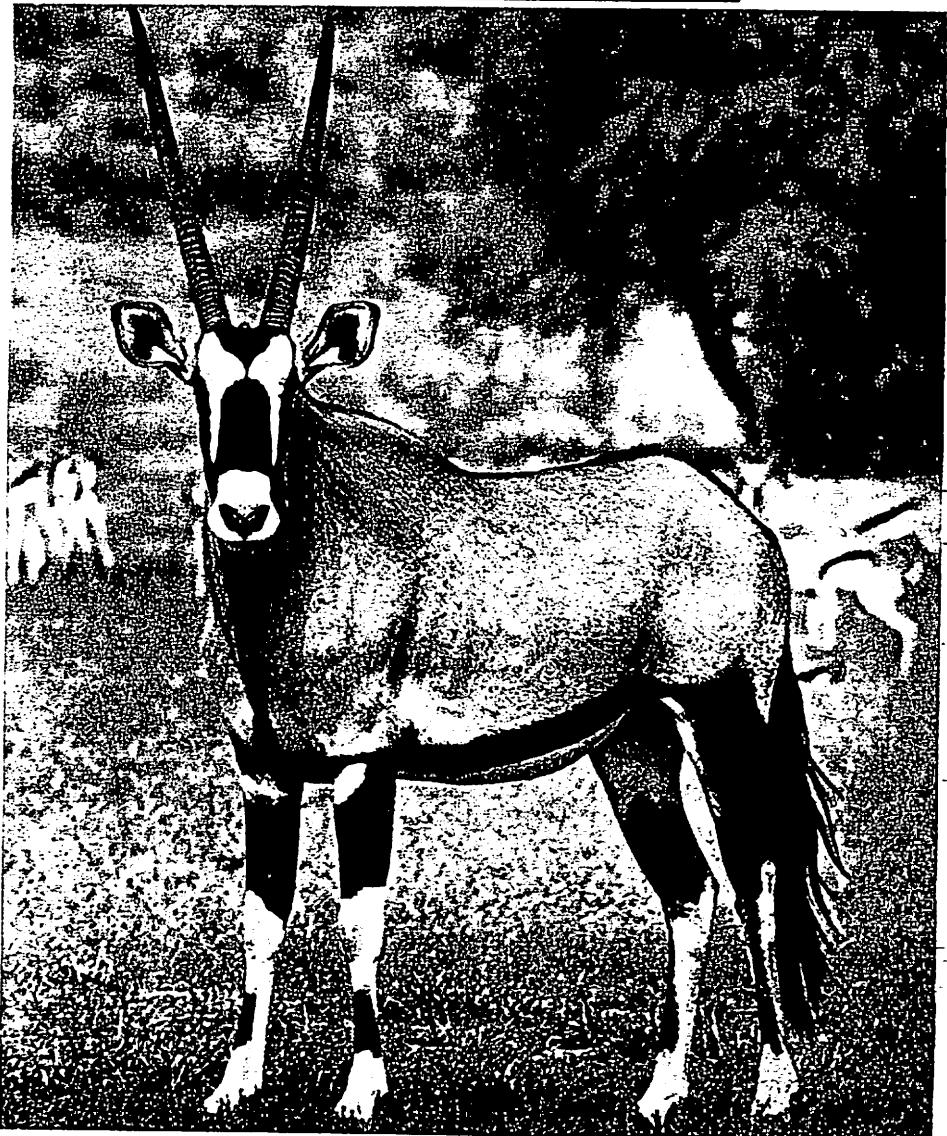
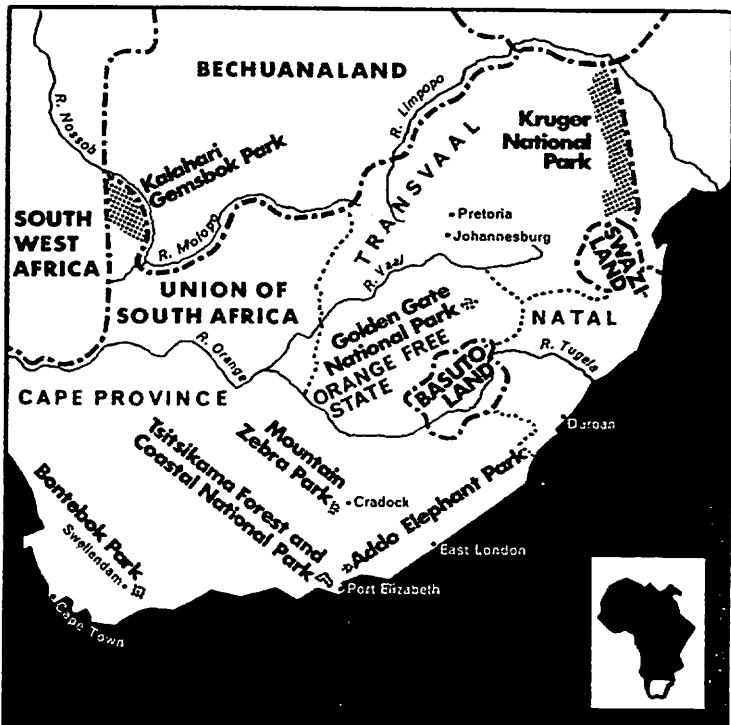
Afrikaansche Republiek in the 1880's, he advocated the establishment of a game reserve to protect the country's heritage of wild animals.

In the *Volksraad*, Kruger proved himself a fanatic in the protection of wild animals, and after a fight of 11 years the Sabi Nature Reserve was proclaimed—the forerunner of today's Kruger National Park. This represented the second stage in the history of game conservation—the creation of wildlife sanctuaries.

Three years after the proclamation of the reserve, the disastrous Boer War broke out, and both sides shot rations freely in the Sabi Game Reserve. The slaughter of the animal population was terrible. Although none of the game animals was completely eradicated, most of them came very near this point.

After the war, the reserve was re-proclaimed by the now English government, and after the establishment of the Union of South Africa in 1910 the good work was continued. In 1925 land was added to the park so that it assumed more or less the boundaries it has today.

The National Parks Board was established in 1926, and with it came the proclamation of other national parks—each created with the specific idea of protecting a species threatened with extinction.





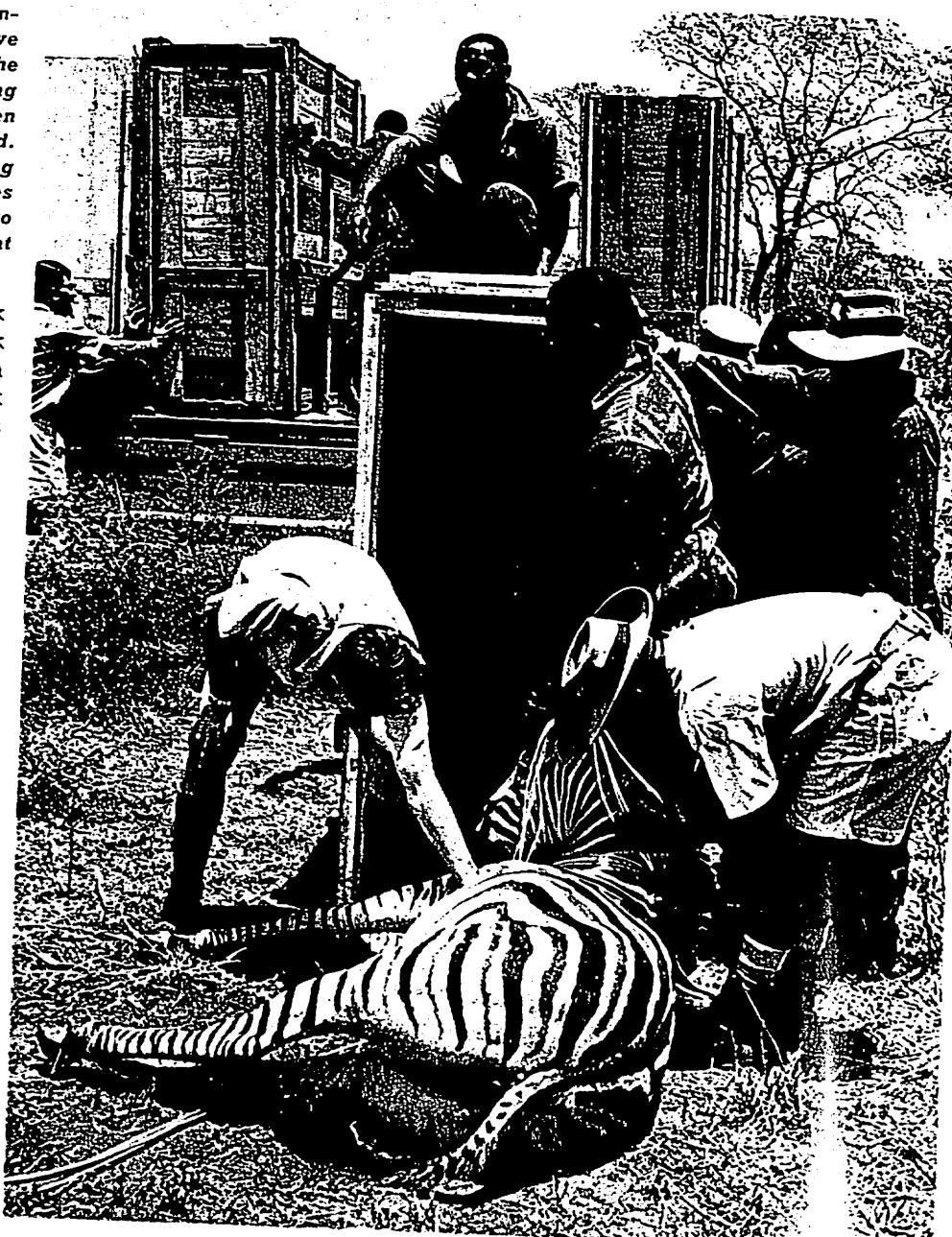
Above: A small herd of bontebok in the Bontebok National Park near Swellendam. The animal's numbers have increased from a mere 15 in 1931 to the present total of 140. Right: Transporting animals by use of drugs has now been reduced to a fine art by the Parks Board. Here the zebra's heart-beat is being checked, one of a series of measures taken after capturing the animals to ensure that they arrive alive and well at their destination.

The Addo Elephant Park, the Bontebok National Park, and the Kalahari Gemsbok National Park were all proclaimed in 1931; the Mountain Zebra National Park in 1939; and the Golden Gate Highlands Park, and the Tsitsikama Forest and Coastal National Park in 1963 and 1964 respectively.

The advent of these specialised parks brought a problem in its wake—the solution of which forms the third stage of nature conservation in South Africa. In most of these parks only a few examples remained of the species for which it was created. The problem was to restock these parks with the animals which once abounded there.

First of all, the species which were extinct in the specific area had to be determined. The diaries of early travellers were examined minutely, and the researchers sometimes even had to resort to information gleaned from archaeological research.

When it was known which species had existed in that area the battle was not even half won. To obtain specimens of these animals sometimes proved to be almost impossible. If an animal was extinct in one area it seemed to be so throughout the country—due, possibly, to a belief that certain animals were destructive or carried diseases.



Then methods had to be evolved to catch animals, big and small. One was to build a corral of wire at the narrow end of a funnel-shaped fence erected at a strategic spot. In this corral, the animals were then caught by hand, drugged, and transported.

Another method was copied from the habits of the wild carnivores. The hyenas in the Kalahari chase their prey over the loose sand dunes; the buck's sharp hoofs sink into the sand, slowing him down, while the hyena's paws enable him to overtake the animal swiftly.

Similarly, rangers herded the animals into the dunes by means of four-wheel driven vehicles, or earlier still, camels, and caught them by hand.

A later method, suitable for the smaller species, involved the use of a net, usually about 500 feet long, which was set up at a strategic point, and the animal driven into it.

Considerable experimentation was made with drugs, until finally the 'wonder drug' M99 appeared. This is expensive, but completely reliable and with a minimum of danger to the animal.

A combination of all these methods—drugs, nets, catching by hand, corrals—was now used to fulfil one of the ideals of the National Parks Board: the re-introduction of locally extinct species.

The first animals to be re-established in a national park were eight springbok (*Antidorcas marsupialis*) in the Mountain Zebra Park near Cradock in 1941. The man responsible for this gift was a Mr E. Bowker—a man who in later years frequently aided the National Parks Board in its endeavours to obtain scarce species.

From this small beginning of eight buck, the herd became so large that it was possible to capture large numbers of these animals and sell them to farmers who wished to restock their farms.

Still later, springbok from this same herd were re-introduced into the Addo Elephant Park near Port Elizabeth. This was during 1956, and the number of springbok in this park reached quite respectable proportions. Some years ago the herd numbered more than 100 animals, but a heartwater epidemic decimated the herd, and only a few dozen are left.

In 1959 six springbok from the Mountain Zebra Park were re-introduced in the Bontebok National Park, at the time situated near Bredasdorp.

Recently, with the proclamation of the Golden Gate Highlands Park in the

Orange Free State, springbok from the Mountain Zebra Park and the Bontebok Park, now situated near Swellendam, were re-introduced to this park as well.

The Bontebok Park was moved because a deficiency of trace elements in the soil at Bredasdorp caused various diseases from which a large number of bontebok (*Damaliscus pygargus*) died every year.

This was one of the most ambitious resettlement programmes ever undertaken by the National Parks Board. More than a hundred bontebok had to be caught and transported, as well as several red, or Cape, hartebeest (*Alcelaphus caama*). Pessimists forecast that the Board would be lucky if one-third of the animals arrived alive in Swellendam.

In the end a big drive was held and 90 odd bontebok captured, more than two-thirds of which survived the capture and transport. At the moment their number stands at about 140.

The resettlement of red hartebeest also proved to be successful. But a new problem arose—the other indigenous animals which once roamed this area had to be found and resettled in the park.

Once more the Mountain Zebra Park's resources—descendants of the original eight springbok resettled in 1941—were called upon and 14 springbok were captured and resettled in the Bontebok Park in July 1962. This, however, was not the end of the story. Apart from the animals which never completely disappeared from the area—grey, or vaal rhebok (*Pelea capreolus*), duikers (*Sylvicapra grimmia*), and steinbuck (*Raphicerus campestris*)—all the extinct indigenous species as far as possible had to be resettled. Eight ostriches (*Struthio camelus*) were captured at De Hoop (a game farm belonging to the Cape provincial administration) and brought to Swellendam.

Several red hartebeest and one eland (*Taurotragus oryx*) were brought in from the Kalahari Gemsbok Park in 1961. Several eland were brought in a few months later, with the result that there is now quite a respectable herd of eland as well as one of red hartebeest.

Still the Parks Board was not satisfied. The first buffalo (*Synerus caffer*) was resettled in February 1963, closely followed by five others. These animals were captured in the Addo Elephant Park, as were the two cows brought to the Park in January 1964. One of the two cows calved in the crate while she was being transported, and there are now nine of these animals in an area from whence they had disappeared completely.

Some animals were resettled by design, others by accident. In November 1963 the Cape Department of Nature Conservation clamped down on people keeping wild animals as pets without the necessary permits. As a result of this the Bontebok Park gained two grey duikers, two Cape grysbok (*Raphicerus melanotis*), and nine mountain tortoises.

In 1957 two greater kudu (*Tragelaphus streptoceros*) resettled themselves in the Addo Elephant Park by jumping the fence to escape a hunting party.

From April 1956 to March 1957 a large number of animals were resettled in Addo. Four eland calves were the first to arrive from the Kalahari Gemsbok Park, closely followed by a red hartebeest bull and cow from a farm in the Orange Free State; 11 grey rhebok were brought from Bedford; several bushbuck (*Tragelaphus scriptus*) were brought from the Zuurberg area; duikers, Cape grysbok, and steinbuck from Grahamstown, and 16 springbok from the Mountain Zebra Park, completed the first phase of this restocking programme.

In 1959 another three kudu were brought in to complement the two which resettled themselves in the previous year.

The programme for larger animals was now started. In March 1961 two black rhinoceroses (*Diceros bicornis*) were resettled from Kenya at a cost of £375 each. The last of these animals in this area had been shot at the end of the 19th century. Similarly, hippopotamuses (*Hippopotamus amphibius*) had disappeared at the turn of the century, and had to be resettled.

In November 1961 three hippos arrived in Addo from the Kruger National Park—a distance of 1,019 miles. One of these died in August 1962, but that month another four hippos arrived from the Kruger National Park—a triumph for biologists, who had brought the immobilisation and capturing of hippos as near to perfection as was possible with the material and knowledge available. In addition, a grey duiker was picked up from a farmer *en route*, and released at the same time as the hippos.

Another five black rhinos arrived from Kenya in January 1962. Several of the seven rhinos in the park were killed in fights amongst themselves, but the remainder bred well and two calves have been born.

To return to Mountain Zebra Park, apart from the small herd of eight springbok donated in 1941 little was done until 1950. The history of the intervening years is interesting. The park started off

in 1938 with a few of the indigenous animals which had not been completely eradicated, and a herd of six mountain zebra (*Equus zebra*)—one mare and five stallions. One setback after another was experienced until eventually the last two old stallions had to be shot.

The anomalous position now arose of a special park for mountain zebras in which not one of these animals occurred. In 1950 this position was rectified when a farmer in the vicinity donated a herd of 11 of these animals to the Parks Board. After much ado and after only one unsuccessful—though spectacular—attempt, the animals eventually were moved to the area. The restocking of the park with all types of indigenous game could now start in earnest.

The last place one would think it possible for animals to be obtained to restock a game reserve is a zoo—and yet restocking of the (at the time) rare eland had to be done from the Johannesburg Zoo. A bull and a cow were obtained and released in the park, but the cow died after a few days. A black wildebeest or white-tailed gnu (*Connochaetes gnus*) bull and cow were obtained from the Pretoria Zoo. In this case, too, the cow died after a few days. The same happened to a pair of bushbuck procured from a nearby farmer.

Three ostriches, donated to the Parks Board in May 1954 for resettlement in the Park, seemed to turn the tide. All three birds survived the process, and seemed to be quite happy in the park.

In 1957 the resettlement of game in the Park started in real earnest and with a large measure of success. Eland, black wildebeest, grey rhebok, and bushbuck were introduced from various sources and all thrived.

After this large scale resettlement gemsbok (*Oryx gazella*) were introduced from the Kalahari Gemsbok Park. These animals are now thriving. In February 1964 Noel Michau agreed to sell part of his farm adjacent to the Park, on which there was a herd of 32 mountain zebra, at a very reasonable price to the Board. The total number of these animals now in the Park is 58.

One of the most unusual animals ever to be resettled in a park is the Cape fox (*Vulpes chama*) which was brought into the Mountain Zebra Park—where it was indigenous—from the Kalahari Gemsbok Park. It is the only carnivorous animal ever resettled by the Parks Board, and it was resettled with a specific purpose.

This had always been an area where such animals as the Cape fox and the

black-backed jackal (*Canis mesomelas*) roamed in fairly large numbers. The latter species can quite easily catch and kill a sheep, with the result that it was hunted remorselessly by all farmers in this predominantly sheep-farming area. Unfortunately the belief existed—and still exists—that the Cape fox is capable of catching and killing sheep as well, and the Cape fox was eradicated along with the black-backed jackal, with the result that its natural prey—rock-rabbits (*Procavia capensis*)—multiplied to an alarming extent and seriously damaged the grazing in the areas where it was found.

Remedial steps had to be taken immediately. Shooting and poisoning were resorted to with little noticeable success. The idea of re-introducing the Cape fox from the Kalahari Gemsbok Park was then mooted, and finally won the day. The Cape fox was resettled in the Park, and in a short while the rock-rabbit problem was something of the past. No instances have been noted so far of these predators killing either fully-grown sheep or their lambs.

Another tale of successful resettlement of game concerns the Golden Gate Highlands Park in the Orange Free State. Since April 1963 at least seven species of mammals and a large number of bird species have been resettled in this park.

Animals for this park came from the four winds: red hartebeest and gemsbok from the Kalahari Gemsbok Park in the far north-western corner of the Republic of South Africa, more than a thousand miles away; Burchell's zebra (*Equus burchelli*) from the Kruger National Park in the north-eastern part of the country, more than 500 miles distant from Golden Gate; and springbok from the Kalahari Gemsbok Park, the Mountain Zebra Park in the south-western, and the Bontebok Park in the south-eastern corner—both of the latter Parks about a thousand miles from Golden Gate.

From the immediate vicinity of the Park, from farmers and provincial nature reserves, came blesbok (*Damaliscus albifrons*) and the rare black wildebeest. Reedbuck (*Redunca arundinum*) came recently from a farm in the northern Transvaal, and the first lamb has been born.

The reader may have the impression from the foregoing that resettling of animals was a success almost right from the start. This is far from the truth. The first scheme for the resettlement of game dates from 1929—the planned resettlement of white rhino (*Diceros simus*) in the

Kruger National Park from whence it had disappeared at the turn of the century. Because of the difficulties involved in capturing and transporting these huge animals, and the cost involved, the plan was eventually dropped.

Seven years later, in 1935, a scheme was started for the resettling of oryx (*Ourebia ouribi*) in the Kruger National Park. Again, because of difficulties, the scheme failed.

Despite these two disheartening failures, the Parks Board's greatest triumph in this field was experienced in the Kruger National Park—the resettlement of white rhinos from the Hluhluwe Game Reserve in Natal.

A total of 89 of these animals were brought from this provincial reserve during 1963 where they have already bred in appreciable numbers.

The method of capturing and transporting these white rhinos, weighing about 3½ tons apiece, was the most modern science had to offer. In the Hluhluwe Game Reserve they were immobilised with M99 using a crossbow and an arrow with a syringe at the tip. The syringe releases the drug into the animal's bloodstream after the needle has become firmly embedded in the rhino's hide. After about 20 minutes the rhino would be 'fast asleep', and comparatively easy to handle and manhandle into a crate.

The animals were then given an antidote and taken on an all-night trip to the Kruger National Park where they were released on arrival the next morning.

But they were extremely slow to start breeding—so much so, that it was feared that the M99 had had the effect of sterilising the animals. Since each had cost the Parks Board £250, this would have been disastrous from the financial angle alone. The first calf, born in November 1964, could not be regarded as conclusive proof that the animals had not been sterilised by the use of M99, since the calf could have been conceived before the cow was captured—the exact gestation period of the white rhino was not known.

Eight or ten other calves were born after this calf had arrived, but the doubt persisted, though it became weaker after every birth.

The last of this doubt was dispelled in November 1965 when a rhino cow in the rhino enclosure near Pretoriuskop calved. This cow has been in the Park since 1961, so that the calf could not possibly have been conceived before the cow was captured.

At the same time as the rhinos were



Red hartebeest were saved from extinction chiefly by the proclamation of the Kalahari Gemsbok Park some 35 years ago. The species has been resettled in all the other national parks where it was indigenous before becoming extinct in those areas.

being resettled a small drama played itself out. Natal, or red duikers (*Cephalophus natalensis*) were eagerly being sought for resettlement in the Kruger National Park. A few were obtained from farmers in Natal, but they were extremely difficult to capture. The nature conservator in the Bontebok Park heard of this difficulty, and remembering a Natal duiker ram he had seen on a nearby farm, he procured it and sent it to the Kruger National Park—by air.

It was during this time that the resettlement of oribi was once again mooted. After a long search a number of these exceedingly scarce and shy animals was found on a private farm, and captured. The animals were then released

near Pretoriuskop in the specially-built rhino camp to protect these valuable animals against predators.

It was now found that they died in alarming numbers because of the sudden change in their diet caused by the change of habitat. The next lot of oribi to be caught were accordingly dosed with an amount of the stomach contents of an impala (*Aepyceros melampus*) shot in the vicinity of the oribi's new habitat. This changed the bacteriological content of the oribi's stomachs and enabled them to digest the plant matter occurring in their new habitat.

This brings us to the fourth stage in game conservation in South Africa: the management of the wildlife resources.

To date animals had been protected in sanctuaries and allowed to breed as fast as they could, seeing that the system started off everywhere with a shortage of animals. This shortage of animals has now been made up, and methods for the control of animal movements and numbers now have to be evolved.

Thus ends one of the most interesting stories connected with game conservation in South Africa. It is an ending, but it also marks the beginning of an era during which it is to be hoped that man will continue to accord the animal its rightful place as part of our heritage. To this end, game resettlement will continue to be an important function of the National Parks Board of South Africa.