

THE POSITION OF NATURE CONSERVATION IN SOUTH AFRICA.

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INTRODUCTION

The need has arisen to know exactly what is being done in the field of nature conservation in South Africa and which organisations, divisions and departments are concerned in this task. It is for this reason that this publication has been undertaken.

The compiler has endeavoured to arrange the data in such a manner that the publication is merely a factual report, in other words, a picture of the present state of affairs.

The author is indeed pleased to be able to express his sincere gratitude to the following persons who furnished information and who also read the chapters dealing with their organisations, in order to ensure that all the facts given are correct :-

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The Secretary, Divisional Council, Port Elizabeth;
The Town Clerk, Gonubie; and
The Secretary, Divisional Council, Knysna.

The first chapter, dealing with the history of nature conservation, is largely a summary of the contents of certain chapters in "60 Years Kruger Park" by R. J. Labuschagne. The compiler is deeply indebted to the author for his kind permission to make use of the facts in that publication.

The compiler also wishes to express his sincere gratitude to Mr. R. Knobel, Director of the National Parks Board, for his advice and encouragement.

THE HISTORY OF NATURE CONSERVATION IN SOUTH AFRICA

1. 1652 - 1902.

From old documents, diaries and other similar sources it is evident that wild animals abounded at the southern point of Africa when Commander van Riebeeck set foot on shore at Table Bay in 1652. A mere four years later a Swede by the name of Nils Matson Kiöping sent a large collection of birds and mammals to the University of Uppsala.

Lions, leopards, elephants, hippopotami, rhinoceri and larger antelope such as eland and red hartebeest were present in large numbers in the immediate vicinity of the first settlement, and it was not until 1702 that the last elephant was killed near Cape Town. All the interesting books of travel only served to attract adventurers to the country, and the United East India Company became so concerned at this state of affairs that for a time it was reluctant to allow scientists and travellers to enter the country, with the result that for a certain period the rest of the world was deprived of interesting facts in this connection.

There were, however, two Swedes, Sparrmann and Thunberg, medical practitioners in the service of the Company, and these two scientists were the precursors of the series of famous botanists and zoologists who visited the Cape during the 18th century. Thus, for example, the country was visited at the beginning of the 19th century by such men as Andersson, Wahlberg, Burchell, A. Smith, Chapman and Gray.

The big-game hunters followed in the wake of the scientists, and during the 19th century we find such names as Patterson, Burrow, Lichtenstein, Selous, Kirby, Cornwallis Harris, Baldwin, Bain and a host of others who visited the country. Many boasted about the number of animals they had shot, and there were men such as Major Pretorius who shot 557 elephants alone in his lifetime. Fortunately, however, there were men who gave vivid descriptions of the animal-life at that time, such as Gordon Cummings, S. C. Cronwright-Schreiner and W. C. Scully, and these descriptions are valuable historical sources today.

The question may well be asked: What has become of the game whose praises are so loudly sung in these works?

The blame for the ultimate destruction is to often laid at the door of our ancestors, both English and Afrikaans-speaking. It is, of course, true that

there were many hunters among them, and as better fire-arms became available, large numbers of animals were killed at times.

For the most part, however, wild animals were simply ousted by man. By reason of the fact that more and more farms were laid out and because there was not sufficient room for both farming activities and wild animals on the same piece of land, it was usually the animals which were either driven off the land or destroyed. Such wild animals did not always find it easy to adapt themselves to a new environment, and the inevitable result was extinction. The bloubok (*Hippotrichus leucophaes*) was the first species of buck to disappear completely, and the reason referred to above might well have been the cause.

On more than one occasion strange diseases, to which the wild animals were not resistant, because these diseases were carried by farm animals imported from other countries, spread across southern Africa like wildfire, destroying game everywhere. One need only recall the disastrous consequences of the rinderpest in 1896 to get a clear picture of such a catastrophe. On this occasion buffaloes and eland were almost completely exterminated.

In all probability these three influences, namely indiscriminate hunting, agricultural expansion with fencing and diseases (including parasites) were jointly responsible for the rapid decrease in numbers and the true zebra (*Equus quagga quagga*) — the wild horse of the old Colonists — and the typical form of Burchell's zebra (*Equus burchelli burchelli*) suffered the same fate as the bloubok. The Cape lion (*Felis leo melanochaitus*) was completely exterminated.

At the beginning of the present century the Knysna and Addo elephants, bontebok and mountain zebra were on the verge of extinction, but thanks to determined action it is today only the Knysna elephant which is threatened by this fate, and it is in all probability too late at this stage to do anything about it. The tragic part of this state of affairs is the fact that in 1931 when the National Parks Board undertook the protection of the Addo elephants, there were more elephants in the Knysna than in the Addo bush.

However, not only animal-life had to make way for civilisation. Timber and firewood were required, and thus many of our natural forests on the slopes of our mountains vanished in the course of time. All kinds of plants and shrubs simply had to be uprooted to make way for lands and orchards.

It should be realised, however, that it was essential to harvest crops from the soil, that meat and skins were required, that timber and firewood were essential items for maintaining life, and the biologist who would put the conservation of veld life before human welfare, would create a most unfavourable impression. Nature conservation obviously implies the wise utilisation of what Nature may offer. Malpractices only should be guarded

against, and this was indeed a knotty problem in the days when communication was still rather primitive.

Even the first colonists were alive to the fact that some measure of protection was necessary, and four years after the establishment of the Dutch settlement at the Cape, Commander van Riebeeck drafted the first hunting instructions.

In 1669 Governor Borghorst issued colonists with the first permits for hunting certain types of game. Unfortunately, however, it was also at this time that the first compensation for the extermination of certain harmful animals was paid. So, for example, an amount of 27/9 was paid for killing a leopard. Today the price is R10-00 and there are still leopards doing damage. This system only gave rise to malpractices and never achieved its object.

Governor Simon van der Stel, in 1677, was the first person to proclaim certain buck species as protected game, but the numbers of hippopotami, rhinoceri, eland and buffalo declined at such an alarming rate that further protective measures were promulgated in 1753. As early as the year 1742 it already became necessary to prohibit the shooting of mountain zebra. A fine of R20-00, a large amount at that time, was imposed for such an offence.

In 1734 Governor Jan de la Fontaine issued instructions aimed at protecting the national forests and trees in the vicinity of Swellendam.

Unfortunately, after the British Government took over the Cape, interest in conservation flagged and coupled with the rapid development of the Colony, it led to the large-scale disappearance of wild-life.

The Voortrekkers who, from 1836 onwards, migrated northward, regarded firewood and venison as essentials, and skins and ivory were used for bartering other essentials such as candles, soap, clothing, etc.

As far back as 1837 the "Vry Verkose Volksraad" of the inhabitants of the Free State included a section in connection with game protection in its Act of nine sections and in 1846 the Volksraad (Legislative Council) of Ohristad adopted drastic measures in connection with the protection of game. These made provision for the confiscation of fire-arms, ammunition and wagons.

Comdt. A. H. Potgieter issued a notice in 1848 prohibiting all strangers from hunting in his area in Lydenburg.

That there were indeed offenders who killed off game on a large scale, is evident from the fact that in 1858 an Act was passed in the Transvaal which laid down that no person was allowed to kill in any manner whatever more game than that required by him for his own consumption or which he was able to load on one wagon; furthermore, no person was allowed to shoot game merely for the skins.

As early as 1870 the Transvaal Republic took the lead by appointing game rangers and at the same time introducing open and closed seasons for the hunting of game. As from 1891 elephants and hippopotami and as from 1893 buffalo, eland, giraffe and rhinoceri were fully protected.

Predators responsible for losses among livestock, and elephants, hippopotami and rhinoceri which caused damage to lands and orchards, made complete protection very difficult, however, and it was the President who summed up the position correctly in 1884 and who offered a solution. He proposed that the protection of fauna and flora could be carried out best in areas specially reserved for this purpose, and thus the first game reserve, the Pongola, was proclaimed on the 13th June, 1894, followed by the Fountains Valley near Pretoria on the 1st February, 1895. Unfortunately, however, the Pongola was deproclaimed in 1921, and so one of the historical institutions disappeared.

Game has been protected by strict legislation in Natal since 1892, and on the 27th April, 1897, the Hlululuwe and Umfolozi Reserves were proclaimed.

The rôle played by President Paul Kruger in connection with nature conservation in the Transvaal is deserving of greater attention, because he was actually the first nature conservator in South Africa. He appreciated the rôle played in nature by beasts of prey and the other so-called harmful animals such as elephants, hippopotami, etc. and it was clear to him that these animals would not always be able to make way for rapidly approaching civilisation. Sooner or later a breaking-point would be reached. He considered it essential to set aside areas or reserves where these animals, together with other valuable game species, could continue to exist without any disturbance.

When his first representations to the Volksraad in 1884, barely a year after assuming office as President for the first time, were not successful, he made more vigorous efforts in 1889, but with this modification, namely, that if no special areas could be reserved for this purpose, complete protection should be afforded on State-owned land. In a speech made on this occasion, he specifically referred to the Pongola area and part of the Lowveld which more or less corresponded with the Shingwidzi area.

Taking into account that at this stage large-scale hunting was the order of the day in Swaziland, South-West Africa, Bechuanaland and the Cape Province, one should appreciate all the more the wisdom of this Statesman. He chose the two areas referred to for the very reason that the animals were still present in sufficient numbers to warrant proper protection. The President's motion was adopted but the first reserve, the Pongola, was proclaimed much later.

In the meantime, in the years 1891 and 1892, the game laws were brought to the attention repeatedly, and more species of game were afforded State

protection and fines were raised. In 1893 the shooting of buffalo, eland, rhinoceri and giraffe was entirely prohibited, and offenders were liable to a fine of R300.

As early as 1895 the establishment of a Lowveld reserve was approved by the Volksraad, but trouble with foreigners, and particularly the Jameson Raid, resulted in the actual proclaiming and surveying of the Sabi Game Reserve being postponed until 1897. The President himself favoured the area round Shingwidzi, but by reason of the fact that to the south the Sabi River important developments were taking place in the fields of agriculture and mining, he agreed that the area between the Crocodile and Sabi Rivers was the area meriting urgent attention in order to prevent the elimination of game in that area.

The report by the Surveyor-General was completed on the 2nd December, 1897, and on the 26th March, 1898, the Executive Committee of the Volksraad proclaimed the Sabi Game Reserve. Unfortunately, however, the Anglo-Boer War broke out soon after, and during those years nothing could be done to further game conservation.

During the war and the years immediately following, Steinacker's Horse played an interesting rôle in the Sabi Game Reserve. In this regiment there was an adjutant, Major Greenhill-Gardyne, who was an ardent protector of game and who had the welfare of the game at heart. He punished all offences severely, and should indeed be regarded as the first honorary game warden of this area.

Towards the end of the war, Mr. R. K. Loveday, ex-member for Barberton in the Volksraad of the Transvaal Republic, entered into negotiations with Lord Milner regarding the reproclamation of the Sabi Game Reserve and the game laws as they were in Republican days. His negotiations were successful and were followed by reproclamation.

The rôle played by the State in the protection of fauna and flora in Southern Africa was an important one, and the statesmen of that period are worthy of praise, but legislation alone would not have saved the situation. We are deeply indebted to the farmers who, from the very beginning, displayed a keen interest in the protection of game and controlled their farms as wild-life sanctuaries. The fact that four of our rarest animal species are to-day still in existence we owe entirely to the protection accorded them by generations of various families. The bontebok was protected on the farms of the Albertyn, van Breda, van der Byl and Uys families. The mountain zebra was saved from extinction by the Heins and Lombard families. If the Harveys had not taken it upon themselves to look after the Addo elephants, these animals would today have existed in name only. Furthermore, we owe the continued existence of

the black wildebeest to the interest shown by the Hertzog and Hoffmann families.

Of these people William T. Hornaday, Director of the New York Zoological Gardens, wrote: "It has been well known to American and British zoologists and sportsmen that many of the Boer farmers of South Africa were zealously and successfully preserving on their farms many valuable herds of game that otherwise would have been exterminated — We wish that all the game-inhabited farms on the earth were theirs!"

The people of South Africa are indeed fortunate in having had such forebears, but it places a great responsibility on the present generation, particularly those actively engaged in nature conservation.

2. 1903 — THE PRESENT.

From the establishment of the first White settlement at the Cape until the advent of Union, the conservation of wild-life was the function of either the Colonies or of the Republics. The South Africa Act of 1909 left the power in the hands of the provinces, and each adapted its ordinances to the legislation which previously applied in the province concerned, or amended them as the need arose. With the passing of time these, too, became obsolete, with the result that they were replaced by entirely new ordinances.

With the establishment of Union in 1910 the existing reserves in Natal and the Transvaal were entrusted to the care of the respective Provincial Administrations, but since developments in the industrial and agricultural fields became a serious threat to the existence of the Sabi Game Reserve, Col. J. Stevenson-Hamilton and Dr. A. K. Haagner did everything in their power to have the reserve proclaimed a National Park.

In 1912 large flocks of sheep grazed in the Sabi Game Reserve and farmers simply burnt the veld and indulged in the indiscriminate shooting of beasts of prey. This state of affairs lasted throughout the years of the First World War and large-scale poaching occurred.

It was not until 1916 that a Commission under the chairmanship of Mr. J. F. Ludorf was appointed to investigate the whole question of game reserves. This Commission, in its report which was published in 1918, also proposed that the Game Reserve be accorded national status. But the years up to 1923 were dark ones in the history of that area. Farmers demanded more grazing rights and mining institutions more concessions, and the Land Board ultimately suggested that the area be taken over and be divided into farms. In 1921 the Pongola Reserve was deproclaimed, because the State had evinced no interest in this project and by this action nature conservation in South Africa took a

great step backward. Fortunately, however, this was the lowest level ever in the history of nature conservation in this country.

In 1923 Col. Stevenson-Hamilton once more put to Col. D. Reitz, the then Minister of Lands, his request that the Sabi Reserve be proclaimed a national park. After a visit to the area, the Minister gave his full support to the idea.

In an effort to assist the South African Railways, which were in financial straits at that time the so-called "round tours" were introduced in 1923, and one lasting 9 days, which included a visit to the Sabi Reserve, was soon very well supported. Moreover, it was evident that it was indeed the Reserve which made the tour so popular.

Col. Reitz wished to finalise the matter and duly instructed the Chairman of the Land Board, Major Scott, and the Surveyor-General, Mr. Schoch, immediately to determine the boundaries of the Game Reserve and, in addition, to investigate all grievances and claims by land-owning companies. Dr. A. Schoch, brother of the Surveyor-General, drafted legislation to nationalise the Reserve, and this was subsequently passed with almost no amendment.

When a new Government assumed office in 1924, Mr. P. G. W. Grobler became Minister of Lands, and gave the matter his personal attention. He called a meeting of representatives of the land-owning companies and clearly stated that if they were not prepared to negotiate he would exercise his rights of expropriation. As a result of his action, an area of 100,000 morgen of land was exchanged and the rest purchased for R80,000. This brought the total area of the Sabi Game Reserve to 7,000 square miles. An additional 40,000 morgen were subsequently added.

On the 31st May, 1926, Minister Grobler introduced the National Parks Act in Parliament. This Act gave national status to the reserve and changed its name to the Kruger National Park.

It is, however, important to point out here that one of the amendments to the Schoch Draft, which was included in the Act on the insistence of Mr. P. G. W. Grobler, was that provision should be made for the creation of other national parks.

The newly-created National Park soon gained in popularity, but lack of funds considerably hampered development. The main task was the provision of water for game, and periodic droughts were so bad that in 1947 the Parks Board introduced its "Water for Game" Fund and in 1954 launched a special water-supply programme. Today there are already more than a dozen large dams and some 63 windmills in the watering points in the Kruger National Park, but the programme has not yet been completed.

Since 1903 the western boundary of the Kruger National Park has been a thorny problem, and in 1935 Mr. James H. Orpen undertook to survey this boundary for the Parks Board free of charge. He was accompanied by his wife, and they then saw how hunting parties were simply burning large areas on the other side of the boundary and digging dams to entice the game from the Park. This enabled them to hunt the animals at their leisure. These two benefactors then simply bought an area comprising 31,000 morgen which they presented to the Parks Board.

In an effort to straighten this boundary, land has during the past few years either been purchased by the Government or exchanged for adjacent farms, but it was not until 1960 that the question of the western boundary was finally settled, when the Government on the recommendation of the Department of Agricultural Technical Services erected a game-proof fence along this boundary. The southern boundary has also been fenced and work is progressing along the northern boundary. The eastern boundary will be attended to in due course, but meanwhile the Lebombo Range affords a natural barrier. Now, at last, the Kruger National Park is indeed an ecological unit and can be conserved for posterity as such.

In 1931 three new National Parks were established, namely, the Kalahari Gemsbok Park, the Addo Elephant Park and the Bontebok Park at Bredasdorp. The latter Park, however, was transferred to Swellendam in 1960, as the area, despite every effort to improve it, was not suitable for the bontebok.

The Mountain Zebra National Park was established at Cradock in 1937, and although there was talk of also establishing other national parks and although representations were even made in that connection, the Parks Board decided that the time had arrived to consolidate its forces and to develop the parks which it had before embarking on any new projects. Now that the period of consolidation is past, the Board is busy making a thorough study of the areas which may lay claim to national status and negotiating for the acquisition of this land.

During the years of consolidation troubled times were also experienced, and honour is due to yet another statesman of vision, the late Mr. J. G. Strydom, then Minister of Lands, for indicating yet another step forward. Through steps taken by him in 1951 the Parks Board commenced with research work in the national parks, and trained scientists were accordingly appointed in the service of the Board for the first time.

It was soon evident that it was also essential to make a start with educational work, and in 1952 an Educational Information Section was established.

Beyond the boundaries of the national parks, nature conservation also did not come to a halt. The various provinces had to see to the protection of

fauna and flora within their borders, as well as to the control of animals causing damage to lands or predators responsible for losses to sheep and cattle farmers. Various rivers and dams were stocked with exotic fish species by private concerns and here, too, control had to be exercised over anglers.

The passing of the Financial Relations Consolidation and Amendment Act No. 38 by Parliament in 1945, empowered the Provincial authorities to establish reserves for the promotion of wild-life. It had become essential to reserve areas for the conservation of certain plants or certain animals. As a result of this concession nature conservation divisions were established in three of the four provinces.

In the Cape Province a Department of Inland Fisheries had been in existence since 1940, and it was converted into a Department of Nature Conservation in 1951.

In Natal a special Board for the Control of the Parks and the protection of fish and game was established in 1950, and a Division was created in the Administration to handle the conservation work as well as the affairs of the Board.

In 1945 the Transvaal Provincial Administration appointed a Commission of Inquiry to investigate all aspects of nature conservation in that Province. On its recommendation a Division of Nature Conservation was established in 1949.

Although the establishment of a similar Division in the Administration of the Orange Free State was approved in principle several years ago, this work is still being done by the Provincial Inspection Branch.

NATIONAL PARKS

1. *Legal Status :*

Act No. 56 of 1926 in connection with national parks provides for the establishment of national parks and the preservation of wild animal life, wild vegetation and objects of geological, ethnological, historical or other scientific interest therein and for matters incidental thereto, in the interest and to the benefit and for the enjoyment of the inhabitants of the Republic of South Africa.

2. *Organisation :*

A. Section 5 of this Act provides for the appointment of a Board of Trustees for the control and management of national parks.

This Board consists of twelve members appointed by the State President, of whom

Ilala palm (*Hyphoene crinita*)
Boekenhout (*Faurea saligna*)
Appelblaar (*Lonchocarpus capassa*).

B. Addo Elephant National Park :

- (a) Established 3 July, 1931.
- (b) Area: 26.5 sq. miles.
- (c) Situation: 25° 43'E longitude and 30° 34'S latitude, 45 miles from Port Elizabeth.
- (d) This park was primarily established to provide a sanctuary for the herd of elephant. The main animal species are:

Black rhinoceros (*Diceros bicornis*)
Elephant (*Loxodonta africana*)
Vervet monkey (*Cercopithecus aethiops*)
Silver jackal (*Vulpes chama*)
Black-backed jackal (*Canis mesomelas*)
Antbear (*Orycteropus afer*)
Hippopotamus (*Hippopotamus amphibius*)
Bushpig (*Potamochoerus porcus*)
Blue duiker (*Cephalophus monticola*)
Grey duiker (*Sylvicapra grimmia*)
Steenbok (*Raphicerus campestris*)
Cape grysbok (*Raphicerus melanotis*)
Oribi (*Ourebia ourebi*)
Grey Rhebok (*Pelea capreolus*)
Springbok (*Antidorcas marsupialis*)
Red hartebeest (*Alcelaphus caama*)
Bushbuck (*Tragelaphus scriptus*)
Kudu (*Tragelaphus strepsiceros*)
Eland (*Taurotragus oryx*)
Buffalo (*Syncerus caffer*)

As well as lesser predators and small mammals. The park is densely wooded with Spekboom (*Portulacaria afra*). It represents a climax in the plant succession.

C. *Mountain Zebra National Park* :

- (a) Established 2 July, 1937.
- (b) Its total area is 5.6 sq. miles.
- (c) Situated: Longitude 25° 27'E and latitude 32° 10'S, 17 miles from Cradock.

This Park was established mainly for the protection of a small herd of mountain zebra, and the main animal species are:

Mountain zebra (*Equus zebra*)
Vervet monkey (*Cercopithecus aethiops*)
Chacma Baboon (*Papio ursinus*)
Silver jackal (*Vulpes chama*)
Grey duiker (*Sylvicapra grimmia*)
Steenbok (*Raphicerus campestris*)
Cape Grysbok (*Raphicerus melanotis*)
Mountain reedbuck (*Redunca fulvorufula*)
Springbok (*Antidorcas marsupialis*)
Gemsbok (*Oryx gazella*)
Blesbok (*Damaliscus albifrons*)
Red hartebeest (*Alcelaphus caama*)
Black wildebeest (*Connochaetus gnou*)
Eland (*Taurotragus oryx*).

As well as a number of lesser predators and small mammals. Botanically it is Karoo veld with various grass species, xerophytes, mimosa trees (*Acacia* sp.) and Karee trees (*Rhus* sp.).

B. *Bontebok National Park* :

- (a) Established 3 July, 1931, and transferred to Swellendam on 29 March, 1960.
- (b) Area: 1,676 morgen.
- (c) Situation: Longitude 20° 25'E and latitude 34° 2'S.
- (d) Established to save the bontebok from extinction, and the main animal species are:

Bontebok (*Damaliscus pygargus*)
Grey duiker (*Sylvicapra grimmia*)

No accommodation is offered in the Enseleni, Dhlinda Forest, Krantz-kloof, Himeville, Queen Elizabeth Park and Coedmore Nature Reserves, but day picnicking is permitted in all these reserves.

The following is a list of the parks and reserves in Natal :

A. Zululand :

1. Kosi Bay Nature Reserve :

- (a) Established 19 January, 1950.
- (b) Covers an area of 50 acres.
- (c) Location : Northern Zululand, approximately 350 miles from Durban, seven miles from Maputa.
- (d) Vegetation consists of grove of *Raphia* palms and the climax forest of the Kosi system as well as coastal scrub with taller trees and a strip of swamp forest. Very few animals are found in this reserve but the bird life is interesting with gulls, terns and waders the most important inhabitants.

2. Ndumu Game Reserve :

- (a) Established 17 April, 1924.
- (b) About 25,000 acres in extent.
- (c) Location: 331 miles from Durban and 35 miles from Ingwavuma in Northern Zululand.
- (d) The most important plants include the impala lily and trees such as leadwood, sausage tree and different acacias.

Animal life includes :

- Elephant (*Loxodonta africana*)
- Hippopotamus (*Hippopotamus amphibius*)
- Nyala (*Tragelaphus angasi*)
- Bushbuck (*Tragelaphus scriptus*)
- Impala (*Aepyceros melampus*)
- Grey duiker (*Sylvicapra grimmia*)
- Red duiker (*Cephalophus natalensis*)
- Reedbuck (*Redunca arundinum*)
- Suni (*Nesotragus moschatus*)
- Bush pig (*Potamochoerus porcus*).

The bird life is unique especially as far as water birds are concerned, but others are well represented :

- Black heron (*Melanophoyx ardesiaca*)
- Dwarf goose (*Nettapus auritus*)
- Fish Eagle (*Haliaeetus vocifer*)
- Bat hawk (*Machaerhamphus alcinus*)
- Crested guinea-fowl (*Guttera edouardi*) etc.

3. *Sordwana Bay National Park* :

- (a) Established 7 December, 1950.
- (b) Approximately 1,020 acres in extent.
- (c) Situated 320 miles from Durban and 12 miles from Mbaswana in Northern Zululand.
- (d) The vegetation is short forest (with Red Milkwood trees dominating) covering the seaward dunes. On the landward side the vegetation is more open with grassveld and bush consisting mainly of Umdoni, Flatcrown, White pear and Cape honeysuckle. Along a tidal stream to the north the "Black" Mangrove (*Bruguiera gymnorhiza*) grows to a great height.

4. *Mkuzi Game Reserve* :

- (a) Established 15 February, 1912.
- (b) Covers an area of approximately 62,000 acres.
- (c) Approximately 250 miles from Durban and about 69 miles from Mtubatuba in Northern Zululand.
- (d) Floristically very interesting being the southern limit of many species including such as the Matumi and the South African Mustard tree. The most prominent plants are Acacia species, Marula, Torchwood, Tree Wistaria and Flame Creeper.

Animals include :

- Black rhino (*Diceros bicornis*)
- Nyala (*Tragelaphus angasi*)
- Bushbuck (*Tragelaphus scriptus*)
- Kudu (*Tragelaphus strepsiceros*)
- Blue wildebeest (*Connochaetes taurinus*)
- Impala (*Aepyceros melampus*)
- Reedbuck (*Redunca arundinum*)
- Red duiker (*Cephalophus natalensis*)
- Grey duiker (*Sylvicapra grimmia*)
- Steenbuck (*Raphicerus campestris*)
- Suni (*Nesotragus moschatus*)
- Burchell's zebra (*Equus burchelli*)
- Black-backed jackal (*Canis mesomelas*)
- Side-striped jackal (*Canis adustus*)
- Leopard (*Panthera pardus*)
- Bush pig (*Potamochoerus porcus*).

The birds are present in great numbers with crested guinea-fowl (*Guttera edouardi*), White-backed vulture (*Gyps africanus*), Black cuckoo (*Cuculus cafer*), White-fronted bee-eater (*Mellitophagus bullockoides*) and Greater honeyguide (*Indicator indicator*) the most dominant.

5. *False Bay Park :*

- (a) Established 27 April, 1944.
- (b) Approximately 5,553 acres in extent.
- (c) Seven miles from Hluhluwe Station on the western shores of False Bay.
- (d) The peninsula is covered with coastal type vegetation but the rest is covered with bush including trees such as Umvoti (*Newtonia hildebrandtii*), White Milkwood, Marula and Silver Terminalia.

The most important animals frequenting this Park are the following:

- Hippopotamus (*Hippopotamus amphibius*)
- Bush pig (*Potamochoerus porcus*)
- Suni (*Nesotragus moschates*)
- Grey duiker (*Sylvicapra grimmia*)
- Red duiker (*Cephalophus natalensis*)
- Nyala (*Tragelaphus angasi*)
- Bushbuck (*Tragelaphus scriptus*)
- Impala (*Aepyceros melampus*)
- Reedbuck (*Redunca arundinum*)
- Crocodile (*Crocodylus niloticus*)

There is also a large selection of birds such as :

- Pelican (*Pelecanus onocrotalus*)
- Goliath heron (*Ardea goliath*)
- Spoonbill (*Platalea alba*)
- Saddlebill (*Ephippiorhynchus senegalensis*).

6. & 7. *St. Lucia Game Reserve and Park :*

- (a) The game reserve was established on the 27th April, 1897, and the park on the 31st August, 1939.
- (b) The St. Lucia Game Reserve embraces all the water of the lake which is 45 miles long, and, includes the islands, and covers a total surface area of approximately 91,090 acres. The St. Lucia Park is best described as the band surrounding the lake to a width of half a mile and covers approximately 31,000 acres.
- (c) Situated 18 miles from Mtubatuba in the eastern part of Central Zululand.
- (d) The vegetation of coastal forest, scrub and open grassland. Mangroves are found from the mouth of the estuary up to the Makatana shallows.

Trees include several wild figs, Kaffir plum, Flatcrown, Acacia spp., White pear, Umdoni, Umkuhlu and different palms.

The animals include :

- Hippopotamus (*Hippopotamus amphibius*)
- Bush pig (*Potamochoerus porcus*)
- Nyala (*Tragelaphus angasi*)
- Bushbuck (*Tragelaphus scriptus*)
- Reedbuck (*Redunca arundinum*)
- Grey duiker (*Sylvicapra grimmia*)
- Red duiker (*Cephalophus natalensis*)
- Suni (*Nesotrogus moschates*)
- Steenbok (*Raphicerus campestris*)
- Crocodile (*Crocodilus niloticus*).

There are numerous birds such as: Saddlebill (*Ephippiorhynchus senegalensis*), Spoonbill (*Platalea alba*), Goliath heron (*Ardea goliath*), Pelican (*Pelicanus onocrotalus*), Jacana (*Actophilornis africanus*), Avocet (*Recurvirostra avosetta*) and a host of other water and land birds.

8. Hluhluwe Game Reserve :

- (a) Established on 27th April, 1897.
- (b) Approximately 57,000 acres in extent.
- (c) Situated 182 miles from Durban and 32 miles from Mtubatuba in Central Zululand.
- (d) Dense forest covers the river banks and the northern and higher regions. The most important trees are : Acacia spp., Tree Wistaria, Red ivory, Cape chestnut, Tamboti, Marula, Kaffirboom spp., Wild pear, Cabbage tree.
The remainder of the area is covered by trees, scrub and grass-land.

Animal life is represented by :

- Black rhino (*Diceros bicornis*)
- Square-lipped rhino (*Diceros simus*)
- Burchell's zebra (*Equus burchelli*)
- Warthog (*Phacochoerus aethiopicus*)
- Bush pig (*Potamochoerus porcus*)
- Leopard (*Panthera pardus*)
- Chacma baboon (*Papio ursinus*)
- Giraffe (*Giraffa camelopardalis*)
- Buffalo (*Syncerus caffer*)
- Blue wildebeest (*Connochaetus taurinus*)
- Nyala (*Tragelaphus angasi*)
- Kudu (*Tragelaphus strepsiceros*)
- Bushbuck (*Tragelaphus scriptus*)
- Waterbuck (*Kobus ellipsiprymnus*)

Reedbuck (*Redunca arundinum*)
Mountain Reedbuck (*Redunca fulvorufula*)
Blue duiker (*Cephalophus monticola*)
Grey duiker (*Sylvicapra grimmia*)
Impala (*Aepyceros melampus*)
Crocodile (*Crocodilus niloticus*)

There are numerous birds, such as :

Marabou stork (*Leptoptilos crumeniferus*)
White-backed vulture (*Gyps africanus*)
Bateleur (*Terathopius ecaudatus*)
Crested guinea-fowl (*Guttera edouardi*)
Blue quail (*Excalfactoria adansoni*)
Narina trogon (*Apaloderma narina*).

9. Umfolozi Game Reserve :

- (a) Established on the 27th April, 1897.
- (b) Approximately 72,000 acres in extent.
- (c) Situated 182 miles from Durban and 32 miles from Mtubatuba in Central Zululand.
- (d) The greater part of the interior is covered with short tree savanah, but along the rivers and watercourses the more moisture-loving types are found.

Plants include : Sycamore figs, Tamboti, Gardenia spp., Tree Wistaria spp., Acacia spp., Marula and Crane flowers (*Strelitzia regina*).

Animals most commonly found are :

Square-lipped rhino (*Diceros simus*)
Black rhino (*Diceros bicornis*)
Warthog (*Phacochoerus aethiopicus*)
Chacma baboon (*Papio ursinus*)
Leopard (*Panthera pardus*)
Buffalo (*Syncerus caffer*)
Blue wildebeest (*Connochaetes taurinus*)
Red duiker (*Cephalophus natalensis*)
Grey duiker (*Sylvicapra grimmia*)
Bushbuck (*Tragelaphus scriptus*)
Kudu (*Tragelaphus strepsiceros*)
Nyala (*Tragelaphus angasi*)
Mountain reedbuck (*Redunca fulvorufula*)
Reedbuck (*Redunca arundinum*)
Waterbuck (*Kobus ellipsiprymnus*)
Impala (*Aepyceros melampus*)

Steenbok (*Raphicerus campestris*)
Klipspringer (*Oreotragus oreotragus*)
Burchell's zebra (*Equus burchelli*)
Crocodile (*Crocodylus niloticus*).

There are many interesting birds such as the Night heron (*Nycticorax nycticorax*), Wood ibis (*Ibis ibis*), Wahlberg's eagle (*Aquila wahlbergi*), Martial eagle (*Polemaetus bellicosus*), Shelley's francolin (*Francolinus shelleyi*), Crested barbet (*Trachyphonus vaillanti*), Black-bellied korhaan (*Lissotis melanogaster*) and others.

10. *Enseleni Nature Reserve :*

- (a) Established on the 22nd January, 1948.
- (b) Approximately 725 acres in extent.
- (c) Nine miles east of Empangeni.
- (d) Barringtonia, Wild fig, Kaffer plum, Flatcrown acacia, Croton, Kaffirboom, Essenwood and other coastal species are the most common trees.
An occasional Grey duiker (*Sylvicapra grimmia*) is seen.

11. & 12. *Richards Bay Game Reserve and Park :*

- (a) The game reserve was established on the 5th September, 1935 and the Park on the 28th June, 1945.
- (b) At St. Lucia the water, covering an area of approximately 2,000 acres, constitutes the game reserve and the park is made up of approximately 975 acres of land.
- (c) Situated 18 miles east of Empangeni.
- (d) The vegetation is typically coastal in form. Fairly thick bush covers the dunes, while open grassland and scattered bush covers the inland parts. Mangroves are well developed in the lagoon area.

Animal species commonly found are :

Hippopotamus (*Hippopotamus amphibius*)
Grey duiker (*Sylvicapra grimmia*)
Crocodile (*Crocodylus niloticus*)
and large numbers of water birds.

13. *Umlalazi Nature Reserve :*

- (a) Established on the 5th February, 1948.
- (b) Covers an area of approximately 2,240 acres.
- (c) Situated 1 mile east of Mtunzini, and 80 miles from Durban.
- (d) Reeds, rushes and Mangroves border part of the lagoon and trees include Red milkwood, White milkwood and Strangler fig.
Animal life is represented by :

Bush pig (*Potamochoerus porcus*)

Reedbuck (*Redunca arundinum*)
Blue duiker (*Cephalophus monticola*)
Grey duiker (*Sylvicapra grimmia*)
Bushbuck (*Tragelaphus scriptus*)
Crocodiles (*Crocodilus niloticus*)
and an abundance of birds.

14. *Dhlinza Forest Nature Reserve :*

- (a) Established on the 8th July, 1952.
- (b) Approximately 462 acres in extent.
- (c) Within the Borough of Eshowe, 88 miles from Durban.
- (d) Large trees such as Yellow-wood, Umdoni, Umkuhlu, and Kaffii plum form a dense climax forest with ferns underneath and orchids and other epiphytes on the branches.

Most important animal species found are :

Bushbuck (*Tragelaphus scriptus*)
Blue duiker (*Cephalophus monticola*)
Vervet monkey (*Cercopithecus aethiops*)
and large numbers of birds.

B. *Natal :*

15. & 16. *Royal Natal National Park and Rugged Glen Nature Reserve :*

- (a) The Royal Natal National Park was established on the 19th September, 1916, and the Rugged Glen Nature Reserve on the 1st July, 1950.
- (b) The Park covers an area of approximately 20,000 acres and the Nature Reserve a further 1,882 acres.
- (c) Situated 26 miles from Bergville.
- (d) The vegetation is typical of mountain areas.

Animal life is represented by :

Chacma baboon (*Papio ursinus*)
Dassie (*Procavia capensis*)
Black wildebeest (*Connochaetes gnou*)
Grey rhebuck (*Pelea capreolus*)
Mountain reedbuck (*Redunca fulvorufula*)
Reedbuck (*Redunca arundinum*)
Bushbuck (*Tragelaphus scriptus*)
Grey duiker (*Sylvicapra grimmia*)
Klipspringer (*Oreotragus oreotragus*).

Birds most commonly found are the Secretary bird (*Sagittarius serpentarius*), Black eagle (*Aquila verreauxi*), White-necked raven (*Corvultur albicollis*), Familiar chat (*Cercomela familiaris*).