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SPECIAL PUBLICATION
OF THE
AMERICAN COMMITTEE
FOR
INTERNATIONAL WILD LIFE PROTECTION
No. 7

NOTES ON SOUTH AFRICAN WILD LIFE CONSERVATION
PARKS AND RESERVES
A Report Prepared for the American Committee
for International Wild Life Protection

By THOMAS BARBOUR
AND
MARGARET D. PORTER

1935

PUBLICATIONS OF THE
AMERICAN COMMITTEE FOR INTERNATIONAL
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- No. 1 — Report on the available evidence showing the relation of game to the spread of tsetse fly borne diseases in Africa. By Richard P. Strong, Joseph C. Bequaert & L. R. Cleveland.
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- No. 3 — African game protection; an outline of the existing game reserves and national parks of Africa with notes on certain species of big game nearing extinction, or needing additional protection. Prepared by Elisabeth Hone. (Edition exhausted)
- No. 4 — Migratory Bird Protection in North America; the history of control by the United States Federal Government and a sketch of the treaty with Great Britain. By John C. Phillips.
- No. 5 — The Present Status of the Muskox, with notes on distribution, extirpation, attempts at domestication, protection, habits and life history. Prepared by Elisabeth Hone.
- No. 6 — The London Convention for the Protection of African Fauna and Flora (1933), with map and notes on existing African parks and reserves.
- No. 7 — Notes on South African Nature Reserves; a report prepared for the American Committee for International Wild Life Protection by Thomas Barbour and Margaret D. Porter.
- (Note. The publications of the American Committee for International Wild Life Protection are now listed by number only.)

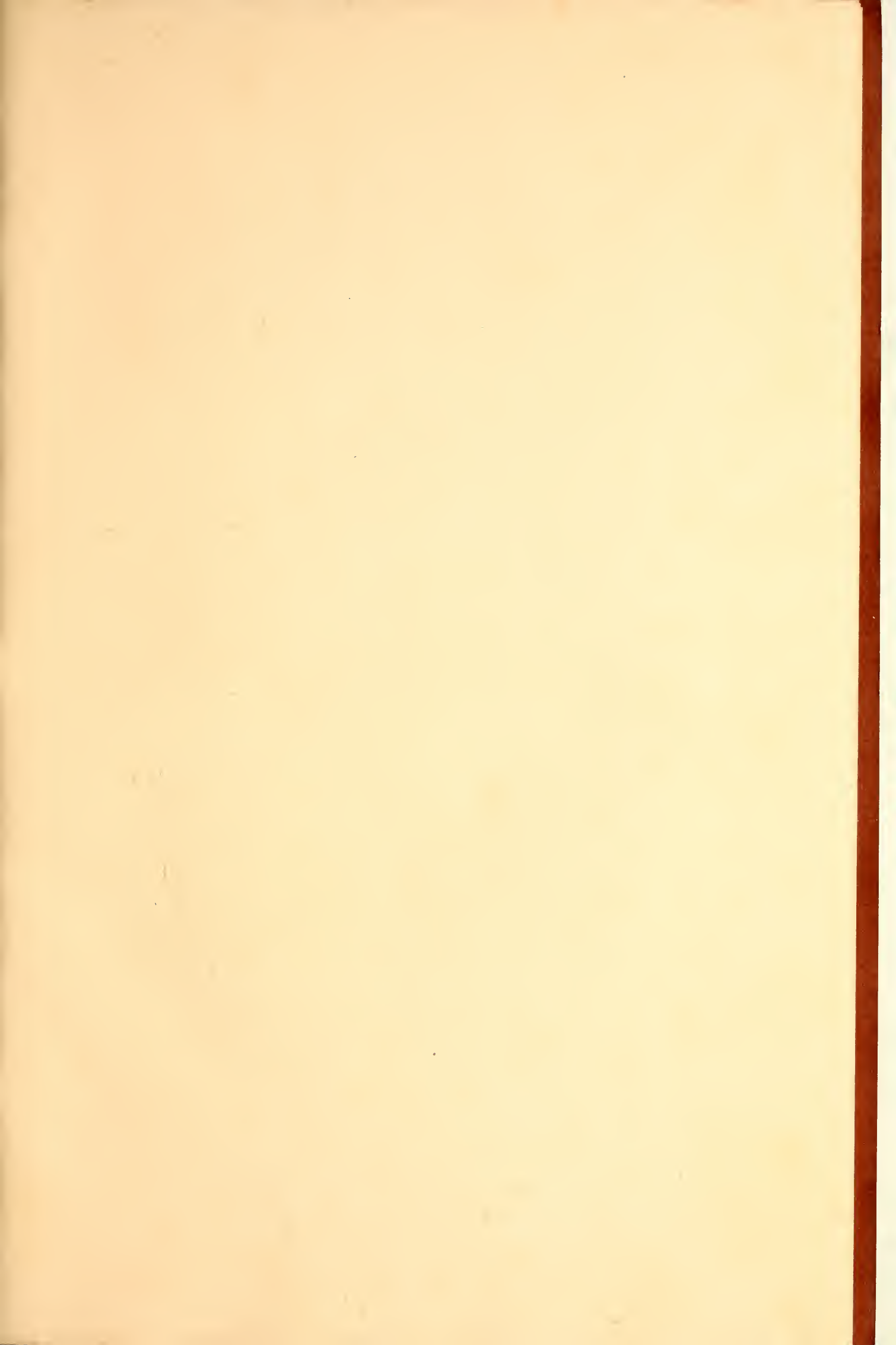




Photo M.D. Porter

*A yearling Greater Kudu Bull
Photographed at eight feet range
with an Eastman Ia. F. P. K. camera*

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A Report Prepared for the American Committee
for International Wild Life Protection

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1935

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INTRODUCTION

Last year we, accompanied by the senior author's wife and daughters Julia and Louisa, made a hasty visit to some of the museums and universities of South Africa which included about a week in the Kruger Park. On this occasion we had the advantage of Mr. Herbert Lang's company. The glimpse of African wild life which we had on that occasion proved so extraordinarily interesting that we decided to return for as extended a visit as the limitations of University appointments would permit.

Both last year and this we visited a number of ports on the coasts of Africa, concerning which no remarks are made in this report, although it may be said that this year the great quantity of cargo offering inclined our good ship, *Ubena*, of the German East African Line, to make stays of often several days at many of the most interesting east coast ports. All of these occasions were utilized to the last hour for motor trips through the surrounding country which enabled us to become familiar with a great variety of African birdlife and to see many of the most interesting native reserves near the coast. The most delightful excursion was from Tanga to Amani in the Usambara Mountains. Here the superb tropical rain-forest is extraordinarily impressive. The long views from the mountain ridges over the coastal plain on one side and over the piled up forested peaks on the other is one of the most beautiful in the whole world. Some day this will become a great recreational Mecca for lovers of natural beauty. At present the road is only passable in the dry season and it is seldom really dry. A heavy shower may cause great difficulty with automobile transportation as indeed it did for us and had it not been that the natives were strong and willing I think we would still be in the mud between Muhesa and Amani.

We feel in this introduction that a few words should be said concerning the extraordinary fact that Americans have not yet learned to appreciate the ease with which many of the most strikingly interesting parts of South Africa can be visited. To be sure the number of travellers is increasing every year but we suspect that the increase within the next few years will be far greater than it has been in the past since travelling conditions improve all the time. This applies particularly to the roads which are even now very far from our American standards although they are reasonably good in dry weather in Zululand, Swaziland and a good part of the Transvaal. The Portuguese, moreover, have been building really excellent roads throughout their great East African Colony and over these driving is a pleasure. Moreover many can be used the whole year round.

The hospitality and courtesy of both the Afrikaans and English speaking South Africans is proverbial and the Tourist Department of the Government of the Union of South Africa is extremely efficient in aiding one to plan details concerning journeys by rail or motor and can provide much other useful information as well.

Elsewhere in this report we have expressed our thanks to some of the innumerable persons who showed us a host of courtesies. We realize perfectly well how inadequate our words of thanks are.

We made this trip specifically to gather information and to carry such encouragement as we were able from the American Committee for International Wild Life Protection which has its head office here in the Harvard University Museum where we are now writing these lines. We wish to express our thanks to two members of the Executive Board of this Committee especially, to Doctor John C. Phillips and Mr. Harold J. Coolidge, Jr., both members of the Staff of the Harvard Museum and both giving unselfishly of their time and talents to forward the cause of wild life conservation throughout the world.

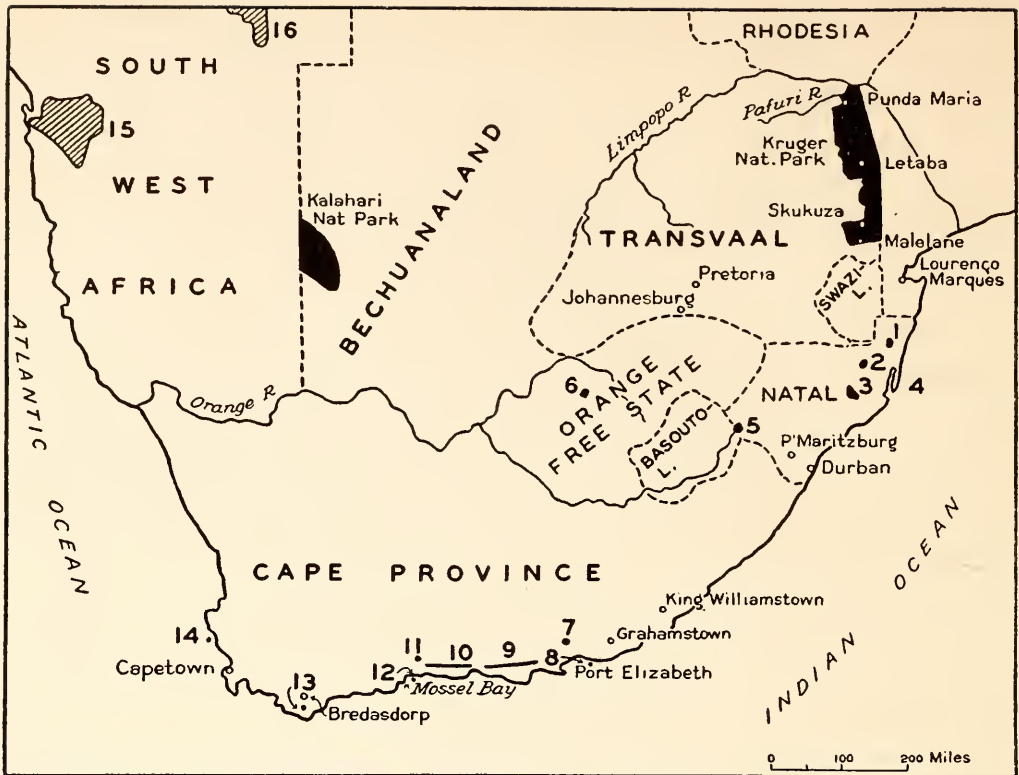
We owe a great deal to the assistance and encouragement of these two friends.

In conclusion we may only say that the office of the International Committee and the Director's office of this Museum stand ready to answer questions and give every possible advice to persons who may be considering a journey to see the natural beauties or wild animals of southern Africa.

NOTES ON SOUTH AFRICAN WILD LIFE CONSERVATION PARKS AND RESERVES

The wild life reserves of South Africa, whether actually National Parks and hence permanent, or simply reserves established by the several provinces which have not yet been given full National Park status, in other words may be changed or abolished, can be divided into three different classes.

As an example of the first class, there is the Kruger National Park which perpetuates over a large area a sample of the sort of conditions which once obtained over a large part of South Africa. We may consider as representing the second class, the Drakensberg National Park which was originally established to preserve and make accessible magnificent national scenery, but which incidentally is a botanical preserve of great importance and by no means unimportant zoologically in that many small mammals, particularly the smaller antelopes, are increasing satisfactorily. A considerable herd of eland is thriving in this area as well, the number in the Giant's Castle area being now estimated at fifteen hundred. As examples of the third class, we would cite the Bontebok Park south of Bredasdorp or the Addo Bush near Port Elizabeth. These parks represent what might be called last resort efforts to preserve a particular species on the very verge of extinction. In such parks the animals are in such small numbers that they are individually known to their protectors and may almost be given individual care. We propose later to give further details concerning a number of these parks and their inhabitants, but in this preliminary statement we want to set forth a few general considerations as well as to point out that, naturally, reserves



Map of Some South African Parks and Reserves

- | | |
|--|---|
| 1. Mkuzi Reserve* | 10. Knysna Forest Reserve |
| 2. Hluhluwe Reserve* | 11. Proposed Outshoorn Reserve |
| 3. Umfolosi Reserve* | 12. Seal Island |
| 4. Saint Lucia Bay (Bird Sanctuary)* | 13. Bontebok National Park |
| 5. Giant's Castle Reserve or "Drakensberg National Park" | 14. Dassen Island |
| 6. Sommerville Reserve | 15. Complete Game Reserve near Walvis Bay |
| 7. Addo Elephant National Park | 16. Complete Game Reserve south of Grootfontein |
| 8. Bird Island | |
| 9. Tzitzikamma Forest Reserve | |

*These reserves are in a section of Natal called Zululand.

TABLE OF DISTANCES COVERED BY MOTOR IN 1935

Capetown to Riversdale 264 miles, to Knysna 123, to Port Elizabeth 218, to Addo Bush and return 41.5, to Bird Island and return, 36, to King William's Town 177, to Umtata 163, to Bizana 160, to Durban 152, to Empangeni 142, in Hluhluwe Reserve 93, to Nongoma 68, to Mbabane 204, Malelane 113, to Satara 95, to Shingwedzi 118, to Punda Maria, Pafuri and return 205, to Satara 120, to Skukuza (4 times) 87, to Crocodile Bridge 95, to Lourenço Marques 100.

of more or less intermediate types between these classes inevitably exist. The classification, however, is not without a certain convenience.

So much has been said and written concerning the nagana problem and the relation of wild game thereto that it is hardly profitable to go into the pros and cons of the matter again at this time. In so far as this problem affects the welfare of the wild life in the Umfolosi, Hluhluwe, and Mkuzi Reserves, there is no possible question but that it would be far better for the government to buy out at a fair round price the few remaining cattle owners who are still hanging on to their never very prosperous herds, either in the hope that the game will finally be destroyed or that the government will put up and service an untold number of fly-traps, or buy them out. Many have already abandoned their lands and left the country which is no real cattle country at best, and the more intelligent of the cattle men are growing to realize that the trypanozoon causing nagana is as likely to be carried to the cattle by the fly from a weaver bird as host as from a rhinoceros. Indeed, it looks very much as if the latex of certain plants is a reservoir as well, although this is by no means certainly established.

NATAL'S OPPORTUNITY

There can be no possible cavil at the statement that the game now living in the three reserves (Umfolosi, Hluhluwe, and Mkuzi), to say nothing of the game which would in a few years be living in their wider areas, should they be combined not only with each other but with the St. Lucia Bay area as well, would be worth inexpressibly more from every point of view than the few thousand head of cattle whose purchase is involved. These combined areas, once nationalized and thus made permanent, would then form the finest and most beautiful National Park in the world. The scenery is inexpressibly grand,

enabling distant views of wide areas, and the high hills afford lovely sites for rest camps. Surely Natal will not much longer remain so far behind the other provinces in appreciation of her wild life resources. It is most extraordinary that this appreciation has been so slow in awakening, and it may be added that this situation is far from creditable, which means also that all the more praise is due to men like Watson, Charters and Campbell, who have given so generously of their time and experience to be fair to the settler and still to help the cause of sane conservation.

We believe that every American reader of these notes will be astounded and shocked beyond words to learn that white settlers can procure a licence for two pounds a year to kill everything but Royal Game, and that the filthy camps of slovenly poor white biltong-hunters may be found right along the very boundaries of the game reserves from which it is obviously impossible to prevent animals straying, for the borders cannot by any means be constantly patrolled by day and by night. Capt. Potter has built up an excellent force of native rangers, but he needs many more of them. This biltong hunting should be abolished at once and a proper licence fee charged for legitimate hunting for sport. As it is now, an important and legitimate source of revenue is being lost. It may be added at this point that the term Royal Game comprises elephants, both species of rhino, hippo, klipspringer and lion, the latter now extinct everywhere south of the eastern Transvaal except in the Mkuzi Reserve.

It might be hoped that this new National Park would be called the Burchell National Park, thus perpetuating an early naturalist whose observations and writings are as fresh and interesting today as they were a hundred years ago. But such a Park as the Burchell Park can never be open to the general public in the same way as the Kruger Park is open at the present time. The type of country—the long and very steep hills—the narrow

hog-backs connecting range with range — make the greatest care in driving necessary. And moreover the habits of the black rhino make it surely necessary that each visitor's car be accompanied by a ranger thoroughly familiar with the stupid truculence of these animals. It should not be difficult to arrange for some such service as this for scientific and professionally interested visitors, whereas it should again not be difficult to provide observation towers at strategic points near the boundary of the Park to which the general public might be admitted and from which they might watch in safety the ever-changing panorama of hill and valley and of charming rivers, with the pageant of the passing and repassing bands of big game.

A GLIMPSE OF THE HLUHLUWE RESERVE

Several afternoons spent on a high, bare promontory will not soon be forgotten. A steep grassy hillside stretched upward over eighteen hundred feet behind us; in front lay a broad valley filled with tall waving meadow grass. Through this flowed a quiet stream, a tributary of the Unyalazi River. Along the stream borders there were clumps of thick green bushes and low spreading trees. Across the valley and forming an amphitheatre almost as far as the eye could see, was a rather steeply sloping hillside with scattered but abundant tall acacias, cabbage trees and occasional groups of phoenix palms. Zebra, kudu, a few buffalo, many gnu and odd smaller buck of various sorts wandered back and forth in the near and distant foreground. The gnu, especially, gambolled and cavorted in bands through the waving grass fields. Two black rhino came down to drink, baboons called from the hillsides and the mournful voices of the Hagedash ibis held us enthralled until almost dark. But Capt. Potter, the Warden, and some of his guests have had very nasty experiences coming into close quarters with black rhino while motoring along the steep winding roads.

PARK PROBLEMS WITH DANGEROUS GAME

The white rhinos are not trouble-makers and it is not impossible that as the black rhinos increase it may be feasible to eliminate the dangerous individual by shooting. But it must be remembered that because of the great good luck which has followed the fortunes of the visitors to the Kruger Park these many years, the South African public has it firmly in mind that all game animals are entirely harmless to travellers in a motor car. All of the wardens and rangers as well as the Park Trustees thank fortune for the sheer good fortune which has lasted to the present time, but all with whom we discussed the matter told us that they realized that an accident was inevitable sooner or later and what the result might be to the cause of game conservation rested in the lap of the gods.

Mr. Papenfus, the chairman of the Parks board, is particularly concerned over the increase of elephants in the northern part of the Kruger Park, and it is not at all impossible that some limitation of circulation by visitors north of the Letaba River may not only become desirable but necessary. This would work no hardship as the vast majority of visitors to the Park go there only to see lions, paying no attention or caring little or nothing for the rest of the game. And it is in the southern portions of the Park that lions are most abundant.

There is no question, also, but that the limitation of visiting north of the Letaba River — which could be done by making some special charge perhaps for those who wish to traverse this area and who were not professionally interested — would aid in hastening the increase in numbers of many of the rarer and shyer antelopes which are still drifting into this part of the Park from Portuguese territory, and the probability of whose staying as residents is considerably predicated on the degree of tranquillity which they encounter. This applies partic-

ularly to eland as well as to roan and sable antelope and tsessebee.

A DIGRESSION CONCERNING LIONS LEONTOPHILIA

A flat lily pond, some high cat-tail rushes near at hand in dense beds — the pan, so called, the only water in a wide area of dry open woods — close at hand a dusty road, which near the pan widens to a dusty oval — all about empty tins, banana skins, orange peels, paper bags, candy boxes — these betoken the fact that lions may be seen here regularly. For most of the day a serried line of motley motor cars is ranged strategically so that the lolling occupants may gaze fatuously at some three or four fat, lazy lions rolling or dozing in the shade. This sight may be varied by watching the lions worry a new killed antelope. We suffered many delays from this adoration of the lion and gazed long at three great brutes dragging the intestines from a wildebeest, smearing themselves liberally with blood and the intestinal contents.

One learns from camp gossip that the success of a trip to the Park for the average visitor is in direct proportion to the number of lions seen. In a friendly bout of rivalry in this matter we heard one woman declare that she had seen no less than 89 lions that day: and moreover had for the first time in many visits “had her wind up” as her car had been charged by a lioness. Mr. Kroeger told us that this was not particularly noteworthy exaggeration. The same spirit of rivalry exists in approaching lions as closely as possible. One sniffs at the door of the car and this event is of far higher narrational value than merely barely missing the end of a lions tail with a forewheel. So it goes. The senior author was derided as a chrome tinted poltroon by sundry, for being somewhat lacking in enthusiasm at this strife for approximation. Yesterday the report of the Game Warden of Tanganyika Territory came to hand and while the slaughter involved

in the so-called control of predatory elephants and hippos is pretty disgusting reading, the remarks concerning the Serengeti lions coincides closely with the writers' ideas and those of the many other naturalists who realize the terrible harm which will be done to the whole cause of game conservation when the first lion resents some indignity or audacious intrusion by killing or injuring some asinine visitor. It is only because by day the lions are the most indolent of animals — and pretty stupid as well — that no accidents have as yet taken place.

INYALA IN THE KRUGER PARK

The addition of the area between the Pafuri River and the Southern Rhodesian line is a very valuable asset to the Park in that it increases the rather small section of the old Park suited to the peculiar habits of that most beautiful and elusive of the antelopes — the inyala. Mr. Botha, the ranger at Punda Maria, estimates that the number of inyala now in the old Park is probably in excess of two hundred and they are increasing very satisfactorily, troubled only by the abundant leopards that come down from the high rocky koppies just north of the Pafuri River. The animals have grown quite fearless and we saw them even at noonday.

Crocodiles have been pretty well cleared out of the Park. At first this seems rather a pity for they are of considerable interest to a fair number of visitors from the High Veldt, the Cape Province and abroad, but the same species of crocodile which occurs in the Park occurs all over tropical Africa and Madagascar and may be better protected elsewhere. The crocodiles certainly did for many bushbuck and inyala before they were exterminated.

KRUGER PARK BOUNDARIES, A SUGGESTION

I have pestered the International Committee and many warm friends in South Africa so frequently in the



Photo R.P. Barbour

*Signs giving advice to visitors
in the Kruger National Park*

past that I am a little hesitant about mentioning again the very unfortunate existence of some farms and native reserves which constrict the south central section of the Park so that it is much narrower than is desirable. If the boundary line could run in a more or less north-south line from the hippo pool on the Sabi River to Malopene this would make the town of Acornhoek the most important place of entry into the Park. The situation during dry years, especially, could be enormously improved. This is the moment while the gold mines are paying their enormous taxes into the Union government that it can afford to push through the National Park projects where the purchase of relatively expensive land in private hands is involved. This may be very difficult to do in the years to come. The golden opportunity exists right now.

THE VANISHING MOUNTAIN ZEBRA

These notes of observations are confessedly rambling so we feel that no apology is needed for jumping from topic to topic. Much thought has been given during the last few years as to the best method of saving the southern mountain zebra and the southern Cape hartebeest. The mountain zebra — probably not over a hundred — exist in rapidly diminishing numbers, as they always have existed in little wandering bands of a few individuals, each of which travel along well beaten paths. They rest by day along the ridges of the long bare mountain ranges which border the wheat-growing valleys and the Strandveldt area of the extreme southern and south-eastern parts of Cape Province. The lowlands are divided into the oldest, richest and most beautifully cultivated farms, where one sees today the old time farm life of the prosperous Dutch settlers at its very best, a spacious and pleasant life indeed. These great farms — wheat fields in the lowlands — pastures on the higher hillsides — in general run right up to the top of the mountain ridges, side

by side, great rectangular areas of several thousand morgen¹ each. The upper parts of these farms are continuous and unfenced; the lower reaches and the fronts along the roadside are usually bounded with wire fences, hedges or ditches. Thus it is possible, and indeed it is the regular habit of the mountain zebra, to come down at night and do more or less damage to the crops, according as the band is a large or small one. They come down to graze because the picking on the hilltops is poor.

The sheep farms, of course, are completely fenced. This keeps the zebras out and their coming down into the farms whose top boundaries are unfenced irritates the farmers, and they or their native farm labourers do occasionally kill them in spite of their being on the list of protected game. Their wandering habits make it difficult to be sure that if an area were set aside for their preservation there would be many zebra in it at the time it was fenced, as it certainly would have to be; while the driving of zebra, or any of the antelopes for that matter, is always likely to result in extraordinary mortality, because of excitement, exhaustion, or congestion of the lungs when the animals take their first rest.

The mountain zebra have bred in a number of Zoölogical Parks and do very well in captivity, and it may be that this is the way to build up a stock which could then be introduced into a suitable reserve after the number had increased considerably under semidomestication.²

THE CAPE HARTEBEEST, *BUBALIS CAAMA*

Concerning the status of the southern Cape Hartebeest, we could find out but little, and we hope for more information in due season from our friend and companion, Mr. Herbert Lang of the Transvaal Museum. In any case,

¹ 1 morgen equals roughly 2 acres.

² A letter from Captain Guy C. Shortridge, dated the Kaffrarian Museum, King William's Town, Cape Province, 17 September, 1935, states that it is probable that the Government will proclaim a new reserve near Oudtshoorn for the Cape Mountain zebra in the near future.

if the true *Bubalis caama caama* is found to be extinct, it is interesting to note that a very closely related race, *Bubalis caama selbornei*, still exists in considerable numbers in the Kalahari desert further north.

We may add here that we find a note — we think from Dr. Campbell — to the effect that there are about 40 red hartebeest of the Natal race on three farms in the midlands. The owners are at present trying to sell these farms to the Provincial Council. This offers a chance to save the last remnant of this fine antelope.

SOME NOTES ON THE STATUS OF THE WHITE-TAILED GNU, BLESBOK AND SPRINGBOK

Three animals of the High Veldt are among the most extraordinary and interesting of all African antelopes. Their status varies somewhat. The white-tailed gnu, commonly called the black wildebeest, suffered frightfully from the drought of the last few years and unless something is done to establish a special Park for this animal, with adequate artificial water supply, its outlook is very gloomy. The existing individuals are in private hands on farms in the Orange Free State. In times of drought the farmer naturally waters his cattle and sheep in preference to the gnus. Just now comparatively few are killed, but at that more are shot by sportsmen, who pay a high price for the right to do so, than is good for the perpetuation of the species. With all these antelope, where natural enemies have been exterminated, the careful elimination of the old non-breeding females, and especially of old and bad-tempered males, is absolutely essential for the most rapid increase of the herd. These gnus breed freely in captivity as the small herd on the slopes of Table Mountain proves, and the perpetuation of the species is purely dependent only on a reasonable expenditure of cash.

The case of the blesbok is not as unfavourable as that of the black wildebeest. However, with the exception of

some 600 animals in the Sommerville Reserve of the Orange Free State, all blesbok are in private hands. The Sommerville Reserve is not only not nationalized but is only a partial game reserve, and some buck are sold to farmers and animal dealers, and others to butchers as well. The New York Zoölogical Society purchased a blesbok last Spring through the ordinary channels, and a beautiful specimen it was. But the time has come when the exportation of blesbok should be — temporarily at least — entirely prohibited. The protection of this species presents no great problem. That is no reason why adequate measures should be postponed.

The third animal in this category is the springbok — an animal of extraordinary beauty and grace — once the most abundant of all South African animals — now pitifully reduced in numbers. Nevertheless, large herds, more or less scientifically managed, exist on many farms, for the animals propagate rapidly and springbok venison, deservedly, brings a high price in the market. Thus farmers have found that springbok can be raised at a profit and there are a number of herds in private hands, a number of wild bands still at large on the High Veldt — some of which we saw last year — as well as some 400 in the Sommerville Reserve, and an unknown but considerable number in the Reserves near Grootfontein and Walvis Bay in the mandated territory of S. W. Africa.

The perpetuation of the springbok offers no particular difficulty except that it should be remembered that no one of the reserves in which it occurs is nationalized, and the threatened prohibition of the sale of springbok venison, which has been recently announced in the South African press, may have exactly the opposite effect to that which was intended. If the keeping of herds of springbok suddenly becomes unprofitable instead of profitable, the farmers may feel unable to keep them, if actuated by sentiment alone. Every Africander loves the springbok best of all South African animals. Springbok biltong was

the nourishing and savoury staple which fed him on the long trek and which he ate in the evening in camp and on the march during all his well-fought fights. No antelope is so decorative, so agile, and but few so fleet. To every Boer the springbok is indeed the embodiment of the spirit of the high open veldt.

THE BONTEBOK PARK

In 1929 the government purchased 842 morgen of land from Mr. Piet Albertyn for a Bontebok National Park. This land lies 15 miles south of Bredasdorp. It is part of the old Albertyn farm called Zeekoe Vlei and is actually near the village of Gwarriebosch. The land is open, flat country — part of the area known as the Strandveldt to which the bontebok was always restricted. After the purchase of the land it was surrounded with a six-foot high, nine-strand wire fence, an area of 1,000 feet being left open. Through this gap, with the aid of seventy neighbours, 23 head of bontebok were driven — being those preserved through the efforts of Mr. Van der Byl and Dr. Albertyn, Mr. Piet Albertyn's father. Of this number 16 survived. At the time of our visit there were 44 individuals and 14 females were due to calf in August, so that the number at this moment is probably in the vicinity of 55 to 58. These antelope, with the nearly allied blesbok, are of great interest in that they represent the most bizarrely coloured and highly specialized modification of the bubaline stock. Every pose assumed and every motion of the living bontebok is that of a hartebeest and the markings on these two southern forms is in some degree foreshadowed by the faint stripes and shadow marks of the tsessebee and its allies. Beside the bontebok in the Park, there are some 20 individuals in the hands of another branch of the Albertyn family. This gentleman declines to sell any of these and it is uncertain whether they are increasing or not. It is also rumoured that there is some blesbok blood in this

herd. Mr. Fred Albertyn, supported by an excellent native ranger, is at present the proud warden of these extraordinary beasts. The species owes its existence solely to the foresight of his father and grandfather, and one of their sympathetic neighbours. Mr. C. T. Titterton, the magistrate at Bredasdorp, is untiring in his efforts to support Mr. Albertyn in every move which makes for the more scientific management of the priceless herd in their care. Naturalists owe these gentlemen a great debt of gratitude, and it is rather a question whether the Bontebok Park should not be named the Albertyn National Park, as it certainly should be extended to the sea. This extension is the more necessary inasmuch as this little Park contains a number of individuals of several species of antelope which are fast disappearing from southern South Africa, viz., the grysbok, the southern steenbok, and the vaal rhebok.

The very existence of this park, as well as many other accomplishments of a similar nature, are thanks to the far-sighted intelligence and the genuine patriotism of Mr. Pieter C. Grobler, who has held either the portfolio of the Ministry of Lands or some other important position in the Cabinet for these many years. The naturalists and wild life lovers of America salute him with affectionate respect.

SEA LIONS, A RECREATIONAL ASSET

Seal Island, Mossel Bay. This island, quite near the shore and out a couple of miles from the city, supported at the time of our visit a colony of between one and two thousand individuals of the southern sea lion, or fur seal. Formerly these animals were killed in large numbers, for there existed, and still exists, a ridiculously exaggerated idea of the weight of fish consumed by each individual per diem. Where a few pounds of fish suffice to keep the constantly active sea lions in our Zoölogical Parks in perfect health, it is by no means probable that they con-

sume many times this amount in a wild state. Latterly, however, the citizens of Mossel Bay have discovered that in the Seal Island at their front door they have a recreational asset and an attraction for visitors which they little suspected. Now, during the spring and summer season, many visitors come to Mossel Bay to see the seals, and this, the most readily accessible of any of the colonies of this species, is safe from molestation in future, although it is not improbable that the natural increase may find difficulty in taking care of itself. There are no other rocky islands near by and this animal does not haul out on sandy shores such as stretch for miles around Mossel Bay.

SOME FOREST RESERVES

Knysna Forest Area. The Knysna and Tzitzikamma Forests, famous for their scenic beauty, are a little disappointing as forests to the American visitor, for the woods are not continuous stretches of unbroken forest but rather an intricate maze of gorges and steep river valleys running down to the Indian Ocean. The moisture-laden winds from the sea sweep up these gorges far inland, carrying a heavy mist or a light drizzling rain, so that the bottom and sides of these ravines support a dense and tangled growth, with here and there a group of Podocarpus or yellow wood trees of really enormous size. Travelling along the coast one dips down and out of these gorges on a road narrow, very slippery, very crooked, and steep. Emerging again, an area of open grasslands for perhaps a number of miles will be traversed and then another dip in and out of another forested gorge. These ravines are from 600 to 1,200 feet deep. There is a considerable exploitation of timber, which is of high quality and great value; nevertheless, no cutting is allowed near the road and a considerable area is to be reserved. As a matter of fact, several of the river gorges are well worthy of setting aside as National Parks, for the scenery is extra-

ordinarily wild and grand, and unique in character. Zoologically, this area still awaits thorough exploration. Dendrohyrax, however, is known to occur, so that at some time in the past these forests must have been continuous with the tropical forests far to the northward, for Dendrohyrax lives under no other conditions.

The area still supports a few elephants. To be sure, these are seldom seen as they stay in the forested gorges along the upper reaches of the hills up which these gallery forests extend, as tongues of woodland in a region otherwise covered with the typical South African vegetation of heaths and proteas. Whether these elephants can be protected so that they increase, remains to be seen. At present they are occasionally poached. In June 1935, near Avontuur, a forest ranger saw 10 adult elephants and one calf, while other elephants were seen near the town of George sufficiently near the same time to be quite certain that they were not the Avontuur band. Thus there may be twenty or twenty-five elephants in the entire area. It is particularly interesting to point out that these elephants are not of the true South African type, such as are found in the Addo Bush. The real South African elephant did not live in the rain forest, and fed on an entirely different type of vegetation. The Knysna elephants apparently are the same as the race found in the northern part of the Kruger National Park. Especially along the edges of the forested area, a certain number of bushbuck and grysbok occur.

THE ADDO ELEPHANT NATIONAL PARK

The Addo Bush is one of the most extraordinary and interesting spots on the whole African continent — arid and worthless for agricultural purposes, the land is covered with the most inexpressibly dense low scrub of an enormous variety of thorny and succulent Xerophytes, many species of Euphorbia — some but a few inches in

height, others many feet tall — and aloes without number. The trees, few if any of which are over twenty feet high, are hung with grey *Usnea*-like beards. Unfortunately the area is not very large; although the present park is capable of considerable expansion on one side, the other abuts directly on a citrus-growing region of large extent. Up to 1924 (?) the Addo Bush supported a considerable herd of elephants of a singularly truculent and destructive nature. Their forays at night played havoc with the orange groves and the more the elephants were shot at by settlers, whose marksmanship was bad, the more ugly and vindictive the elephants became. Finally, to the everlasting disgrace of the Cape Province, their extermination was determined upon, before other means of persuading them to stay within the Addo Bush had ever been thoroughly tried out. The task of killing the elephants was entrusted to Major Pretorius, the famous scout during the Great War, and one of the best rifle shots who has ever lived. On one occasion, being charged by five of the Addo elephants, he is said to have dropped them all with a single shot each. No one knows, and apparently no record was kept, of just how many elephants Pretorius killed before the chorus of protest from the whole world called off the slaughter. Estimates range from 45 to 80, the latter figure being the one given me by Mr. G. G. Johnson, the ranger in residence. He, associated with Mr. Trollope, a former ranger in the Kruger Park, now farming near Addo Bush, has control of the Park.

Sixteen elephants were left in the Park by Major Pretorius. Several of these have died and several more had to be killed, until the number was reduced to eleven. Indeed, another rogue bull has got to be killed at the present time as he has become very dangerous indeed. There are now seventeen adult elephants and several young in the main herd, all fine animals led by a gigantic bull. This group is very nocturnal in its movements and has been taught to stay strictly within the bush area.

This has been accomplished in part by fireworks and otherwise frightening the animals, and by hauling into the bush and dumping on the ground many tons of cull oranges, which are gladly contributed by the surrounding fruit growers, the Park having only to supply the wagons to haul the fruit. Thus the elephants get plenty of oranges during the season when the fruit is ripe without going out and robbing the groves.

The present area of the Park, which is $41\frac{1}{2}$ miles from Port Elizabeth, is 8,400 morgen. The government has already purchased land to make the Park larger, but it can be, and should be, doubled in size, and the land for this purpose can be brought now for from £2 to £3.10.0. per morgen. The Addo Bush always has been famous for the amount of wild game its extraordinary vegetation can support. Even now, besides the elephants, there is probably a bushbuck per morgen. I know of no other place where bushbuck can be seen at close range feeding along the roadside at midday. The buffalo have increased from 30 to over 100, and the following list gives some idea of the variety of creatures in the Park. I set it down exactly as I got it from Mr. Johnson's lips: 12 kudu, many grysbok, blaaw duiker, aardwolf, silver jackals, serval, porcupines and aardvark, some steenbok, leopards, bush pig, caracal, ratel, and springhaas. No baboons, hyaenas, or wild ostriches are left in this region.

CHARACTERS OF THE TRUE SOUTH AFRICAN ELEPHANT, *LOXODONTA AFRICANA AFRICANA*¹

It is extremely fortunate that some of the South African Museums made special efforts and saved a few specimens for preservation at the time of the elephant slaughter. These — only moderately well mounted, to be sure — are nevertheless specimens of the greatest interest. There is a pair and a skeleton in the Albany Museum at

¹If indeed this is the correct designation of the race.

Grahamstown, another mounted specimen in the Caffrarian Museum in King William's Town, whereas what is said to be the largest bull shot by Pretorius is mounted in the Natural History Museum at Durban. These specimens all show the characteristics which make this race so outstandingly distinctive. The heavy body and short legs, the rather small and very triangular ears, and above all the short but extremely stout and heavy tusks. Incidentally, several pairs of these are to be seen in Cecil Rhodes' Library at Groote Schuur. It would be interesting to know the status of the elephants in the Kakaoveldt in the northern part of southwest Africa. From the descriptions, this region and its elephants seem to be more like those of the Addo Bush than any others. In conclusion, we may say that if the area of the Park were doubled, the bush-buck and lesser game would increase and grow far more tame. Now they wander out and are shot and the shooting may be heard pretty much over the entire Park, owing to its small size. In the event of the increase, more wells would need to be dug, provided with windmills, to make artificial drinking places, the mills being enclosed by fences of railroad iron, sunk deep in concrete, for the elephants evidently dislike the sound of the mills pumping and several were pulled down and torn to pieces before they were properly protected.

The city of Port Elizabeth is now wide awake to the fact that the Addo Bush is a tremendous potential attraction for visitors, and public-spirited organizations and individuals have subscribed to aid road building in the Park as well as fencing, and since our visit we have heard that money is to be forthcoming to complete a circular drive around the outer edge of the bush, including the crossing of a high hill from which most of the Park can be seen, as well as the erection of well-protected watch towers which will overlook the vleis where the elephants usually spend their days sunning themselves and dusting each other.

It is a question whether the Wahlberg National Park would not be an excellent name for this area, perpetuating the name of the famous Swedish pioneer naturalist who collected in southeastern Africa nearly 100 years ago.

BIRD COLONIES

Bird Island. While Mr. Lang and the senior author visited Addo Bush, which at present can be visited with convenience by only a small party, the other members of the party and the junior writer were enabled to visit the Bird Island some 34 miles northeast of Port Elizabeth, the government courteously allowing them to go out on the lighthouse tug "John Dock," which chanced to make its monthly visit while we were at Port Elizabeth. This island is populated by a gigantic number of birds of two species which occupy it at two seasons. At the time of our family's visit in July, the whole place was covered with many thousands of the malgache (*Sula capensis*). They had finished breeding and the lighthouse keeper expected to awaken any morning to find that they had all disappeared. A few jackass penguins, perhaps not over one hundred, had already arrived and begun to nest, but the great body of these birds appears later in the year. The birds' eggs are rather ruthlessly harvested but apparently the number of birds has not yet been seriously affected. There are a number of these Bird Islands scattered around South Africa, many more on the western than on the eastern side, Dassen Island being especially famous for its enormous Penguin Colony.

THE RESERVES OF NORTHEASTERN ZULULAND

As we have indicated in the introduction to this report, the four Reserves there mentioned should by all means be united if this is humanly possible to accomplish. To be sure, the Mkusi Reserve is somewhat remote and the



Photos T and R.P. Berbour

*Elephant in Kruger Park
to show the long and rather narrow ear
Bird Island, north of Port Elizabeth
A few of the Masked Booby (*Sula capensis*)*

opposition to its continued existence on the part of the settlers is greater than in the case of the other regions. The Mkuzi Reserve not only contains the only lions in Natal, but the last remnant of the Natal race of Livingstone's antelope to the number of about 100 individuals. In this Reserve there are also 1,000 inyala, 12 black rhino, impala, and other smaller antelope, as well as wildebeest, zebra, and waterbuck. If it is too expensive a project to join the Mkuzi to the other Reserves, it is certainly well worth maintaining as a separate entity. The area of the Mkuzi Reserve is 125 square miles or 80,000 acres, according to figures given by Mr. Charters, Provincial Secretary of Natal. Thus this area is large enough to be a self-contained unit, if force of circumstances make this necessary. Every possible effort should be made to prevent the abolition of this Reserve and a full-time white ranger should be appointed for its supervision.

The Umfolosi Reserve is apparently in less danger than formerly, inasmuch as most or all of the cattlemen with whom we talked, much as they loathe game in general — though they will not usually admit this — confess that public sentiment would be tremendously outraged if the Southern white rhinoceros were to be exterminated. These remarkable animals have thrived to quite an extraordinary degree and there are no less than 200 individuals in the Umfolosi as well as the dozen or so which have been baited and tolled across into the Hluhluwe, where they are established and breeding, as two young ones had been seen just before our visit. Since that time a single white rhino has been killed by native poachers, but this is happily a very rare event. The whole Umfolosi Reserve is rather low-lying and becomes fearfully dried up during long periods of drought; nevertheless, besides the rhino it supports a large game population, as the following figures derived from Mr. Charters go to show. There are roughly 500 buffalo, 600 wildebeest, 350 zebra, 150 waterbuck, 250 kudu, 600 bushbuck, 150 reedbuck, 100 mountain

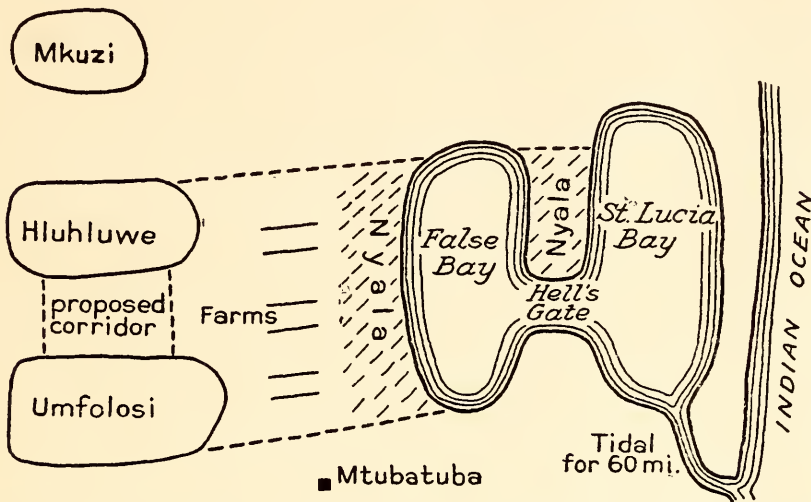
reedbuck, a few black rhino, klipspringer, duiker, red duiker, and warthogs.

Mr. Harris, who discovered the principle of the Harris tsetse flytrap, is employed as ranger in the Umfolosi Park, where he is continuing experimentation with his traps. That the invention is an ingenious one, and that the traps catch flies, is undoubted. Mr. Harris, however, acquired the right to charge a royalty on each trap. This, with the cost of making them and the cost of servicing them and the fact that they must be used in large numbers, makes trapping an expensive procedure. The rhinos in the Umfolosi Reserve are under the direct care of Capt. H. B. Potter, who resides permanently in the Reserve next described.

The Hluhluwe Reserve, about 15 miles distant from the Umfolosi, roughly 40,000 acres, supports beside the white rhino, about 90 black rhino, some 400 buffalo, a large number of zebra, wildebeest, waterbuck, kudu, warthog, bush pig, bushbuck, reedbuck, etc., as well as the rare semango monkey. Curiously enough, there are no jackals in Zululand. In the absence of many large predaceous animals, with the exception of hyaenas and baboons so destructive to young antelope, game may tend to increase over-rapidly in these Reserves. A zone for licensed shooting around the areas would not only more than provide the £2,000 a year at present appropriated to administer the Reserves, but would protect the present settlers as well. That the sentiment against the game is by no means unanimous is shown by the fact that some of the settlers are proud of the herds of inyala on their farms, and we think most are now ashamed of the hideous and entirely useless slaughter which took place a few years ago, when antelope in enormous numbers were slaughtered to protect cattle worth but a trifling fraction of the game destroyed. No one knows how many head of antelope were slain. Estimates vary between 20,000 and 45,000. The less said about this butchery the better for the good name of Natal

throughout the civilized world. The affair was an egregious disgrace.

In plain sight from the lovely hilltop on which the Hluhluwe rest-houses are located, the placid waters of St. Lucia's Bay lie along the horizon. The sub-joined sketch gives a general idea of the "Lake" as it is usually called. We did not visit St. Lucia ourselves and know it only from the vivid descriptions of Capt. Potter and Dr. Campbell,



Schematic Diagram Showing General Relations of Zululand Reserves and Proposed Method of Uniting Them With Saint Lucia Bay

the president of the Natal branch of the Society for Protection of African Wild Life.

On the peninsula extending between False Bay and St. Lucia Bay proper, inyala occur, and if this peninsula were fenced across at its base these inyala would be really safe. The shores of the bay have been declared a bird sanctuary, and spoonbills, flamingoes, herons, cormorants, and gulls abound. There are still a considerable number of hippos, particularly in the False Bay. These are occasionally poached, a couple having been killed while we were visiting Capt. Potter. Hippos in the northern part of Natal are disappearing fast. Many of the old natives have guns which they keep hidden in hollow trees, and all of them would rather have bullets than money any

time. It may be of interest to note that the last hippo was killed in Durban Bay in 1898. The St. Lucia bays swarm with game fish, and an increasing number of sportsmen visit the waters each year to fish. As these numbers increase, it will probably be more difficult for the natives to continue persecuting the hippos.

So much for a general description of the Zululand Reserves; as I have said before, their beauty is quite indescribable. If and when the Burchell National Park is established, it will soon have a worldwide fame.

THE KRUGER PARK IN 1935

After motoring through Swaziland, where hardly a living animal of any sort is to be seen, we entered the Kruger Park at Malelane. By great good fortune we found Mr. Herbert B. Papenfus, K. C. Chairman of the Board of Trustees of National Parks. Before turning into our adjoining rondavels for the night, we had a long and delightful talk by the camp fire. We were delighted to learn that he was in favour of further enlarging the Kruger Park and of uniting and nationalizing the Zululand Reserves. This being done, Natal would then of course be given a suitable representation on the National Parks Board. Our old friend, Mr. Fourie, Minister in the Union Cabinet, who most unfortunately we did not meet on this trip, had also visited the Park recently, and long a staunch supporter, he also expressed in a recent letter his belief that the Park should be enlarged. The Park is a great and unique monument to a very great man. A mighty hunter, one of the mightiest in his youth, he foresaw the danger that all the game being killed off, generations to come would have no chance to see what the old Africa once was like. Hence, his original setting aside of the Sabi Reserve, which has now grown to be the Kruger National Park.

The visitors to the Park are constantly increasing.

8,599 persons visited the Park in July 1935, as against 8,275 in July 1934, and more were expected in August. This means that over Sundays and holidays there is tremendous congestion in the camps south of the Letaba River. It is most unfortunate that the new rest huts, instead of being the old South African rondavels scattered about, are square box-like buildings in long lines, and when these are backed up by ranks of dirty white tents, the effect of a slovenly military encampment is all too realistic. And at this point it may be well to add that in view of the high charges made, the meals served should be a little better and the bedding issued should be very much cleaner. There is no excuse for vermin when the sterilizing effect of the African sun is well known. There should also be enough linen to supply pillow cases and two sheets for every cot, especially when the same amount is charged whether these luxuries are provided or not. This involves no reflection on the keepers of the several camps, who do the very best they can to make everyone as comfortable as the material and labour at their disposal will permit. To be sure, South African visitors usually bring their own bedding and camp gear, but this is not so easy for visitors from overseas. And yet it is these very visitors who carry the fame of the Park far and wide.

In our first journey to Kruger Park we did not get further north than some twenty or thirty miles north of the Letaba River. This year we were enchanted by the scenic beauty of the extreme northern portion of the Park. The Camp at Shingwedzi is in a beautiful grove of spreading shade trees, a pleasant relief from the dusty, sunbaked sites of the southern camps, built in such sites because the country during all the dry season is dusty and sunbaked, and indeed, except for the animals, there are few natural features in the southern or central parts of the Kruger Park which arrest the attention. To be sure there are some pretty Kopjes near the Pretorius Kop and some fine distant views of the Drakensberg Moun-

tains. Let us digress here to advise anyone who motors to the Park from Pretoria to be sure and take the road through the Schooman's Kloof, a magnificent gorge or canyon, superbly beautiful.

The northern part of the Park, however, is strikingly different from the southern. The fine forests along the Pafuri River afford numberless lovely views and the Hippo Pools in this river are enchanting. The stately stands of Baobab trees remind one that, florally, this area is sharply set off from the Mopane (*Copaifera mopane*) zone in the central part of the Park or from the open Acacia scrub of the southern part. From Punda Maria to the Pafuri and Limpopo Rivers the country is folded into well-forested hills, and steep rocky crags and precipices provide a congenial home for innumerable baboons and leopards. It is perhaps a pity that the most beautiful part of the Park is the one which it is most important to preserve as undisturbed and tranquil as possible. For this reason perhaps the relative inaccessibility of the area is a great advantage.

We visited the Park this year from its southern boundary to its extreme northern frontier and then back again to spend a last night at Crocodile Bridge before crossing the Portuguese line and motoring to take ship at Lourenço Marques. A few moments after leaving Malelane, we began to see animals, and were never more than a short while out of sight of game during our tour of over 500 miles. Indeed, at the very last moment before crossing the International line, we saw a mother hippo with a young one, but a few weeks old, asleep on a grassy island in plain sight of the causeway and bridge over the Komati River.

The general conditions obtaining throughout the Kruger Park are too well known to merit lengthy exposition. We saw more than the usual numbers of giraffe and some grand bull elephants close at hand. As previously, we met with the most courteous consideration from all the

rangers and camp-keepers, from Mr. Kroeger at Malelane to Mr. Botha at Punda Maria in the north. To name them all would simply be to call the roll of names well known to every lover of the Park. Mr. Wolhuter we did not see this year, although we met him last; so also Col. Stevenson-Hamilton was detained in Pretoria by the serious illness of his charming wife and young child, who before we left were on the road to recovery. It is difficult to thank all of the persons who helped make our trip so successful, and who enabled us to make every hour in South Africa count. A few persons, however, must be particularly thanked. Mr. Potgieters, the efficient secretary of the National Park Board in Pretoria, not only notified all the rangers and provincial secretaries concerning our journey, but provided innumerable introductions to all and sundry who could aid us with information and advice. Our old friend Professor de Villiers, of Stellenbosch University, sent us from Europe letters to his relatives in Bredasdorp. Mr. Austin Roberts, of the Transvaal Museum, came from Pretoria and spent several days with us in the Kruger Park, giving us the advantage of his unrivalled knowledge of South African bird life in the field. Old scientific correspondents did us good turns at every meeting. Thus Mr. Hewitt, Director of the Museum at Grahamstown, took us to see the Bushmen paintings in the walls of the rock shelters of the farm called Glen Craig, belonging to Mr. Van Venners. Capt. Shortridge, of the Museum at King William's Town, opened the whole place up for a long evening visit, as we were late in arriving there. Mr. Chubb cancelled a long-standing engagement to explain to us the unique educational programme which he is carrying out at the Durban Museum, in part, I am happy to say, with the aid of funds provided by the Carnegie Foundation of New York. Dr. Gill was absent from the Museum at Capetown, indeed he had been a guest at our house in Boston shortly before our sailing to South Africa. In his absence, Dr.

Barnard, the acting director, showed us many courtesies. I was not surprised to find our landing at Capetown and the arrangements for our trip to be aided and simplified in every way through the kind letters which Mr. Minister Fourie had sent to the Provincial Secretary and railroad and custom authorities. The Hon. te Water, the High Commissioner of South Africa in London, at Dr. Phillips request gave us many friendly letters of introduction, which opened many doors. Mr. te Water is a loyal friend of all who are interested in South African Conservation.

We have waited until the very last to try and find words to express our thanks to Mr. Herbert Lang, who was again with us throughout our entire trip. We know of no one who is so tireless, so thoughtful, so efficient, or who is such an extraordinary mine of information concerning the wild life of Africa and the history of zoölogical exploration, throughout the Continent. What Lang has done for the cause of wild life protection will never be known. More than one Reservation he has saved from abolition pretty nearly single-handed, and this we have from well informed lips other than his own. His superb photographs have given the Kruger Park and other zoölogical and botanical features of South Africa a dignified publicity which they would never otherwise have had. These photographs are to be seen framed in hotels, railway trains and stations, in every museum and public building from one end of the Union to the other. A deal of this publicity has cost him money which he could ill afford to spend, but we know of no person less self-seeking. We are proud to call the first field naturalist of Africa our warm and affectionate friend.

