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ROYAL NATIONAL PARKS OF KENYA

**REPORT**  
**1959-1960**

*PART I Report by the Chairman of Trustees*

*PART II Report by the Director*

P.O. Box 2076, Nairobi, Kenya.

ROYAL NATIONAL PARKS OF KENYA

(30th June, 1960)

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(30th June, 1960)

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<i>Ngong National Reserve</i>		R. B. Jolley, Esq., <i>Assistant Warden</i>
<i>Tsavo Royal National Park</i>	}	C. W. Marshall, Esq., <i>Warden</i>
<i>(West)</i>		J. R. Nesbitt, Esq., <i>Assistant Warden</i>
		S. Trevor, Esq., <i>Assistant Warden</i>
<i>Tsavo Royal National Park</i>	}	D. L. W. Sheldrick, Esq., M.B.E., <i>Warden</i>
<i>(East)</i>		P. R. Jenkins, Esq., <i>Assistant Warden</i>
		H. W. Kearney, Esq., M.B.E., <i>Assistant Warden</i>
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<i>Park</i>		
<i>Aberdare Royal National Park</i>		
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		F. D. Lovatt-Smith, Esq., <i>Assistant Warden</i>
<i>Marsabit National Reserve</i>	}	G. H. Dalton, Esq., <i>Warden</i>
		M. C. P. Moore, Esq., <i>Assistant Warden</i>
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<i>Park</i>		

African Ranger Force for all areas . . . . . 186

# ROYAL NATIONAL PARKS OF KENYA

## PART I

### REPORT BY THE CHAIRMAN OF TRUSTEES

In my last Report for 1958 I expressed great hopes that the Kenya Government would find it possible to pronounce its decisions on the recommendations of the 1956 Game Policy Committee. This pronouncement emerged towards the end of 1959 as a Sessional Paper entitled "A Game Policy for Kenya". It formed the subject of a two-day debate in Legislative Council, when Members on both sides of the Council criticised and condemned the Paper as an unrealistic attempt to state a game policy for Kenya, or to place game preservation on a sound workable basis.

The 1956 Game Policy Committee, after two years of serious thought and consideration of many problems, issued a report which was the product of expert knowledge. Although we do not agree with those sections of the Report relating to National Reserves, there are other recommendations of great importance. It is therefore most disappointing to find that the Kenya Government has altered, emasculated or rejected some of those recommendations, giving the lack of finance as its main reason for doing so. The Government's unwillingness to grant a higher priority for the relatively small financial requirements of game preservation is more than apparent from the unconvincing references to the lack of finance, over-emphasised in every possible section of the Sessional Paper.

For example, proposals for small additions to the Tsavo Royal National Park were stated to be desirable, but the Government maintains that their implementation will require additional finance which is not likely to be available in the foreseeable future.

Similarly, a proposal to establish a National Park on Mount Marsabit is rejected by the Government for the main reason that it would require additional finance which is not available. The proposal for a National Park on Mount Elgon suffers the same fate. The most unreasonable and unnecessary reference to Kenya's poverty appears under the grandiose heading of "Cooperation with other African Territories", thus:

"The Government agrees that as many game problems are common to neighbouring territories, there should be adequate liaison between the territories. Lack of finance may, however, inevitably curtail such liaison at present."

This statement leaves one in some doubt as to what the Government means by "liaison".

I am fully aware of the many urgent demands on Kenya's public purse and of how each Department or activity of the Government justifiably claims more than the purse can yield. I find it difficult,

however, to reconcile the numerous references in the Sessional Paper to the lack of finance with the following statements of policy in the same Paper:

“The Government recognises that Game is the most important tourist attraction in the country and that the tourist industry is of considerable economic importance. Proper land usage in an age where the economic development of land is proceeding very rapidly must take into consideration the asset of wild life as forming a part of the natural wealth of the country so as to preserve the conditions under which the tourist industry can expand.

“The Government further recognises that game has an aesthetic and cultural value and that its preservation is a duty which the Government and people of Kenya owe to posterity and the world. Practical steps to preserve it must therefore be continued.

“In the last resort the complete preservation of game can only be assured fully in National Parks.”

This Sessional Paper will not redound to the credit of the Kenya Government when judged by lovers of wild animals all over the world or by future generations, especially if examined in relation to the Government's attitude towards the widespread destruction by poachers which still threatens the very survival of many of our wild animals. The only reference to poaching in the statement of a Game Policy for Kenya is as follows:

“The Government appreciates that the position relative to poaching is still very serious. The Royal National Parks have a mobile anti-poaching team and the Game Department has another.”

As a result of the unfavourable reception accorded to this unfortunate Sessional Paper in the Legislative Council, we were grateful to find that the Colony's Budget for 1960/61 contained an additional grant of £24,000 to the Game Department, and an allocation of £150,000 over a period of three years for development projects such as the construction of fencing, roads, and tourist accommodation, in the Royal National Parks. We hope that the Government may yet see the glaring justification for granting some extra money for the running expenses of the Royal National Parks and for the prevention of poaching.

During the period under review the Board of Trustees was greatly strengthened by the addition of new members to the Board, whom we welcome, namely:

The Hon. Michael Blundell, M.B.E., M.L.C.; F. T. Holden, Esq., C.B.E.; J. S. Karmali, Esq.; The Hon. Sir Charles Markham, Bart., M.L.C.; J. M. Ole Tameno, Esq.

We were privileged to appoint as an Honorary Trustee Dr. Fairfield Osborn, President of the New York Zoological Society and of the Conservation Foundation, and we extend our good wishes to Major I. R. Grimwood, who has assumed the position of Chief Game Warden in Kenya and is *ex officio* a Trustee of the Royal National Parks.

We are pleased that constitutional changes in Kenya have brought about the merger of the two Ministries previously concerned with tourism and game preservation. The Permanent Secretary of the combined Ministry is now also an *ex officio* member of the Board of Trustees.

Finally, I acknowledge the loyal and dedicated service of our staff, aspects of which are described by our Director and Chief Executive, Mr. Mervyn Cowie, whose report is attached, and to whom once again I pay tribute for his enthusiastic and invaluable leadership in all aspects of the administration of the Royal National Parks and the vital preservation of game in East Africa.

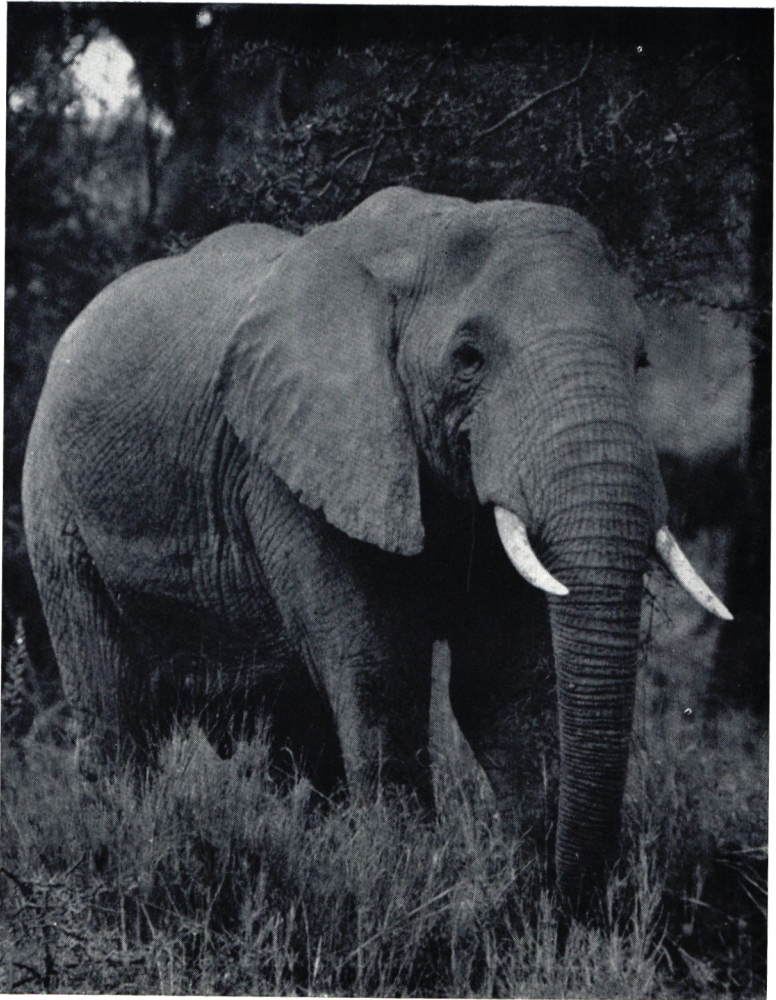
Royal National Parks of Kenya

ALFRED VINCENT

*Chairman of Trustees*

Nairobi,

September, 1960



Photograph by H. G. Drewett.

# ROYAL NATIONAL PARKS OF KENYA

## PART II

### REPORT BY THE DIRECTOR

#### GENERAL

This Report covers a period of eighteen months to the 30th June, 1960. Previous Reports related to each calendar year, but it is now necessary to conform to the financial year.

No period in the history of the Royal National Parks is without achievement and failure; that is the way in all walks of life. Constitutional changes, political upheavals, a statement of game policy and financial stringency were all overshadowed in our own affairs, however, by the great privilege of a visit by Her Majesty Queen Elizabeth the Queen Mother. The high-level road over the Aberdare range of mountains was officially opened by Her Majesty, and a night at "Treetops" was included in the programme of the Royal visit. An account of this memorable journey is given in the chapter relating to the Aberdare Royal National Park.

Long as I have been involved in the preservation of wild life, I have never lost my ardent hopes that people concerned with the control of finance will recognise the immense, although somewhat intangible, value of saving some of our wild animal kingdom from the plough, the poisoned arrow, the native cow or the hunter's bullet. These hopes rose high in 1959 when the Government announced its intention of issuing a statement of game policy, based on the recommendations of the 1956 Game Policy Committee. This statement merits little comment other than to say that my hopes were almost irretrievably dashed.

Why, I ask, do so many people allow themselves to be beguiled into believing that the world will become a better place by making rockets to reach the moon or by jockeying fervently to increase man's power, wealth and possessions? If only those in authority could extract themselves from the political and economic maelstroms in which they revolve and look upon seething humanity objectively, they would see the folly of usurping nature's plan. We humans require an occasional glimpse of a natural scene to keep our sense of balance; we need often to dwell back on the solid earth from which we have sprung, and like animals we should benefit from the pleasures and lessons of a simple life. That, in my view, is the powerful, basic and abundantly justifiable reason, but not by any means the only reason, to preserve wild life and to isolate wild sanctuaries from the onslaught of modern trends.

Tragically, only those who come after us will be able to judge whether we have acted prudently or not. The architects of the Kenya Government statement of game policy, rendered ineffective in almost

every paragraph by a repetition of a predicted lack of finance, will not be here to pay the penalties of their mistaken parsimony. More is the pity, as there is so little time left to save the remnants of Africa's once abundant wild animal population.

Thus I am compelled to accept, after a glimpse into the future, that the preservation of wild life in Kenya will only be possible in restricted areas of total protection, probably surrounded by fences and barriers and managed by man, aided by as much scientific knowledge as he can acquire to replace the laws of nature, which are progressively being thrown out of operation. The restriction of wild animals in sanctuaries allocated for the purpose is not an illogical plan and would, no doubt, satisfy many conflicting claims that compete for the use of land. What is illogical is that the Kenya Game Department is inadequately staffed and equipped to prevent the extensive damage to crops, property and livestock done by wild animals in places not allocated for their total protection, while within the sanctuaries the denizens are by no means safe from destruction wrought by native poachers.

These are only some of the conundrums that confound any preservation plan, and they will continue to be thrown backwards and forwards between wisdom and expediency. The glaring fact remains that wild animals in Kenya can no longer take care of themselves, nor can they survive if the agencies designed for their protection have to operate unsuccessfully on shoe-string finance and without scientific knowledge and research.

Perhaps the despair which is implicit in my observations on the game situation in Kenya is the last stage that has to be reached before there is a change of heart; I hope it is. If not, Kenya will lose its unique cultural and aesthetic heritage of wild life and one of the main pillars of its economic structure.

The decline in wild animal populations and the insecurity of areas scheduled for their protection is not confined to Kenya. The political winds of change blowing across Africa have caused uncertainty and misgivings as to the future of wild life in the Congo Republic, in Somaliland, and in other African Territories. If, in this scramble for speedy political power, no thought is given to saving wild life, it will be a disaster extending far beyond the shores of Africa. The abundant wealth and variety of wild life with which Africa is endowed is a greater heritage than any other continent can claim. Once destroyed, wild animals can never be recreated.

It is for these reasons that all nations should be concerned with the survival of wild life in African Territories. In the words of King George VI, "The wild life of today is not ours to dispose of as we please; we hold it in trust; we must account for it to those who come after." I was therefore most encouraged by the endeavours and

decisions of the International Union for the Conservation of Nature and Natural Resources, as confirmed by resolutions passed at the last General Assembly held in Warsaw. As a delegate to this conference I was impressed with the interest taken by the United Nations in the preservation of wild life. Following a resolution of a conference of the I.U.C.N. in 1958, the United Nations Secretariat is now preparing a list of National Parks all over the world. Any country that has progressed to the stage of preserving wild animal habitats on a national status, will now also have the distinction of having such places recognised in an international list.

Moreover, the Warsaw Conference initiated a programme for Africa which I hope will lead to more technical aid for those territories which need it. This technical aid will, I hope, take the form of scientific advice, research and finance, through the agencies of U.N.O., all of which are vital in any long range preservation plan.

In addition to the prospect of technical aid, I also have hopes of inviting specific contributions from international sources, to the Royal National Parks of Kenya "Water for Wild Animals Fund". This Fund was opened for the purpose of providing water in arid areas to save wild animals from dying of thirst, or being forced to migrate in search of water and by so doing falling victim to the poisoned arrows of the poachers.

The initial project was a borehole financed and drilled by Mowlems, the well-known construction company, and although the first hole was unsuccessful, subsequently another borehole was put down which yielded a good supply of fresh water. Contributions continue to flow into the Fund and the total now amounts to nearly £2,500.

The urgent projects which I have in mind for the employment of this money include the following.

A borehole in what is called Rhino Valley, in the Western Section of the Tsavo Royal National Park, heads the list. This would serve a large area of good grazing which is waterless except in heavy rainy seasons. Hydrological surveys and geological advice all point to very good chances of obtaining water in this valley. A borehole of this kind costs anything up to £1,000 to drill. It has to have an engine and pump to supply a reservoir to maintain a regular supply of water in a drinking trough. A fully equipped borehole and an automatically controlled pump—all suitably protected against damage by meddling elephants—costs up to £2,000, and so the Fund has to be increased very considerably before the Tsavo Royal National Park can have enough water.

Another section which is in great need of water is in the far North of the Tsavo Royal National Park. I have always hoped that water might be impounded in the lower reaches of the Tiva River at

Ndiandaza, where it would provide watering for a very large area which is otherwise dry for years on end. Surveys and investigations, however, revealed that a large dam is not feasible, but that shallow boreholes might be successful. Tests are being continued, and, if the prospects of finding water are good, this area will merit a high priority for allocations from the Water Fund.

Another project, which has already been partly completed, is to draw water from the pipeline supplying water to the Murka Kyanite Mine in the Western Section of the Tsavo Royal National Park. By the kind permission of the directors of G.F.K. Refractories Ltd., two water-holes have been constructed on the thirteen mile route between the Tsavo river and the Mine. These have proved immensely popular with all kinds of animals, and have ensured a wider distribution of the grass-eaters. Money for these water-holes has come from the proceeds of selling souvenirs made by Warden Marshall out of butts and tips of ivory recovered from poachers. Ivory plaques bearing pictures of animals artistically painted by Pauline Clay, and ivory paper weights inlaid with a National Parks badge, have been put on sale at various hotels throughout Kenya. The contributions from this source have already amounted to over £600, which is very commendable. Well over half this amount has been raised by Mr. and Mrs. Miller of Mac's Inn, Mtitio Andei.

Subject to a careful and scientific assessment of what the habitat will carry, there is no limit to the provision of additional water supplies in many of the Royal National Parks of Kenya, as the most immediate practical means of saving wild animals.



Photograph by H. G. Drewett.

## NAIROBI ROYAL NATIONAL PARK

The Nairobi Royal National Park is unique in the world. It is unique for the surprising number of animals that can be seen within its boundaries, and it is unique because it is almost part of Nairobi itself. Visitors often remark with astonishment that within twenty-four hours of leaving London they are in the haunts of wild lions.

Pioneers who pitched their tents round the railhead called Nairobi in 1900, were not surprised to share their camps with wild animals. It was then a wild country. But in this age of rapid air travel, no-one normally expects to see lions and other game on his way from the airport to the City. Interesting as this may be, it has its problems. Obviously people must be allowed to visit the lions in their sanctuary, but the lions must be prevented from inspecting the people in their city. A reliable fence is the only solution.

Experiments have proved that barbed, electrified, or normal fences are useless. A herd of zebra or wildebeeste stampeding from a lion will break through any standard type of fence. A wire mesh of the chain-link pattern mounted on top of a bund, or bank of earth, has so far proved to be the only reliable barrier. Early last year Warden Ellis carried out some experiments with this type of fencing, using one section 5 ft. high of 10 gauge weldmesh and another section of galvanised wire 5 ft. high of the chain-link pattern. Both lengths were most effective against all animals, except small rodents. Zebra, wildebeeste and wart hog were seen trying to get through the fence, but without success. The weldmesh did not break even when a wildebeeste, pursued by a lion, crashed at full speed into it. These two experimental lengths were not mounted on top of a bund, but proved to be infinitely more successful than any standard type of fencing. When eventually the bund has been constructed and the fence placed on top, I am convinced that it will form a really reliable barrier.

The total length of the boundaries which have to be fenced is twenty-five miles, but not much more than half of this will require a bund. The remaining portion is well within a forested zone, where there is little chance of a stampede. The construction of the fence will take a long time, and the bund will have to be allowed to consolidate before the fence can be erected on top of it. For the time being, it is planned to put the fence on the outer side of the bund as a temporary measure.

Many members of the public quite rightly expressed a great deal of anxiety, through the Press and in other ways, as to the safety of people and animals along the main route to the Airport. This newly constructed road is regarded by motorists as a speed track and carries heavy traffic at all times of the day and night. Unfortunately, it is also one of the old haunts of the denizens of the Park, and, without a proper fence, there is nothing to stop them straying across the road

either to get more grazing or water. During the last year many animals were run over and the dangers of fatal accidents were very great.

The climax of this untenable situation was reached in the middle part of the year, when some lions decided to make a kill outside the Park and to remain in control of the main airport road for most of the following day. Two of the Park's famous lionesses, namely "Blondie" and "Brunette", and their families caused the trouble by moving out of the Park on a Saturday night in pursuit of game going to better grazing areas across the airport road. They made a kill and remained on it until daylight. In the early hours of the morning travellers proceeding to the Airport were astonished to see these lions sitting by the roadside, quite unperturbed and still enjoying their meal. The airport road is a popular route for joy-riders, and in no time large crowds gathered to watch the lions. By mid-day so many cars had assembled at the scene that it was impossible for any traffic to get through. The Police and the Park Warden were summoned, and the Airport authorities telephoned to me, in a final note of despair, with the peremptory demand that unless the lions were removed international air traffic would be very severely disrupted.

Assistant Warden Jolley and Honorary Warden Drewett went to the scene of trouble, where they found something over 200 cars clustered in a disorderly array and entirely blocking the road. The Police attempted to clear the blockage, but people were so interested and excited at the sight of the lions that they paid little attention to traffic rules or the Police. The Wardens then attempted to move the kill across the road towards the Park, hoping that the lions would follow, but in so doing they provoked great disfavour from "Blondie" and "Brunette". "Blondie", although normally a very placid and peaceful lioness, savaged Warden Jolley's car and bit a hole through the metal wing of his Land Rover. These adventures excited the crowd all the more, and made it almost impossible for anyone either to clear the road or to persuade the lions back to their sanctuary. Eventually, the Police were compelled to stop all traffic from both approaches and to take forceful action against those motorists who were blocking the operations. It was then possible, although still difficult, for the Wardens to coax the lions back to the Park, and "Blondie" and "Brunette", without any sign of repentance, slowly condescended to return home. One of the younger cubs, however, did not go back until the following day.

Comments on this incident poured in from all quarters and even from overseas. There were those who took great delight in telling their friends in London that they were delayed in leaving Nairobi because lions had closed the road to the Airport. There were others who protested very forcibly about the monstrous manner in which wild animals are allowed to impede the progress of modern travel.

Then there were those who said that they much enjoyed seeing lions on a kill without having to pay the fee for entry into the Park. Whatever joy or anxiety may have been derived from this adventure, the fact remains that this kind of thing cannot be allowed to happen frequently, and by one means or another "Blondie", "Brunette", and all their other friends, must be confined to their allotted sanctuary.

The numerous wild animals that are killed at night on the roads along the boundaries of the Park, and the danger to traffic, led to a very strong public outcry. The Kenya Government was persuaded to allocate money for a proper fence. It is now being constructed but it will take a year or more to complete, although naturally the most necessary sections will be done first.

Perhaps to show his contempt for the proposed fence, soon after the plan had been announced a big-maned lion went for a walk across the Wilson Aerodrome, and while sniffing round a native butchery came upon the night-watchman fast asleep. The watchman woke up with a start, only to find that the lion was standing over him, and he thought his days were over. He struck out at the lion, which retaliated by clawing the watchman's leg. A dog sleeping nearby heard the noise, and rushed in to attack the lion, luckily diverting it from the watchman. The lion then killed the dog, but this gave enough time for the watchman to get into the cab of a lorry and wait until his assailant moved off. Various lessons were learnt from this encounter. Obviously, a night-watchman should not sleep on the ground, or, more correctly, he should not sleep at all when on duty. Secondly, lions should not go raiding butcheries, and, thirdly, people, dogs and wild lions, cannot live in the same place.

This emphasises the conclusion which I have expressed on previous occasions, namely that the only successful way of preserving wild animals near human settlements is to fence the sanctuaries in which the animals are allowed to live. I believe that this policy will also have to be extended to areas further away from human settlement. It is the only solution of many problems; problems arising from the excessive damage to crops, property and livestock caused by dangerous and destructive wild animals outside their allotted reserves, and problems of trespass and poaching by people within such reserves. I therefore regard the construction of this new type of fencing round the two boundaries of the Nairobi Royal National Park as one of the most important developments in recent years, and a pattern which may have to be applied to many other wild life sanctuaries.

It is perhaps unfortunate that the fencing beside the main road to the Airport crosses very flat country. When the bund has been completed and the fence constructed on top of it, travellers to and from the Airport will not be able to see wild animals in the Park. It would be interesting for hurried visitors to have a glimpse, through



Photograph by H. G. Drewett.

*A portly zebra who scorns fences.*

the fence, of various kinds of wild animals grazing in the Park, but there is no choice, because unless the fence is properly constructed on top of a bund it will not be a really effective barrier.

As a means of allowing airport traffic to deviate through the Park, a new gate into the Park will shortly be constructed between the Airport and Nairobi. It is also intended to move the present main gate of the Park up to the Langata Road. The new main gate will be at the highest point of the Langata Road, which will provide a more suitable approach to the Park in an attractive forest setting. The circuit from the Airport will therefore include a fair section of the Park and will only add about half an hour to the journey.

Buffalo occasionally come down from the Ngong Hills to visit the Nairobi Royal National Park. It is perhaps just as well they do not live in the Park while it has no fence along the Nairobi suburbs. Buffalo in this district seem to have an instinctive respect for any kind of fencing. Assistant Warden Woodley, while camped on the Ngong Hills for nearly a month to deal with some buffalo which were causing damage to native *shambas*, noticed that even small bush fences placed round a maize plantation were carefully avoided by the buffalo raiders. They preferred to enter a *shamba* which was entirely unprotected.

I feel sure the day will come when future generations will express their regrets at the form of development which has occurred on the slopes of the Ngong Hills. Many years ago when I used to roam this area there were no resident cultivators, and game had freedom of movement up and down the slopes and across the plains below. There has now been very intensive cultivation in the Kikuyu style in a section of the Masai Reserve. It is not surprising that the buffalo herds, which normally shelter in the thickets of the Ngong Hills, come down at night to steal some succulent maize or other planted crops.

Assistant Warden Woodley found that they resorted to the most subtle methods of carrying out their raids and defied all normal methods designed to stop them. Time and again raiders would be away into thick bush long before he could get near enough even to see one. After twenty-five days and nights on this range of hills, Assistant Warden Woodley felt satisfied that he had accounted for the ring-leaders and that the people living on the lower slopes could expect to have a better chance of growing their crops. My sympathy is with the buffalo. They cannot be blamed for raiding crops planted in their time-honoured refuge.

Assistant Warden Woodley's observations of the Ngong Hills were encouraging. He noted that there were still surprising numbers of animals living on the hills. He counted five different herds of buffalo numbering 67, 55, 35, 21 and 15. He also saw rhino, bushbuck, reedbuck, eland, waterbuck, lion and other species, including colobus monkeys. Many years ago I saw a giant forest hog on these hills,

but there is no evidence that these animals still survive in this locality. Assistant Warden Woodley's final comment when leaving the area was that he was more than ever convinced that the Ngong Hills are a unique feature of East Africa. Scenically, they are impressive; botanically, they are fascinating, and they contain a wide variety of wild animals.

I still retain the hope, which I have expressed in earlier reports, that one day the Masai themselves, who own this land as their traditional stronghold, will see the wisdom of converting the Ngong Hills into some form of National Park, so that they can be protected against progressive desiccation; the inevitable result of too much burning, cutting of forest, and over-cultivation.

The rhinos which live on the Ngong Hills are not held in such bad favour as the buffalo. This is probably because they have a great variety of vegetation on which to feed and, although they have an inherent weakness for green beans, they are not such persistent *shamba* raiders as buffalo. Those that live in the Nairobi Royal National Park have been very peaceful over the years, and in more recent times have frequently been on view to visitors. Warden Ellis reports that the cold weather in the middle of last year caused some of these rhinos to stray from their forest retreat out to the plains, where they were easy to see browsing on the small whistling thorn-trees. On one occasion four were seen together.



Two peace-loving rhinos. Photograph by Mervyn Cowie.

Two of these rhinos evidently accepted some responsibility for the maintenance of law and order in the Park, and supported Assistant Warden Jolley in arresting two trespassers. While on patrol he saw two Asian youths lurking in the grass and gave chase. The youths legged it into the thorn bush country, but, unfortunately for them, headed straight into two rhinos, which immediately retaliated. After a quick assessment of the situation, the youths accepted that being caught was better than being charged by a rhino, and rather willingly leaped into the back of Assistant Warden Jolley's patrol truck and stayed there until they found themselves safely locked in the local police station.

I am convinced that rhinos in Kenya are in danger of extermination. In an attempt to assess the total number, I obtained estimates by reliable observers from all districts and the total amounted to 2,500. By the same means I also obtained estimates of the number which were killed or died naturally in the course of a year. This came to approximately 500. Over half of these were assessed as being killed by poachers. When one appreciates that the normal breeding rate of rhinos in their wild state is about 5 per cent, it is quite obvious that mortality at the rate of 20 per cent leaves no chance of survival.

It is for these reasons that any rhino is worthy of the greatest effort to save it from destruction. On several occasions rhinos which had to be removed from an area where they were doing damage were caught and released in the Ngong National Reserve. They soon accepted their new home and continued to live peacefully. From a rhino's point of view, it must appear to be a crazy world. People come into their domain, dig up the soil and plant attractive, luscious crops, which in dry weather are more than any rhino can reasonably resist. Any rhino that then enters the *shamba* is condemned to death, and yet no-one stops to assess who is the intruder. This, to my mind, postulates the very great importance of developing the use of tranquilising drugs, so that animals can be kindly and humanely immobilised, transported, and released in places where they can be allowed to live. Experiments in this field have already proved partially successful, and with more experience I have every confidence that a means will be found of administering the drug in the correct dosage, so that an animal of any size, except perhaps a full-grown elephant, can be moved without any injury to its body or its feelings.

Every year in the course of my duties of administering the Royal National Parks, I become more convinced that it is not possible to preserve wild animals in an area which is shared by permanent human inhabitants. Whether it is a question of buffalo raiding a maize *shamba*, or rhinos trampling the beans, or a giraffe plundering a rose garden, it all amounts to the same fundamental arrangement, that people and wild animals must live in different places. This, however, is not possible in the Ngong National Reserve, where the land belongs

to the Masai and is used by them and cultivated by a number of Kikuyu. These cultivators are encouraged to surround their *shambas* with fences and to keep out marauders by beating tins or making fires at night, but these methods are not always successful. The owners sometimes resort to setting snares and traps. Their intention is obviously to capture something which would be of use to them, more than to protect their crops.

Early one morning a report came in to Warden Ellis that a lion had been snared on the edge of a *shamba* in the Ngong National Reserve, just across the boundary of the Nairobi Royal National Park. The Warden went at once to the scene of trouble and found one of the famous large Park lions caught by the neck in a very sturdy wire cable. This cable had been set in the form of a noose across a gap in the flimsy bush fence surrounding the *shamba*. The lion was very angry, and it was obvious that there was no simple means of releasing him.

Warden Ellis resorted to cutting the cable by shooting it, and with a fair degree of marksmanship he managed to sever it with two shots from a rifle. The lion showed no great displeasure at the sound of the shots. He was so alarmed and so angry that he was almost prepared to accept anything. As soon as the lion found he was no longer anchored, he charged with the noose round his neck, showing his



Photograph by H. G. Drewett.

*The lion who resented a noose round his neck.*

contempt of all human beings by savaging the Land Rover and attempting to take a bite at the Warden inside.

Warden Ellis had then to go elsewhere for an equally urgent requirement, and so left two Rangers in charge to watch the route the lion would take, and also to keep other people away. When the Warden returned, he received reports that a man had been badly mauled by the lion. The two Rangers were still on duty but knew no details of the alleged mauling, although they produced a dilapidated shoe and a hat, which they had found alongside the wire noose which had previously been round the lion's neck.

By searching in the maize *shamba*, the lion was found fit and unharmed, but still very angry. The owner of the shoe and the hat was nowhere to be seen, although tracks of someone hurrying away in flight were clearly visible in the soft soil. A search in the nearby village was then carried out, and a man named Mutua was found, having been severely mauled by the lion on the shoulder and back. He confessed that when he heard the shots he thought the lion had been killed. Although the Rangers had advised him not to go anywhere near, as the lion was likely to be dangerous, he disbelieved them, and with a friend slipped into the maize field while the Rangers were patrolling the other end. They apparently walked straight into the lion, and to their horror found him very much alive. They both turned to run, but the lion sprang at Mutua's back and knocked him down and savaged him. Mutua was therefore responsible for unwittingly removing the noose from the lion's neck in his struggles to save himself from being chewed up by the lion. As soon as the lion felt himself free from the wire, he left his victim and trotted off into safety. Mutua did the same, although with more speed, to seek the refuge of his hut. The justice of this story, if there is justice in any attack on a wild animal, is that Mutua who was mauled by the lion was the perpetrator of the crime of setting the wire noose in which the lion had been caught.

I often wonder if these old lions who have lived for years in the Nairobi Royal National Park have far more knowledge of what is happening than we are prepared to admit. In this case it seems somewhat of a miracle that the African was not killed by the lion. As his own report revealed, as soon as the noose was removed from the lion's neck, the lion was willing to call it a day and disappear into freedom. Equally, I think it is astonishing that the lions do not attack the cattle herded by the Somali tenants in the Park. An exception to this rule occurred this year, however, when, for the first time on record, lions killed a cow belonging to the Somalis. Here again, the lions cannot be blamed, as there is evidence to show that the Somalis deliberately pushed an old cow out into the bush, with the object of having it destroyed. The lions were not slow to take advantage of the opportunity, and soon set about their victim. The Somalis

then claimed compensation, which revealed the motive of their actions. Needless to say, this was not paid.

This lust for beef in the Park was repeated a few weeks later, when some lions made another easy kill. Two Masai from Kajiado purchased a bull from one of the Somalis and decided that instead of keeping to the road, as they were ordered to do, they would take a short cut across country. Within the space of thirty minutes from paying over the purchase price for the bull, the lions attacked the animal, and the Masai had the doubtful pleasure of watching their newly-acquired prize being eaten by the lions. Perhaps the lions remembered that Masai sometimes spear lion cubs.

The feud between the older lions of the Park, which I reported last year, still continues. The lion known as Segenge, who once had a wire noose round his neck and who lived for a long time near my house, dared to take a large family of friends into the Park. There were three lionesses and seven cubs, and they made a very fine sight. They were not allowed to stay long, however, as the Spivs, the two father lions of the Park, soon sought out Segenge and had him out as fast as he could go. One of these days, no doubt, Segenge will grow strong enough to accept the challenge from the Spivs, and then they will have to fight it out, perhaps leaving Segenge in full command.

The African staff and their families who work in the Park are apt to disregard the dangers which people normally attribute to wild animals, and especially to lions. One evening the wife of one of the tractor-drivers was walking back to the labour lines from the Park headquarters and chatting amiably to a companion, when she was suddenly seized on the knee by a lioness. According to her account of the affair, she was minding her own business and proceeding on her lawful occasions, when she suddenly felt intense pain and looked down to see a lioness with her knee in its mouth. The story takes a little believing, because in any case, being dark, I wonder how she could have seen exactly what the lioness was doing, but there is no question that the woman certainly had four serious cuts on her knee obviously made by the front teeth of a lion. She described how she yelled and at the same time hit the lioness on the head until it ran away. Another African who heard the shouts came out from the labour lines on a bicycle, with the object of rendering assistance, but as soon as he emerged he met a big lion and promptly retreated to his hut. The next morning the bicycle was found where it had been abandoned and the saddle had been chewed up. The woman was taken to hospital and quickly recovered from the encounter, which was more a case of shock than of injury. I believe the story to be substantially true, although I cannot understand why this lioness resorted to such a strange method of attack, unless it was merely a youngster enjoying a prank.

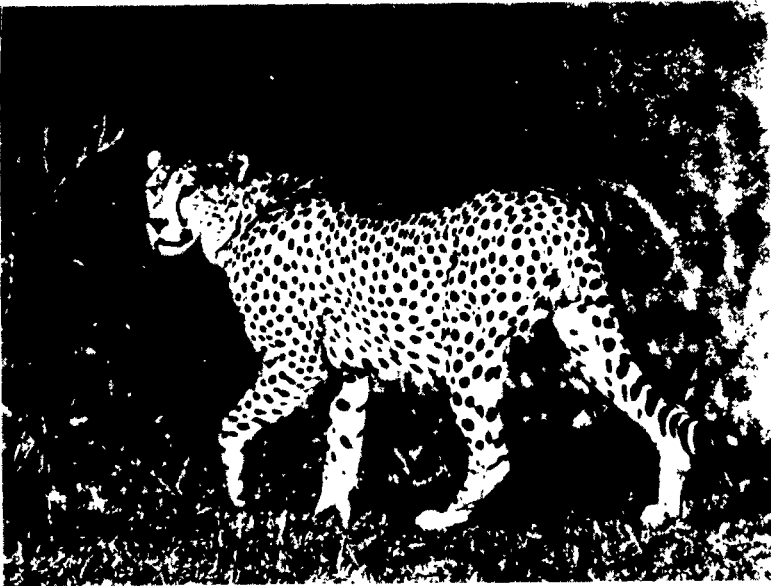


Photograph by H. G. Drewett.

*A benevolent lioness.*

In days gone by, very few Africans would ever dare to walk through lion country at night, and, if they did, they made a lot of noise and were usually armed with spears and other weapons to protect themselves. It is therefore an interesting development in the relationship between man and beast that this woman, knowing that she was in the lion's stronghold, should have felt no fear when walking about in the dark. I think it unlikely that she will attempt to do so again.

I find that as visitors to a National Park increase, the more people expect the animals to behave like circus pets or zoo celebrities. A large party of American travellers, who went through the length of Africa by caravan, descended on the Nairobi Royal National Park one Sunday morning. The Warden found their caravans parked near a waterhole. An elderly lady was crouched in the bushes near the water with camera poised, while her husband stood by munching biscuits. On being asked why they were breaking the Park Regulations, the lady immediately replied, "My man, I was told that if I came to this waterhole at 9.30 a.m. I would find the lions drinking here—it is now ten minutes past ten and they have not arrived." For a moment the Warden wondered whether he should take action against the lions for not keeping an appointment.



Photograph by H. G. Drewett

*A cheetah is faster than a lion.*



Photograph by R. Hutton of *The East African Standard*.

One of the most dramatic photographs of a tragedy in the wilds appeared in the *East African Standard* and provoked a great deal of controversy. With the permission of the *East African Standard* I reproduce this photograph of lions killing a wildebeeste. On the one hand, people expressed horror at such a scene being photographed. On the other hand, others praised it for being incredible, astonishing, and of great scientific interest.

The lions involved in this scene of torture are some of "Brunette's" family who had not yet acquired the full skill of hunting on their own. How it was possible for the unfortunate wildebeeste to withstand this onslaught remains unexplained. It seems even more unlikely that three lions could pounce on a wildebeeste without bringing it to the ground with the weight of the impact. The photographer who caught this scene related that the adventure went on for a considerable period, and the victim became entirely rigid in utter despair. Although I was one of those who disagreed with the publication of this photograph in the public press waiting to greet thousands of readers at breakfast-time, I feel it is correctly the kind of photograph that should be reproduced in a Report of this kind, and I am indebted to the photographer, Mr. R. Hutton, for allowing it to be used.

The following jottings are taken from the Warden's diary for the period.

Some lions killed a young giraffe near the Somali bomas. This does not happen very often in this well-stocked game area.

A lioness was seen to make a most determined chase after three cheetah, but was completely outpaced.

Two serval cats were surprised early one morning on a freshly-killed female impala. The scene of the kill was in long grass alongside a road, and it was obvious that the doe had been ambushed. The surprising thing was the size of the victim as compared with the size of the killers, and also the fact that one of the serval cats was black.

A total of twenty-four bushbuck were seen in an afternoon in a tour round the forest section of the Park. This is mainly due to clearing the grass and bush at the roadside, which has been a very great improvement both for the denizens of the Park and for the visitors to it.

The carcass of a large bull giraffe was found at the bottom of one of the gorges in the Ngong National Reserve. The animal's neck was broken, and it was obvious that while standing on the edge of the cliff it had over-balanced in an effort to reach down to feed from a bush growing out of the side of the gorge.



Photograph by H. G. Drewett.

*Bushbuck are more plentiful.*

A lioness exercised herself by chasing a motor scooter along the main airport road. The scooter proved to be the faster.

Two leopards, captured in the Nanyuki area by Mr. Carr Hartley, were released in the Makoyeti Gorge during July, where they settled down and have since been seen by a number of visitors.

On two occasions jackals were seen to attack young impala. On one of these occasions the jackals, despite the efforts of the doe impala, killed the youngster, and were then themselves robbed of their prey by a hyaena that had been attracted to the scene by the noise of the fight.

Very few ostrich nests have been seen during the period, and only ten chicks hatched, of which none survived. This bears poor comparison with the previous year, when there was an exceptionally good hatch and rearing of ostrich chicks. A nest with what must be nearly a record number of eggs, namely fifty-two, was found near Eland's Hollow. Twenty-two of these eggs were being covered and thirty discarded. Only two chicks hatched from this clutch, but were soon killed by jackals.

In November, after a heavy storm of rain with thunder and lightning, two dead kongoni were found lying side by side in the Lone Tree area. Both animals appeared to have been in a fit condition and there was nothing to indicate the cause of death. It can only be assumed that they were struck by lightning.

In March of this year a farmer at Eburru caught a three-quarter grown female leopard in a box trap. Leopards cannot be allowed to roam in a farming district, and so he offered it to the National Parks for release. His offer was gratefully accepted and transport was sent to collect it. The trap was re-set, and a few days later the farmer was again on the telephone to say that he had trapped a young male leopard. It was also collected and the trap re-set. The following day the farmer phoned again to say that he had captured a third young leopard, this time another female. Again the journey was made to Eburru to collect the young animal and bring it to the Park Headquarters to join its brother and sister, which were being kept in a cage for the time being. By this time the cage was getting overcrowded with leopards. On the morning of the following day, the farmer's wife phoned again very excitedly to say that they had captured the mother leopard, and they themselves were bringing it to Nairobi. In due course they arrived, and the mother was transferred to the cage where she was greeted most joyfully by her three cubs. The whole family were then released in the Makoyeti Gorge, where they have been seen and heard on several subsequent occasions. Leopards are scarce in Kenya, and all praise must go to the farmer for his patience and help in saving this family.



Photograph by H. G. Drewett.

*Young baboons are far from handsome.*

An interesting observation comes from Mr. B. Irvin De Vore of the University of California, who has been on a Ford Foundation Grant, studying the sociology of baboons. In his notes he comments that many visitors to the Park have probably seen the colony of rock hyrax that live on a large cleft boulder just below the Makoyeti Gorge. When he started visiting the Park he made a point of looking at this colony four or five times a week, sometimes counting as many as seventeen hyrax eating, playing or basking in the sun round their rock shelter. In July, he arrived there one evening, but could see none of his hyrax friends. After a time he became aware of a continuous noise coming from the base of the rock, and by climbing round for a better view he saw the entire colony, twenty-three in all, arranged in a compact V-shaped formation. These animals are usually very shy, but they were so agitated that they took no notice of the observer, although he was scarcely ten feet above them. By following their line of sight, he saw a rock python, about five feet long and the circumference of a man's forearm, coiled round a struggling young hyrax. As he sat watching, the persistent cries of the hyrax rose to a loud crescendo. As the sun set, the victim ceased its struggles and the python began his meal. After that the colony of hyrax were nowhere to be seen, but it is interesting to see how these gentle little animals formed up in a concerted although futile attempt to defy the python.

On another occasion Mr. Irvin De Vore witnessed an unusual incident with a snake. He was travelling down the far end of the Park when he noticed a fully-grown silver-backed jackal in the road with something dangling from its mouth. As he drew nearer, he was surprised to see that it was a puff adder, about three feet long and obviously dead. Leaning out of the car for a better view he drew back with haste when he suddenly saw a very angry cobra, jet black, about six feet in length, swaying with hood flared not many feet in front of the car. He backed away about thirty yards to see what would happen. To his amazement the jackal dropped the puff adder on the road and trotted over to the cobra. The cobra flattened to the ground and moved off through the grass. The jackal halted about eighteen inches from it, and then with lightning speed rushed in and tried to bite the end of the cobra's tail. At this the cobra curled back over its body and tried to strike at the jackal. The jackal kept just out of reach and watched the cobra swaying before it. Then, with considerable nonchalance, it trotted back to the puff adder. This performance was repeated many times, and the jackal had difficulty in deciding whether to go on with the puff adder or return to attack the cobra. Gradually the cobra moved further away, until it crawled into a thorn thicket where the jackal could not reach it. The jackal then reverted to its original intention, picked up the puff adder and went off with it. Only about fifty yards away another jackal was lying in the grass and paying no attention to this drama with two snakes.

From time to time small animals, or the young of larger animals,

are either brought in or offered to the Warden of the Nairobi Royal National Park for safe keeping. It is difficult to know whether or not to accept them. A report came in from the north end of Mount Kenya that someone had confiscated two golden cats from an African youngster and wished them to be taken care of. On investigation it turned out that they were not golden cats but caracals, and they were duly lodged at the Warden's headquarters. Some time later a bushpig came in from Voi, which, although very friendly, caused a great deal of consternation by unexpectedly showing its affection for Mrs. Belletti who was giving full attention to operating a radio transmitter. She did not know the bushpig was there, and quite naturally gave vent to some apt exclamations which went over the radio and caused even more consternation to the receivers far away.

"Blondie", the promiscuous lioness who fails to take care of her families, produced another cub which had to be rescued by the Warden. After reaching a safe age, it was presented by Lady Mary Baring, the wife of the Governor, to Whipsnade Zoo.

The continual problem of taking care of young or captured animals which cannot easily be released into their wild haunts, reinforces a view which I have held for some time. I maintain that there should



Photograph by Kenya Information Services.

*King Hussein of Jordan on a visit to the Nairobi Royal National Park.*

be a properly organised wild animal orphanage, preferably somewhere near Nairobi, and I can think of no better place than adjoining the Nairobi Royal National Park. Such an orphanage could be a refuge for creatures which otherwise would not survive, and it could also be the beginning of a very valuable zoological centre where a considerable amount of information on the habits and food requirements of different animals could be obtained. This would be the first step towards establishing a proper research centre and a place for the ascertainment of scientific information, without which the management of wild life sanctuaries cannot be successful.

I look forward to the day, which I hope will not be very distant, when this unique, this famous Royal National Park of Nairobi, while continuing to be a spectacular game area of unlimited interest to hundreds of thousands of visitors, is securely fenced and contains, or has adjoined to it, a zoological centre. It would then be a place of immense value to Kenya and the rest of the world.

## TSAVO ROYAL NATIONAL PARK

It is impossible to report on the Tsavo Royal National Park without first making a reference to poaching. This National Park and its adjoining hinterland to the north was the scene, some years ago, of the greatest slaughter by poachers that has ever been recorded. In one small area alone over 1,200 dead elephants were found, having been wantonly destroyed with poisoned arrows. Since an extensive campaign was waged against the poachers there has been a reduction in the direct onslaught of wild animals, but the methods used by the poachers have become more subtle and widespread.

Throughout the last eighteen months there have been frequent reports of animals being killed in different sections of the Park, and of others being found with wire snares round their legs or their necks. The Tsavo Royal National Park Field Force continued to operate throughout the period and was very ably supported by an Anti-Poaching Team from the Game Department. I wish to record my gratitude for the assistance rendered by the Game Department.

Better roads for access to remote places and knowledge of the methods used by the poachers has enabled our officers to deal with poaching more effectively, but, in my opinion, it is dangerous to underrate the consequences of this continual destruction. Although the reports received indicate that fewer animals have been killed in the Park, one has to concede that a great many more must have been surreptitiously killed and all traces removed. When the poachers had less fear of being apprehended, they took little trouble to cover up their tracks or to remove all the booty, but now they resort to any device to avoid being detected. The result is that their activities are not confined to popular hunting grounds, and the total number of animals either killed, wounded or badly intimidated, is just as great as in 1956. I consider that until poaching is effectively put under proper control, the threat to the wild animal populations is very great.

I continue to hope that the experimental Galana River Game Management Scheme, on the Eastern border of the Tsavo Royal National Park, will be successful. It has had to endure many teething troubles, the greatest of which originates from the unwillingness of the authorities to allow the proceeds of trophies, such as ivory, to be kept within the Scheme funds. If, however, this Scheme eventually works successfully, it will provide employment for people who would otherwise be poachers, and it will show the African population the value of farming wild animals. When this has been done, and more effective measures have been taken to assist African cultivators and stock-owners to protect their crops and property against depredation in other places, I think there will be a better chance of putting an end to poaching inside the Park.

The following notes from the Wardens' diaries illustrate the magnitude of the poaching problem.

In June 1959, Warden Sheldrick records that no signs of poaching were discovered in the Park but honey-hunters continued to be a source of trouble. After a fine piece of tracking, lasting a day and a half, No. 3 Section of the Field Force arrested three honey-hunters on the Yatta. Later, four other men were arrested out of two different gangs in the Gazi Hill area. In the same quarter a number of Teita moved into the Park near Maungu and started to clear the bush for cultivating. This was perhaps a ruse to start trapping smaller game. These people were apprehended, taken before the District Commissioner, and fined as a warning. In the September quarter a gang of Wakamba killed two elephant, one rhino and a lion on the Tiva River, some three miles inside the Park. The trophies had all been removed and much of the meat from the rhino carried back into the Reserve.

Following a report that footprints of a gang of poachers had been seen crossing the Park boundary near Mackinnon Road, a section of the Field Force was sent out to investigate. They followed the tracks for about six miles until they came across two Waduruma in a small hideout. One man was arrested but the other escaped. Large quantities of hartebeeste and eland meat were hanging in a tree. The carcasses of a giraffe and a buffalo were nearby. Patrols in the Rombo district found the carcasses of two rhino and five giraffe. A platform in a tree, overlooking a drinking place on the Tsavo river, was proof of recent poaching activities.

In March of this year a large bull giraffe was killed by poachers at Tundani. The sinews from its legs had been removed and the carcass left to rot. A patrol hunting for poachers in the same area discovered two dead elephants. The tusks had been taken, as well as some of the meat.

From Tsavo East comes another report that a visitor saw an elephant dragging a tree which was attached to its leg by a wire cable. It was followed up by the Warden and had to be shot. The drag marks were traced back to a railway *landhi* near Irima Station. The ground had been torn up over a wide area, and the elephant had obviously struggled for a long time before it succeeded in uprooting the tree to which it found itself tethered by the wire noose.

Two poachers were encountered on the Athi River. Owing to the open nature of the ground the patrol was spotted while still some distance off, and the poachers made good their escape. On reaching the area it was found that they had killed a buffalo bull and removed some of the meat. Tracks of another party of six men were also seen in the area. No. 1 section was hurriedly brought up from Soboto

assist in the operation. After four days of unsuccessful patrolling it became obvious that the poachers had returned to the Reserve. Their hideout was discovered on the west bank of the river and it contained the remains of a lesser kudu.

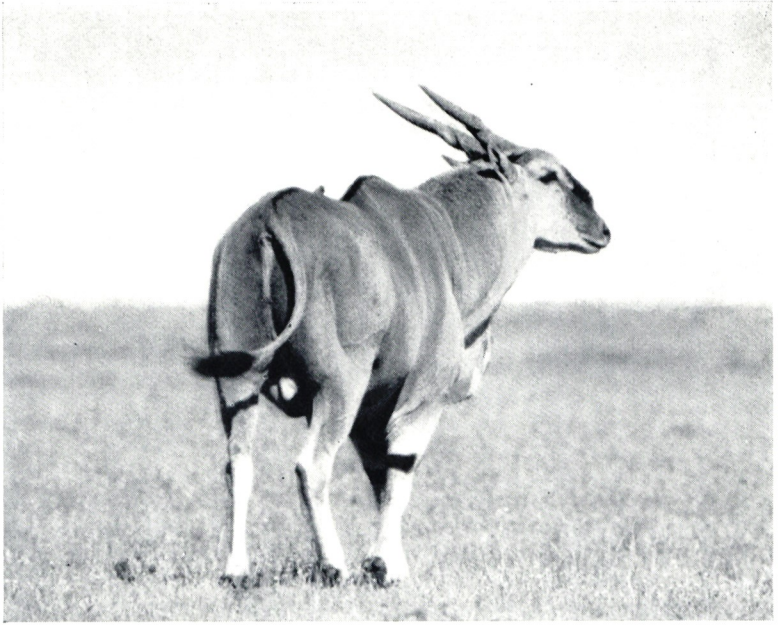
It is a very difficult task to find poachers in an area of thousands of square miles, particularly when they can so easily retreat to their own Native Reserves where they mingle with the rest of their community. Unless the Police and Administration are prepared to prise them out there is no way of bringing them to court for their offences. In this regard I am grateful to Chief Benjamin of Kanziko in the Wakamba Reserve, who has shown great willingness to cooperate in the apprehension of poachers.

In the last report of the period there is a record of No. 3 Section of Field Force operating near Ndawe in the Western Section of the Park, where they followed the tracks of two men down the Tsavo River, and eventually succeeded in locating their hideout and arresting the whole gang of five. The gang admitted to killing one rhino, one eland and two lesser kudu, and the skins and horns of these animals, which were hidden in some rocks nearby, were discovered. Two of the arrested men had previous convictions. A buffalo calf was found dead near Mwema Hill and it appeared that it had been killed by honey-hunters.

An ambush was laid for three days near the Park boundary at Kimethena, and two honey hunters were arrested as they left the Park. They were taken to Voi and charged. Both received sentences of two weeks detention.

It is obvious that some of the officers responsible for administering the law are not fully aware of the gravity of crimes committed by honey-hunters. At first glance it may appear that these men, quietly entering an area for the purpose of taking honey from some pre-arranged barrels in trees, should not be regarded as bad criminals. In fact, however, in order to extract the honey they usually smoke out the bees by making a fire with any dry wood or elephant dung nearby. These fires are then allowed to go wild and large sections of the Park are burnt in consequence. A few years ago a fire started in this manner raged across 2,000 square miles of the Park.

Moreover, these honey-hunters do not confine their activities to collecting honey, and they either snare or kill animals within reach to provide food on their journey. Thus, after the strenuous effort of patrolling boundaries, trying to stop untimely fires, and sending out a section of the Field Force for several hundred miles to apprehend two honey-hunters, it is more than disappointing that the penalty imposed on the culprits is only two weeks simple imprisonment.



*A large eland.*

Photograph by H. G. Drewett.



*Kindly, peaceful, animals.*

Photograph by H. G. Drewett.

Such lenient awards have no effect whatever on poaching and honey-hunting in the Park.

This somewhat galling recital of poaching in the Tsavo Royal National Park can be taken as a mere indication of the extensive destruction of wild animals. It is only a list of the activities which were actually discovered; how many other animals were killed in the last eighteen months, both within and without the Park, must be left to conjecture. I have no fear, however, of overstating the gravity of this unlawful destruction by recording that poaching threatens the very survival of our wild animals in Kenya.

It is difficult enough to protect wild animals from poachers, and it is therefore very unfortunate that the animals themselves should set about killing each other or die from unusual causes. Warden Sheldrick reports that during July and August nearly all the rhino seen were covered in fresh wounds and a number died as a result of fighting. On one occasion two visitors to the Park, a man and his wife, were somewhat alarmed suddenly to see a three-quarter grown rhino charging down the road towards them, but before they could do anything the rhino swerved round the car and continued its journey down the road. As the rhino had obviously been frightened by something, the visitors proceeded forward to investigate the cause of the trouble, only to find two rhino fighting at the side of the road. Both of them were covered in blood and the larger one was getting the better of the fight. It drove its horn into its opponent's side and actually lifted the smaller rhino well off the ground. The visitors were appalled by this sight and they wondered how they could stop the fight. When the two rhino became aware of the approaching car, they crashed off in different directions, in spite of their preoccupation. The story remains unfinished as to whether or not the belligerents survived.

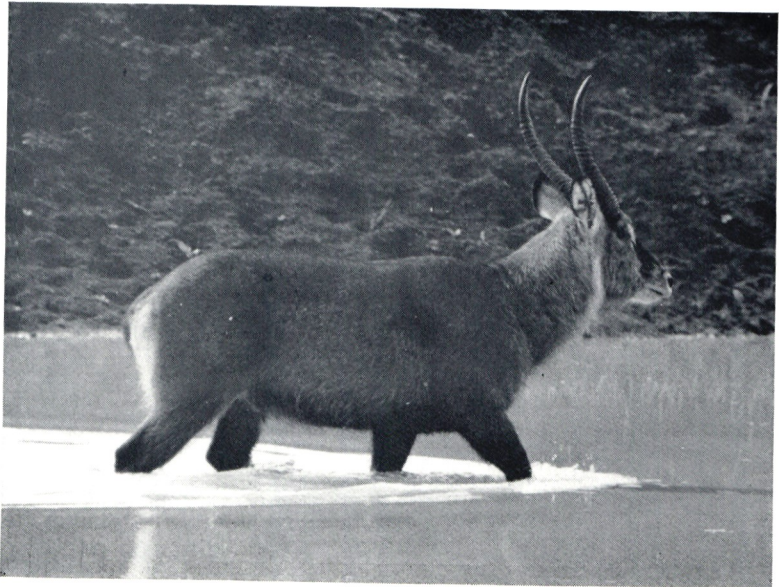
Another tragedy was reported from near Gazi Hill. A baobab tree fell upon two elephants and pinned them to the ground until they died. There has been an increasing tendency for elephants to destroy baobabs, presumably through a lack of other plants to eat. A baobab is an immense tree with a massive trunk of a fibrous texture requiring a great deal of force even to cut it down. It is very remarkable that these two elephants should have continued to tear away at the stem until the tree fell on top of them.

Assistant Warden Jenkins reports that two male lions were seen feeding on a seven-to-eight-year-old elephant which they had killed. An examination of the carcass and surrounding ground indicated a prolonged struggle before the lions succeeded in killing the elephant. A portion of the elephant's trunk had been bitten off and a number of deep wounds were visible on its shoulders, back legs and neck. There are not many records of lions killing elephants, especially of this size.

One of the most remarkable stories of a misfortune in the wilds relates to a six foot crocodile which was found dead inside the carcass of a rhino. The rhino had evidently died in shallow water on the edge of the Athi River. Whether it had been pulled in by the crocodile, or been killed by poachers, or died from some other cause, is not known. The crocodile's tail was seen protruding from a hole made by vultures in the back end of the rhino. Presumably the crocodile must have been feeding on the rhino and endeavouring to collect some titbits. Having got inside the carcass I suppose it found itself unable to retreat and then suffocated. It was perhaps a case of "biter bit".

Rangers camping on the banks of the Athi River witnessed a large crocodile seize a full-grown female water-buck in shallow water and drag it into a deep pool, where it was drowned. Another water-buck, on hearing the bleating of its unfortunate mate, dashed into the water and tried to attack the crocodile with its horns. The crocodile paid no attention and steadily dragged its victim into deep water.

A Field Force Patrol saw a lioness lying in shallow water with only her head showing, waiting for some waterbuck who were approaching the bank. She spotted the rangers, however, and ran off without making a kill. This was a subtle device and one would not expect to find a lioness behaving like a crocodile.



Photograph by H. G. Drewett.

*A waterbuck living up to its name.*

A labour gang working at Ndiandaza found the carcass of a giraffe with a dead lion underneath it. The remains were fairly old and it was impossible to reconstruct the accident with any certainty. It seems likely that the lion was attacking the giraffe and in the struggle the giraffe fell on top of the lion. Again it was a case of the assailant becoming the victim. At a later date two more reports came in of elephants being killed by falling baobab trees. In one case it was a large bull elephant carrying tusks weighing over 100 lbs. One can hardly accept that such a large animal could be killed by a tree which he himself had felled.

One of the rangers saw a large male lion feeding on an oryx. As the ranger approached the kill the lion ran off. A wild dog was lying dead nearby. The dog had been bitten in the throat and on the back. The scene indicated that the lion had killed the oryx and the wild dog had tried to intervene, or, alternatively, the dog had killed the oryx and the lion had come in to claim the prize. In either event the wild dog had failed to establish his rights, and paid the penalty of trying to do so.

Wild dogs are normally very daring but seldom do they harass leopards. Rangers travelling on a lorry through to the north of the Park saw a pack of wild dogs baying at a leopard in a tree. When the dogs heard the lorry they turned and trotted towards it, whereupon the leopard jumped out of the tree and made off. The dogs promptly gave chase, and after running a short distance the leopard was again forced to seek refuge in a tree. As it was nearly dark there is no conclusion to this story, but it seems that the leopard was an unhappy fugitive and probably spent the rest of the night up a tree to keep clear of the aggressive pack of wild dogs.

Another report came in of three lions feeding on a freshly-killed rhino calf. I feel it is grossly unfair for lions to resort to killing calves, especially when there are so few rhinos left.

Warden Marshall reports that there was trouble at his famous "Kamboya Drinking Club". This is a waterhole not far from his house extensively used by elephants and all kinds of other big game. Apparently an old buffalo bull came in peacefully to have a drink at the water-hole. Soon afterwards an elephant decided to do the same. A dispute arose, and the noise of the encounter could be heard from the Warden's house. The elephant was determined to be bad-tempered whatever happened. On seeing the buffalo near the water, he charged and drove his tusks through the unfortunate old buffalo. That was the end of the buffalo.

The management of the "Kamboya Drinking Club" has its problems. Earlier in the year four elephant found it difficult to get to the water-hole owing to a "traffic jam", and so took to raiding

Warden Marshall's garden instead. Endeavours were made to keep them out with thunderflashes and bonfires, but this proved a greater disturbance to the Warden's family, and so the elephants had best at the expense of the garden. Many kinds of animals use this water-hole throughout the night and even during the day.

It proves the importance of water, particularly in the Western section of the Park, where the grazing and other vegetation is capable of carrying a considerable increase in game populations, and underlines the importance of the "Water for Wild Animals Fund".

Warden Marshall's plan of maintaining controlled burnt sections, so as to achieve the regeneration of grazing at the right season, has proved very successful, and these sections attracted great numbers of grass-eaters. It is not always possible, however, to control fires, since there is always somebody who starts a fire at the wrong place or at the wrong time. An accidental fire started near the Ngulia Lodge in September, and with a high wind blowing it was impossible to check it until the following day. With a bulldozer out before dawn and all available labour, Warden Marshall stopped the fire, but not before an area of some 70 square miles was burnt.

An interesting sidelight of this fire-fighting expedition was that at one stage the bulldozer was seen being driven madly through the bush as fast as it would go. When the African driver was later arraigned for his unreasonable behaviour, he explained that he was attacked by a swarm of bees.

People working in the National Parks run considerable risks, and I am thankful that there have been very few accidents or tragedies. Warden Sheldrick reports that one of his drivers had an alarming experience when camping in the far north of the Park. During the night he awoke to find a lion standing over him. His bloodcurdling yells roused the rest camp and the lion was driven off. On another occasion the Rangers heard something lapping water, and on shining a torch they were surprised to see two lions drinking from a bucket in front of the tent. The lions, however, wanted water and not trouble, and peacefully moved away.

A similar story comes in from the Western section in the first quarter of this year. On a peaceful Sunday afternoon a telegram was received from a Railway Station some ten miles north of Mtito Andei. It read:

"LION ATTACKED A MAN IN STATION LIMIT AND  
BADLY WOUNDED STOP POSITION THREATENING  
ARRANGE EARLY HUNTING OF LION".

The rest of the day was spent examining the Mgwata Station area, and there was ample evidence that a lion had been there. The story

related by the man who said he had been mauled was astonishing. He explained that he slept out in the open on the Saturday night because his hut was too full of other people for him to get inside. He suddenly awoke to find a large lion standing over him. He grabbed the animal by the mane and shook it. The lion was so frightened by this treatment that it ran off. The injuries the man received were out of all proportion to his description of the danger he was in. He had a small scratch over the left ear, a nick at the back of his neck and a slightly bruised wrist. It seems incredible that a wild lion could be so gentle. I can only assume that the man was telling a good story, or the lion was so surprised to find that the human form he thought was dead was very much alive.

The Wardens, too, are by no means exempt from lion troubles. About 7.30 one evening a lion chased a water-buck into the Assistant Warden's house at Voi. The water-buck made straight for a lamp left burning on the verandah of the house. It dashed up the steps and sprawled on the polished floor, knocking over the lamp and various chairs and tables. The lion followed the water-buck onto the verandah, but before it could make a kill the servants rushed out and drove it off, whereupon the water-buck got to its feet and made off in the opposite direction.

One of the Rangers had a narrow escape from a rhino while on patrol on the Yatta. The rhino charged in thick bush and everyone scattered in all directions. Unfortunately, the rhino and the Ranger chose the same escape path, and the Ranger found himself being carried through the bush on the end of the rhino's horn suspended by his web belt. He luckily fell off, and, apart from a ripped tunic and a few bruises, he was none the worse for the experience.

During the past ten years no-one has been seriously injured by wild animals in the Eastern section of the Park, although there have been many near misses. In September, however, two members of the staff were injured within the space of a week. The first accident occurred when No.2 Section of the Field Force were wading across the Athi river after removing the horn from a rhino that had died on the south bank. Ranger Abdi, who was bringing up the rear of the column, was suddenly seized by a crocodile just below the knee. He was then lashed by the crocodile's tail and fell stunned into the water. Corporal Dubat heard Abdi shout and turned to see him lying in the water, bleeding from several wounds in the leg. Almost at the same moment he saw the crocodile in shallow water about two yards away and promptly shot it. After a short spell in hospital Abdi was able to resume his duties.

The second accident occurred at Ithumba when a labourer named Kioko was bicycling to the nearby Wakamba Reserve one Sunday afternoon. On rounding a corner, about a mile from the camp, he

saw a rhino in the middle of the road. As his bike had no brakes he could not avoid running into the rhino. He was badly gored in the leg and groin, but managed to crawl to within 500 yards of the camp before collapsing. Luckily, his cries for help were heard, and he was found and carried back to the camp.

The Assistant Warden was away on safari and the only vehicle in camp was a Ferguson tractor and trailer. Although it was getting dark, the driver of the tractor decided to take the injured man to Warden Alexander's camp some 30 miles away. The journey took four hours over a rough bush track, and the driver must be commended for manipulating the tractor and trailer without lights, and through country that was full of elephants at the time.

Having arrived at Warden Alexander's camp, Kioko was transferred to a lorry and driven to Voi Hospital, where they were unable to treat him owing to the serious nature of his wounds. He was then taken on to Mombasa in the back of a Land Rover and given proper treatment eighteen hours after he had been gored.

It is not every tractor driver that gets away with it so easily, for Warden Marshall reports that one of his drivers mounted on a Ferguson actually ran over himself. While driving the tractor without a trailer, he was chased by an elephant and in order to get away drove the tractor at full speed. The ground was so rough that he was bumped right out of his seat and the tractor ran over him. Whether it was worse being run over by a tractor or trampled by an elephant is difficult to say, but he suffered little injury, and in the *melee* the elephant decided to take another course.

Any report on the Tsavo Royal National Park must refer to a succession of floods and droughts and various other disasters. Some sections of the Park had good rain, whereas others had none at all. In June of last year there was very poor rain in the Northern section. Water-holes that normally hold out until the beginning of July dried up, and the animals were forced to fall back on the permanent rivers by the end of May. The Tiva river, which at worst only has water seeping under the sand in the dry season, was unusually low. The water level dropped to a depth of 2ft. 6in. and more underground, and very few animals were able to reach it, except the elephants, whose job it is to make holes in the sand.

A special team of labourers were stationed along this sand river to dig waterholes, but the competition to reach the water was so great that many were filled in by frantic rhinos before they could be of use. The labour gang, however, managed to make enough water available to save a large number of rhinos and other animals from dying of thirst.

Rainfall records do not go back far enough to be conclusive, but recent trends indicate progressive desiccation over the whole of this

section of the National Park. The damage done by game in search of food along the river banks is very noticeable, and a large number of baobab trees, which have been standing for hundreds of years, have been destroyed. Owing to the partial or complete failure of rain in so many successive years, this destruction of vegetation, particularly by the elephants, gives cause for alarm. If the present trend continues, it is doubtful if the Park can continue to support its existing elephant population. What effect this will have on vegetation generally, and therefore on other species of animals, remains to be seen, but it is obviously a question that requires prompt scientific examination.

In June of this year, Warden Marshall observed that there were fair concentrations of game in most parts of the Western section, and he attributes this to the fact that many of the species are on the increase. It is noticeable in the case of zebra, oryx, impala, eland and Grant's gazelle. What is lacking in all these observations is an accurate game census at regular periods in order to ascertain the trend and migration pattern. This would mean covering an area of many thousands of square miles; a truly formidable task.

One of the greatest anxieties resulting from the lack of rain was the drying out of the large Aruba dam. This is normally a sheet of water covering some 250 acres, and towards the end of the dry period the level dropped so low that I was compelled to close the safari lodge which depends on the dam for water. Advantage, however, was taken of the low level to scoop out some of the dried up lake bed and to make several islands which will provide a very welcome sanctuary for birds, as well as to grow trees as a wind break for the lodge itself. This safari lodge has often been described by visitors as bleak and wind-swept. Any attempt to grow trees as windbreaks has so far been foiled by the elephants who continually root up anything within easy reach of the water.

The Tiva Valley in the north also suffered, and by October there was hardly a tree or a bush left undamaged. Heavy rain in November altered the situation almost overnight, and the scene changed in a remarkable manner. Shrubs that had been eaten down within a few inches from the ground sent up new shoots to a height of two to three feet in a few weeks. Large trees which appeared to be dead sprouted again with vigorous growth. This is the remarkable potentiality of any dry part of Africa, and as soon as water becomes available everything springs forth to life.

Another task at the Aruba dam was to make use of the low level of water to construct a flood-proof spillway. In previous seasons of heavy rain the overflow from the dam has caused severe scouring and given reason for alarm. Through the good services of Mr. Squires, the Hydrological Engineer, and members of the Ministry of Works, a new spillway was constructed to conform to proper engineering

requirements. This precaution will ensure that during any future floods the dam will not be in danger of washing away.

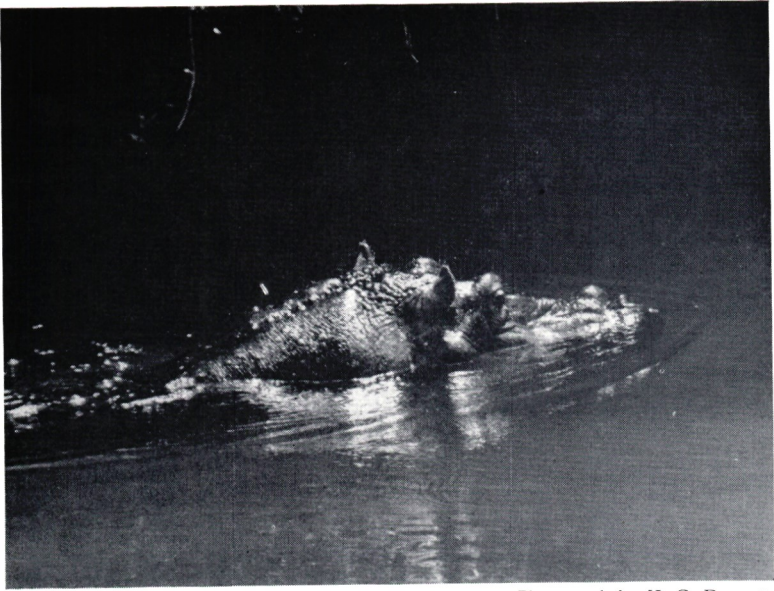
In spite of the level of the water falling so low in the Aruba dam, the *Tilapia* fish which live within it continued to yield a reasonable product for sale. This is one of the activities promoted to augment the inadequate allocation of funds for the maintenance of the National Parks. The fish are very popular on the local market, either fresh or dried, but the netting, cleaning and transport of the fish is a major operation.

A survey of the fish in the Galana River near Lali Hill and Lugards Falls was carried out by Mr. Peter Whitehead and Mr. Charles Harris of the Fisheries Department, between the 21st and 24th May. The following fish were caught:

<i>Cyprinidae</i> (Barbels)	1 <i>Barbus athi</i>
	2 <i>Barbus zanzibaricus</i>
	3 <i>Labeo gregorii</i>
<i>Characidae</i> (Catfish)	1 <i>Clarotes paticeps</i>
	2 <i>Synodontis zambizensis</i>
	3 <i>Eutropius near depressirostris</i>
<i>Gobiidae</i> (Gobies)	1 <i>Awaous aeneofuscus</i>
	2 <i>Glossegobius giuris</i>
	3 <i>Eleotris Fusca</i>
<i>Anguillidae</i> (Eels)	1 <i>Anguila bicolor</i> (A rather rare South African species)
<i>Cichlid</i> (Tilapia)	1 <i>Tilapia nigra</i> (Above Lugards Falls)
	2 <i>Tilapia mossambica</i> (Below Lugards Falls)

The *Tilapia* in Aruba were also examined and the following species identified: *Tilapia jipe*; *T. Zillii*; *T. Mossambica*; *T. Pangani*.

When dry parts of Africa become flooded, as they do occasionally, there are some unexpected consequences. Warden Marshall reports that early in April of this year, when just under 6 in. of rain were recorded in two days, one of the famous hippo of the Mzima Springs decided to go on safari. Many of the game tracks leading to the Springs had all the appearance of new rivers, and so this hippo was tempted to set off for new pastures. He spent the day time sheltering in waterholes made by the rain, but when these newly-formed pools began to dry up he found himself about eighteen miles from home. After a week of roughing it in the bush, and no doubt getting very sunburnt, he must have realised his mistake and returned at full speed to the Mzima Springs.



Photograph by H. G. Drewett.

*The Hippo who lost his way.*

Another strange consequence of rain was reported from the Eastern Section. Warden Sheldrick records that following a thunderstorm between Aruba and Buchuma in November, many East African bull frogs, *rana adspersa edulis*, were seen hopping about the roads at night. These frogs have been found at the Coast, but seldom inland. This is the first time they have been noticed in the Park, and they must aestivate for long periods underground and only appear when conditions are suitable. Some of the frogs measure 6 in. from nose to tail and are equipped with three teeth on the lower jaw. They are most voracious, and one kept in captivity did not hesitate to eat large Agama lizards.

Africans maintain that one of the enemies of the monitor lizard *varanus albogularis* is the Egyptian Cobra *naja haje*. This is borne out by two reports received. On the first occasion a Ranger saw a six-foot cobra in the process of swallowing a fairly large monitor lizard. On being disturbed the cobra disgorged the dead lizard and escaped.

On the second occasion Assistant Warden Kearney was driving along one of the narrow roads in the Mazinga Sisal Estate, when he saw a monitor lizard hurrying down the road towards him, hotly pursued by a large cobra. He stopped his vehicle and jumped out, whereupon the snake gave up the chase and disappeared into the sisal bordering

the road. The lizard was completely exhausted and lay in the road for some minutes before moving away.

Rain, or the lack of it, causes a great upheaval in the animal kingdom and many movements result. Mr. Drummond, of the Kenya Police Airwing, observed a huge herd of elephant moving down the Tana river just south of Hola at the end of September. They were seen on three successive days, moving about twenty miles a day. He estimated that the herd numbered well over a thousand and covered an area of three miles long by about a mile wide. At the beginning of October Mr. Hellens, also of the Police Airwing, noticed the same elephants between Garsen and Malindi, but by this time they had split up into smaller herds and were no longer on the move. This is the first reliable report from this region of a very extensive elephant migration.

Another report of an unusual kind came from the Yatta. A greater kudu bull was clearly seen. These beautiful animals used to live in many parts of the Tsavo Royal National Park and were seen by hunters of years ago, but in modern times it is very rare to find a greater kudu in any of the southern and coastal districts of Kenya.

The continual movement of game, whether forced or natural, must cause much interference with their normal breeding habits. There are several reports during the period of elephant calves being seen miles from any herd and sometimes without their mothers. Assistant Warden Jenkins saw an elephant cow near the Galana river just after it had given birth to a calf. This had taken place in an open plain away from any cover or shade. There were no other elephants within sight. When first seen, the calf attempted to rise but was unable to stand. It fanned itself continually with its ears and squealed every few minutes.



Photograph by H G Drewett.

*A noisy group of vultures.*

He watched it for one and a half hours, during which time its efforts became weaker. The mother was very restless, blowing dust continually over herself, and sometimes standing over the calf as if to shade it. On two occasions she pushed the calf with her forefoot, but was unable to get it to its feet. A variety of vultures alighted on nearby bushes; hooded, whitebacked, whiteheaded, lappet-faced Rupells Griffon, and one tawny eagle. The noises these birds made provoked the cow elephant to charge at them and scatter them. Assistant Warden Jenkins left the scene and returned again a few hours later only to find that the calf had not survived.

Elephant calves are occasionally abandoned by their mothers, and therefore subjected to all the hazards of the open bush. Two were rescued by Warden Sheldrick and brought in to join Samson and Fatuma, the famous two elephants which form part of the Warden's household. These four now make an impressive group; the older ones carefully instructing the newcomers in the rules of living in a stable, and recognising that the vegetable garden is out of bounds.

Temptation, however, came their way in May this year, when the four young elephants met a wild herd between the main gate and the Warden's house. All four youngsters went off and joined the herd, which by this time was on the move. The Ranger in charge of the elephants ran back to the gate to get help, but no trace could be found of the missing elephants by nightfall. By 11 p.m. Samson, the eldest of the four, returned to the gate alone and woke up the Rangers by trumpeting furiously. He was taken up to his stable, but was extremely restless and refused all food. The next day a further search was carried out over a wide area, and eventually by 6 p.m. Warden Sheldrick found Fatuma and the other two in a herd of approximately twenty-five elephants some distance away. The wild elephants moved off when they heard the Land Rover, but the tame ones remained behind. Fatuma responded when called, and was followed by the other two. They were very keen to follow their wild friends, and it was most difficult to get the truants back home.

A fair deduction from this amusing incident is that once young elephants, although brought up in captivity, have passed the stage when they require their mothers to feed them, they could presumably be released to join a wild herd. It is also interesting that the wild elephants did not object to the scent of humans carried by the tame elephants resulting from living in a stable and being petted by people.

Samson and Fatuma distinguished themselves in March by being exhibited at an Agricultural Show in Voi. The stand was very popular,

and large crowds packed in to watch these elephants at close quarters. Nearly a thousand people paid an entry fee, in addition to the hundreds of school-children who were allowed in free. Both Samson and Fatuma, although guilty of running away to play with their wild friends, made amends by adding to the publicity of the National Parks.

Another young orphan brought into the Voi establishment was a bushpig. It was caught by an officer of the Game Department during control work at Kilifi. The bushpig was promptly adopted by Fatuma, and every day it went out grazing in the bush with her. Although the pig was friendly towards most people, it took a violent dislike to the African clerk's family. For no apparent reason it suddenly attacked the clerk's wife, knocked her over and bit her hand. Her screams brought several people rushing to the scene, but before they could reach the woman, Fatuma, the elephant, appeared, and gave the pig a tremendous wollop with her trunk and chased it off into the bush. The woman sustained only very minor injuries, but it was the final episode in a sequence of troublesome events and the pig had to be removed. It was sent up to the Nairobi Royal National Park, where it got into more trouble with the radio operator, and its sojourn was very temporary.



Photograph by H. G. Drewett.

*A Warthog believes he is superior to a bush pig.*

Moving animals from one area to another is not always a simple operation. Small and tame animals present no great difficulty, but moving a wild rhino is a hazardous undertaking both for the rhino and for the people involved. I can foresee that it will be more and more necessary for wild animals to be saved by physically removing them from places where they are not wanted. During the last eighteen months a total of twelve rhino were released in the Eastern Section of the Park. These rhino were captured by Carr Hartley at Makindu to make room for a new African Settlement Scheme. Three of the rhino were marked with ear-tags, for subsequent identification. Most of them stayed within the vicinity of the Aruba dam. One, with an ear-tag, died shortly after it was released, and another unmarked rhino was found dead a few days later. It appears that these are the only two that failed to survive the tremendous upheaval of being captured and transplanted approximately a hundred miles.

A total of fourteen leopards were moved into the Park during the period and willingly adopted their new surroundings. No easy method has so far been devised of marking a leopard so that it can be recognised on some future occasion.

It is difficult to tell how far wild animals have a homing instinct. Warden Marshall records that a cattle-killing lioness, which was caught in a trap at Simba, was released in the Western Section. Some three weeks later this lioness was shot at Kibwezi, well outside the Park, as the penalty of killing more cattle. This means that the lioness covered about 30 miles, or half way back to where she was first trapped, within a few weeks. It seems that she was heading in the direction of what she regarded as home.

Owing to the continued lack of finance, no major developments were undertaken in the Tsavo Royal National Park during the period. Some roads were extended and two airstrips were constructed, but no additional tourist accommodation was possible. In fact, the Ngulia Safari Lodge, the first lodge built in any of the National Parks, had to be closed owing to dilapidation. White ants and weather wrought such damage that funds available did not allow for its repair.

A small shelter camp was built alongside the Kitani Safari Lodge as an experiment, and it has proved very popular. This consists of a small *banda* capable of holding at least six people, but without the comforts of a safari lodge. Visitors are provided with water and a field cooker, and they can hire equipment from the lodge nearby. It is designed for a family who wish to enjoy camping. I believe that this kind of development will suit the requirements of many local residents who are used to rougher safari conditions, especially when some of the safari lodges are converted into hotels with equivalently higher charges.

Unless these camps are carefully guarded in all seasons they soon get damaged by game. It often happens that when a place is deserted by people, wild animals, and particularly elephants, take over. An example of this occurred when the Murka Kyanite Mine, an establishment of some twenty houses in the Western section of the Park, temporarily closed down, and the elephants came in and destroyed most of the fences and gardens within a few weeks.

Even a crocodile can be blamed for damaging a tourist facility. One of the glass windows of the underwater tank at the Mzima Springs was smashed when a crocodile attempted to snatch the hand of a Ranger, while he was cleaning the window on the outside. The impact must have been considerable, as it was a small panel of thick glass.

Resulting from a Wardens' Conference held last year, experiments have been made with "game blinds". These are structures built at ground level, so that people can with safety watch and photograph big game at close range. On the Tiva river these blinds have been very successful. Warden Sheldrick reports that on moonlit nights he has seen a truly remarkable pageant of wild life. There is something very exciting about being on the same level as the animals, and yet having a feeling of security inside a strongly built entrenchment.

Warden Marshall considers that a very attractive "blind" could be developed at the Kamboya Drinking Club. An entrenchment near the water-hole would be of immense interest to visitors and easily accessible from Mtito Andei. There are many places in the Park where these simple but pleasing "game blinds" could be made, and I have hopes of seeing extensive development of this facility for visitors.

Game damage on the boundaries of the Tsavo Royal National Park continues to be a problem, and one of the main centres of trouble is in the Western Section, where the Park adjoins private farming land. The Ziwani Estate, which has a variety of activities, including sisal, citrus and other crops, suffers from depredation by animals coming out of the Park. I believe that the damage done is not as great as the manager usually claims. The fact remains, however, that giraffe took to eating sisal poles which are of use for other purposes on the Estate.

In the first quarter of last year it was found necessary to shoot three giraffe feeding in the sisal, and although this had some effect in driving the herds away it was not long before they returned. Six months later the Estate called in other assistance, and nineteen giraffe were shot. Even this did not deter the remainder from entering the sisal plantations.



Photograph by H. G. Drewett

*Why should a giraffe eat sisal.*

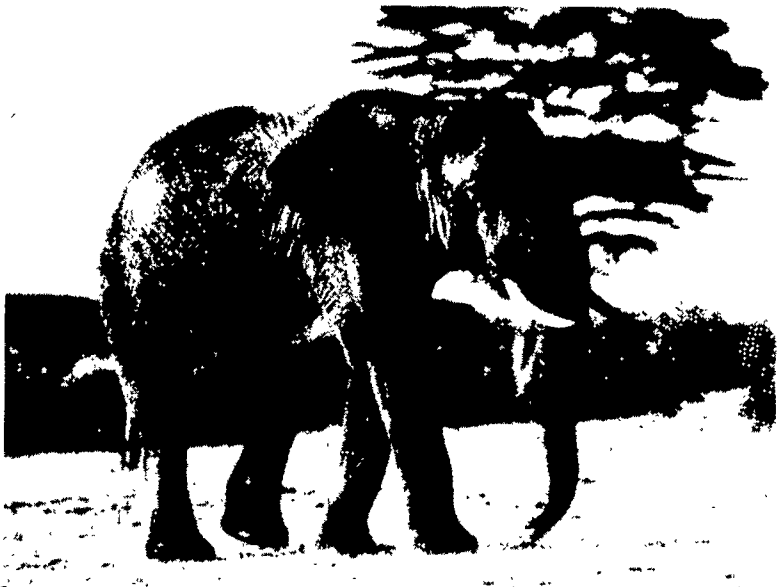


Photograph by H. G. Drewett.

In June, 1959, Warden Sheldrick again had trouble with elephant in a sisal estate near Voi. This has been a problem ever since the National Park was proclaimed. A variety of measures have been designed by the National Parks staff over the years in order to protect the boundaries of the sisal estate, but on almost every occasion the owners of the estate failed to carry out their part of the arrangements.

In June 1959 a bull elephant was shot in the Mazinga Sisal Estate, and the carcass was cut up and transported to the National Park headquarters at Voi, where it was carefully weighed. The details were as follows:—

Meat	. . . . .	4,321 lb.
Bone	. . . . .	2,249
Skin	. . . . .	1,326
Intestines (less contents)	. . . . .	632
Heart	. . . . .	43
Liver	. . . . .	134
Lungs	. . . . .	119
Spleen	. . . . .	25
Gonads	. . . . .	12
Kidneys	. . . . .	52
Tusks	. . . . .	<u>116</u>
		9,029 lb.



Photograph by H. G. Drewett.

*Five tons of elephant.*

Warden Sheldrick comments that this elephant, although carrying tusks weighing 58 lb. a side, was not a particularly large animal. He considers that a really large bull elephant from the same district could easily weigh an additional 2,000 lb., making something over 11,000 lb., or about five tons.

Earlier this year the sisal estate employed hunters with very doubtful skill to shoot elephants coming into the sisal at night. A dead elephant was found several miles inside the Park which had obviously been one of the victims of the onslaught in the sisal. Such a situation is quite untenable, since visitors are invited into National Parks to see wild animals, and they cannot be expected to protect themselves against dangerous wounded animals. Unless shooting on the boundaries is very carefully and wisely done, and any wounding of animals reported immediately so that they can be followed and destroyed, great danger results.

These difficulties point to only one conclusion, namely, that the troublesome boundaries must be adequately fenced. Wild animals cannot be expected or taught to remain within their sanctuaries when there are tempting crops just outside. An effective barrier between human settlements and wild animal strongholds, such as has been constructed in the Aberdare Royal National Park, is the inevitable pattern of any long range game preservation plan. It is a difficult and expensive project. I hope to see the day, however, when the animals of the Tsavo Royal National Park are effectively prevented from courting disaster by straying out of their fortress, and when they are successfully protected from poachers or dying of thirst within it.

## MOUNTAIN ROYAL NATIONAL PARKS

The event of the year was a visit by Her Majesty Queen Elizabeth the Queen Mother to the Aberdare Royal National Park. Preparations for a Royal visit are always exciting and extensive, with the main object of ensuring that the visit is a success. A proposal that Her Majesty should be requested to open the newly-constructed road over the high saddle of the Aberdare range of mountains at first sounded attractive, but as more details were examined, the anxiety of the arrangements increased. The Aberdares were by no means free of terrorists from the Mau Mau period, and it was known that at least six were still operating in the very section through which the Royal party would have to travel. It was also known that one of these terrorists was in possession of a Service rifle and a number of rounds of live ammunition.

The responsibility for protecting the Royal party from people lay mainly with Ian Henderson of the Special Branch of the Kenya Police, whereas the responsibility for protecting the Royal party from wild animals lay with me. I preferred my part of the task, although the risks were perhaps less predictable. During the planning for the Royal Visit, Ian Henderson and his department made very special investigations in the area. A few weeks before the end of January a decision had to be made as to whether or not it was feasible for the Royal party to go over the route. Ian Henderson, after careful thought and with advice from his investigators, came back with a firm answer, "Yes, it can be done". I shall never cease to admire the detailed skill with which Ian Henderson handled this situation and the resolute manner in which he made his decisions. His assessment proved to be right, in spite of the fact that he had to rely on ex-terrorists, not only to inform him of the situation, but also to guard the route along which the Queen Mother travelled.

Having made a decision on the security situation, plans for the visit proceeded with more haste, although not without many anxieties and setbacks. The road, for instance, was a problem in itself, because, although in dry weather it is easily usable by ordinary motorcars, it only needs a small fall of rain to make it impassable. I planned to double up the transport so that the entire party could be transferred into four-wheel-drive vehicles, but it sometimes happens that even a Land Rover cannot get through. I had also to expect that the party might reach the high saddle of the Aberdares, only to find that the road down the eastern side was too slippery to use and would have to return to Naivasha. This contingency was also covered, and aircraft were earmarked as a stop-gap.

The road up the western side of the mountain some years ago suffered complete closure by a land slide. Fallen boulders and slipping

banks had been cleared and the mountain-side allowed to consolidate. Just a few weeks before the Royal Visit some people travelling up the road, evidently not aware of how long before the landslide had occurred, caused a panic by reporting that the road was hopelessly unsafe. Engineers and technicians were hurriedly summoned, but they gave the verdict that the road was safe to use.

The Royal Visit, in addition to going over the Aberdares, was to include a night at "Treetops", the famous tree-house on the eastern side. Arrangements for this part of the tour were also not without problems. It was a particularly dry period, and water for "Treetops" had to be carted a long distance from either Nyeri or the nearest river. Hasty arrangements were made to install a pump and piping, so that "Treetops" could be supplied with water. A pump lent by the P.W.D. was of great assistance, although it broke down frequently. During the operation of laying the pipe to "Treetops", an unexploded bomb was discovered nearby, being a remnant of the Mau Mau campaign. A hurried s.o.s. was sent to the Army authorities, and an officer arrived equipped with the knowledge and skill to handle this type of explosive. He was more frightened of the elephants than the bomb, whereas the Warden regarded the bomb as more dangerous than the elephants. Their respective fears resulted in the operation being conducted on tiptoes and with great misgiving. The bomb was safely dealt with, and no elephants objected. One more unexpected anxiety was out of the way, and the water reached "Treetops".

On the 15th February, 1959, the day before the Queen Mother was due to visit the National Park, nearly five inches of hail fell in Naivasha on the eastern side of the Aberdare Range. The outlook was black and the authorities pressed to have the trip cancelled. By 8 o'clock the following morning, Warden Alexander came over the top of the mountain and reported dust and dry weather conditions all the way along the route. A further reassurance was given by "Punch" Bearcroft, flying a Kenya Police Reserve aeroplane far above the mountain, and by radio, saying, "Thumbs Up". I therefore took great pleasure in sending a radio message back to the control base that the trip would proceed as arranged.

The rendezvous selected was just below the western slopes of the mountain at the entry to the main forest. I wondered what comments Her Majesty would make on being driven over the route, which, although almost on the equator, is in no way tropical. The convoy arrived at 11.30 a.m. and from there the Queen Mother travelled to the top of the mountain in my car. The journey was uneventful, and Her Majesty took very great interest in the strange variety of plant life and the many wild flowers which peeped out from under the bamboo canopy or from the base of a stately podocarp tree.



Photograph by Department of Information.  
*H. M. The Queen Mother arriving at the highest point on the Aberdare Road.*



Photograph by Department of Information.  
*Cutting the tape.*



Photograph by The East African Standard.

*Brilliant sunshine heralded the Royal visit.*

At the highest point, 10,508 feet, we stopped, and the Queen Mother performed the ceremony of cutting a tape and declaring the road open. It seemed a little unrealistic, as it was so far from anywhere and so high in the sky. It was witnessed by a small group of important people, including the Governor and the Chairman of Trustees.

From there we travelled across the beautiful Aberdare moorland, and stopped here and there to examine wild flowers and other things of interest. The flowers were not at their best, as the *helichrysum* had faded to almost white, and there were only a few crimson *gladioli* waving at us as we went by. A fine selection of *hipericum* and many kinds of *alchemilla*, dominated by giant *lobelia* and groundsel, attracted much interest. The Queen Mother expressed great delight at the scene and acknowledged that it reminded her of Scotland, with its rolling moors and giant heath and other plants that could so easily be taken for gorse and heather.

Lunch was served in a small *banda* built for the purpose, directly opposite the Magura waterfall, where we watched the feather plumes



Photograph by Department of Information.

*The cave behind the Waterfall.*

of this 47 ft. fall cascading down in a single leap. It was one of those magnificent Kenya days when there was hardly a cloud in the sky, but just enough to fleck the eastern horizon. All the plants seemed to glisten in the brilliant sunshine, and it was impossible to believe that this mountain range had so recently been the stronghold of Mau Mau.

Her Majesty was not aware that Ian Henderson, in his wisdom, had arranged to have the picnic site guarded by ex-terrorists, to ensure that no real terrorist could get in and take us by surprise. After the Royal convoy drew out to proceed on its way to "Treetops", forms moved on the horizon rising up from the heath and long grass where they had been hiding and keeping watch. This is a remarkable switch of loyalty when one realises that not so long ago these ex-terrorists were concerned in raiding villages, perpetrating murders and carrying on the bestial activities of the Mau Mau cult, and now here they were, still in their wild dress and some of them armed, but responsible for the safety of the greatest Lady in their land.

After descending from the eastern side of the Aberdares, the route to "Treetops" went through the Kikuyu Native Reserve, and it was interesting to see thousands of Africans that lined the route waving

flags and giving a really sincere welcome to the Queen Mother. I was immensely impressed with the loyalty which was displayed by this tribe, which not so long before had been so involved in the rebellion which took nearly six years to quell.

The walk through the forest to "Treetops" was safely achieved, and in daylight several animals appeared to pay their respects to the Queen Mother. One particular rhino returned many times to have a drink at the pool, perhaps with the intention of suggesting that the forest was full of rhinos. Each time he made the same stupid noises, and no-one was beguiled by his self-imposed stunts.

After dark more rhinos came in, supported by a number of buffalo and all the other creatures that make up the general entertainment at "Treetops". Elephant failed to parade, and this may have been due to the forest being patrolled beforehand to make sure that no terrorists were lurking near "Treetops". This was a pity, because elephants are the main attraction and always the most interesting of all the animals who come to visit the waterhole. In the morning the Queen Mother was taken to see the stump of the old fig tree which carried the original "Treetops". This was the Wendy House that made "Treetops" internationally famous, and which was burnt down by Mau Mau in 1954. It was also the place where Princess Elizabeth spent the night, only to learn on the following morning of the death of her Father, King George VI.

I was much encouraged by the Queen Mother's interest in wild animals and her praise for the achievements of the Royal National Parks. As I took my leave I felt very honoured to have been concerned in this Royal Visit and to have been privileged to enjoy the charming company of Her Majesty. I was indeed thankful that the journey over the mountain and the visit to "Treetops" had been achieved without any untoward incidents.

The Royal Visit focussed a great deal of attention on the Aberdare Royal National Park and by the end of March, only a matter of six weeks after the visit, over 1,500 people crossed the route over the high saddle. This increased traffic called for special arrangements, and extra control points had to be established.

Storms on the one side of the mountain cannot be seen from the other side, and visitors cannot easily assess their chances of getting over the route. A crying need for the better administration of this Park is for more radio equipment, as without it communications are quite inadequate. I have hopes that in the next development period it will be possible to install mobile and fixed radio stations, so that accurate information can be passed backwards and forwards, not only about weather conditions and the usability of the road, but also to help motorists whose cars are unable to make the grade.

A few months after the Royal Visit, one of the remaining terrorists surrendered at the Zaina Forest Station. His comrade armed with a .303 rifle and some rounds of ammunition chose to go on living in the forest. The terrorist who surrendered led police patrols to all favourite haunts in an effort to capture the armed terrorist, but without success. Ten days later he entered the Kikuyu Reserve, held up women with his rifle, and fired at some tribal police. They returned the fire and he was killed outright. These two men had been in the forest since March 1953, and latterly had been living in the vicinity of Track 9, which is not far from the picnic place chosen for the Queen Mother's lunch. It was interesting to find that they were well fed, fit, and warmly clothed in coats excellently fashioned from hyrax skins with leopard skin collars.

The Royal Visit also focussed a great deal of interest from all corners of the world on the already famous "Treetops". Major Sherbrooke Walker, who pioneered this enterprise, decided that it would have to be expanded in order to accommodate the normal size of a tourist party. With the approval of the Trustees and with the expert advice of Sir Alexander Gibb and Partners, the structure was altered, reinforced and made to hold up to twenty-two visitors. Lovers of "Treetops" first announced that this was the end of the pleasant and fascinating atmosphere of the tree-house, and it would now merely be a kind of hotel in the forest. On the contrary, reports have since come in from all quarters praising the expanded accommodation. Apart from the behaviour of some visitors themselves, the additional numbers in no way mar the pleasure of those who wish to sit silently watching the big beasts of the forest coming in to drink, bathe, fight, or carry out any of their natural rituals.

Out of the ninety-one nights during April, May and June last year, elephant were seen on thirty-one nights, buffalo on seventy-eight and rhino on eighty-four. This shows that rhino are the most regular visitors and seldom are buffalo not also on parade. In addition, warthog, giant forest hog, water buck and baboon are seen on every occasion. A pack of fifteen hunting dogs were seen killing a young female water buck. This has happened on several occasions. Another time a hyaena chased a water buck, which later turned round and advanced on the hyaena. The hyaena ran away. Two buffalo bulls were watched while they fought for over half an hour in the moonlight. One was knocked over into the water, and the victor stood over his fallen opponent for twenty minutes. Later in the year a party saw a young elephant being tossed into the air by a rhino. This is unusual, as squabbles between rhino and elephant usually result in the rhino getting the worst of it.

It is impossible to understand the reaction of some visitors to "Treetops". A diary note for October shows that the animals which came to the pool in daylight included several sounders of warthog,

a good many bushbuck, a lone bull buffalo, Harveys duiker, colobus monkeys and baboons. Towards evening a lone bull elephant appeared, followed soon afterwards by thirty-eight more, then a giant forest hog with two piglets probably only two weeks old, and forty more buffalo. After dark the elephant increased to fifty, and many more buffalo came in and mingled with six rhinos, more forest hog and some hyaenas. At the conclusion of this pageant of wild life, it was described by one visitor as "a perfectly beastly day". Whether he meant it was full of beasts or it was not a good day must remain a mystery.

Geoffrey Mason Smith, the regular white hunter in charge of "Treetops", makes an interesting comment in his diary for November. Having compared the statistics of recent times with those of the 1930's, he is firmly of the opinion that buffalo are now seen far more regularly and in greater numbers. In 1930 buffalo were very rarely seen at "Treetops". To make it even more spectacular, occasionally some bulls carrying immensely large horns come in after a herd has been to drink. He also comments that elephant are on the increase, and every family has a full quota of young and newly born calves, which generally outnumber their parents. Giant forest hog are also seen far more often than they were some twenty or thirty years ago. Sounders of these hogs come out of the forest in broad daylight, generally accompanied by one or two very small piglets carefully guarded by the boar. Captain Moore, V.C., ex-Game Warden of Tanganyika, holds the opinion that giant hog do not have very large families, although at "Treetops" as many as seven piglets have been seen together in charge of one lone sow. It is not known whether this is a kind of *creche* system, or whether all the piglets belong to the same mother.

A leopard provided great entertainment by stalking through underneath the tree house and attempting to pounce on a genet cat, within the floodlit area. It is surely despicable for a leopard to try to catch a genet cat. The leopard, however, was not quick enough, and the genet cat escaped into some bushes nearby, but in doing so frightened a rhino which was drinking at the pool. The rhino swung round, charged the leopard and drove it away.

December was a very good month for "Treetops". Elephants were seen on twenty-two nights, thirteen in succession. On several occasions they exceeded three hundred at one time. One lone bull elephant, who is known to be bad-tempered, was badly provoked by a rhino. They were both at the pool, but the rhino continually worried the elephant. Eventually the elephant shuffled round to the other side of the pool and began drinking at a more peaceful point. The rhino followed, and again made rude noises, whereupon the elephant suddenly turned round and squirted a trunkful of water at his persecutor. The rhino then went off squealing into the forest.

“Treetops” is situated in a salient of the Aberdare Royal National Park, which is surrounded by farms and Native Reserve. This necessitated the construction of a reliable barrier round the salient to prevent the forest-dwellers coming on to the farms and causing damage to plantations and danger to people. A ditch, seven miles long, was dug round the boundary and completed in 1959. As soon as the animals inside the forest realised that they were being hemmed in, it was not long before they learned to negotiate any weak places in the ditch. It seemed that the ditch was going to be a failure, so it was decided to support it with an electrified fence on the forest side. Experiments proved this method to be futile, as the elephants easily pulled up the posts.

A barbed and stranded fence was then put along the bottom of the ditch, which was far more effective. Some stretches of the ditch were also covered with bushes, which also improved effectiveness. No doubt this suggested to the elephants and their friends that it was some kind of traditional game pit, and they were frightened to cross.

By the end of 1959 these various methods were accepted as successful and very few animals got out of the Park, and in time I believe they will give up trying to cross the ditch.

There are, however, two sides to a barrier, and some wandering animals were prevented from entering the Park by their normal routes. The most dramatic of these experiences was when a herd of thirty elephants, mostly cows and calves, migrating from Mount Kenya and using their traditional route past “Treetops”, found themselves outside the forest salient and unable to get in. All available rangers and labourers were mustered in an attempt to drive the herd across a section of the ditch which had been broken down for the purpose. After many hair-raising experiences and close shaves, the plan failed dismally, with the Warden, Rangers, and the labourers completely routed and in full retreat.

A second breach was made further along the ditch and the performance was repeated. This second attempt ended in disaster when the herd encountered a labour gang still working on the ditch, in blissful ignorance of the approaching herd. Realisation of their peril was forced upon them by a terrifying scream of rage from one of the elephants, poised on the brink of the ditch above their heads. As one man they ran for their lives, leaving behind a variety of hats, shirts, coats and the rest. The angry elephants, surprised by the fleeing labourers and frustrated by the ditch, vented their feelings on articles of clothing in full view of the owners who had taken refuge in nearby trees. For some seconds items of apparel were seen flying in all directions, thrown about by the elephants. All but one hat and one coat were later recovered, and these latter are believed by the Rangers to be still in the possession of the elephants.

The herd continued northwards through several farm fences, and were next seen standing on the road a few yards outside the gate to "Treetops", only five minutes before the "Treetops" party was due to arrive. With great difficulty and danger the gate was opened and an attempt made to drive the herd through, but this also failed. The "Treetops" hunter in charge made a comment in his diary to the effect that when he arrived with his party to enter the "Treetops" salient, he saw Warden Woodley, rather red-faced, exhausted and worried by his recalcitrant *protégés*, but his attention was undoubtedly diverted by the party going to "Treetops", for it consisted of famous mannequins from London.

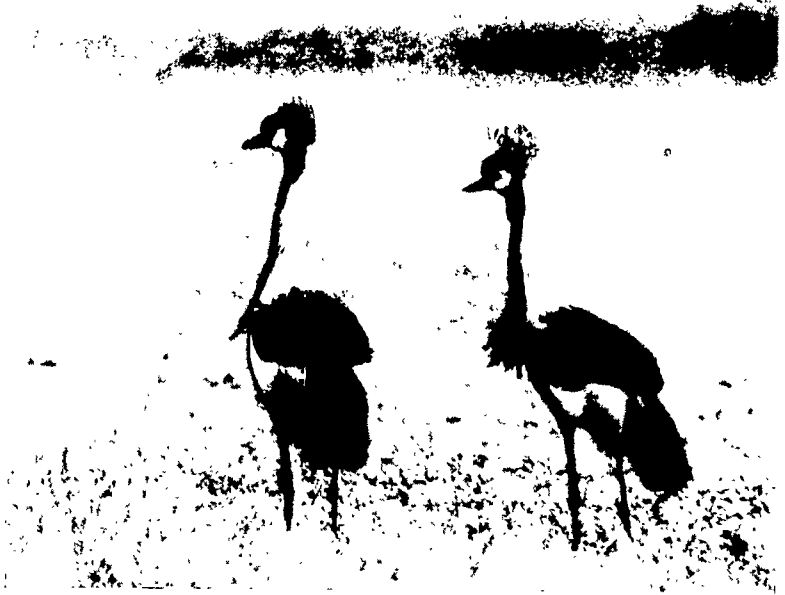
The mannequins went to "Treetops" and the elephants were left to settle down. A close watch was maintained for the following two days and nights, after which they found their own way round the end of the ditch and into the Park. Until such time as these wise old animals learn that their traditional route from Mount Kenya to the Aberdares has been closed, there will be these occasional troubles.

I have previously postulated that game protection areas, especially those bordering on farming land or centres of human activity, will have to be fenced so that the animals cannot get out and people cannot get in unlawfully. This ditch round the "Treetops" salient is proving to be a successful barrier. I regard it as a very important development in the management of wild life areas.



*Secretary Bird.*

Photograph by H. G. Drewett.



Photograph by H. G. Drewett.

*Golden crested cranes.*

Birds are not often mentioned by visitors to "Treetops", and yet there are many to be seen. The diary note for the first quarter of this year contributed by Mr. Errol G. Whittall, points out that the most spectacular birds seen at "Treetops" on a two-day visit were a Crowned Hawk Eagle and a Bateleur Eagle. He remarks that the first is one of the biggest eagles in Africa, and was obviously nesting somewhere nearby. The nest, or eyrie, often attains huge dimensions and is placed in a high forest tree, where the eggs are laid during February. This eagle lives on the tree hyrax and young monkeys of all species. The Bateleur Eagle is usually the bird of the low thorn country, the Northern Frontier and the Coast Province, and is distinguished by its superb mastery of flight, having twenty-six primaries and a very short tail. Its swoop is like that of a six-inch shell falling through the air. From "Treetops" it is easy to see one of these graceful birds swinging wildly in the north-eastern wind without effort, sometimes near the trees, and at the next moment carried up on a thermal far above the pool.

Other birds seen by Mr. Whittall on this short visit to Treetops include:—

European Stork (White Stork)  
Great White Egret  
Wood Ibis  
Grey Heron  
Curlew Sandpiper  
Little Stint  
African snipe  
Redbill Duck  
Yellowbill Duck  
Grey Wagtail  
Emerald Cuckoo  
Green Pigeon  
Ring-necked Dove  
Dusky Flycatcher  
Whiteye and Green Whiteye  
Reichenow's Weaver  
African Wood Owl (Call "Where are you")  
Pale Chanting Goshawk  
Crowned Hawk Eagle  
Black shouldered Kite  
Silvery cheeked Hornbill  
Wood Hoopoe  
Red Billed Hornbill  
Cinamon-breasted Bee-eater  
Hartlaub's Turaco  
Scaly Francolin  
Red-rumped Swallow  
Anteater Chat  
Stone Chat  
African Citril  
Hammerkop  
Black Headed Oriole  
Thick-billed Weaver  
Green Forest Bulbul  
Hobby  
Black Throated Honey Guide  
Black Breasted Harrier-eagle  
Red eyed Dove  
Wood Sandpiper  
Brown-backed Scrub-robin  
Robin chat  
Cape Thrush—Olive thrush  
White-browed Robin Chat (The Cossypha and the finest songster  
and mimic in Kenya)  
Speckled Mousebird (Colie)  
Paradise Flycatcher  
Bulbul  
Red and Yellow Barbet

## Woodpeckers

Cisticola (These birds sing in duet, the male utters "Gracie" and the female says "Field")

Bou Bou Shrike (otherwise known as "Bell Bird", "Rain bird" or "Anvil Bird").

Verreaux's Eagle Owl

Bateleur Eagle

Augur Buzzard

Jackson's Whydah

Malachite Sunbird

Double Collared Sunbird (Eastern)

Variable Sunbird

Yellow-billed Oxpecker (seen on bushbuck)

African Rock Martin

Yellow Billed Kite

Crested Hawk Eagle

Spekes Weaver

Puff Back Shrike

Masai Red Headed Parrot

Olive Pigeon

Red Fronted Tinker Bird

Harrier Hawk

Streaky Seed Eater

Rough Winged Swallow



Photograph by H. G. Drewett.

*Augur Buzzard.*

African Rangers seldom take any interest in birds. They are, however, acquiring a good knowledge about the larger mammals. The Ranger Force patrolling the Aberdare National Park is made up of a mixed group of different tribes, some of which are ex-terrorists from the Mau Mau period. These ex-terrorists are proving to be really capable, loyal and excellent workers. Their life is not easy, because they have to know enough about wild animals to protect themselves. Some Rangers who were stationed along the game ditch opposite one of the valuable coffee farms to prevent depredation, had an unfortunate experience with a rhino. During the night this rhino charged their tent, but the occupants had sufficient warning to bale out just before the intruder went through the tent like an engine through a tunnel. Some time later an elephant tripped over the guy ropes of the same tent and the Rangers had to make another hasty escape.

They are expected to have microscopic eyesight, as well as long range vision. A visitor reported that she had lost a very valuable gold wrist watch and described the place by a general indication covering about sixty yards of the thickly wooded roadside. A Ranger patrol in the vicinity was warned to keep a look-out for the watch with somewhat the same chances of finding a pin in a hay-stack. Surprisingly enough, more by accident perhaps than by skill, they found the watch a few weeks later hidden in the bushes, over a mile from where the lady thought she had lost it. She was naturally very pleased with the searching eyes of the Rangers.

The Head Ranger had another excitement when a large bull buffalo charged into his Land Rover. On seeing the buffalo, he stopped the Land Rover, whereupon the buffalo turned, charged, and hit the jerry-can in the front of the vehicle with the boss of its horns. It rushed past the Land Rover, tearing a long gash in the door, and then calmly proceeded to graze again as if nothing had happened, within full view of the frightened occupant.

Elephant have frequently been seen on the moorland, generally in the wet weather. Perhaps they move up to these more open ridges to avoid the slippery mud of the forest and the continual dripping from the trees. They are very partial to the giant thistles which grow on the moorland known as *Carduus Sp.* Buffalo and rhino are also frequently seen out in the open, and, in course of time, I predict that a journey over this moorland will include a very much greater game interest.

The elusive bongo have been showing themselves on more occasions, and Warden Woodley reports that when patrolling on foot he approached within a few yards of a bull bongo, quite undetected. When the bongo saw him, it stood for a few moments to assess the situation and then bounded away into the forest. Bongo have also been seen on the routes up to the moorland within the forest belt,

and have not taken fright immediately, but have moved off calmly into the shelter of the forest. This is most promising as it will be one of the highlights of this Park if visitors can see and photograph these beautiful antelopes in their natural surroundings.

The attraction of the high moorland will be increased when fishing becomes available in many of the rivers. Although some of them were stocked many years ago by Colonel Grogan, the fish are small, and it is doubtful whether there is enough food to support a large fish population in these high level streams. As an experiment, it was decided to plant American char or Brook trout (*Salvelinus Fontinalis*) in one of the tributaries of the Chania river which has so far not been stocked with any kind of trout. By August, 1959, these fish had attained the average length of 7 in., and Mr. Martindale, the Fisheries Officer, is impressed with their progress and believes that they will provide good fishing in due course.

In addition to big game, "Treetops", wild flowers, and beautiful scenery, this National Park has a spectacular number of waterfalls. Some of these can be seen from the main route over the saddle, whereas another group of falls, more difficult to reach, has recently been properly inspected and measured. With the assistance of equipment from the Survey Department and the Police, the Warden was able to make a very accurate measurement of the two main falls which, surprisingly, come out at a height not far short of 1,000 ft. The Karuru falls go over in three leaps, the first being 383 ft., the next 427 ft., and the last 84 ft., making a total of 894 ft., almost in a continuous fall. The Gura Falls are similar although not quite so high and leap in stages of 475, 113 and 203 ft. Unfortunately the Falls converge into a huge amphitheatre and it is not easy for anyone to get a full view of them or to take good photographs.

I am quite sure that the Queen Mother did not appreciate that cutting a tape at 10,508 ft. on the saddle of the Aberdares, would be the start of great activity on this mountain range. Since that date a great number of people have learned what a wonderful area it is. It holds immense interest for game lovers, bird watchers, botanists and those in search of recreation, an invigorating climate and spectacular views. In the achievement of opening the Park to the public, I am extremely grateful for the cooperation and assistance given by various organisations and people. In particular, I would mention the Forest Department, whom we regard as our godfathers in this area for their tutelage and for designing and accepting the responsibility of a forest fire control plan. I also pay tribute to the Ministry of Works for helping us over many difficulties, like pumping water to "Treetops", and retrieving a road grader hanging over the side of a cliff. Much praise also goes to a number of honorary wardens who are always willing to assist on all occasions, the most energetic of which being Bill York, who has frequently filled the gap when the Warden was away.



Photograph by Mervyn Cowie.

*Dr. and Mrs. Fairfield-Osborn of New York and Warden Woodley at the Magura Waterfall.*

Turning now to Mount Kenya Royal National Park, I cannot report any development. Finance has not been available for a number of years, and the original plan of making a road up through the forest to the glaciers has not progressed further than 9,000 ft. It is, however, a great attraction to mountaineers as being one of the most difficult climbs in Africa. Unfortunately, a fatal accident occurred early this year, when two climbers, Sigmund Straubinger and Tony Levy, were killed on the mountain.

Straubinger and Levy left the Top Hut 15,600 ft. at 5 a.m. on Saturday, February 20th, and were seen next by their companions on the summit of Nelion at 12.30 p.m. They moved on towards Batian and were next seen descending at 7 p.m. on the South East ridge close to Mackinder's Gendarme. A little over an hour later, their companions and members of another party under Barry Cliff in the Top Hut, heard distress signals and several of them went straight off across the Lewis glacier to investigate. They discovered Straubinger dead and Levy lying injured somewhere along to the south-east face above them. In spite of all attempts by rescue teams and others and a most valiant effort by Barry Cliff and his companions, Levy died near Klarwill's Hut when being carried down the mountain.

The two climbers attempted to continue the descent of the face in darkness, and apparently selected an unsound belay point from which to abseil. Whilst Straubinger was in the process of abseiling, the belay gave warning of detaching itself from the rock face. On hearing this, Levy threw himself on to the belay in an effort to hold it in place, but was unable to do so, and both men fell. Straubinger fell roughly 300 ft. to the scree below, and Levy fell some 30 ft. on to a ledge. He had to stay on the ledge the remainder of that night, while Barry Cliff and his other companions did all they could to give him food and keep him warm. Next day he was lowered to a larger ledge where it was easier to look after him. When rescue equipment arrived (early on the second day after the accident) it was a major operation to lower him to the scree at the foot of the climb, but these fine efforts were unsuccessful.

There have been several accidents on this mountain, and I imagine there always will be, but it is a challenge that is held out to any adventurous explorer or climber. Like all high mountains, it has a fascination. In the words of Shipton relative to Everest, "You have to climb it because it's there".

## MARSABIT NATIONAL RESERVE

In my report for 1958 I drew attention to the need for the conservation of water supplies in the main mountain ranges within this National Reserve. I pointed out that practically no road or other development had been achieved in that year, partly due to lack of money and also because this large area was awaiting its fate, resulting from the recommendations of the Game Policy Committee. I said that whatever may be its value faunally, no one can ignore the warnings of experts who predict that unless the catchment areas of the Mathews and Ndotos Mountains are relieved of their burden of Samburu cattle, there will not be enough water in the lower country for man or beast within twenty years.

This is purely a matter of proper land use. If the catchment areas were respected for their inherent value as such, the preservation of wild animals within them would become a secondary and by no means a detrimental requirement. When wild animals, and even elephants, are not confined in small areas the damage they do to the land and vegetation is negligible. It could not be otherwise, since for thousands of years wild animals have not destroyed their habitat. If the proper use of land were assessed in these catchments, considerable sections of the Mathews and Ndotos Mountains could be converted into National Parks, where the game could live in safety.

The whole of this section of the Reserve is at present out of reach to the average traveller, since it involves a major safari to get through. That is perhaps the great charm of the north. It is still a section of Africa which is unspoiled by civilization. If only wise men could see that it is preferable to keep it that way and not allow the mountains to be over-grazed by cattle, it could still remain a pristine sanctuary supplying water to the lower plains. By this means refuges could be created for the northern type of oryx, which have declined in numbers very pointedly in the last few years, as well as for the stately Grevy zebra. It is also the home of the reticulated giraffe, and although there are still many of these animals, they too demand a place under the sun. These were my views over a year ago.

Since then three things have happened. The first is that the Government has announced its policy in regard to the Marsabit National Reserve. The second is that very increased damage by cattle and goats has occurred on the eastern side of the Ndoto Mountains. The third is that many of the denizens of this large wild life area have suffered very disastrously from an outbreak of rinderpest.

The statement of policy by the Government, follows to some extent on the recommendations of the Game Policy Committee, with which, as a member of the Committee, I disagreed. In this statement a long paragraph is devoted to the financial implications of various schemes for the management of the Reserve, leading to the conclusion that "While it is believed that the acceptance of the Committee's recommendations would result in better control and management of the area,

there is no prospect of the additional finance required being made available in the foreseeable future."

The statement goes on to refer to other recommendations put forward by the Game Policy Committee relative to Marsabit Mountain and to creating a small National Park there and on the Uaso Nyiro river. After referring also to the need to preserve the Mathews and Ndotos Mountains as a catchment area, the statement continues thus:

"Within the existing Marsabit National Reserve, large numbers of wild animals are competing for grazing directly with cattle. Grazing control schemes are being instituted and reafforestation for the conservation of water supplies is required. These schemes, however, will not succeed unless some game control measures are instituted to relieve the pressure of the grazing in certain areas. Such measures will be carefully planned so as to ensure that wild life is not disturbed more than is essential for the protection of the legitimate human interests involved. Under these circumstances the Government proposes to abolish the Marsabit National Reserve."

The Trustees have always recognised that the Western section of the Marsabit National Reserve should not be included within it, since on the western plains there has been considerable conflict between cattle and game for the relatively sparse grazing and scarce water. They have consistently maintained, however, that the mountain ranges, including Marsabit Mountain, should be protected as catchment areas in which game could be allowed to live peacefully and safely. This departure from any previous plan put forward by the Trustees, or by the Game Policy Committee, now postulating the complete abolition of the Marsabit National Reserve, with nothing to take its place, cannot be accepted as being in the best interests of preservation. Although the Forest Department has made strenuous endeavours to demarcate the forest belts on the Mathews Range and to restrict the number of cattle and other livestock using the catchment area, it has not been possible to prevent damage in seasons of drought.

Moreover, to declare the whole of this National Reserve as a controlled area in which hunting or the destruction of game will be allowed in varying degrees, is not a method that can withstand the continual pressure for additional cattle grazing areas. The kernel of the problem is, of course, to reduce the burden of excessive livestock and to protect the catchment areas by piping the springs out on to the lower country to give access to water.

National Reserves were established some twelve years ago as a temporary measure, but always with the object of conversion to national park status. A national reserve was the first step, and the

only possible step at that time, towards creating a national park. More recently, the Government has stated that "in the last resort the complete preservation of game can only be assured fully in national parks."

Thus, the abolition of the whole of the Marsabit National Reserve is an admission that the claims of excessive native cattle have preference, to their own eventual cost, over the preservation of the catchment areas and the wild habitat. It is not a question of whether or not the area should continue to be a national reserve, since the Trustees have no powers to prevent overgrazing. This decision by the Government sounds the death knell of the last wild stronghold in Kenya.

The second development since my last report is the excessive damage to the habitat which has occurred recently in the Ndotos Mountains. This damage is caused by livestock being driven well up to the crest of the range. In places where I used to see shady springs and forest glades, one can now only find dead trees standing on pedestals, with their roots exposed by excessive erosion. The springs are drying up. The area suffers from a desiccating climate and the prospect of reforestation is very poor. It would appear therefore that the predictions of the experts are coming true within a very much shorter period than twenty years, and much of this Northern area is being turned into a desert.



Photograph by Mervyn Cowie.

*Greater kudu on Marsabit Mountain.*

The third misfortune is that there has been a very disastrous wave of rinderpest. Warden Dalton reports in the quarter ended December, 1959, that this large scale outbreak reached the Mathews area. It affected buffalo which died in large numbers, and there were many cases of giraffe, eland and oryx being affected. In his report for the subsequent quarter he records that rinderpest played havoc with wild animals throughout the entire Reserve, and was still rampant on Marsabit Mountain and along the Uaso Nyiro river. Giraffe have been especially hard hit in the Uaso-Isiolo section. The famous herds of greater kudu on Marsabit Mountain have been reduced to such an extent that, in his opinion, it will be many years before they recover, if they ever do. The herds of buffalo, which were nearly always to be seen near the Uaso Nyiro safari lodge, have fortunately not been so badly affected, possibly due to some natural immunity built up from previous infections of rinderpest.

Thus, the outlook for the Marsabit National Reserve can only be a gloomy one. It seems inevitable that it will no longer be scheduled as a potential preservation area under the control of the National Parks Trustees.

A further disaster fell upon Marsabit Mountain. Warden Dalton reports that in the last quarter of 1959 a fire started by honey-hunters in a projecting tongue of forest on the lower eastern slopes of the Mountain, soon spread into the surrounding area of mixed grass and forest. The grassland burnt very quickly. The fire raged for three days and all local resources were marshalled to fight it. The area burnt out was approximately three square miles, of which nearly half was good forest. It is difficult to assess the amount of damage done, but many thousands of olive and other valuable trees were destroyed. It is unlikely that this section will recover without expensive human aid. Although three square miles does not sound large in the huge extent of the Reserve, almost every tree is valuable on a mountain like Marsabit, since it helps to build up the only water supplies in the area.

This leads me to emphasise an opinion which I have held for some years, namely, that I doubt if it is possible entirely to prevent fires in any dry African forest. In spite of fire plans and all kinds of firebreaks and other precautions, there is always someone, such as a honey-hunter, who is stupid enough to start a fire in an area in which it cannot easily be checked. Having kept fires out of an area for a number of years, the conflagration is then so much greater and even trees which are semi-fire resisting are destroyed. It seems better in places where sufficient control is impossible to accept that there must be light burns every season, in preference to a huge conflagration once every few years.

Nature is harsh in this wild area. It cannot stand the cumulative effects of rinderpest, fire, and a desiccating climate, augmented by

excessive over-grazing. I have some sympathy with the native tribesmen themselves, since it is their policy to increase their cattle herds, and they naturally cannot accept that they must reduce their wealth. The day of reckoning will come however, when there is not enough grazing or water for cattle, game, or people, and it will just be one more part of Africa that has gone to desert.

This is a sad but inevitable conclusion, more especially so as the northern area is such a fascinating wild part of Africa. During this period I made a very enjoyable visit to the south-eastern shore of Lake Rudolph. This lake is like an inland sea, nearly two hundred miles long and some twenty to forty miles wide. Lying in the bottom of the Great Rift Valley, and bordering on Ethiopia, it is inaccessible, mysterious and exciting. It was discovered by Count Teleki and Von Hohnel during their courageous journey of exploration in 1888, and christened "Rudolph" after Prince Rudolph of Austria.

The western shore can be reached by doubtful and treacherous "roads" serving the outposts of the British Administration. The District Commissioners, The King's African Rifles, and the Kenya Police, strive to maintain peace and justice, in a desolate waste, used only by primitive tribesmen and raiding bands from Ethiopia. The eastern shore is even more inaccessible. The only routes are from Marsabit to the East, and from Baragoi to the South, in each case crossing lava wastes by following camel tracks and using causeways of boulders which frequently have to be built up as you proceed. It is always a miracle to me how any mechanical transport can stand up to the thrashing it has to endure across these lava flows, or to descend the steep escarpment to the lake shore.

It was therefore with some bewilderment, although with a great deal of interest, that I accepted an invitation from Selby and Holmberg, a well-known firm of professional hunters, to spend a weekend at Loyangalani, at the south-east corner of the great lake. My recollections of a safari to Loyangalani at once suggested a journey of great hardship and the sweat and toil of forcing a track through the lava, and being satisfied by making progress of between twenty to thirty miles a day. This time I was to fly direct from Nairobi to Loyangalani.

The camp established by Selby and Holmberg resulted from an expedition sponsored by the University of Miami, where a resolute team of scientists spent some six months making the first thorough examination of this great lake. Selby and Holmberg were responsible for conducting and feeding the expedition, as a reward for which they took over a sturdy sea-going launch, an excellent standing camp, and other equipment. They also acquired valuable knowledge of the mysterious lake, mysterious because it is so remote and unexplored. It is not a lake where you can take any chances or liberties in a small boat. Squalls suddenly blow up, reaching a velocity of a hundred

miles an hour. Only in recent years was South Island first explored by George Adamson, the Game Warden. He found only goats and reptiles and the remnants of a camp used years before by two surveyors who never returned. The importation of a launch capable of riding the rough seas therefore opens a new era for Lake Rudolph.

I set off in a small plane from Nairobi, where the clouds were very low, and we climbed over the eastern wall of the Rift Valley. We had to pick our way through masses of mist, lying like wads of cotton-wool across the ridges. Once into the Rift Valley it was a little clearer and some of the lakes in the southern part of the Rift appeared spasmodically well down to our left. We climbed again to 10,000 feet, over the Kinangop plateau and the Western Aberdares. Neatly squared patterns of crops, fenced pastures, forest belts, and an occasional homestead looked more like a section of England than Equatorial Africa.

From the Northern Aberdares, the cloud mass grew thinner, and we emerged into sunshine, flying above a solid pall of grey mist, which is typical of this part of Kenya in August. The high forest moorland and the peaks of the Aberdares were glistening in the sunshine to our right and well above us. Soon the ground mist and low clouds came to an end, and we could see the last outpost of white settlement, beyond which lay only volcanic desert, scarred by countless years of erosion; harsh, unfriendly country with no vegetation and not a drop of water.

It was a relief to start the descent to Lake Rudolph, which is only 1,200 feet above sea level, and with the prospect of not feeling quite so cold. The Lake looked like a sheet of mercury, shimmering and glistening right over the northern horizon. As we passed over the southern shores of the lake we saw Teleki's volcano, a strange cone of lava that sticks out like a pimple, and further north the outline of South Island. The lake was being lashed by a strong wind and huge waves were smashing against the black rocks of the shore. Down we went over the ridges, until we saw the faint outline of a landing strip and an encouraging air-sock stretched horizontally by the wind and pointing down the length of the clearing. Several large crocodiles were basking in the sun on the lake shore, and a few lonely tribesmen were herding some very frightened goats. The plane almost sat down on the landing strip like a helicopter, as the head wind was up to a velocity of nearly 50 miles an hour. We were soon in the delightful camp alongside the springs of Loyangalani.

This is the only reliable fresh water for many miles, as the lake itself is brackish and undrinkable. This welcome stream of clear water collects in the high forests of Mount Kulal to the East, a rugged mountain rising to some 8,000 feet and rift almost into two halves by a huge gorge. The camp was delightful, consisting of a number of bandas or huts, nestling in a grove of daum palms, with every

comfort, including electric light and refrigerators. Standing a few miles back from the lake it is an oasis, with shade, green grass and clear water.

It makes a sharp contrast with the lake shore, where there is no vegetation. The water ends where the lava begins. There is not a tree, no green sward, no reeds, but just a well defined division between water and desolation. The surrounding country is like the moon; black rocks, volcanic scars, and yet with a rugged grandeur that has a strange fascination. There is something indescribably stirring about being a hundred miles or more from the nearest white neighbour, and away in the real Africa of adventure.

After a good breakfast we set off for the lake, rods sticking out of each window of the Land Rover, and full of great expectations. On the way we had to overtake a herd of over a thousand camels, used as cattle by the Rendille, and being driven down to the brackish water in preference to the fresh springs of Loyangalani. These wild tribesmen lead a useless nomadic life, wandering at will, with no houses, few possessions and nothing to think about except themselves and their livestock. The arrival of an aeroplane provoked no special interest. It was just one of those things which was outside their simple range of thought.

The El Molo Bay, where the launch was lying at anchor, was calm and pleasing; sheltered from the main lake by a chain of jagged rocks which protruded through the glistening surface like the peaks of a submerged mountain range. We were soon on board, and with fishing tackle assembled we cruised along at a few knots, watching thousands of birds flying overhead or roosting on the rocks. Cormorants, Darters, Ibis of several kinds, Pelicans, Geese, and Ducks of many varieties squeaked and squawked. About fifty crocodiles were sunning themselves along a small beach, lying like hideous slugs on the edge of the water, with their murderous mouths gaping. The scene was so wild and impressive that it was not possible to devote full attention to fishing, although we brought back a number of Nile Perch, Tilapia, and other fish. In this great lake the Nile Perch go up to a weight of several hundred pounds and landing one of these monsters on light tackle is an exciting adventure.

The next day we cruised further out to an island. Numerous birds used it as a nesting place, and it was strewn with many fish bones and turtle shells, bleached white by the sun, all signs of some El Molo fishing expedition. The El Molo, numbering less than one hundred people, are the remnants of a tribe now almost extinct. They live on the shore of the lake. Miserable specimens, riddled with rickets, and merely existing on a scanty diet of fish, turtles, and crocodiles, which they hunt with very poor home-made spears and harpoons. These pathetic creatures, these human beings with no link with the

rest of the world, were very pleased to take over any surplus fish from us, or to accept with great pleasure any empty tins, pieces of string, or any other rubbish thrown out from the camp.

Well past mid-day we were still out on the lake, and our pilot was clearly showing signs of anxiety. It was rather like being out on a half-term holiday from school, with each of us knowing full well that we must hurry back, and yet using every possible excuse for delay. Lake Rudolph, with its strange scenery, birdlife, and good fishing had such a grip that it was a hard struggle to accept that we must leave; each of us perhaps quietly hoping that the launch would break down or that the aeroplane engine would fail to start.

Within a matter of hours, however, we were back in Nairobi, having spent two very enjoyable days on this wild and isolated lake. The Eastern shore of the lake forms one of the boundaries of the Marsabit National Reserve. It is therefore all the more distressing that this area will not be given full protection and developed as a wild life sanctuary and as a place where the hardened traveller would wish to see a section of unspoilt Africa.

## AMBOSELI NATIONAL RESERVE

The Game Policy Committee recommended that this National Reserve, like all other National Reserves, should be abolished, and in its place there should be two sections, namely, at Ol Tukai and the Mountain above Namanga, created into Game Reserves. This recommendation I was unable to support. Now that the Government Policy statement has been issued it seems that the Government has not accepted either the recommendations of the Game Policy Committee or the views put forward by the Trustees in regard to Amboseli.

It seems manifestly untimely to make any major changes in the administration of this area, particularly since two things have happened. The first is that Providence has intervened in the dispute between cattle and game by arranging very increased supplies of water. This was mainly due to a rise in the level of the swamps, one of which started flowing out some two years ago and has continued to do so. Furthermore, a good deal of activity has centred on digging shallow boreholes to provide additional watering points, so that the Masai cattle need not enter the main game focus to obtain water. The other main development is that the Masai themselves have become very much more cooperative, and through the appointment of a local committee they exercise a measure of control over the area and take a keen interest in its preservation. These developments stand in very sharp contrast with the tragic fate of the Marsabit National Reserve, where desiccation has taken over, erosion has become much worse, and the local tribesmen appear to have no desire to cooperate in the task of game preservation.

I have always believed that the future of these National Reserves, especially in land owned by the Masai, should lie in the greater delegation of authority to the Masai tribesmen themselves. I therefore believe that it would be wiser to allow this development to take its logical course, so that perhaps by the appointment of a stronger committee or board in charge of the management of Amboseli, the Masai themselves would also have a greater share in any revenue which could be derived from it.

Warden Taberer reports in the first half of 1959 that our good relations with the Masai had continued throughout the six months, and he was grateful that the local headmen concerned offered the utmost cooperation in all matters of game preservation.

Not many days pass, he says, without one or other of the headmen or Elders coming into the Ol Tukai camp and reporting some difficulty or discussing some problem to do with the conflict between game and their cattle. There were, of course, several occasions when, in the heat of the moment, the younger generation of the Masai, usually the Moran, killed or speared animals for no justifiable reason. These instances were well dealt with by the local Masai Committee and

suitable punishments were meted out to the culprits. A year later the Warden commented that the Masai showed a greater willingness to cooperate and the local Game Committee were very conscious of their responsibilities.

The Il Kisongo clan is predominant in the Ol Tukai region of Amboseli. The local committee, headed by Sub-Chief Lengu and supported by Headman Lesenko, were most concerned with unfortunate incidents which happened during the period. One of these was that some Masai Moran killed a very fine rhino cow near the Loginya swamp, and they took away the horns. The animal had a four-to-five-months old calf running with it and this was killed by lions which had come on to the carcass of the dead rhino. Two more rhino were later killed by Moran. Both animals bore severe spear wounds and must have travelled some distance before they died. I feel sure that these spearings were not due to any deliberate attempt to destroy game in the area, but simply the natural and traditional expression of the high spirits of the young Masai, who for many years have killed lions and hunted dangerous animals. There are always a few people in the best regulated families or clans that do not accept discipline. What is most encouraging is that the local Committee takes a very stern view of any members of their clan who fail to measure up to the standards required.

The appointment of this unofficial local Committee of Masai has been one of the most encouraging steps of progress in matters of game preservation in native areas. It proves, to my mind, that people, even though they may be inexperienced, are willing to assume responsibility and to exercise it wisely as long as they are not allowed too free a hand. This experimental committee, which is now well accepted in the whole district, augurs well for a system which I believe to be the solution of similar problems in the Masai Land Unit.

The attitude of the Masai towards wild animals in general has improved since the very fortuitous increase in water supplies. The Simek River, which is the new outflow from the main Ngoni Naibor swamp, and which I described in my last report, continues to flow and even to increase in strength. Earlier in 1959 Warden Taberer, encouraged by no decrease in the flow of water, constructed two drinking troughs for cattle at the end of the main furrow. These proved very popular and were extensively used by the Masai. As many as 15,000 head of cattle were seen drinking at these troughs in one day. All these cattle would otherwise have had to move into the main springs and swamps of Ol Tukai, where they do great damage to vegetation and interfere with the main game focus of the area.

Where the swamp overflows it widens out into a shallow valley for approximately  $3\frac{1}{2}$  miles at an average width of 200 yards. An attempt was made to canalise part of this to save wastage of water,

but the flow was too great, with the consequence that a very attractive lake has been created. A great deal of water is lost by evaporation and seepage, and when it reached a branch valley leading north, it followed this and found some fissure through which the entire flow escaped. This made it necessary to dam off the leg and retain the water in the original Simek Valley.

Towards the end of 1959 the popularity of the two drinking troughs was so great that it became obvious that the water should be encouraged to flow on for several more miles in order to reach the shore of the dry lake bed of Amboseli. The Masai were approached to ascertain what effect water in the original lake would have on the watering arrangements for their cattle. They at once relished the idea and guaranteed that if water was made available in the lake bed and troughs were installed for cattle to drink, there would be no need to use the swamps or the Kitirua Springs any more.

The prospect of doing so was somewhat frightening, as it involved expenditure for which no money was available. Sir Evelyn Baring, the Governor at the time, was so impressed with the possibility of getting water out to the main lake bed, that he influenced the allocation of additional funds. The cost was originally guessed to be only a few hundred pounds, but on further investigation it transpired that a ridge rising some 13 feet above the water level and consisting of very hard limestone had to be cut through. This additional Government grant, however, and some savings from the meagre resources of the National



Photograph by B. O. A. C

*The New Lake at Ol Tukai.*



Photograph by Kenya Information Services.

*The channel through to the old lake of Amboseli.*

Parks, together with a very welcome and much appreciated donation of £100 from Mr. Sydney Downey, of the famous firm of white hunters, Ker and Downey, made it possible to employ contractors and machinery to drive a channel through the ridge to reach the lake shore.

The machinery commenced work on the 14th October. After an unexpected amount of blasting that had to be done, and many other set backs, the channel finally reached the shore by the 24th November. A small trickle of water oozed through the parched ground and by next morning millions of gallons were flowing into the dry lake. Two more drinking troughs were constructed, and the outflow was encircled by a small earth wall so as to create a small lake as a shelter for birds.

The whole endeavour was highly successful, and thousands of cattle now come in to use the water which otherwise would only have been accessible within the swamps of Ol Tukai. Whether or not this Simek river was one of the original sources of water which created Lake Amboseli, is difficult to tell, but it is very pleasing to see even a small portion of this normally dry lake covered in water. The mystery of the Simek river is a story in itself. From the time that the swamp started rising, until three years later when the water reached Lake

Amboseli some eight miles away, it is a record of incidents in which thousands of animals, both domestic and wild, and countless numbers of birds have all benefited, and there is a surprising increase in the wild life populations of Ol Tukai.

Another very important factor in improving the water and grazing conditions of this region was that the Government made funds available to the Ministry of Works for the construction of a number of shallow boreholes. By the end of the period under review, six of these holes had been dug, and equipped with pumps and drinking troughs. The position of some of these was chosen by the Masai and they have been well accepted and are now fully used by cattle. This means that thousands of cattle, that would otherwise converge upon the unfortunate swamps and tree belts of Ol Tukai, now only touch the fringes of this vital area, since their main requirement is water and not grazing. This is the fulfilment of a plan which has been favoured for a good many years, and was brought to fruition by the recommendations of the Game Policy Committee in its first Interim Report. It is most gratifying that it has been successful.

The new waters of the Simek river attracted more visitors than ever to Amboseli. People came from all quarters, not only to see the phenomenon of the water, but also to enjoy the increased activities on its shores and within its reach. As always, the rhinos of Amboseli were the main attraction, but two of the famous characters, almost international film stars, suffered unfortunate accidents. Gertie, who is known far and wide as the rhino with the largest horn on any known living rhino, broke off the tip of her horn. The horn had worn thin about a foot from the end through being scraped on the ground, and so the loss of the tip was not unexpected. A very thorough search was made, but without success. This was a pity, as it was important to establish the exact length of Gertie's enormous horn. By enlarging photographs, however, on a life-size screen, and taking measurements, it was estimated that the broken tip was 14 inches long.

This was a tragedy in itself, for Gertie had to be down-graded from the distinctive position she previously enjoyed of being the most famous rhino in Amboseli. A month later an even greater tragedy occurred. A Ranger spotted Gertie with the whole of her front horn missing, and she was bleeding profusely from the nose. Somehow, probably due to a fight with another rhino, the horn had been torn off from the base. Another frantic search was instituted for the missing horn, and after two days it was recovered. Inspection of it revealed that it had been pulled off cleanly from near the nose and it measured 39½ inches. This makes an estimated total length of Gertie's horn as 53½ inches. Although Gertie must have suffered considerable pain from losing her horn, her manners and attitude towards visitors that



Photograph by Mervyn Cowie.

*"Gertie" with her record horn.*



Photograph by Sydney Downey.

*"Gertie" without her horn.*



Photograph by H. G. Drewett.

*“Gladys” without her horn.*

flocked to see her were unchanged. She continued to be willing to be photographed at a range of 15 yards, quite unconscious of her ugly appearance. Three months later Gertie was delivered of a calf, and owing to her fame and popularity I felt it necessary to record this event in the local press. A small note appeared under the column headed “Births”, where it said, “To Gertie, the rhino of Amboseli, a bull calf on the 13th July, 1959.”

Gladys, the other rhino, who originally gave rise to all the interest focussed on the long-horned rhinos of Amboseli, then followed suit, and in October she, too, lost her entire front horn. Again this appeared to be the result of a fight, but in spite of an exhaustive search the horn was not found. Thus, these two famous rhinos have now been relegated to the common herd, and no longer will they be the film stars and the objective of every photographer. Warden Taberer considers that there is some prospect of their horns growing again, although it will take a very long time for them to reach any impressive length. Gertie’s new horn is already  $4\frac{1}{2}$  inches long, and from that one might judge that it will take at least ten years to reach the original length if, in fact, it ever does.

Wild animals throughout the Ol Tukai region are becoming noticeably much tamer. Many animals will allow visitors to approach

within close range to be photographed against the impressive background of Kilimanjaro. The increased levels in the swamp and the new flow of water in the Simek River attracted many herds of game into Ol Tukai. Lions had no difficulty in making kills, and without the risk of being harassed by the Masai they also increased. Two big prides of lion known as the Kania and the Kitirua prides, split up earlier in the year into four different groups, and roamed in separate areas numbering about thirty in all.

A lioness with two cubs began taking dogs at the Meerscham Mine near Sinya. Efforts to move her from the area by using thunder-flashes failed, and after eight dogs had been killed the lioness was trapped. Every ruse was then employed to get the cubs into the trap as well, but without success. Finally it was decided to try to anaesthetise them by offering small chunks of meat loaded with Nebutol as a tranquiliser. Each time the cubs approached the meat, the lioness still in the trap flew into a rage and frightened the cubs away. This method was abandoned and the drugged meat was thrown to a hyaena which, after eating the meat, went to sleep in a pool.

Although food and water was offered to the lioness inside the trap she refused to take it, and after six days she looked the worse for wear, having cut herself on the face and on the rump against the bars of the cage. It was then decided to bring her to the Simek River by lorry, put food down and let her loose in the hope that she would feed herself and fetch the cubs from Sinya. This is precisely what happened, and the three of them are now living quite happily near the river. This lioness is a forgiving animal, for she soon settled down after her ordeal and showed no ill will towards anyone. Perhaps she learnt a lesson about killing dogs.

It is always surprising that the flat lava ash plains of Ol Tukai can support so many grazing animals, particularly as the annual rainfall is so unreliable. For instance, in the ten months ended 31st October, 1959, only 4.3 inches of rain were recorded. With hot sun and high winds that amount of moisture falling on the surface is negligible, and I often wonder how the grass roots, the trees and the other vegetation manage to survive at all.

I have always been aware of the amazing ability of Africa to recover, even when the soil and the vegetation may appear to have no life. After a heavy shower of rain bare ground springs forth into growth and all kinds of grasses, flowers, weeds and bushes emerge. The resilience of the acacia trees, however, is not quite so apparent. The seeds of the existing stands of yellow-stemmed acacias must have germinated in a period of much heavier rain. Many of these trees are now dying, presumably because they have reached the end of their days. This is causing some danger in the Ol Tukai Safari Lodge. In the quarter ended December, 1959, a large tree was blown over during a storm and

fell across the boiler-house and laundry of the Warden's house, almost demolishing it. If more of these trees fall, the Lodge area will soon become very bare.

Although vast areas have been denuded of trees, there are a few sections where there is profuse regeneration. Well out in front of the Lodge and towards the Sim Sim Spring there is a patch of young thorn trees which is already too thick to walk through. These young trees are doing well, and in a few years they will form another belt of yellow stemmed acacias. This failure of the old trees means that any extension of accommodation at Ol Tukai cannot be in the same site as the present Lodge, since it would be futile to rebuild in a place which in a few years will be without trees and their welcome shade.

The extension of the safari lodge known as Number Two Camp, situated a few hundred yards away from the original camp, had to be closed down through the lack of maintenance. Extensive repairs are necessary to make it habitable. Whether or not this section of the lodge can be renovated and rebuilt depends on the amount of money that can be made available and the future policy for this area.

In any event, before any development can take place in tourist accommodation, it will be necessary to construct some all-weather or hard roads through the main game haunts. Traffic quickly powders the very volatile lava ash, and the clouds of dust thrown up spoils a visit to Amboseli. Vegetation also suffers from the dust. I foresee that in any future development plan there will have to be two or three main road circuits and visitors will have to be restricted to these roads. Such an arrangement would give the wild animals greater sanctuary, since they would not be harassed by over-eager motorists. The animals would probably become much tamer as they would soon learn that motor cars need not be feared.

One of the reasons why traffic is prohibited during the hours of darkness in most game areas is to protect wild animals from being blinded by headlights and run over. Numerous small animals are killed in this way. Even large animals also suffer. Evidence of this came from the main Nairobi-Tanganyika road earlier this year, when there were two unfortunate accidents. The first involved a bus travelling to Nairobi in daylight which collided with a giraffe, killing it outright. The bus must have been moving at speed. In the section of road where it occurred there was good clearance and fair visibility. The bus was badly damaged and remained on the roadside for two days. The next accident occurred in much the same section of road in the very early hours of the morning. A heavy vehicle ran into a pride of lions, killing three of them. There were no skid marks, and a reconstruction of the tragedy indicated that the driver went on his course straight into the lions. A fine two-year-old lion and two young lionesses were left dead in the road. All efforts to trace the driver proved fruitless.

An albino wildebeeste was seen near the Loginia swamp in January, being predominantly white, apart from its tail and mane, which were much lighter than usual. It was not a pure albino as the eyes, nose and hooves were the usual colour. Assistant Warden Lovatt-Smith records that he watched the birth of a wildebeeste calf in March and was amazed to see how quickly this new arrival entered the world and was able to stand and run. Soon after it was born it was on its legs trying to suckle, and within two minutes staggered off after its mother to catch up with the rest of the herd. The event took just under five minutes, and within that short period the newcomer was mobile and able to keep up with the grownups.

The Warden's reports emphasise that more wild animals are now seeking refuge at Ol Tukai. He records that more elephants can regularly be seen, and some of the old bulls are almost as indifferent to motor traffic as are the rhino. One herd of fifteen cows and small calves take no notice of an approaching car even within a range of sixty feet. This is very surprising with a breeding herd. Towards the end of the year he estimated that there were at least 300 elephants spread over the Ol Tukai region between Kitirua and the Nemlock swamp. One herd of over ninety were frequently seen by visitors. Buffalo were also on the increase and a herd of at least 300 were seen lying under cover on the edge of Lake Amboseli near where the Simek river flows out. A party of seven hippo have taken to living in the new lake just below Observation Hill and are on view nearly every evening about sunset.

Thus the report for Amboseli is encouraging, progressive and constructive. The volume of water flowing down the Simek river and the new boreholes have enabled the Masai to keep many of their cattle well out of the vital tree belts and swamps. The vegetation is being given a chance to recover and the wild animals are rejoicing in more freedom within their sanctuary. Amboseli still stands supreme as one of the finest game areas in East Africa. Now that the Masai themselves also recognise the value and importance of preservation I have hopes that Amboseli will be recognised as one of the great faunal areas of the world. I also have hopes that it will continue to be administered on a national basis.

## FINANCE

In accordance with the Royal National Parks Ordinance, I attach statements of account, together with the Auditors' Report thereon, covering (a) the six months ended 30th June, 1959, and (b) the year ended 30th June, 1960.

Production of accounts for the six months ended 30th June, 1959, follows the decision of the Trustees to change the end of the financial year from the 31st December to the 30th June.

NAIROBI,

September 1960.

MERVYN COWIE,

*Director.*

## GEDI ROYAL NATIONAL PARK

During most of the period covered by this Report the Warden and nearly all the staff were occupied with the excavations in Fort Jesus, and little attention could be given to Gedi.

The mosque on the north shore of Mida Creek about two miles from Gedi, known as Mgangani, was gazetted a Historical Monument by G.N.1882 of 8th May. This is an exceptionally interesting monument both in itself and in view of its position.

The Warden revisited the large coral caves on Major Buxton's property at Kurwitu, where more pottery had been found. These sherds resembled the local earthenware found in the middle levels in the Fort, and it seems likely that the caves were occupied by fugitive Bantu after the Arabs had been expelled from their settlements by the Galla. There were no imported sherds and the standard of living must have been modest.

The Warden visited the excavations at Kizimkazi in Zanzibar, which were being carried out by Mr. N. Chittick on behalf of the Zanzibar Government. This is particularly interesting, as in the mosque is an inscription dated 802 H/1107, the first dated fact in East Africa.

Three reports on excavations by the Warden appeared during the period:

Mnarani of Kilifi, in *Ars Orientalis* III, 1959.

Excavations at Ras Mkumbuu on the Island of Pemba, in *Tanganyika Notes and Records* No. 53, October, 1959.

The Tomb of the Dated Inscription at Gedi, *Royal Anthropological Institute Occasional Paper* 14, 1960.

This is a report comparing the ceramic and beads found above and below the floor of a tomb dated 802 H/1399. The Warden considers it to be the most important paper he has written. In view of the expense of the plates, it was necessary to order 300 copies. It is now on sale in Nairobi and Mombasa.

J. S. KIRKMAN.

*Warden, Gedi Royal National Park.*

## FORT JESUS ROYAL NATIONAL PARK

The demolitions and excavations on the site of the Warden's house in the south-west bastion, S. Alberto, continued from January until the end of June, and on the south side of the court, the Museum site, until October. The plans for the new buildings were approved and the contract given to the Mowlem Construction Company in August. The Warden's house was ready for occupation at the end of March, 1960, and the Museum and its fittings, the public lavatories and the ticket office were completed at the end of June. The Warden moved into residence in the beginning of April, and the public were admitted on the 15th August, 1960.

The second meeting of the Advisory Council was held on the 14th December, 1959, and plans for the opening were discussed.

The Regulations for the Fort Jesus Royal National Park, L.N.266/60, were gazetted on the 10th June, 1960.

In the course of the excavations and demolitions thousands of sherds of porcelain, glazed ware, earthenware, china and beads were found, and walls and floors of earlier structure were uncovered. The sherds and plans are now being studied, and a definite report is being prepared. The conclusions given below are provisional but are unlikely to be sensibly modified, except possibly the date of the filling of the Bastion of S. Alberto.

The Bastion of S. Alberto was surrounded by a double parapet walk which also ran down the south side of the Fort. The original parapet consisted of a low coping rising only four feet above the level of the upper walk, which was broken by three large gunports. Subsequently, a wall was built on the outer face of the coping with slanted musket slits, raising the height of the protection another two foot six. From the design of the openings this would appear to have been an Arab modification of the eighteenth century. In the late nineteenth century the slits were filled-in and a wall was built along the ramparts which was the outer wall of a house which occupied the south side of the bastion. During the prison period the west end of the wall was cut back three feet to enlarge the area of the room, and square recesses were cut at regular intervals for cupboards. The face of the coping was cut back three inches presumably to seat the cement floor which was laid over the Arab plaster floor.

The floor of the bastion had remained open until late in the Portuguese period. On it were found pits for puddling red earth and sieving lime, and a circular lime kiln about fourteen feet wide and seven feet high, where the lime for building the Fort was burnt. At some period, a revetment wall was built, cutting off the bastion from the central court, and the bastion was filled with coral chips from

the ditch. In the fill were large quantities of sherds of Chinese porcelain of the first half of the seventeenth century, but with a significant number of sherds of an enamel ware which is most unlikely to be earlier than the end of the seventeenth or, more likely, the beginning of the eighteenth century. The bastion, now raised about seven feet above the central court, was riddled with rubbish pits, but so many sherds of eighteenth century wares have come from the fill that it is difficult to regard them all as intrusive. The whole collection of sherds is being studied by the Warden and a final decision has still to be made. If the filling is eighteenth century it must be the work of Alvaro Caetano de Mello e Castro, the last Captain, during the brief reoccupation of 1728-29. If the latest sherds of rose pink enamel can be excluded, it could be late seventeenth century between C.1680 and the beginning of the siege in 1696. Alvaro Caetano is recorded as having restored the Fort, but no details of his works have survived. Unfortunately we have no information about building operations in the Fort after the inscription in the S. Felipe Bastion dated 1648, which is far too early.

With the dating of the filling of the bastion is bound up the dating of the large square tower built across the south-west corner. It rests on the coral-chip fill, therefore cannot be earlier and is either contemporary or later. It is so constructed that a small triangular space with a turret is left without access except over the top of the tower. It is in fact a hindrance rather than a help to the defence and, in spite of its coral block construction, may be Arab. When excavations are carried out, it will be possible to decide its purpose and date.

In the eighteenth century, the bastion continued to remain without permanent buildings. However, the remains of two square enclosures were found, one at each end, and square foundations of pillars which would have supported a palm frond type of roof.

Finally, in the second half of the nineteenth century, a long single storied house was built in the bastion between the square tower and the east side facing the S. Mateus Bastion. The plaster floor of this house was laid across the upper parapet walk and plastered basins for washing clothes were made at the east end. This house later became a prison warder's quarters, and finally the carpenter's workshop.

The north flank of the bastion where it faces S. Felipe has no parapet walks and is butted against the south end of the west walk, which suggests that at one time it was intended to make an entrance to the Fort in this corner or, more likely, that here was a temporary entrance through which the stones were carried for the construction of the bastion.

Between the bastions of S. Alberto and S. Felipe was a curtain wall with a single parapet walk, with a low outward sloping coping of cut stone, unlike the plaster and rubble of the S. Alberto Bastion. On the outer edge of this inadequate protection had been built a wall

which may be the restoration of 1634, during which the walls are recorded to have been raised. The upper part of the wall with gun slits high up in the wall and a pointed coping is probably Arab.

To relate the levels in the Bastion to the levels in the central court, it was necessary to carry out excavations beyond the revetment wall. Against the west parapet walk, a line of rooms was found which are the houses shown in the Cienfuegos and Lopez de Sa plan of 1728, and may be one of the buildings mentioned in the 1648 inscription in the S. Felipe Bastion. Along the back wall of these rooms was a gutter, seven feet from the original floor, which suggests that the building was a penthouse with a steep backward sloping roof. There were a number of floors to this building ending with the mid-nineteenth century. The retaining wall of the bastion is built up against the corner of these rooms and was broken later by a pit, dug in the Arab period to take the water from the gutter. In the prison period the whole area on the west side of the court was banked up to make a sloping surface falling towards the east end of the court and the main drain.

The site of the Museum along the south wall of the Fort was a much simpler problem. Built up against the parapet walk, as on the west side, was a line of barrack rooms, whose coral block walls were standing between four feet and five feet above the original floor, which itself rested on coral. The remains of these walls had been levelled off in the early twentieth century, and walls of rubble and red earth built on top of them. Below the first prison floors there was in places an interim floor of the mid-nineteenth century, perhaps as early as the reoccupation of the Fort by Seyyid Said in 1837. This floor and the earlier Portuguese floor or floors had been disturbed more than once, and it was impossible to form any clear idea as to when the barrack rooms were first built. From the finds in the lowest and apparently undisturbed levels, a date in the middle of the seventeenth rather than the end of the sixteenth century would be more likely.

The most interesting find was a complete polished red earthenware bottle in a ware like Samain, made in India. This has occurred also in the upper levels at Gedi and belongs to the late sixteenth or seventeenth century. It apparently ceased to be imported after the middle or end of this century.

Below the verandah of the prison cells and in the central court, a large number of rubbish pits were found, mostly of the nineteenth century.

On the site of the public lavatories on the west of the Gate, another row of rooms was found which had been built against the parapet walk. The back wall had a drain on top, similar to the back wall of the rooms on the west side of the court. The front wall had been demolished. In the south wall of this building, against the Gatehouse, was a semi-circular oven which had been used in the Arab period and only filled in late in the 19th century. The parapet walk behind these rooms

had been partly dug out, and the wall behind it hollowed out for recesses for the warder's kitchen.

The plaster was removed from the entrance passage and the small room on the east side of it. The eastern jamb of the original inner face of the gate was seen inside the small room. It did not face squarely on the central court, and this deviation had been corrected when the inner passage was added. There was no evidence of the date of the addition, but on the Lopez de Sa plan the inner face of the Gate is shown flush with the barrack rooms on the west side of it. The inner passage is therefore probably Portuguese, although a large part of the room on the east had been rebuilt.

The galvanised iron roof of the inner gate has been replaced by an Arab type roof of stone and plaster.

The original Gatehouse appears to be solid on either side of the arch with a single room over it, which in the Arab period was made into two by the addition of a low wooden ceiling. The present steps on the east side over the oven are modern, and the original approach to the room over the gate may have been by steps from the parapet walk.

The prison store rooms on the west side of the court built over the west parapet walk and the prison hospital in the north-east bastion (S. Matias) were removed and these areas are ready for excavation. The wall shutting off the Women's Jail from the main court was demolished.

The main drain was dug across the court from the Warden's house to the lavatories, and out through the north wall to the moat. Coral was struck at an average of 2 ft. 6 ins. all over the court. Below the present gravel surface was found an earlier gravel surface which is believed to be the first prison surface. Below, unless disturbed by pits, there was usually a surface overlying the coral, which must be of the Portuguese period. The most interesting find was a sedimentation plant, consisting of a square plastered drain running into a small pit and continuing into a narrow tank. When excavations are resumed, the purpose of this installation may become apparent. It may have been used for filtering sesame or coconut oil, in the Arab period.

On the 18th March, Professor Boxer and Dr. Azevedo's book on Fort Jesus entitled "Fort Jesus and the Portuguese in Mombasa" was published. This book was commissioned by the Gulbenkian Foundation at the time when they made their generous grant for the restoration of the Fort. It consists of two parts, an account of the history of the Fort by Prof. Boxer, and the architecture by Dr. Azevedo, and is illustrated by numerous half-tone plates, and drawings of all the known plans of the Fort. It is indispensable to anyone who wishes to understand this magnificent example of military architecture.

J. S. KIRKMAN,

*Warden, Fort Jesus Royal National Park.*

## OLORGESAILIE ROYAL NATIONAL PARK

### AND OTHER PREHISTORIC SITES

In August Mr. R. V. S. Wright took up the post of Warden in charge of Up-country Prehistoric Sites. Since then he has been living at Ologresailie, an area of great potential for prehistoric research.

One of the problems at Ologresailie has been the relative ages of some of the excavations on show to the public, which were carried out by Dr. and Mrs. Leakey. The earth movements which occurred at the close of the life of the Pleistocene lake at Ologresailie have disrupted the levels. Therefore work was started on a long cutting which will ultimately provide an unbroken section between some of these excavations.

Most work has been concentrated on the area surrounding the main sites, in an endeavour to find archaeological remains later than those in the Royal National Park. Search has been hampered by the chopped up nature of the Rift Valley in this area, with its parallel troughs divided from one another by vertical cliffs. Nevertheless, interesting sites have been discovered, of which three are worth mentioning here.

The first is seven miles beyond Ologresailie, towards Magadi. Here a deep gorge is very conspicuous to the right of the road. This has been caused by a stream over-flowing from a trough behind Shanamu Mountain. Exploration in this trough revealed old lake beds littered with flakes from Stone Age chipping floors. Excavations and specimens picked off the surface provided small, sometimes very pointed hand axes, almost certainly later than the Ologresailie hand axes.

At the foot of Ologresailie mountain a very interesting site was found. It dates from a period long after the lake had been drained and disturbed by earthquakes. Hand axes were no longer being made. This industry occurs on the surface of an old soil which has been preserved because it was buried by a shower of volcanic ash.

Finally, just before the place where the Magadi road runs alongside the Ol Kejo Nero river, at the base of a mound of travertine on the right of the road, there is a small cave occupied by porcupines and striped hyaenas. On the slope leading up to this cave, and in the earth thrown out by the animals when burrowing, hundreds of tools and waste chippings have been found, together with fragments of pottery and beads made of ostrich egg shell. These belong to Late Stone Age hunting peoples.

Early in 1960 the Warden excavated a burial mound on the Kinangop. This was on the farm of Mr. F. D. R. Knight, who discovered human bones while clearing some ground for pyrethrum cultivation. He kindly agreed to delay ploughing of the area to allow

proper investigation. The remains of several individuals were found in a small pit and the haphazard position of the bones suggested that the grave had been repeatedly opened up for one burial after another—a primitive family vault perhaps. This method of burial, together with the stone bowls included as grave offerings, can be paralleled in other parts of East Africa, in particular at the Nakuru Burial Site and Ngorongoro. It is not possible to ascribe any date to the burials on Mr. Knight's farm, but it is interesting to note that no present tribe in East Africa has this method of burial nor makes stone bowls.

R. V. S. WRIGHT

*Warden.*



Photograph by H. G. Drewett.

## APPENDIX No. 1

## NUMBER OF VISITORS

	1958	1959	January- June 1960
Nairobi Royal National Park ..	106,787	109,798	59,298
Tsavo Royal National Park (East) ..	7,247	7,776	3,374
Tsavo Royal National Park (West) ..	9,093	11,074	4,759
Amboseli National Reserve .. ..	6,741	9,445	4,729
Marsabit National Reserve .. ..	1,800	1,765	945
Mountain Royal National Parks ..		3,865	4,727
Gedi Royal National Park ..	5,535	5,284	2,488
Ologesailie Royal National Park ..	1,341	1,146	355
Kariandusi Prehistoric Site .. ..	1,145	1,107	492

## APPENDIX No. 2

## ADVISORY COMMITTEES AS AT 30th JUNE, 1960

## NAIROBI ROYAL NATIONAL PARK ADVISORY COMMITTEE

E. Baumann, Esq.—*Chairman*  
 J. Block, Esq.  
 K. Bolton, Esq.  
 D. O. Mathews, Esq., O.B.E.  
 F. Salzer, Esq.  
 T. R. Thomson, Esq.  
 D. R. Thomson, Esq.  
 N. T. Trenn, Esq.  
 Alderman Sir Richard Woodley

## MOUNTAIN ROYAL NATIONAL PARKS ADVISORY COMMITTEE

C. Tomkinson, Esq., C.M.G.—*Chairman*  
 M. Argyle, Esq.  
 J. Cobby, Esq.  
 A. Dyer, Esq. (Alternate, C. A. Winnington Ingram, Esq.)  
 Major Venn Fey, M.C.  
 C. Girardin, Esq.  
 Lt. Col. John Nimmo  
 Major H. B. Sharpe, C.B.E.  
 Major D. F. Smith  
 C. S. Webb, Esq.  
 D. McD. Wilson, Esq.

## FORT JESUS ROYAL NATIONAL PARK ADVISORY COMMITTEE

The Hon. C. G. Usher, M.C., M.L.C.—*Chairman*  
 The Hon. S. V. Cooke, M.L.C.  
 R. F. Dias, Esq.  
 Mrs. C. G. Fannin  
 Dr. A. R. Garcia  
 Captain The Hon. C. W. A. G. Hamley, O.B.E., M.L.C., R.N.  
 The Hon. Dr. S. G. Hassan, M.B.E., M.L.C.  
 K. B. Hill, Esq.  
 J. Jones, Esq.  
 The Hon. F. J. Khamisi, M.L.C.  
 Dr. L. S. B. Leakey  
 Sheikh Mohamed Ali Said al Mandhary  
 The Hon. R. G. Ngala, M.L.C.  
 The Hon. Gibson Ngome, M.L.C.  
 The Hon. A. J. Pandya, M.L.C.  
 Dr. B. Pinto  
 E. L. Relf, Esq.  
 H. E. B. Robinson, Esq.  
 E. R. Rodwell, Esq.  
 A. C. Satchu, Esq.  
 Sheikh Salim Mohamed Muhashamy  
 E. Stairs, Esq.

## APPENDIX No. 3

## ACCOMMODATION

Safari Lodges are maintained for visitors at the following places, and are within reach by normal private transport. The distances quoted are from Nairobi. Accommodation fees are from Shs. 15/- to Shs. 20/- per person per night (children under 16 half price). This is inclusive of crockery, cutlery, cooking utensils and lamps. There is no restaurant service.

*Amboseli National Reserve.* Ol Tukai Safari Lodge

via Emali—Mombasa Road—143 miles.

via Namanga—Great North Road—153 miles.

*Tsavo Royal National Park (West):* Kitani Shelter Camp via Mtito Andei on the Mombasa Road—185 miles.

Kitani Safari Lodge, via Mtito Andei on the Mombasa Road—185 miles.

*Tsavo Royal National Park (East):* Aruba Safari Lodge

via Voi on the Mombasa Road—234 miles.

*Marsabit National Reserve:* Uaso Nyiro Safari Lodge

via Isiolo on the Marsabit Road—210 miles.

Marsabit Forest Lodge (Reservations by special arrangement only).

via Isiolo on the Marsabit Road—358 miles.

*Olorgesailie Royal National Park:* Rest Camp

On the Magadi Road—42 miles (Reservations through the Coryndon Museum, Nairobi).

Beds, Dunlopillo mattresses, pillows, mosquito nets, chairs, tables, kitchens, baths or showers, hot and cold water, firewood, and servants' quarters, are provided at all Safari Lodges. No such facilities are available at Olorgesailie Rest Camp.

Bed-rolls can be hired at Ol Tukai, Kitani and Aruba Safari Lodges, containing blankets, sheets, pillowcases, towels, etc. The charge is Shs. 5/- per bed-roll per visit.

The Ol Tukai Safari Lodge is provided with electric light.

Shops equipped with a variety of tinned food and visitors' normal non-perishable requirements are available at Ol Tukai, Aruba and Kitani Safari Lodges.

Reservations at Safari Lodges should be made through the Head Office of the Royal National Parks of Kenya, P.O. Box 2076, Nairobi (Room 302, Mansion House, Telephone 20745); or through a sub-agency at Mombasa: Mrs. Marjorie Pasmore, P.O. Box 1993, Mombasa (Telephone 4708).

*Closed Seasons:*

Amboseli National Reserve (Ol Tukai Safari Lodge)	} 1st April—31st May inclusive 1st November—15th December inclusive.
Tsavo Royal National Park (West) (Kitani Safari Lodge)	} 1st April—31st May inclusive 1st November—15th December inclusive.
Tsavo Royal National Park (East) (Aruba Safari Lodge)	} 1st April—31st May inclusive 1st November—31st December inclusive.
Marsabit National Reserve: (Uaso Nyiro Safari Lodge)	} 1st April—31st May inclusive 1st November—20th December inclusive 15th March—15th June inclusive 15th October—31st December inclusive.
(Marsabit Forest Lodge)	
Aberdare Royal National Park	16th April—15th June inclusive.

# ROYAL NATIONAL PARKS OF KENYA

BALANCE SHEET AT 30th JUNE, 1959

## LIABILITIES

### Fund Accounts:

<i>Fort Jesus Reconstruction Fund—</i>	£ s. cts.	
As per attached Account .. .. .	29,666.14.79	
<i>Capital Fund Account—</i>		
As per attached Account .. .. .	1,142.19.28	
<i>Capital Reserve Fund</i> .. .. .	15,000. 0.00	
<i>Water for Wild Animals Fund</i> .. .. .	363. 5.60	
<i>Donations Account</i> .. .. .	2,361.12.05	
	<u>48,534.11.72</u>	

### Less: General Fund Account—

Balance at 31st December, 1958 ..	£630.2.36	
<i>Add: Excess of Expenditure over</i>		
Income for period .. .. .	520.6.49	
	<u>1,150. 8.85</u>	

47,384. 2.87

### Current Liabilities and Provisions:

Sundry Creditors .. .. .	8,596. 5.76	
Deposit Accounts (Staff) .. .. .	380. 0.00	
Pension Withdrawal—G. D. Holiday .. .. .	352.19.22	
Provision for Staff Leave Passages .. .. .	2,585. 1.50	
Provision for Gratuities and Retiring Benefits .. .. .	2,147.16.06	
Provision for Audit Fees .. .. .	250. 0.00	
Provision for Donations to African District Councils .. .. .	1,709.11.45	
	<u>16,021.13.99</u>	

## ASSETS

	£ s. cts.	
<b>Cash:</b>		
Cash at Bank .. .. .	300. 8.79	
Cash in Hand (all areas) .. .. .	1,244. 6.53	
	<u>1,544.15.32</u>	

### Investments:

Deposits with Land and Agricultural Bank		
Fort Jesus Reconstruction Fund .. .. .	30,000. 0.00	
Other Credit Balances .. .. .	23,000. 0.00	
	<u>53,000. 0.00</u>	

### Current Assets:

Sundry Debtors .. .. .	4,757.18.17	
Advances (Motor Vehicles) .. .. .	285. 5.00	
Special Advances (African Staff) .. .. .	35. 0.00	
Deposit Accounts with East African Railways and Harbours .. .. .	33. 7.94	
Interest accrued on Investments .. .. .	1,425.11.11	
Payments in Advance .. .. .	1,327.16.32	
	<u>7,864.18.54</u>	

### Stocks in Hand:

Sundry Items .. .. .		996. 3.00
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ALFRED VINCENT, *Chairman of Trustees*  
M. H. COWIE, *Director*  
A. E. BILLINGSLEY, *Chief Accountant*

£63,405.16.86

## AUDITORS' REPORT

We have examined the attached Balance Sheet with the books and vouchers of the Royal National Parks of Kenya and with the Balance Sheet and Accounts at 31st December 1958 as audited by the Exchequer and Audit Department of the Kenya Government.

We have obtained all the information and explanations we have required.

The Balance Sheet does not show the Fixed Assets of the Parks, but subject to this it is in our opinion properly drawn up to show a true and correct view of the state of affairs at 30th June, 1959 according to the best of our information and the explanations given to us, and as shown by the books of the Parks.

NAIROBI,  
29th December, 1959.

GILL and JOHNSON  
*Chartered Accountants.*

# ROYAL NATIONAL PARKS OF KENYA

## STATEMENT OF INCOME AND EXPENDITURE ON GENERAL ACCOUNT FOR SIX MONTHS ENDED 30th JUNE, 1959

### EXPENDITURE

	£	s.	cts.
To Salaries and Allowances .. .. .	17,072.	10.	75
Pensions and Medical Insurances .. .. .	1,466.	11.	50
Provision for Leave Passages .. .. .	2,355.	00.	00
Provision for Gratuities and Retiring Benefits (African Staff) .. .. .	350.	00.	02
Office and Clerical Wages .. .. .	1,190.	00.	70
Printing and Stationery .. .. .	553.	6.	48
Publications and Publicity .. .. .	1,166.	19.	45
General Expenses, Postages, etc. .. .. .	870.	14.	85
Rent and Rates .. .. .	437.	18.	70
Insurances (General) .. .. .	545.	2.	48
Transport Wages .. .. .	754.	12.	00
Travelling Expenses .. .. .	1,033.	17.	71
Petrol and Oils .. .. .	2,184.	8.	99
Replacement of Motor Vehicles .. .. .	4,912.	18.	70
Maintenance of Transport .. .. .	1,963.	9.	15
Motor Licences and Insurances .. .. .	793.	4.	60
Maintenance of Workshops and Plant .. .. .	174.	18.	83
Maintenance of Safari Lodges, Camps and Buildings .. .. .	3,913.	11.	30
Maintenance of Roads and Sign Posts .. .. .	624.	18.	78
Maintenance of Fences, Beacons and Boundaries .. .. .	89.	5.	80
Maintenance of Water Supplies and Dams .. .. .	452.	12.	25
Maintenance of Radio and Scientific Instruments .. .. .	63.	8.	29
Maintenance of Office Equipment and Furniture .. .. .	32.	1.	50
Wages of Rangers and Field Force .. .. .	4,538.	8.	40
Rations .. .. .	2,893.	7.	98
Commissions and Bonuses (Rangers) .. .. .	145.	3.	40
Patrol Staff .. .. .	150.	15.	55
Equipment and Expenses of Rangers .. .. .	996.	15.	95
Trophy Rewards and Expenses .. .. .	221.	19.	03
Game Control .. .. .	150.	7.	80
Wages—Historic Prehistoric Sites .. .. .	380.	0.	16
Reconstructions—Historic/Prehistoric Sites .. .. .	3.	11.	00
Library and Exhibits—Historic/Prehistoric Sites .. .. .	17.	17.	25
Research .. .. .	3.	11.	45
Donations to:—			
Kajiado African District Council .. .. .	1,409.	11.	45
Samburu African District Council .. .. .	300.	00.	00
Expenditure on Royal Visit .. .. .	1,709.	11.	45
Provision for Audit Fees .. .. .	187.	10.	54
Stocks of unuseable Piping written off .. .. .	250.	0.	00
	8.	1.	30

£54,658. 14. 09

### REVENUE

	£	s.	cts.
By Grants-in-aid from Kenya Government .. .. .	32,000.	0.	04
Entry Fees .. .. .	10,127.	5.	35
Accommodation Fees .. .. .	4,521.	15.	50
Revenue from Ranger Guide Fees, Hire of Bedding, Hire of Landrover, etc. .. .. .	1,446.	2.	25
Rent—"Treetops Hotel" .. .. .	578.	17.	65
Sale of Publications .. .. .	530.	13.	30
Less: Discounts .. .. .	10.	18.	20
Revenue from Shops and Trading .. .. .	519.	15.	10
Sale of Trophies .. .. .	505.	10.	32
Sundry Revenue .. .. .	3,810.	8.	43
Interest on Investments .. .. .	169.	16.	00
	458.	16.	96
<i>Balance on General Fund Account carried to Balance Sheet</i>	520.	6.	49

£54,658. 14. 09

# ROYAL NATIONAL PARKS OF KENYA

## STATEMENT OF INCOME AND EXPENDITURE ON CAPITAL ACCOUNT FOR SIX MONTHS ENDED 30th JUNE, 1959

EXPENDITURE	£ s. cts.	REVENUE	£ s. cts.
To Roads, Bridges, Boundaries, Airstrip, Fencing and Surveys .. .. .	4,456.12.26	By Balance at 31st December, 1958 brought forward .. .. .	4,342.16.02
Safari Lodges, Buildings, Ranger Posts, Staff Housing, Stores and Offices .. .	1,417.15.72	Kenya Government (balance of 1958/59 Development Plan) .. .. .	1,000. 0.00
Dams and Water Supplies .. .. .	2,301.13.90	Ministry of Works—Reimbursement—Amboseli Water Supplies .. .. .	250. 0.00
Bedding for Safari Lodges .. .. .	800.17.28	Transfer from Capital Reserve Fund .. .. .	5,000. 0.00
Furniture .. .. .	9. 4.60		
Tools and Equipment .. .. .	463.12.98		
<i>Balance on Capital Account carried to Balance Sheet .. .. .</i>	<i>1,142.19.28</i>		
	<u>£10,592.16.02</u>		<u>£10,592.16.02</u>

## STATEMENT OF INCOME AND EXPENDITURE ON CAPITAL ACCOUNT FOR SIX MONTHS ENDED 30th JUNE, 1959

FORT JESUS RECONSTRUCTION FUND			
EXPENDITURE	REVENUE		
EXPENDITURE	REVENUE		
EXPENDITURE	REVENUE		
To Expenditure during the period .. .. .	£ s. cts.	By Balance at 31st December, 1958, brought forward .. .. .	£ s. cts.
Salary (part) of Warden (ex Gedi) .. .. .	1,101.12.62	Grant from Calouste Gulbenkian Foundation (second instalment) .. .. .	15,341. 5.06
<i>Balance carried to Balance Sheet .. .. .</i>	<i>730. 0.00</i>	Interest accrued on investments .. .. .	15,000. 0.00
	<u>29,666.14.79</u>	Fees for Filming .. .. .	377. 2.35
		Contribution from Royal National Parks of Kenya to cover Warden's (Gedi) salary .. .. .	50. 0.00
			730. 0.00
	<u>£31,498. 7.41</u>		<u>£31,498. 7.41</u>

# ROYAL NATIONAL PARKS OF KENYA

BALANCE SHEET AT 30th JUNE, 1960

	£	s.	cts.		£	s.	cts.
<b>LIABILITIES</b>				<b>ASSETS</b>			
<b>Fund Accounts:</b>				<b>Fixed and Moveable Assets:</b>			
<i>Fort Jesus Reconstruction Fund—</i>				Sundry Items comprising Buildings, Plant, Machinery, Tools, Equipment, Dams, Water Supplies, Roads, Bridges, Fencing, etc., at nominal value .. .. .			
As per attached account .. .. .			5,643. 7. 62				
<i>Capital Fund Account—</i>							
As per attached account .. .. .			4,199. 11. 06				
<i>Capital Reserve Fund</i> .. .. .			10,000. 0. 00				
<i>Water for Wild Animals Fund</i> .. .. .			2,480. 14. 04				
<i>Donations Account</i> .. .. .			2,381. 8. 05				
			24,705. 0. 77				
<i>Less: General Fund Account—</i>				<b>Investments:</b>			
Balance at 30th June, 1959 .. .. .			1,150. 8. 85	Deposit with Land and Agricultural Bank of Kenya ..			15,000. 0. 00
<i>Add: Excess of Expenditure over Income</i>							
for year to 30th June, 1960 .. .. .			3,001. 1. 38	<b>Current Assets:</b>			
			4,151. 10. 23	Stocks in Hand—Sundry Items .. .. .			1,979. 18. 28
				Sundry Debtors .. .. .			1,959. 6. 21
				Advances (European Staff) .. .. .			185. 16. 00
				Special Advance (African Staff) .. .. .			18. 13. 00
				Deposit Accounts with East African Railways and Harbours			51. 7. 09
				Interest accrued on Investments .. .. .			1,136. 0. 08
							3,531. 0. 66
				<i>Cash—</i>			
				At Bank .. .. .			30,956. 3. 16
				In Hand .. .. .			1,399. 8. 58
							32,355. 11. 74
			20,553. 10. 54				35,886. 12. 40

NOTE: Retention Money of approximately £1,100 payable under the Fort Jesus Reconstruction Contract is not provided for in these accounts.

ALFRED VINCENT, *Chairman of Trustees*  
M. H. COWIE, *Director*  
A. E. BILLINGSLEY, *Chief Accountant*

£50,887. 12. 40

## AUDITORS' REPORT

We have examined the above Balance Sheet with the books and vouchers of the Royal National Parks of Kenya and we have obtained all the information and explanations we have required.

The Balance Sheet is, in our opinion, properly drawn up to show a true and correct view of the state of affairs at 30th June, 1960 of the Royal National Parks of Kenya according to the best of our information and the explanations given to us, and as shown by the books produced to us.

NAIROBI,  
26th September, 1960

GILL and JOHNSON,  
*Chartered Accountants.*

# ROYAL NATIONAL PARKS OF KENYA

STATEMENT OF INCOME AND EXPENDITURE ON GENERAL ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1960

## EXPENDITURE

	£ s. cts.	£ s. cts.
To Salaries and Allowances .. .. .	.. .. .	35,173. 5.94
Pensions .. .. .	.. .. .	1,930.10.58
Medical Insurances .. .. .	.. .. .	445. 1.43
Provision for Leave Passages .. .. .	.. .. .	2,934. 0.50
Provision for Gratuities and Retiring Benefits (African Staff) .. .. .	.. .. .	834. 4.94
Office and Clerical Wages .. .. .	.. .. .	2,494. 8.75
Printing and Stationery .. .. .	.. .. .	1,035.19.03
Publications and Publicity .. .. .	.. .. .	1,203. 2.96
General Expenses .. .. .	.. .. .	426. 9.40
Postages and Telegrams .. .. .	.. .. .	334.16.20
Telephone .. .. .	.. .. .	686. 6.72
Legal Expenses .. .. .	.. .. .	293. 5.00
Bank Exchange and Charges .. .. .	.. .. .	100.12.01
Rent and Rates .. .. .	.. .. .	1,028. 3.96
Insurances (General) .. .. .	.. .. .	1,209. 5.65
Travelling Expenses .. .. .	.. .. .	1,597.19.98
Replacement of Motor Vehicles .. .. .	.. .. .	10,522.14.68
Motor Licences and Insurances .. .. .	.. .. .	2,222.16.15
Maintenance of Transport .. .. .	.. .. .	6,345. 3.91
Petrol and Oils .. .. .	.. .. .	7,154. 8.37
Wages—General Labour (African) .. .. .	.. .. .	8,467.11.10
Maintenance of Safari Lodges .. .. .	.. .. .	1,061.17.41
Maintenance of Camps and Buildings .. .. .	.. .. .	1,468. 7.45
Maintenance of Roads and Signposts .. .. .	.. .. .	1,689. 6.96
Maintenance of Fences, Beacons and Boundaries .. .. .	.. .. .	163.10.05
Maintenance of Dams and Water Supplies .. .. .	.. .. .	198. 5.53
Maintenance of Workshops and Plant .. .. .	.. .. .	184. 3.77
Maintenance of Office Equipment and Furniture .. .. .	.. .. .	109. 6.80
Maintenance of Radio and Scientific Equipment .. .. .	.. .. .	192. 0.70
Wages of Rangers and Field Force .. .. .	.. .. .	10,286.11.98
Rations .. .. .	.. .. .	7,116. 8.50
Commissions and Bonuses (Rangers, etc.) .. .. .	.. .. .	446.15.27
Patrol Staff .. .. .	.. .. .	450. 0.00
Equipment and Expenses of Rangers .. .. .	.. .. .	2,751.18.02
Trophy Rewards and Expenses .. .. .	.. .. .	404. 6.02
Game Control .. .. .	.. .. .	514.10.29
Research .. .. .	.. .. .	66.15.45
Donations to:—	.. .. .	.. .. .
Kajiado African District Council .. .. .	.. .. .	1,040. 1.04
Samburu African District Council .. .. .	.. .. .	300. 0.00
Wages—Historic/Prehistoric Sites .. .. .	.. .. .	1,340. 1.04
Excavations and Reconstructions — Historic/Prehistoric Sites .. .. .	.. .. .	1,122.19.49
Library and Exhibits—Historic/Prehistoric Sites .. .. .	.. .. .	22.11.20
Provision for Audit Fee .. .. .	.. .. .	7. 3.35
Bad Debts written off .. .. .	.. .. .	150. 0.00
.. .. .	.. .. .	4. 0.00

1,040. 1.04  
 300. 0.00  
 1,340. 1.04  
 1,122.19.49  
 22.11.20  
 7. 3.35  
 150. 0.00  
 4. 0.00

£116,191. 6.54

## REVENUE

By Grants-in-aid from The Kenya Government .. .. .	.. .. .	62,800. 0.00
Entry Fees .. .. .	.. .. .	21,635.10.50
Accommodation Fees .. .. .	.. .. .	9,985.14.50
Ranger Guide Fees .. .. .	.. .. .	2,088. 1.50
Landing Fees—Aircraft .. .. .	.. .. .	10. 7.30
Camping Fees .. .. .	.. .. .	202.18.00
Rent "Treetops" .. .. .	.. .. .	1,639.11.29
Rent—Camp Sites .. .. .	.. .. .	361. 0.00
Hire of Bedding .. .. .	.. .. .	583.15.00
Hire of Vehicles .. .. .	.. .. .	760. 0.20
Hire of Lamps .. .. .	.. .. .	1.18.50
Hire of Cutlery and Crockery .. .. .	.. .. .	5. 0.00
Sale of Publications (net) .. .. .	.. .. .	1,110.17.44
Sale of Trophies .. .. .	.. .. .	10,109. 1.87
Sale of Car Badges .. .. .	.. .. .	3.10.00
Revenue from Shops and Trading .. .. .	.. .. .	1,069.17.76
Sundry Revenue .. .. .	.. .. .	94.10.00
Interest on Investments .. .. .	.. .. .	720. 9.70
Unclaimed Credits written off .. .. .	.. .. .	8. 1.60
<i>Balance on General Fund Account carried to Balance Sheet</i> .. .. .	.. .. .	3,001. 1.38

(NOTE: A further grant-in-aid from The Kenya Government of £15,000 is due and is not included in these accounts).

£116,191. 6.54

# ROYAL NATIONAL PARKS OF KENYA

## STATEMENT OF INCOME AND EXPENDITURE ON CAPITAL ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1960

	<i>£</i> s. cts.	<i>£</i> s. cts.
<b>EXPENDITURE</b>		
To Roads, Fencing, Ditching and Surveys .. .. .	2,225.15.05	.. .. .
Fencing—Nairobi Park .. .. .	15,132.11.45	.. .. .
Buildings, Ranger Posts, Gates, Staff Housing and Stores .. .. .	1,737.11.46	.. .. .
Dams and Water Supplies .. .. .	6,863. 7.76	.. .. .
Furniture and Equipment .. .. .	178. 2.50	.. .. .
Bedding for Safari Lodges .. .. .	129.10.00	.. .. .
Tools and Equipment .. .. .	66. 1.00	.. .. .
<i>Balance on Capital Account carried to Balance Sheet</i> .. .. .	4,199.11.06	.. .. .
	<u>£30,532.10.28</u>	
<b>REVENUE</b>		
By Balance at 30th June, 1959, brought forward .. .. .		1,142.19.28
Kenya Government Grant (1959/60) .. .. .		8,800. 0.00
Kenya Government Grant—Nairobi Park Fencing .. .. .		15,000. 0.00
Ministry of Works—Reimbursement—Amboseli Water Supplies .. .. .		589.11.00
Transfer from Capital Reserve Fund .. .. .		5,000. 0.00
		<u>£30,532.10.28</u>

## STATEMENT OF INCOME AND EXPENDITURE ON CAPITAL ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1960

### FORT JESUS RECONSTRUCTION FUND

	<i>£</i> s. cts.	<i>£</i> s. cts.
<b>EXPENDITURE</b>		
To Cost of Re-building (to 30th June, 1960)—Mowlem Construction Co. Ltd. .. .. .	20,869.19.65	.. .. .
Architect's Fee .. .. .	1,200. 0.00	.. .. .
Wages .. .. .	1,524. 4.60	.. .. .
Salaries and Allowances .. .. .	624. 2.06	.. .. .
Miscellaneous .. .. .	584. 3.70	.. .. .
Turnstiles .. .. .	112. 0.58	.. .. .
Travelling Expenses .. .. .	84.13.00	.. .. .
Insurance (Building) .. .. .	20.18.25	.. .. .
<i>Balance carried to Balance Sheet</i> .. .. .	5,643. 7.62	.. .. .
	<u>£30,663. 9.46</u>	
<b>REVENUE</b>		
By Balance at 30th June, 1959, brought forward .. .. .		29,666.14.79
Interest on Investments .. .. .		633.11.43
Donations .. .. .		101. 0.00
Municipality of Mombasa—Donation .. .. .		81.16.99
Proceeds from Sale of Miscellaneous Items .. .. .		180. 6.25
		<u>£30,663. 9.46</u>