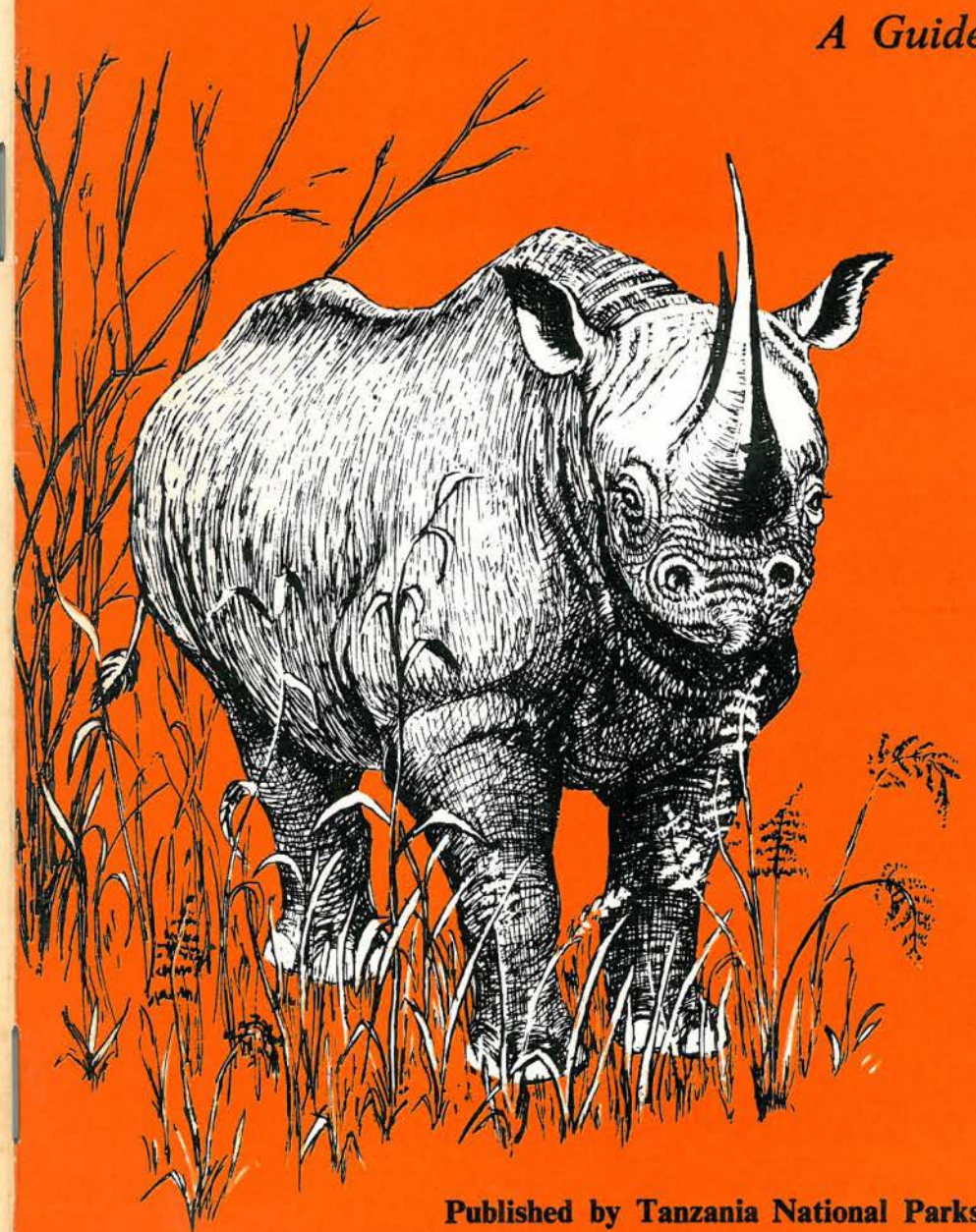


Tarangire National Park

A Guide



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Illustrated by Philippa Parker

Kees Rookmaaker
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TARANGIRE
NATIONAL PARK

—

A guide to your increased enjoyment

The Tarangire National Park in Northern Tanzania, the country's third largest, covering an area of 2,600 square kilometres, is only exceeded in size by the Serengeti in the North and Ruaha in the South.

Because it forms the dry-season retreat of much of the wildlife of Southern Maasailand, it is at its best during the five months of June through October inclusive, with September probably the best month of all.

On account of its size, a short visit to Tarangire can only allow a very superficial examination, and it is recommended that two or three days should, if possible, be set aside for its exploration. For those with only a short time to spare the various tracks overlooking or bordering the Tarangire river and Lemiyon Mbuga provide the best all-round wildlife viewing.

Visitors may get out of their cars in open areas, but should be careful not to do so in the vicinity of thick bush, as even a comparatively small shrub may prove to be the hiding place of a rhino. In dense bush or long grass, elephant or lion can be a serious danger to people on foot, especially if the animals are surprised at short range. In such cases, their most probable form of defence will be attack.

We particularly ask you to observe the local speed limit of 50 k.p.h. so as to avoid damage to both yourselves, the roads and the animals. In fact, you will see far more and stir up far less dust if you keep to half this speed.

LITTER is always a problem in National Parks. PLEASE retain it in your vehicle or bury it in order to prevent the eyesore of discarded cartons, paper, cans and bottles.

Petrol is available at the Lodge: be sure you have enough in your tank before setting out. It is wise to carry a supply of drinking water also.

SEPTEMBER, 1970

Introduction

From the town of Arusha the Tarangire National Park is reached by following the paved Dodoma highway south-westward for a distance of 106 kilometres, then turning left just beyond the hamlet of Kwa Kuchinja onto an earth road. The Park entrance gate is reached after 8 kilometres, and another 10 bring you to the Lodge.

Within the Park the countryside varies from woodland to open plain but is dominated throughout by the valley of the Tarangire river, from which its name is derived. Rhino, buffalo, elephant and lion are easily observed, and leopard are present in considerable numbers. Both cheetah and African hunting dog have been recorded, and are seen from time to time.

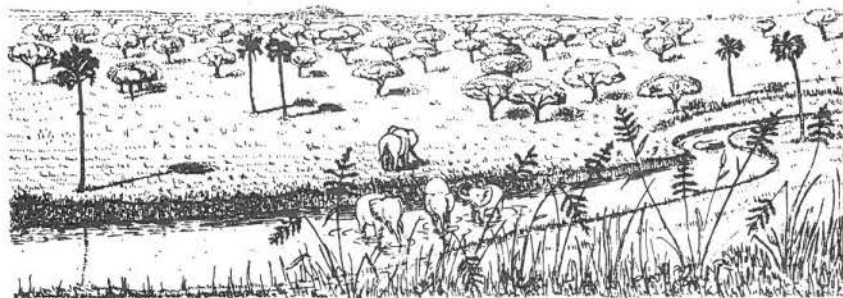
Opportunities for photography are excellent, with rhino probably taking first place, but oryx, klipspringer, and lesser kudu are present and provide chances for less usual studies. Bird life is also very rich and varied, especially during the Northern winter when the palearctic migrants have moved southwards. Over 260 species have already been recorded in the Park, but there is ample opportunity for adding to the list.

When touring in the Park, you are strongly advised to drive slowly and generally take your time. Even a trained observer can miss a great deal of interest if he travels fast, and it is worth remembering that many of the smaller creatures are just as interesting as the well known "big five" which are sometimes thought of as the only attraction a wildlife area has to offer. You are also advised to keep your eye on the road surface as, whether wet or dry, it will retain in many areas the spoor of the animals which have recently passed.

When planning your circuits in the evening, it is advisable, as far as possible, to ensure that you are not travelling in a westerly direction when the sun is low, as wildlife viewing is much more satisfactory and less strain on the eyes if the sun is behind you. For example, the Burungi circuit is best approached in a counter-clockwise direction in the evening, clockwise if a very early morning run is planned

It is the intention of this guide booklet to help to increase your pleasure in a visit to the Park by drawing your attention to some of the less obvious aspects which it has to offer, and in so doing enabling you to speak with wider knowledge and more authority of what you have seen.

We wish you a successful and rewarding visit.



The Park

The centre of Tarangire National Park is situated in latitude 3°50' S. and longitude 36°00' E. in northern Tanzania, 114 kilometres by road from the town of Arusha and only 20 kilometres, as the crow flies, from the southern tip of Lake Manyara. It takes its name from the Tarangire river which, rising well to the south in the Kondoa highlands, makes its way northwards throughout the length of the Park.

The river itself, which is the dry-season retreat of much of the wildlife of southern Maasailand, is at an average elevation of 1100 m. above sea level and is flanked for much of its length by red loam ridges which rise in places a further 120 m. on either side, sometimes, as on the stretch of river west of the Lodge, and in the Matete area, so abruptly as to form a sheer precipice. During the height of the dry season long sections of the river are devoid of surface water, but enough pools remain to provide for the thirsty wildlife. The water from the river is too saline for human consumption, but the wild animals seem to have a considerable tolerance for the concentrations of sodium salts which it contains.

Like much of the acacia savanna of East Africa the rainfall in the Park is low, approximately 60 cms. of rain falling during the wet season which begins in November and continues into May, with the heaviest precipitation recorded in March.

Mean afternoon temperatures are around 27° C., falling to an average of 16° C. at night, but temperatures have ranged

from as low as 4° C. at night in July to 40° C. on a January afternoon. Humidity in October falls as low as 35%, indicating very dry conditions indeed.

Geologically the Park lies within the basement complex zone, being just outside the volcanic belt which includes the Monduli and Essimngor hills and Mount Meru, as well as the volcanic country dominated by Oldoinyo L'engai and Ngorongoro to the north and north-west.

It is probable that at one time Lake Manyara was very much bigger than it is today and that parts of the present Tarangire National Park formed, at that time, a section of the lake bed.

There are nine distinct vegetational zones in the Park of which the *Acacia tortilis* parkland is not only the most attractive to human visitors, but carries the greatest number of wild animals throughout the year. Other zones are riverain grassland, *Acacia-Commiphora* woodland, *Combretum-Dalbergia* woodland, drainage line woodland, whistling-thorn thickets, extensive areas of 'black cotton' grassland known as MBUGA in Swahili, deep gully vegetation and, as outcrops in various parts of the Park, scattered rocky hilltops. Common throughout the Park are the grossly corpulent baobab trees, *Adansonia digitata*, which look, as someone once remarked, as though they had been planted upside-down.

Elephants sometimes chew the bark and pithy trunks of these trees, while bees and a number of hole-nesting birds use them for their hives and breeding places. In the evening light the shiny, grey trunks of the MIBUYU glitter like silver. Their fruit is eaten by a variety of animals, and the seed pods, when



dried and hollowed, make handy dippers for water and beer and bailers for canoes. The fruit, and the vessels made from them, are called MABUYU and VIBUYU respectively in Swahili.

Baobabs grow to a great age and, apart from providing camping places for poachers in their hollow trunks, are said to provide sanctuary for ghosts and spirits of one kind and another.

Because of the way in which wild creatures have adapted themselves to their environment each vegetational zone tends to support its own community of birds and animals. Klipspringer and hyrax will be found on the rock outcrops while the wading birds will frequent the river itself and the 'black cotton' flood plains early in the season before these have dried up. To a greater or lesser extent this will apply to other forms of wildlife, although certain animals such as elephants will be found throughout the Park at most seasons of the year.

Thomson's gazelle, although common at certain times of the year within half a mile of the north eastern boundary, have yet to be recorded in the Park, and topi, seen so frequently in the Serengeti plains, are absent from the Maasai Steppe and therefore from the Tarangire.

Once the rains have set in and surface water is available in southern Maasailand there is a movement away from the Tarangire by many of the herds of ungulates as well as their predators. Nevertheless, a substantial number of animals remains resident throughout the year. Once the surface pools dry up the herds fall back on the water reserves of the Tarangire river for the remainder of the dry season.

That there are tsetse flies in the Park nobody denies, but a factor which is not always remembered is that, without them, the area would not in all probability be a wildlife reserve now. It is because of the presence of these comparatively small but highly significant creatures that the area which is now a National Park has not become a dry season rangeland for herds of domestic cattle. The tsetse in the Tarangire carry a form of *Trypano-*



somiasis to which domestic stock are highly susceptible and which precludes ranching in the area.

The wild animals have, over a very long period, built up a resistance to 'tryps' but cattle, sheep, goats and donkeys have never done so and cannot survive in a tsetse-infested area. As in other parts of East Africa, Sleeping Sickness is endemic to the area but is of rare occurrence. Actually, the risk of catching the disease is considerably less than that of being run over by a car in your own home town as only an infected fly can transmit it and these are rarely encountered. Nevertheless, should you contract a fever one to four weeks after a visit to Tarangire you are advised to see a doctor, informing him that Sleeping Sickness (and malaria) should not be ruled out as possibilities. With modern drugs, both diseases are easily cured provided diagnosis is not unreasonably delayed.

The bite of these flies, known as NDOROBO in Swahili, is similar in intensity to the 'horsefly' of Europe. People who have not been salted by previous exposure to the insects may experience some local swelling, but this quickly subsides. It is certainly wise to go armed with a stoutly made fly-swat and to keep the legs and arms covered. A can of insecticidal spray is also a useful addition to the traveller's equipment.

If you have just been bitten it may be small comfort to know that you are not, in fact, the favourite host of tsetse flies. Of all the mammals present in the Park the warthog is most often attacked, and it has been found that they provide three-quarters of the blood meals taken by tsetse, each individual giving up an estimated 13 to 27 grammes of blood per day.

History

The present National Park consists of the former Tarangire Game Reserve which was gazetted in 1957 and part of the Mkungunero Game Controlled Area which now forms the southern part of the Park.

Before the area was declared a Game Reserve it was open to hunting parties and had a reputation for an abundance of wildlife. Not only was the area visited by professional hunters with their clients, but it was used by some local people for hunting and honey gathering. There was also a certain amount of fishing carried out in the Tarangire river. Once gazetted as a Reserve, all hunting was prohibited and to a large extent prevented, although local people occasionally, as they still do today, entered the Reserve illegally in search of meat, hides and honey. Honey gathering in itself is not necessarily detrimental to the wildlife except that it causes inevitable disturbance and, much more seriously, is the cause of uncontrolled bush fires which sweep through in the dry season. Honey gatherers, in order to approach the bees without the danger of being badly stung, light fires at the base of the trees in which hives are situated, and once having extracted the honey do not feel constrained, even if they were able to do so, to extinguish the fires which spread rapidly throughout very large areas. Anyone who has seen the rapidity with which a grass fire spreads on a hot, dry afternoon under the influence of a strong wind will appreciate the danger of such a situation.

During the four years from 1957 to 1961 Dr. Hugh Lamprey carried out biological research in the Tarangire Reserve, and it is largely as a result of his work that much of the information contained in this booklet is so readily available.

The present Park was gazetted by Act of Parliament in June 1970 thus opening the way for development as a tourist area by the provision of roads, bridges, bore-holes, fire-breaks and an anti-poaching force of Rangers. This development has been made possible very largely through the munificence of Mr. Charles W. Engelhard of Far Hills, New Jersey, U.S.A. In addition, an attractive Lodge was soon established overlooking the Tarangire river near Matete.

The Park is still being actively developed, especially with regard to the provision of an adequate network of wildlife-viewing tracks so that all parts may be visited in a saloon car.

Two stones, about the size of tennis balls, and almost as perfectly spherical, were found recently lying close together not far from the Engelhard bridge at Matete.

It has been suggested that these might be from a bolas, but there is no evidence to prove that this instrument was ever used in East Africa. That the stones have been worked by man is indisputable.

As it is extremely difficult to get an accurate age for such artifacts, it is impossible to say when they were first fashioned. The bolas is still used in South America when pursuing quarry from horseback. How effective a bolas would be to an unmounted man in the East African bush is uncertain.

Recently a fossilized elephant tusk was discovered near the banks of the Tarangire river, also at Matete.



Lemiyon

In the most northerly part of the Park within the triangle formed by the eastern and western boundaries and that part of the Tarangire river which flows westwards towards Lake Burungi, the vegetation is composed of some open 'black cotton' grassland, an area of *Combretum-Dalbergia* woods and a more extensive parkland, forming the apex and western side of the triangle, of *Acacia tortilis*. The toothbrush bush, *Salvadora persica*, is also very common, showing up bright green even at the height of the dry season.

Wildebeest and zebra are common here, as they are in many other parts of the Park. Both species needing to drink regularly, they never get far from the river when surface water, in the form of open pools, is unavailable elsewhere.

Wildebeest, known as NYUMBU in Swahili, are rather ungainly looking animals much given to frolicking about, especially when excited. They have been given the soubriquet



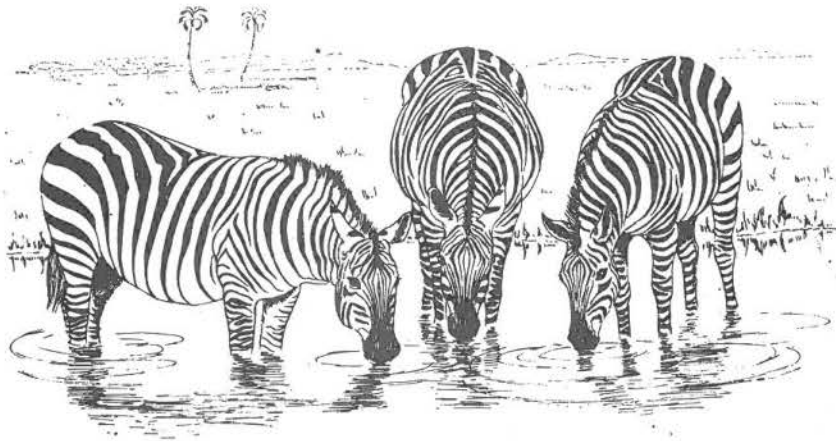
'clown of the plains' because of their apparently frivolous behaviour which is, in fact, not playful but an integral part of their evasive tactics in the presence of a predator. A mature male weighs about 225 kilos and measures 130 cms. at the shoulder. During the first few days of their lives the calves are a light fawn in colour while the adults are brownish-grey with dark streaks and stripes across their backs. The legs are a dark tan. Wildebeest (literally

'wild cattle' in Afrikaans) are entirely grazers but are not afraid to venture into sparsely wooded areas in search of palatable grass. They are often seen on the new flush that quickly appears after a grass fire, especially on the 'black cotton' soils early in the dry season. They are very gregarious animals, often to be found in association with herds of zebra. The name wildebeest (pronounced vil-der-beast) is most commonly used by expatriates in East Africa, but many visitors will know them as gnus. Their scientific name is *Connochaetes taurinus*.

The zebra present in the Tarangire is Burchell's, *Equus burchelli*, which appears to the casual observer to move about in large, homogeneous herds, but in reality is divided into family groups of up to a dozen animals led by a dominant stallion. As the young males reach maturity they break away from the family unit until such times as they are able to establish their own, either by enticing young mares away from other groups or, occasionally, by taking over a ready-made unit either by conquest or as replacement for a stallion which has become too old or has been taken by predators. A zebra

stallion may stand 120 cms. (12 hands) and weigh between 225 and 315 kilos. Young zebra, looking for all the world like children's stuffed toys, have brownish-red stripes for the first few months of their lives and their tails are very frizzy.

In Swahili they are known as PUNDA MILIA, meaning 'striped donkey', but they have never been satisfactorily domesticated and trained to do any donkey work, although zebroids — a cross between zebras and horses — have proved of limited value to man and have the advantage of being a novelty, cutting quite a dash between the shafts of a gig or dog-cart. Even if zebras are tamed and trained from a very young age they seem to lack stamina when worked, even when fed such concentrated food as oats. It is tempting to think that they are wise enough to know what is good for them, preferring a life of freedom with all its hazards to one of drudgery in the service of man.

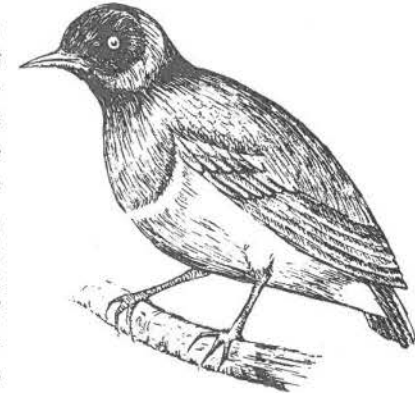


Zebra are often hunted and killed by lions and, unfortunately, because of the current craze for zebra-skin ornaments, by poachers. When disturbed their yelping cry, not unlike that of a small dog, is very characteristic and often heard. Contrary to popular belief, their stripes are thought to be a form of cryptic colouration, not a regular camouflage, having been evolved not so much to render the animal inconspicuous as to confuse an attacking predator as to speed and distance.

Although they always seem sleek and fat, zebra are usually heavily infested with internal parasites, but are able to maintain health provided their general condition is good.

Of the 36 species of starling that occur in East Africa, 4 have been recorded in the Park, but in Tarangire the two most obvious ones, which you are sure to see, are the Superb and Ashy.

The Superb Starling, *Spreo superbus*, as his name suggests, is a bird of exceptionally colourful plumage. The head and sides of the face are a golden-washed black, the neck, mantle and tail a deep, metallic blue, and the wings metallic green with black velvety spots at the ends of the wing coverts. A narrow white band separates the blue of the chest from the chestnut colour of the thighs.



During the breeding season Superb Starlings appropriate the nests of Buffalo-weavers.

The Ashy Starling, on the other hand, has none of the glossy plumage and iridescent colouring of his cousin. *Cosmopsarus unicolor*, as he is known scientifically, is a dull ashy bird, mainly distinguished by his long, steeply graduated tail and typically 'starling' appearance. It is a species wholly confined to Tanzania.

Food for both species consists mainly of insects, but starlings are birds of catholic tastes and will eat fruit and berries as well as any crumbs that visitors may throw out. In both cases the sexes are alike. It is hard not to reflect on the apparent strangeness of the evolutionary processes which provided for one member of the starling family to be a dandy and one so drab.

Starlings are noisy, gregarious birds with strong powers of flight. For the most part they are beneficial to man because of the great numbers of harmful insects they consume.

A very common monkey here as, indeed, throughout East Africa, is the Vervet or Grivet, *Circopithecus aethiops*, known as TUMBILI in Swahili. These entertaining little monkeys are smoky grey in colour with black faces and white cheek tufts.



The tail, consisting of about 60 cms. of the animal's total length of 1½ metres, is very slender with a black tip. The male's scrotum is bright, azure blue. Vervets feed on insects, fruit, leaves and seeds which they find in the fairly thick bush, often bordering streams or rivers, in which they live. They also consume the young and eggs of birds.

They are sociable animals, associating in troupes of over thirty individuals and are ruled by a dominant male. In cultivated areas they are a very serious threat to crops, stealing and destroying most types of fruit and cereal. The larger eagles such as the Martial, *Polemaetus bellicosus*, and leopard are their main enemies. They will mob the great cat from

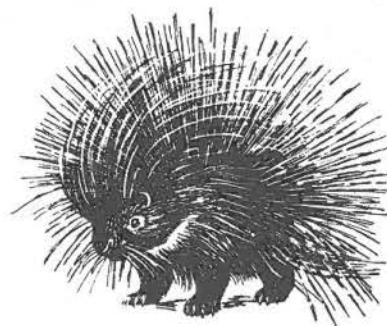
the safety of a tree if they see one approaching, and even, on occasion, from the ground.

Although both African hares and porcupines are nocturnal creatures they will be seen occasionally in the early morning or late afternoon, and porcupine quills will frequently be seen as you drive along.

The African hare, called SUNGURA in Swahili, looks very like a smaller edition of his European cousin, but in colouration

more closely resembles the European wild rabbit. Hares spend the day concealed in 'forms' consisting of clumps of tussocky grass or low-growing bush, only venturing forth at night. They are said to be particularly heavily infested with internal parasites, and many hunters refuse to eat them. They are preyed upon by most of the small and medium-sized predators including the felines from cheetah downwards, eagles and eagle-owls, jackals, hyenas and the larger snakes.

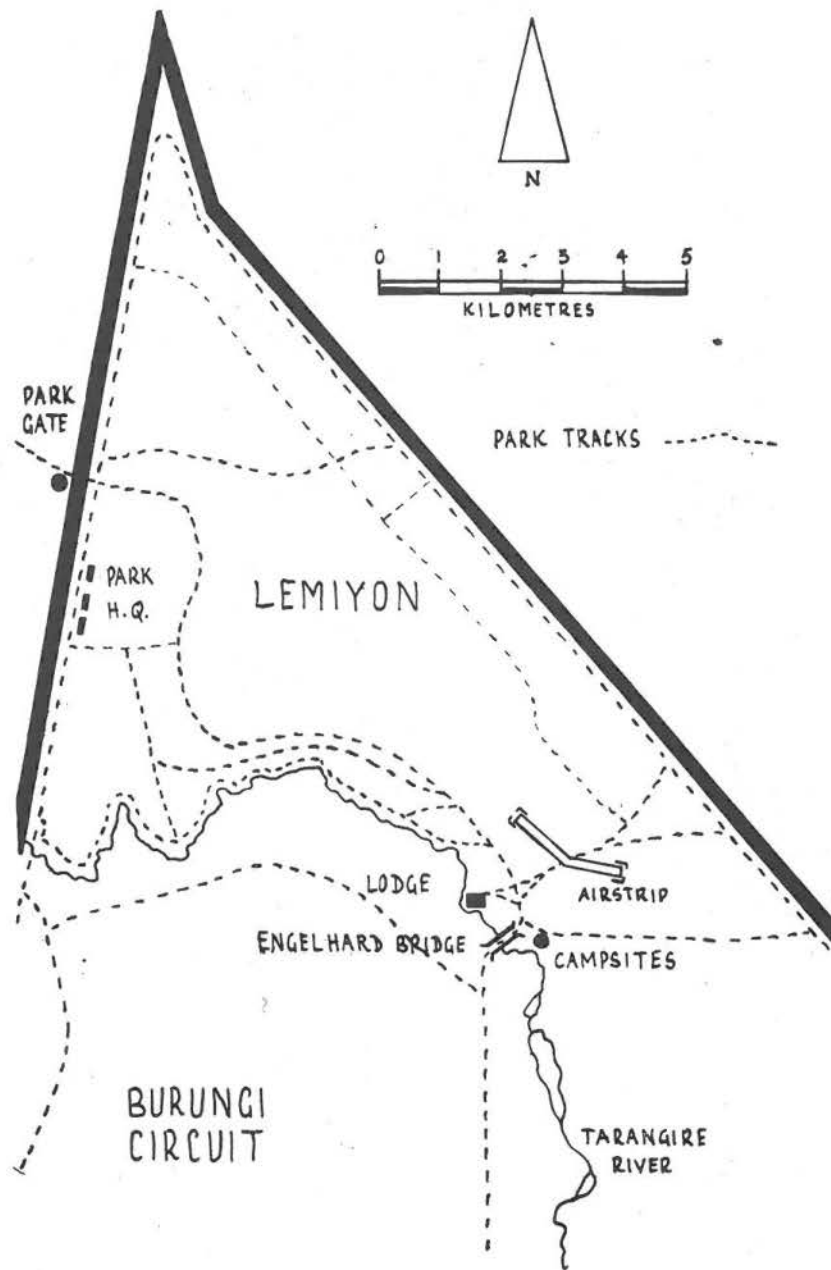
An adult porcupine weighing between 18 and 25 kilos presents a serious problem to the predators, often lions or leopards, who wish to attack him, as when angered he erects his hard, sharp quills and, pointing away from his enemy, charges backwards into their faces. Should he make contact, the quills become readily detached and embed themselves in the attacker's neck and chest where they remain and fester. A predator incautious enough to strike with his paw will soon find himself unable to walk or hunt, and may die of starvation as a result.



Porcupines feed on roots and tubers of all kinds and have been seen gnawing bones. While feeding they rattle their quills and grunt continuously. The story that they can actually shoot their quills like arrows is not correct. During the day time they live in burrows, in the vicinity of which their spoor, like that of a miniature bear, will be plainly visible. Their characteristic droppings look like large date stones. Their Swahili name is NUNGU.

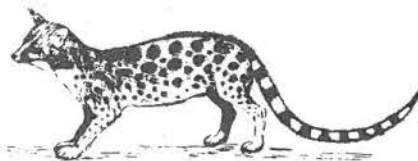
Two cat-like creatures of about the same size which may be seen occasionally on the road at night are the civet, *Civettictis civetta*, and the genet *Genetta genetta*, known as FUNGO and KANU respectively in Swahili. Both are very nocturnal.

The civet stands about 38 cms. high and measures just over one metre from nose to tail-tip. It has rather coarse,



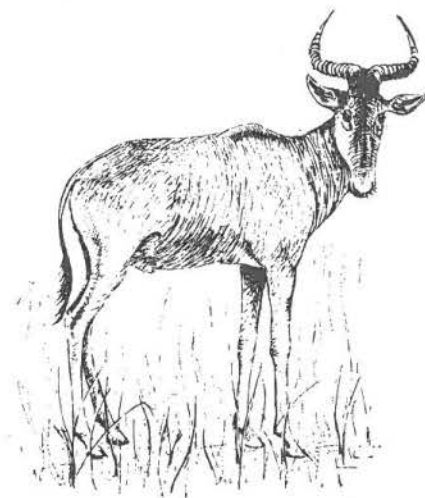
wiry, dark grey fur, becoming black on the abdomen, legs and tail tip. The body is marked with dark blotches and the tail with black vertical stripes at the side. The back, which has a dorsal ridge of long, black hair, is usually carried rather arched. When alarmed or as a means of defensive action, they emit a powerful skunk-like odour from their anal scent glands. Perfumiers take advantage of this to use the basic 'musk' as a fixative for scent, having of course eliminated the unpleasant-smelling element. The fixative, known as 'civet' in the perfume trade, has a high market value.

The genet appears more lithe and cat-like, with its narrow, pointed face, conical ears and short drab-grey fur. Its tail is heavily ringed with dark brown and it has white patches below the eyes.



Both civets and genets are more or less omnivorous, preying on small mammals, birds, reptiles and insects. They also eat wild fruit and, if they can find it, carrion.

Genets are more likely to be seen in trees than civets, being semi-arboreal, especially when resting during daylight hours.



Often seen here as elsewhere in the Park are Coke's Hartebeest, *Alcelaphus buselaphus*, known throughout East Africa by their Swahili name of KONGONI. In colour they are fawn with a pale, almost white, rump and can be easily distinguished by the horns which rise from a bony pedicle situated at the back of the head, growing outwards and sharply backwards so as to form a letter 'S' when viewed from the side. They have long, rather foolish-

looking faces but are nevertheless alert for signs of danger. When alarmed they gallop off at a great pace with their heads and necks held stiffly forward. The sexes are alike, both weighing around 135 kilos and measuring 130 cms. at the shoulder. Hartebeest are entirely grazers and need to drink regularly.

Lesser kudu may be seen along the river bank.

Matete

The area of the Park in the vicinity of the Lodge, campsites and the Engelhard bridge over the Tarangire river is known as Matete, taking its name from the tall elephant grass and reeds which grow along the river banks. Lolkisale mountain, which stands outside the park to the east, can be often seen from here.

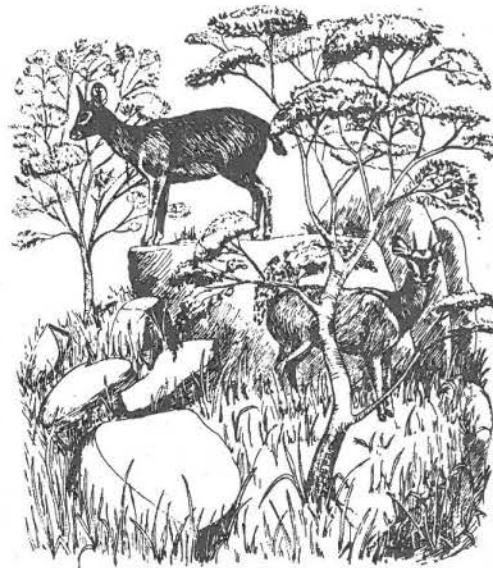
The vegetation is mainly rather open *Acacia tortilis* parkland with scattered baobabs and is dominated by the river which attracts both men and animals to its banks. In and around the Acacia woodland you will see the Sodom Apple, *Solanum sp.*, with its mauve, potato-like flowers and small, spherical, yellow fruit. This plant is a pernicious weed in cultivated land, and it will be noticed that it is usually left alone by the browsing animals in the Park. It is related to both the potato and tomato.



About one kilometre south of the bridge on a rocky kopje beside the road live klipspringers and colonies of hyraxes, both *Procavia johnstoni*, the Rock Hyrax, and *Heterohyrax syriacus* which feed on the ground as well as in the trees. Both are known as PIMBI in Swahili. Hard though it is to

believe, the hyrax is the nearest living relative of the elephant, a fact which is demonstrated by anatomical similarities. These animals, the conies of the Bible, resort to a regular spot in the rocks to deposit their faecal matter, the boulders often being stained orange in such places. During the 19th century a product known as "dassiepiess" (hyraxes are known as dassies in South Africa) was a regular feature of the European pharmacopoeia, being administered in stubborn cases of hysteria. It was composed of the dried residue of hyrax urine which was scraped off the rocks and ground into a powder. There seems to have been some doubt of its curative properties, as it was reported by a professor of Leyden University, who had carried out experiments, that it had little effect on his students, who had been dosed with the preparation, other than that "they rifted right well". Although they live in the kopjes, hyrax feed on the surrounding vegetation, grazing the grasses for a distance of about 55 metres from the base of the rocks.

The klipspringer, *Oreotragus oreotragus*, is known as MBUZI MAWE in Swahili, which literally means "rock goat", and he is certainly about the same size, weighing around 20 kilos and measuring 55 cms. at the shoulder. This thickset, rough-coated antelope is adapted for leaping from rock to rock on



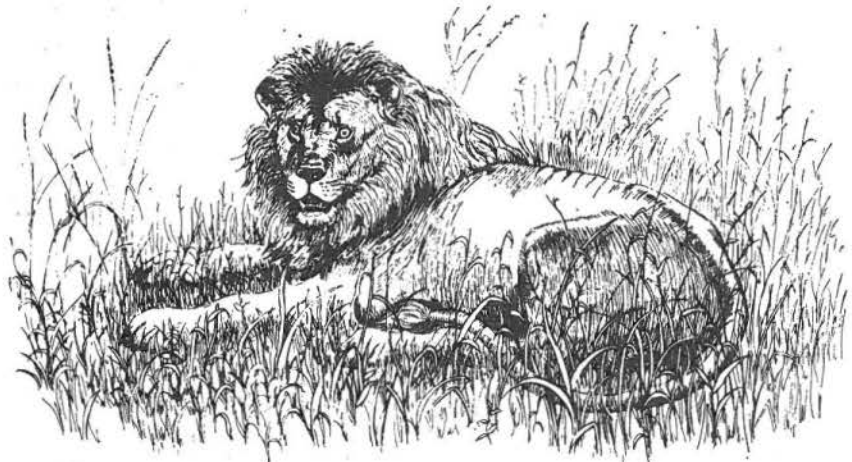
rather inaccessible boulder-strewn hill-sides or rock outcrops, where he browses the vegetation. In colour he is faintly yellowtinged olive brown. This is the Maasai race of klipspringer in which the majority of the females, as well as the males, are horned. It will be noticed that he stands on the very tips of his narrow, almost cylindrical, hooves.

SIMBA the lion, because he himself needs to drink regularly, and also because he tends to haunt areas of the Park where prey species congregate, is often found not far from the river. Zebra and wildebeest are probably killed most often by lions, but they also take eland, buffalo, waterbuck, hartebeest and oryx. Hunting is carried out by the pride as a concerted effort, but the dominant male seems to involve himself as little as possible in the hard work, leaving the lionesses to make most of the effort. Stories of the male roaring upwind so as to drive the prey into the waiting jaws of the lionesses are not confirmed scientifically, nor has it been established that lions hunt up wind. As far as is known, the direction is immaterial to them. As soon as the prey is within reach, the females make a dash for it and, if successful, catch it by the throat or muzzle in a strangulation hold.

Panthera leo, as the lion is known scientifically, is an extremely indolent creature, spending as much as 19 hours a day either asleep or dozing. It is for this reason that the prides are so often accessible to visitors, who may safely approach in a car to within a distance of only a few metres of them. A fully-grown male lion may weigh about 180 kgs., and can be distinguished, even though he does not have a well-developed mane by, among other characteristics, the ruff of yellowish fur which grows on the cheeks and is not found in females. Young lions are generally "hammermarked" on the flanks, but these spots disappear as maturity approaches.

Lionesses usually give birth to from two to four cubs every two years, unless they lose their offspring earlier. At first, the tiny cubs are hidden in a clump of tall grass where they are guarded by their mother and other lionesses of the pride, but by the third month they begin to venture forth, especially to join the adults on the kill. They are not entirely able to fend for themselves until they are about 18 months old. Young lions have a great deal to learn if they are to survive; they must be familiar with the movement and habits of prey species and which of them they are likely to be able to pull down and which are going to prove too powerful for them. Although their life often appears to the human observer to be all 'cakes and ale' they frequently get badly hurt when, driven by hunger,

they attempt to kill a prey species or individual animal which is too strong for them to cope with.



Lions have a strange keratinous spike hidden in the tuft of the tail. What its purpose is, nobody knows, but the ancient Egyptians believed that, by thrashing their tails against their own flanks, these great cats were able to work themselves up into a frenzy of rage which made them more than a match for any creature bold enough to attack them.

As in Lake Manyara National Park, the lions of Tarangire quite often climb trees, especially *Acacia tortilis*.

Open acacia woodland is the favoured habitat of many widely differing species of wildlife because of the shelter and food supplies which it provides. Bird life is very abundant, in many cases exploiting the wealth of insect life which is to be found there. The almost impregnable canopies of the flat-topped thorn trees provide excellent nesting sites, often visible but still difficult for a predator to reach unless, like the boomslang snake, it is specially adapted for doing so. Many visitors are surprised that they do not see, and are not bothered, by snakes in the East African bush. They are, in fact, very common, but because they are generally timid creatures they slip away at the first sound of danger. In any case, their protective colouration is so well adapted to their environment that only a skilled observer is able to pick them out. Although many

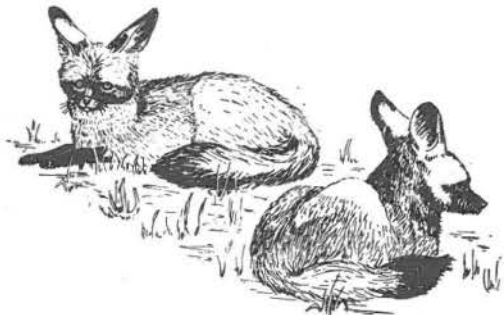
species of snake are extremely venomous the incidence of snake bite is comparatively rare, even among farmers and pastoralists

One of the commonest birds in the Park, although not of spectacular appearance, gives to the bush its most characteristic sound. This is the ring-necked dove, *Streptopelia capicola*, known, along with other pigeons and doves, as NJIWA in Swahili. The call, which is rendered in "Birds of Eastern and North Eastern Africa" by Praed and Grant as an incessant "kukoro", can be heard throughout the day, and even on moonlight nights, but it is undoubtedly at its best at dawn.



At night, Spring hares, *Pedetes surdastar*, (which are named after their kangaroo-like method of getting about, not after the season of the year) may be seen by the light of a flashlight. Often the first thing noticed is their great luminous eyes, like round lamps bobbing in the dark. It is interesting that both eyes are never seen at the same time, as when viewed head on the eyes do not reflect. Spring hares feed on vegetation and live in underground warrens.

Bat-eared foxes, *Otocyon megalotis*, live in burrows in the open plain and, although mainly nocturnal, may often be seen by day and recognised by their generally foxy appearance and very large ears. In Swahili they



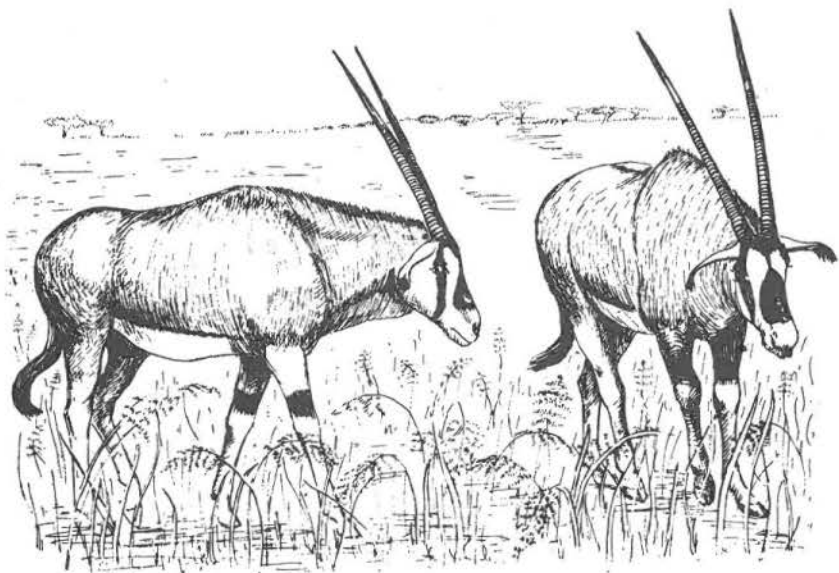
are known as MBWEHA MASIKIO meaning "eared jackal" although they are true foxes with the typical fox characteristic of vertical eye pupils. Both jackals and foxes, of course, belong to the *Canidae* or dog family. They feed almost exclusively on insects, but probably eat fruit, roots and eggs from time to time.



The large bird of prey with a very short tail and chestnut upper parts, seen here and elsewhere in the Park, is the Bateleur eagle, *Terathopius ecaudatus*, a very characteristic African raptor. It is generally seen on the wing, and is capable of some sensational aerobatics. When hunting seriously, it stoops at great speed.

The Bohor Reedbuck can be seen in this area. These animals, *Redunca redunca*, TOHE in Swahili, are very similar to Mountain or Chanler's reedbuck found, for example, on the hills of the Serengeti National Park, but are rather more sandy or rufous in body colour. They weigh about 36 kgs., and stand 75 cms. at the shoulder. Horns, which are present in males only, are rather short, ringed at the base and curved forward at the tips. They are often seen in small groups near swamps, frequently lying down almost hidden by the reeds and grasses. Their tails are very bushy, with a conspicuous white "flag" which shows clearly if, when alarmed, they make off with shrill whistling cries.

An imposing antelope often found in the Matete area is the fringe-eared oryx, *Oryx beisa*, known as CHOROA in Swahili. The body colour is a rufous grey with black and white facial markings. The horns, carried by both sexes; are long and narrow and grow straight back from the head like rapiers. They can be distinguished from the beisa, which they very strongly resemble, by the fringe of black hair which grows from the tips of the ears. The tail also has a tuft of



black, wiry hair. The weight of a fully-grown animal is around 200 kilos. Oryx are grazers, but seem able to go for longer periods without water than is the case with many of the other large herbivores. Although lions kill them, they do not always escape damage from the powerful horns of these elegant animals. Tarangire is the only National Park in Tanzania where oryx occur. When seen in profile oryx sometimes appear to have only one horn, a fact which probably gave rise to the myth of the unicorn.

The Lake Burungi Circuit

Taking this circuit in a clockwise direction, you drive south alongside the Tarangire river, through *Acacia tortilis* parkland, from the Engelhard bridge to within 2½ kilometres of Lamprey's Camp. Here you turn right and soon find yourself crossing a belt of *Combretum-Dalbergia* woodland as you head for the western boundary of the Park. Before you reach it, however, you re-enter acacia parkland, which you remain with as you follow the boundary northwards. Just short of

the Tarangire river, you turn right again, once more crossing the *Combretum* belt back to Engelhard bridge. The whole circuit consists of a distance of 80 kilometres.

As you drive south, you are likely to see rhino, *Diceros bicornis*, called KIFARU (plural VIFARU) in Swahili. The species occurring here is the Black, not the White, Rhino, which is not found at all in Tanzania. Actually, the names are misleading, as the Black Rhino is not black, nor is the White Rhino white. The name White is a corruption of "wide", and refers to the broad muzzle of this species which is a grazer, not a browser. A fully grown Black Rhino bull may weigh over 1,000 kgs., and measure 1.8 m. at the shoulder. Horns, which are composed of a fibrous, keratinous material, are present in both sexes. They do not fuse with the skull as in bony-horned creatures, but rest on a slightly convex base from which, on occasion, they become detached.



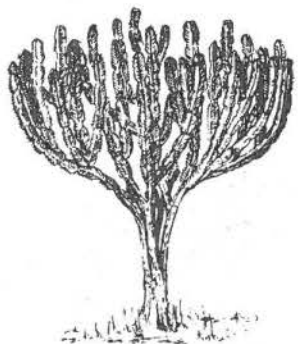
Rhinos have poor eyesight, but very keen senses of scent and hearing. As they are not always able to determine the identity of an intruder, especially if down wind, they are likely to make an exploratory charge, often in a slightly wrong direction, in order to cause gross movement which enables them

to locate the cause of the disturbance. They have a habit of repairing regularly to a selected spot to deposit their dung, which is scattered with the hind feet.

Possibly because these great beasts have been hunted since time immemorial for their horns and because they usually live in areas where they rarely see humans, their tempers are frequently crusty, and it is wise to be prepared to move away quickly if an individual shows signs of aggression.

It has been noted that when mating the pair remain coupled for between 29 and 32 minutes, a fact which may have given rise to the myth believed by some Eastern people that their horns have aphrodisiac properties, although it is more likely that the horn simply represents a phallic symbol. They are very fond of wallowing, and are often attended by the Red-billed oxpecker, *Buphagus erythrorhynchus*. These birds clean the skin of ticks, biting flies and other external parasites as well as, no doubt, keeping sore places open which might otherwise heal quickly. They also perform the valuable service of acting as an early warning of danger, flying up in alarm at the first approach of an intruder.

In this area, as elsewhere, you will see the Candalabra Tree, *Euphorbia candalabrum*. The euphorbias take the place in Africa of the *cacti* of the New World. They are readily eaten by rhinos if they get knocked or blown down, but are not damaged otherwise, even by elephants.



The thick bush along the roadside is the place to look for the shy Lesser Kudu, *Tragelaphus imberbis*, called TANDALA MDOGGO in Swahili, but it is essential that you drive slowly if you are not to send them scurrying into cover before you have spotted them at all. The male stands 1 metre at the shoulder, weighs 100 kgs., and carries three-spiral horns of about 75 cms. in length. The females are hornless.

In colouration the males are greyer than the females, but both sexes have thirteen or fourteen narrow, white, vertical stripes round the barrel of the body, conspicuous white throat

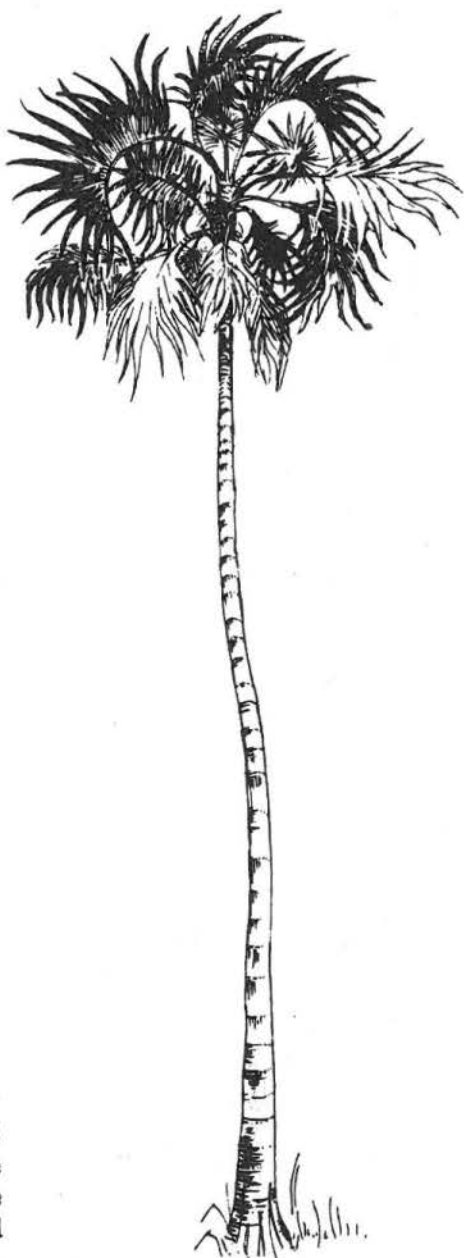


and neck patches, and a short, white mane down the back of the neck, top of the shoulders and along the back. There is a narrow, white chevron between the eyes, white round the lips and two white cheek marks. The front of the face is almost black. The rather bushy tail, which is grey on top, is curled over the back when the animals are running away, showing its white underpart. Two dark patches mark the legs above the knee and hock respectively. Lesser Kudu are browsers and are preyed upon by leopard and hunting dog.

The extreme shyness of these creatures seems to play an important role as a survival factor which, together with their protective colouration, makes them difficult to observe for any length of time, even in a National Park where they receive complete protection. Other antelopes, such as the impala, which move about in large herds, appear to rely more on the strength which they gain from numbers, and make little attempt to conceal themselves. All animals have adapted to the threat of predation in different ways, and it is quite impossible to say which is 'best'. All we can say is that certain species, for one reason or another, seem to be more successful than others, and that even before man, with his technological abilities, started to play the decisive part that he does in the modern world today, certain species became over-specialized to such a degree that it led to their extinction. Modern man, of course, has an awesome responsibility to his fellow creatures because of the almost complete power he has over them. If through cupidity or ignorance he allows an otherwise vigorous species to decline to the point of extinction the world can be nothing but a poorer place.

The palm trees which are such a feature of the river valley are the unbranched hyphaene, *Hyphaene ventricosa*, called MKOCHE (plural MIKOCHE) in Swahili. Young hyphaenes are often stunted by fire, and grow close to the ground in trunkless clumps, in which case they have, surprisingly enough, a separate Swahili name, being known as MLALA (plural MILALA). It is from the fronds of these palms that the material for mat and basket weaving is often obtained.

It is in their branches that the Palm Swift, *Cypsiurus parvus*, builds its nest, attaching a small pad of feathers to the mid-rib of a leaf with its sticky saliva. From the ground the nest looks like a mass of cobwebs, and often swarms with flies. Because the palm fronds toss almost incessantly in the breeze the eggs also are attached to the pad with saliva, while the incubating bird clings on with its claws.

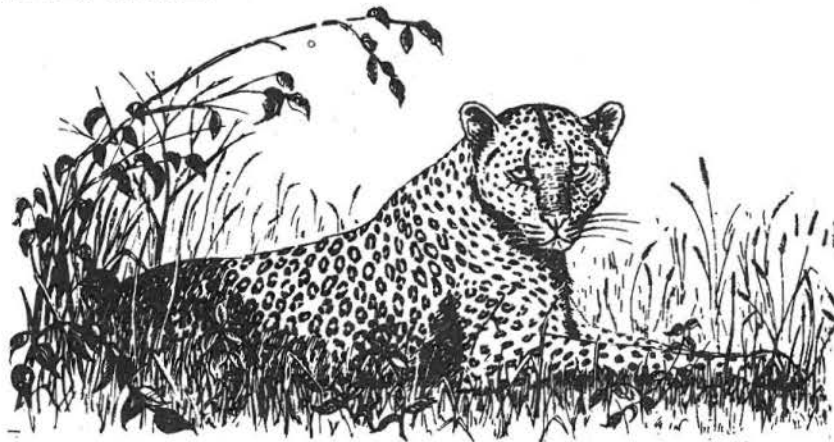


Leopard are quite common in Tarangire, but because of the wooded nature of the country are not always easily seen. *Panthera pardus*, CHUI in Swahili, is most likely to be seen in the early morning or late evening, or in a tree with his kill, which he carries into the branches in order to remove it from the unwelcome attentions of lions and hyenas.

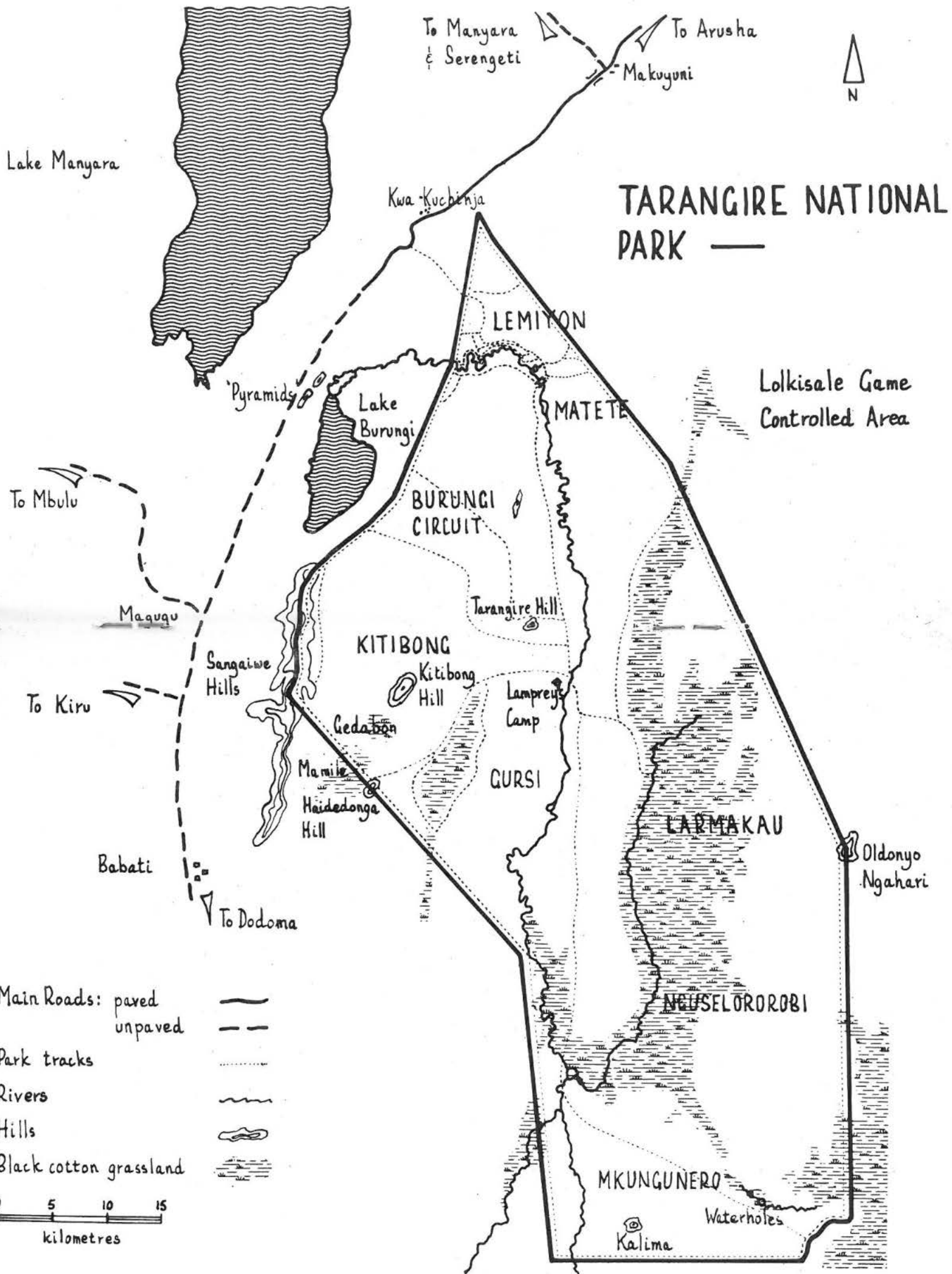
A large male leopard will weigh at least 50 kgs. and measure 70 cms. at the shoulder.

They are solitary creatures, the males only associating with the females when they are "in season". If you see two or three animals together they are likely to be a mother and her not-yet-adult offspring.

Although they are occasionally mistaken for cheetah they are easily distinguished by their much shorter legs, more chunky build and by the coat markings which consist of rosette-like clusters of spots as compared to the separate dots of the cheetah.



Leopards have a wide range of prey, consisting of most of the smaller buck, monkeys, baboons and game birds, which they stalk and kill in much the same way as a domestic cat on a large scale. At night you are quite likely to hear leopard, whose call has variously been described as like a cough, a grunt or, more aptly, like wood being cut with a hand saw.



In the valley where you re-enter thicker cover you may catch sight of a bushbuck, *Tragelaphus scriptus*. PONGO, as they are known in Swahili, are medium-sized antelopes with rufous-brown coats and light spots on the haunches. They have vertical 'harness' stripes on the body and white half-collars round the base of their necks. Short, single-spiral horns are only present in the males, but both sexes have white, rather bushy tails, which appear as a 'flag' as they move for cover. They stand about 80 cms. at the shoulder.



Another antelope, but much smaller, which may be seen here is the Steinbuck, *Raphicerus campestris*, TONDORO in Swahili. He is a rich rufous-fawn in colour with the exception of the abdomen and inside of the legs, which are white. Shoulder height is around 55 cms. and weight in the region of 14 kgs. Widely-spaced, forward-sloping horns are present in the males only. The Steinbuck, unlike most other buck, does not dash for cover when alarmed, but 'freezes' and subsides slowly into the surrounding grass.



Orange-bellied parrots are also likely to be seen here, often near baobab trees in holes in which they usually make their nests. They have a very fast, bullet-like flight as they move from tree to tree, and will often be heard screeching shrilly as they go. They live on grain and fruit.

In order to complete the circuit and regain the Engelhard bridge turn right again so as to leave the Tarangire river to your left. Yellow baboons, *Papio cynocephalus*, NYANI in Swahili, are commonly seen near the river banks as they rest in the trees or forage in the grassland for roots, insects, grubs and palatable vegetable material. This baboon species is lighter in both colour and build than the Olive baboon and has less bushy hair on the cheeks and shoulders.



Troupes of baboons are thought to be controlled by a 'senate' of three or four dominant males or, possibly, by a single male with, next in the hierarchy, three or four fully mature animals, also males, who keep on the fringes of the group as it moves across country in search of food. The young, as is the case with most primates, are rather helpless for the first few weeks of life and are carried under their mothers' chests clinging to the fur, but later often ride on their mothers' backs, perched rather far back like a man riding a donkey.

A baboon troupe is rarely silent except when fully engrossed in feeding. The sub-adults seem to obtain great pleasure from teasing those younger and smaller than themselves, and it is a common sight to see some young creature, screaming pitifully, hanging at the extreme tip of a flimsy tree limb while another tries to shake him loose. Should a dominant male be nearby, however, he is likely to cuff both offender and offended indiscriminately, causing a further outbreak of frightened howling, as the troupe leaders are, or attempt to be great disciplinarians.

Sometimes so many baboons take refuge in the crown of a hyphaene palm that it cannot bear the weight, and deposits

screaming primates in all directions. In such a case, if the growing tip of the palm is damaged, it is sure to die off.

Kitibong Hill

The eastern part of this area is composed of *Acacia tortilis* parkland, while to the west *Combretum-Dalbergia* woodland predominates. The Sangaiwe range of hills will be seen outside the Park to the west.

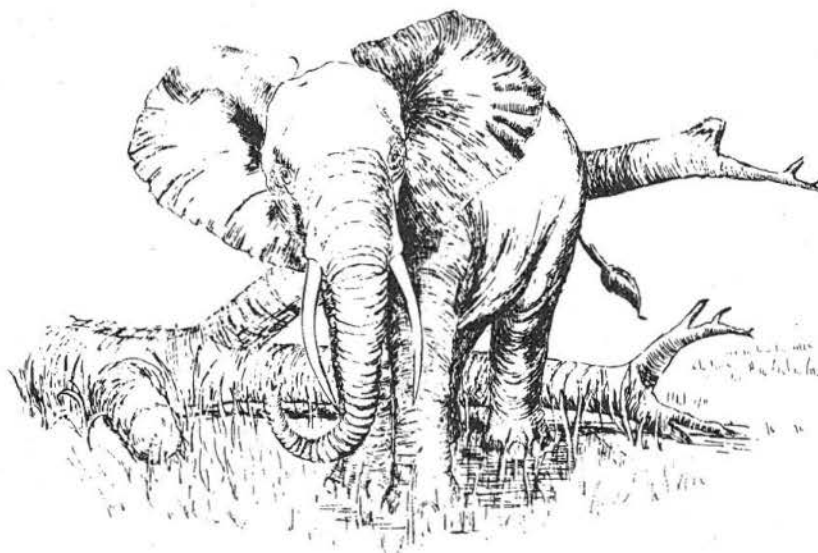
Elephant may be seen here as in many other areas of the Park. The African Elephant, *Loxodonta africana*, is somewhat larger than its Asiatic cousin and has a more concave back and larger ears; the tip of its trunk is also different in that it has two projections (used for gripping) to the Asiatic's one.

Attempts have, in the past, been made to domesticate the African Elephant, but although it is known that Hannibal used them for his famous crossing of the Alps in 218 B.C., they have never taken to domestication in the same way as the Asiatic and have not played an important part in the economy of African countries as their cousins have in India and Burma, nor have they participated in the ceremonial life of the people to any extent.

The elephant commonly seen in circuses is Asiatic, not African.

African Elephants, TEMBO or NDOVU in Swahili, are intelligent creatures who live in family units the leadership of which is exercised by the oldest and largest females. Males only stay with the herd until they reach the age of maturity at about thirteen years old, when they leave of their own accord to live alone or in temporary all-male herds. If you are threatened when watching a herd of elephants it is likely that the aggressor will be an old female.

Mature males do not normally come into contact with cow-calf family units except when a female comes on heat, when she is trailed by several males and often mated by more than one. Fighting may break out between the rivals, but is seldom serious. When oestrous wears off the association between the female and her male admirers ends immediately.



Healthy adult elephants are almost entirely immune from predation, but the babies, only 80 cms. high at birth, would soon fall victim to lions if they were not so well protected by the family unit which bunches together with the calves in the centre at the first sign of danger. Thereafter, reactions will vary according to conditions: either the herd will retreat or, led by the largest female, will put on a show to intimidate the intruder.

In the threat display the ears are spread and the head is shaken violently from side to side and, at a higher intensity, trumpeting and a dummy charge will follow.

When approaching a herd, do not drive closer than about 30 metres and do not switch off the ignition of your car. If elephants are encountered on the roads, as they often are in the morning and evening, allow them to pass before proceeding on your way.

The cows carry a good deal less ivory than the bulls, and are occasionally quite tuskless. In bulls the weight varies considerably, but is often between 25 and 45 kgs. The longest recorded tusk from an African elephant measured 350 cms.

along the curve, while the heaviest on record weighed 106½ kgs. Nowadays elephants with very heavy tusks are rarely seen, probably because the best of the tuskers were killed off during the early years of European exploration and settlement of East Africa.

There is some evidence of elephant damage to the trees of the Park, as there is in many parts of East Africa. Here, the elephants supplement their diet of grass and leaves with the bark of the *Acacia tortilis* and baobab trees which they prise off with their tusks before eating.

On the other hand elephants are the agents responsible for the 'sowing' of large numbers of tree seeds, many of which germinate better after having passed through the digestive tracts of these great beasts.

There is no truth in the stories of 'elephant graveyards', but it is true that these huge animals sometimes lie down to sleep.

Stretches of the river where there is no surface water are good places to watch elephants digging in the sandy bed, where the water table is just below the surface, in order to obtain a cool, filtered drink. It appears that the elephant is the only animal large and intelligent enough to be capable of this operation, but many other species have learned to take over his excavations as soon as the elephants have satisfied their thirst and have enjoyed a leisurely game with the water. Adult elephants drink between 90 and 140 litres of water per day.

Digging is carried out, in the first place, by scraping the loose sand with the forefeet, but once the hole is beginning to develop the trunk is brought into use. Elephants, and other animals as well, prefer the cool, clean water from such a digging to the hot, often muddy, water which is frequently available on the surface nearby.

Warthog are often seen in this area, as throughout the Park and occasionally, because they are nocturnal in habits,

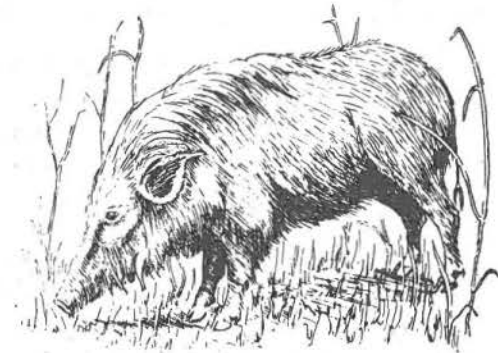
a glimpse may be obtained in early morning or late afternoon of a Bush Pig.



The Warthog, *Phacochoerus aethiopicus*, NGIRI in Swahili, can be easily distinguished from NGURUWE the Bush Pig, *Potamochoerus porcus*, by the very much larger tusks and less elongated muzzle as well as by the fact that only the warthog runs with his tail erect. Although the Bush Pig has protuberances below the

eyes, these are not as large or as numerous as in the case of the warthog.

Bush Pig are a very serious pest in agricultural areas, uprooting and destroying crops during the night and disappearing back into cover before dawn. In many areas it is necessary to fence such root crops as cassava with a stout, pig-proof stockade if any tubers are to be harvested. The warthog, on the other hand, rarely enters farmland, contenting himself with the grass, roots and wild fruit he finds in the bush.



Both these wild pigs are preyed on by lions, leopards, cheetahs and wild dogs and can become very numerous where predators are scarce.

The large, black, turkey-shaped birds with red necks, faces and throats, white wing primaries and long, black bills are Ground Hornbills, *Bucorvus leadbeateri*, called MUMBI in Swahili. They spend most of their time on the ground searching



for insects, reptiles and small mammals such as rats and mice, but will fly with measured wing beats to perch in a tree if disturbed. These are the largest of the twenty species of hornbill which occur in Eastern and North-eastern Africa. Their muted grunting call can sound very like human voices in the distance. Because of their scavenging abilities and for superstitious reasons they

are voluntarily protected by many of the people of Tanzania.

Herds of buffalo, *Syncerus caffer*, called either NYATI or MBOGO in Swahili, will be seen in this part of the Park. Because they need to drink regularly they will base themselves on scattered waterholes or remain in the eastern part of the area within reach of the river near Lamprey's Camp.

Buffalo bulls weigh between 720 and 820 kgs. and carry very heavily bossed horns. The cows are somewhat lighter-built and have more slender horns. Buffalo will be seen in either breeding herds of bulls in the prime of life accompanied by cows and juveniles of both sexes or as small all-male groups of bulls who have retired from active herd life. During the heat of the day, buffalo like to find shade if possible. Among hunters they have the reputation of being the most dangerous and unpredictable of quarry, often circling round behind, especially if they have been wounded, turning the hunter into

the hunted. For this reason they are sometimes described by sportsmen as mean, malicious brutes: "Cet animal est très méchant, quand on l'attaque il se défend".

Gursi

This section of the Park contains the same vegetational zones as Kitibong, but in addition has a belt of *Acacia-Commiphora* woodland which runs parallel to the river, and is dominated by the Gursi MBUGA or 'black cotton' grassland near Haidedonga hill.

'Black cotton' is the term applied to a very heavy clay soil common in Africa which, when dry, cracks in a mosaic pattern of fissures often two metres or more deep. With the coming of the rains it rapidly absorbs a large quantity of water, but once saturated expands and becomes very sticky.

Although cotton is not generally grown on this type of soil in Tanzania, it is much used for this purpose in the Sudan, where the crop is grown under irrigation from the river Nile.

'Black cotton' soils are notorious for the difficulty they present to the road-maker. In the dry season roads made through this clay are rough and very dusty, while in wet weather they become an impassable morass.

If elephants walk through an MBUGA just after the rains while the clay is still plastic they leave their massive footprints, sometimes 30 cms. or more deep, where they remain until softened up again by the next season. During the wet part of the year large numbers of water birds will inhabit an MBUGA, but must leave it in June or July when the last surface water has evaporated. If the grass and reeds are burnt off soon after the end of the rainy season, a fine young flush of palatable grazing soon springs up. The grazing animals are not slow to take advantage of this unseasonal growth of young grass, and make heavy use of it under these conditions.

An attractive little creature seen in this area is the Ground

Squirrel, KIDIRI in Swahili, whose habits have some similarities to the Prairie Dog of North America. They live underground in burrows and feed on roots, bulbs, seeds and grubs. When running they carry their bushy tails parallel to the ground, but once having gained the entrance to their burrows often turn and, in an upright position, examine the cause of their flight before disappearing into the burrow mouth. Their scientific name is *Euxerus erythropus*.



They are fond of playing and rolling in the dust of the road, where they may be observed provided you have approached quietly enough, but the slightest sound or movement will send them streaking for

cover as, like other rodents, they are constantly on the lookout for snakes and birds of prey which may attack them.

Two interesting nocturnal animals which may be seen in this area either early in the day or late in the evening are the Ant-bear, called MUHANGA in Swahili, and the Ground Pangolin, KAKAKUONA.

The Ant-bear, *Orycteropus afer*, is a rather pig-like creature with large ears, narrow head and rounded snout, and its short legs are furnished with strong claws for digging. It lives exclusively on termites and ants which it scoops up from the nest, which it has previously demolished, with its long, sticky tongue. An adult male may weigh as much as 60 kilos and have an overall length of nearly 2 metres. During the day they lie up



in burrows which, if abandoned by the Ant-bear, are frequently taken over by other animals.

Although the appearance of the Ground Pangolin is entirely dissimilar to that of the Ant-bear their feeding habits are rather alike. The scientific name for the pangolin or Scaly Ant-eater, as he is sometimes called, is *Manis temminckii*, but he is sometimes erroneously referred to as an armadillo. The total length is a little over one metre and the weight a good deal less than the Ant-bear. The sticky tongue, used for extracting ants and termites from their nests, can stretch 30 cms. beyond the snout. When caught out in the open the pangolin curls up in an impregnable ball and emits a foul, skunk-like odour.

Termites are often referred to as White Ants, but are neither white nor ants, being very primitive insects distantly related to cockroaches. They are known as MCHWA in Swahili.

Their mounds which, like icebergs, have more to them below the surface than above, are marvels of engineering, consisting of complicated galleries in which the temperature and humidity are controlled by a system of air-conditioning which protects their vulnerable inhabitants from the rigours of the climate.

The mounds reach downwards to a depth close to the water-table level. The earth-turning propensities of termites can be compared to those of the earthworm in temperate climates, whose moving and aerating of the soil have such a beneficial effect on plant life.

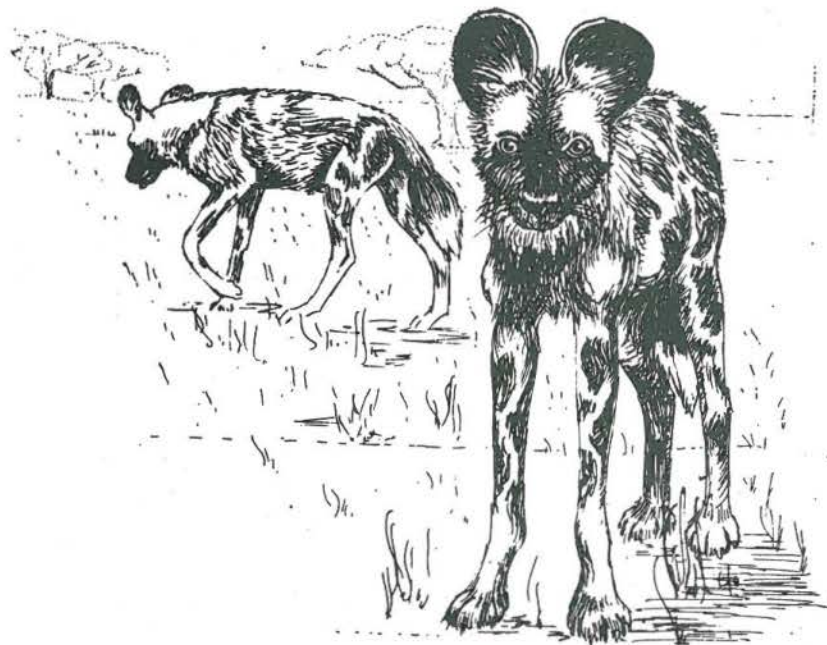
Termites are divided into castes of queen, king, soldiers and workers, each of which plays a part in their highly organised social structure. The queen, often as large as your index finger, has the sole duty of laying eggs, 10,000 of which she may produce in a single day. The three million or so inhabitants of one colony are probably all her offspring.

Not only do termites eat wood, which they are able to digest because of the presence in their gut of protozoa which break down the cellulose into a form readily available to them, but they also 'cultivate' a fungus which provides food, and prevents the temperature and humidity from fluctuating too widely inside the mound.

As soon as the rains break very large numbers of winged reproductive termites leave the mound in order to try to establish new colonies. Upon reaching the ground their wings break off along a pre-determined line of weakness, and if a male and female insect land together, they follow each other in tandem until they find a suitable crevice in the earth, whereupon they bury themselves in the soil and attempt to start a new mound. When flying over the plains it will be noticed that the termites' mounds are very evenly distributed. It is probable that there is some inhibiting factor which prevents the establishment of mounds so close together that food supplies are restricted. These flying 'ants', however, form a much-liked item of diet for many creatures, being greedily eaten by birds, reptiles, bats, dragon-flies, jackals and even man himself, so the chances of success are extremely limited.

Wild Dogs, although not common in the Park, will be seen occasionally in this area. The African Hunting Dog differs from the domestic species in that it lacks the dewclaw, but otherwise somewhat resembles a lean, rangy, large-eared Alsatian with a rather blunt muzzle. In Swahili they are known as MBWA MWITU, which simply means 'wild dog'. Their scientific name *Lycaon pictus* draws attention to the fact that they are separate from the *Canis* genus, such as jackals.

Hunting is carried out by the whole pack in silence and at great speed. As soon as the leading dog reaches the prey it grabs hold and hangs on while the others, as they come up, get a grip where they can. Usually one dog holds the victim by the muzzle, causing it to pull back, while the other dogs rip the creature open from the flanks and rear. If pups old enough to join in the chase are present, they are given precedence at the kill, the adult dogs lying around while they satisfy their hunger. On the other hand if the puppies are too young to hunt they remain in the earth and are fed on regurgitated meat by the returning adults. A ritualized form of this behaviour pattern is also used in the greeting ceremony between two mature dogs.



Despite the abundance of prey, wild dogs are never very common in East Africa. The young are susceptible to canine distemper disease, and many pups are drowned in the earths which are often, surprisingly, situated in places that flood water can reach. At one time these predators were shot on sight by well-meaning conservationists, working on the principle that as the dogs killed a great many antelope, their absence would allow the herbivores to increase in numbers. What was not realized at that time was the fact that many species need the checking influence of predators to prevent them from over-running their habitat and eventually going into a species decline. Probably the high mortality rate among the dogs themselves is a built-in check on over-population. Under the rigorous conditions of their lives only the fittest survive to perpetuate the species.

The giraffe found in Tarangire is the Maasai or Common giraffe, *Giraffa camelopardalis*. These differ from the reticulated animals in that they have irregular blotchy markings, as opposed to the strong 'wire netting' effect to be seen on the reticulated species, which does not occur at all in Tanzania, being a geographical race found in northern Kenya. Both are known as TWIGA in Swahili.

There are enormous colour variations within the race, and it is not uncommon to see very pale animals consorting with much darker ones. In Tarangire giraffes are to be seen in almost all parts of the Park and may be watched drinking at the water holes, which they do by splaying out their forelegs so as to bring their heads down to water level. They live almost exclusively on the tender leaves of acacia trees which they pluck with their long, grey tongues.

The common giraffe normally has two horns, thought to be the bosses of bone on which antlers, similar to those of modern deer, were carried in the distant past.

A giraffe walks in the same way as a camel, both limbs on the same side moving forward together. Despite their extremely long necks (which have only seven vertebrae, as in man) giraffe can and do sit on the ground to rest, but without laying their necks down on the surface. It is said that when doing so they post a 'sentry' who remains on his feet, but this is by no means certain.

An adult giraffe has comparatively little to fear from predators, but lions are not unknown to attack them, especially if found in open country. The young, on the other hand, are killed from time to time by any of the larger carnivores. The giraffe is the National Emblem of Tanzania.

Two very uncommon species which have been recorded in this area may, with luck, be seen. They are the Greater kudu and the roan antelope, *Tragelaphus strepsiceros* and *Hippotragus equinus* respectively.

Larmakau

The name Larmakau is a corruption of Ol Makau which means 'hippopotamus' in the Maasai language and has no doubt been given to the large MBUGA which dominates this part of the Park because hippos use it when it is a huge swamp. In certain years the MBUGA does not dry out, in which case the water fowl and water-loving mammals remain based on it throughout the year, and aquatic plants like water lilies flourish. To the east of the 'black cotton' grassland is an extensive area of *Acacia tortilis* woodland.



Hippopotamus amphibius, KIBOKO (plural VIBOKO) in Swahili, spend most of the daylight hours submerged in the water, coming up to breathe and blow through their nostrils every three or four minutes. Being large animals their bodies overheat easily and need to be cooled in the water. Buffaloes and rhinos wallow in muddy pools for the same reason and elephants, although they lower their body temperature by squirting water over their backs and even submerge entirely in lakes and rivers, rely mainly on fanning themselves with their punkah-like ears. At night, and occasionally on wet or overcast days, hippos leave the water to crop the vegetation

for a considerable distance from the pool, their food consisting entirely of grasses and herbs, but not of aquatic plants such as water lilies.

Hippos' droppings are similar in appearance to those of elephants, though smaller. When defecating they break up and scatter the dung with vigorous wagging movements of their strong, short tails, often spreading it over the surrounding herbage.

It is quite safe to stand on the bank to watch hippos as they laze in the water, but they should be approached with caution, from the safety of a vehicle, if found on land. They are usually fairly placid creatures but can become very aggressive if an intruder gets between them and their pool.

Hippo are occasionally poached for the ivory of their tusks which, being softer than that of elephant, is much liked by carvers, and in the past for their hide from which the famous 'sjambok' or hippo-hide trek whip was made.

Numerically the most common animal in the Tarangire is the Impala, *Aepyceros melampus*, one of East Africa's most graceful antelopes. SWALA PALA as they are known in Swahili will be seen either in breeding herds of females and young guarded by a male, or in all-ram groups. As the breeding herd moves about the country it is constantly entering and leaving the territories of various males. While in a territory, it comes under the male's protection, but he will not follow it into another ram's domain. When the herd moves, the currently dominant male can easily be spotted, not only by his horns but also because he usually brings up the rear. From time to time fully developed males from the bachelor herds challenge him for possession of his territory and serious fights ensue. It is interesting to note that the challenger is nearly always at a disadvantage on such occasions, possession being, apparently, nine tenths of the law.

The impala has a rufous coat, dark above blending into fawn below, with a black stripe bordering the white rump patches. The male has elegant lyrate horns which are not found in females. Both sexes have scent glands concealed in tufts of black wiry hair just above the heels and also in what is known to horsemen as the 'stifle' — where flank and thigh meet. Impala stand about one metre at the shoulder and weigh around 70 kgs. for a male and 50 kgs. for a female.

Being browsers as well as grazers impala are seldom found far from cover. They are constantly on the alert as they form a favourite food of many larger predators, particularly leopards.

There is an interesting symbiotic relationship between impala and the *Acacia tortilis* tree. Towards the end of the dry season, when other food is getting scarce but the ripe *Acacia* pods are falling, the impala spend much of their time beneath the shade of these trees eating the protein-rich pods. An examination of the impalas' droppings shows that the seed itself passes through the animals in an undigested form and, when the rains start, easily germinates. All the better, in fact, for having had the outer seed-case softened. In this way the impala benefits by obtaining rich food at an otherwise hungry time, and the trees gain by having their prepared seeds deposited over a large area. Other animals, of course, provide the same service to trees, especially the elephant who, being a great traveller, distributes seed over large areas, especially those of the tree *Balanites aegyptiaca*, the fruit of which is so much liked by elephants that they will shake the trees in order to make it fall.

It is not likely that, when you catch sight of ostriches, *Struthio camelus*, you will have any difficulty in indentifying them, but there are a number of points about them which may be of interest. The ostrich is the only truly flightless bird which is indigenous to the African continent, and is similar to the South American Rhea and the Australian Emu in that its breast bone is flattened, not keel-shaped as in other birds.

MBUNI (pronounced um-boo-nee), to give him his Swahili name, has the distinction of being the largest bird in the world. The male is black and white with flesh-coloured, bare neck and thighs which turn bright red during the breeding season. The female, as so often with birds, is a drab greyish brown.

Ostriches are polygamous, all the females associating with an individual male laying their eggs in a single nest, from which they have the well-known trick of drawing an interloper away by feigning a damaged wing. Once egg-laying, which may take place over a considerable period, is completed, the eggs are incubated by both the male and female, and the whole clutch hatches out at the same time. It is said that males sit on the nest at night and the females during the daylight hours. Being very fast long-distance runners, and able to swerve sharply, they are often capable of outdistancing lions, which are fond of their flesh. Although there is no shortage of sand in the part of the Park they inhabit they have never been observed to bury their heads in it when being stalked by predators, or on any other occasions. The myth that ostriches bury their heads so as to shut out unpleasant sights was probably originated by early observers who saw them resting with their necks and heads laid out along the ground.

The call of the ostrich is a hollow booming sound not unlike the roaring of lions, but can be distinguished because the ostrich does not complete his call with a series of grunts as does the lion.



Nguselorobi

The name of this section of the Park, which is situated in the south and is composed mainly of MBUGA country, means a cold, plains area in the Maasai language. At the time of writing the area has still to be opened up to visitors, but the construction of roads has already begun.

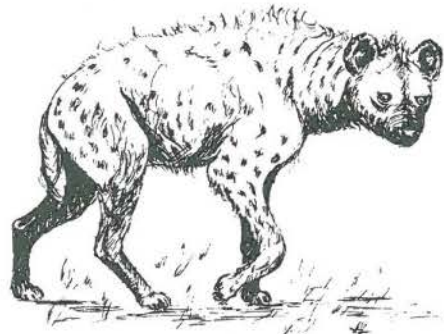
Although cheetah, *Acinonyx jubatus*, DUMA in Swahili, is to be found throughout those parts of the Tarangire which are not too heavily wooded, it is likely to be seen on the plains either singly or in pairs. The cheetah, which is sometimes mistaken for a leopard, is a lighter-built animal, although much the same general size, and can be identified by the dark 'tear marks' which almost join the corners of the eyes to the corners of the mouth, and also by the crest of shoulder hair and the regularly spaced spots which cover the entire body except for the head, which is more sparsely covered, and the tail tip, which is ringed. The cheetah, despite its appearance, is unlike other cats, being unable to retract its claws which are blunt like those of dogs. Another uncat-like characteristic is its great speed, said to be between 90 and 110 k.p.h. when at full stretch, which it uses in order to run down the smaller antelope. It is unlike the other wild cats also in that it does not attack men, even when cornered, a leopard under such circumstances being highly dangerous. The sexes are alike in colouration, although the males are somewhat bigger than the females. The cubs, two to four in a litter, are at first greyish in colour with rather long fur. Cheetah, although not as rare as at one time feared, are by no means common animals and, because of their wide distribution, are not always easy to find.

Some people think of the grazing animals as being in a constant state of fear of predators. Although they always remain very wary, they seem to know when a predator is not actually hunting, and at such times show remarkably little nervousness provided the carnivore does not get closer to them than the limit of their 'flight distance'.

Spotted Hyena, *Crocuta crocuta*, FISI in Swahili, are rarely seen in broad daylight in the Tarangire and are not, in fact,

very common animals in the Park, but their weird, whooping cry will be heard most evenings once the sun has set, as they identify one another and prepare for the night's foraging. The hyena is far from being the skulking scavenger of popular myth, but on the contrary is a very skillful and efficient hunter on his own account, chasing and bringing down quite large prey.

A fully-grown Spotted Hyena may measure as much as one



metre at the shoulder, have a total length of over 1½ metres and weigh 77 kgs. When they are seen, there is no mistaking their bear-like appearance with short, broad muzzle and rounded ears. Hyenas have extremely powerful jaws which enable them to crack open the toughest

bones so as to extract the marrow. Their dried droppings are pure white and have no offensive smell, presumably because the digestive system of these hardy animals is well developed for extracting the last ounce of goodness from their food.

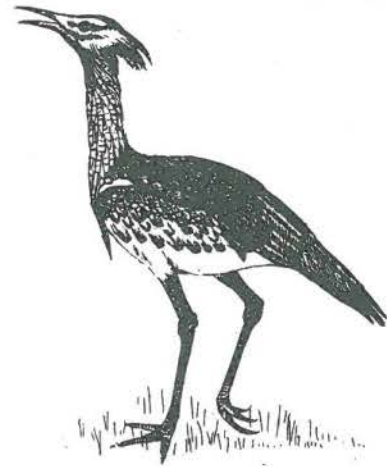
They live in earths, from which they begin to emerge towards sundown. In the past it was often said that hyenas were hermaphrodites because the external sexual characteristics of the female resemble those of the male so closely that even an expert can only distinguish between them by the larger body size and presence of nipples in the female.

Hyenas have a large repertoire of calls apart from the whooping cry most often associated with them, each with its own social significance. The hysterical-sounding cackle, which gives to these animals the name of 'laughing hyena', denotes a state of unusual excitement, as when animals from rival clans meet on the territorial boundary, or when killing prey.

As well as the Spotted, the Striped Hyena, *Hyaena hyaena*, also known as FISI in Swahili, is found in the Tarangire.

This species is rather smaller and lighter built than his cousin, and can be recognised by the pointed, upright ears, shaggy mane, bushy tail and black vertical stripes on a grey background. If any difficulties of identification occur they are likely to be caused by this animal's superficial similarity to the aardwolf, *Proteles cristatus*, called FISI MDOGO in Swahili, which is a very much smaller creature with a proportionately longer tail.

The large, stately bird with greyish-brown plumage, seen mostly on foot, is the Kori bustard, *Ardeotis kori*. Although never appearing in a hurry, the Kori bustard always manages to keep a respectful distance between himself and anyone interested in approaching him, only occasionally having recourse to a short flight. The male bird who, at about 12 kilos,



weighs considerably more than the female, has a very spectacular display during the breeding season. At this time he seems virtually to turn himself inside out and, from even a short distance, appears to be a bird of wholly white plumage and, to the uninitiated, of a hitherto unknown species. Bustards live on small reptiles, mammals such as rats and mice, seeds and insects, particularly locusts. Two pale, greenish-brown eggs are laid on the bare ground towards the end of February and in March. Senegal, Crested and Black-bellied bustards are also present in Tarangire.

Mkungunero

In the extreme southeast corner of the Park there are several pools of sweet water known as the Mkungunero Water Holes. These form oases in otherwise dry country, and attract a wide variety of water birds and mammals. As soon as a

road has been put through to this area it is hoped to build a hide (blind) overlooking the water so that, especially on moonlight nights, the wildlife can be observed in a completely undisturbed state.



Frequently seen here are waterbuck, *Kobus ellipsiprymnus*, thick-set antelopes with brownish-grey coats and a white ring round the rump. Only the males are horned. These are the Common Ringed Waterbuck, not the Defassa found in the Serengeti, which is slightly smaller and does not have the conspicuous ring on its rump. Both species are known as KURO in Swahili. A mature male

will weigh 215 kilos and stand 125 cms. at the shoulder.

A very small antelope which will be seen either singly or in pairs is the dik-dik, *Rhynchotragus kirkii*, known as DIKIDIKI in Swahili. Their shoulder height is usually about 35 cms. and their weight not much more than 3½ kilos. In colour they are drab-grey, with paler patches round the luminous eyes. The nose is rather elongated, and the horns, present in males only, very short and spiky. The female is slightly larger than the male. They have the habit of depositing their droppings, which are similar to those of a rabbit, in a selected spot, where large quantities may be seen. 'Dik dik' means 'quick quick' in the Somali language.



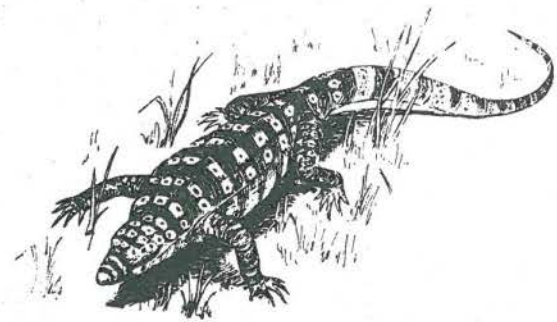
The water holes are the feeding ground of the Saddle-bill stork, *Ephippiorhynchus senegalensis*, called, along with other species of stork, KORONGO in Swahili. Here a word of warning is necessary, as the Swahili word KORONGO also means a valley or watercourse as well as Roan antelope.



The Saddle-bill is a distinguished-looking bird with black head, neck, wing coverts and tail, white body and bright red bill banded in black with a bright yellow 'saddle'. Saddle-bills are to be seen either alone or in pairs feeding on fish, frogs, small mammals and, indeed, anything edible they can find in their swampy feeding grounds. They move with a slow, deliberate gait, but strike with lightning speed if they see suitable prey.

In the same marshy habitat you may be lucky enough to catch sight of a monitor lizard, KENGE in Swahili.

These huge reptiles, *Varanus niloticus*, often 2 metres in length, are usually rather difficult to see against the background of grasses and reeds, as their black, yellow and green markings blend in extremely effectively with their surroundings. They eat frogs, fish, eggs and young of birds and, if they can get it, most types of carrion. Monitor lizards, outside National Parks and Reserves, are trapped and shot for their skin, which is used for making purses and the smaller types of drum.



Also a frog-eater, and found in the same damp environment as the Monitor lizard, is the hammer-headed stork or hammerkop, *Scopus umbretta*. This bird, brown with dark bill and feet, is easily recognised by its typically hammer-shaped head. Superstitious beliefs surround the hammerkop, and because they are unpalatable to humans, they enjoy a wide measure of protection.

Another bird of a very different type is seen here in huge flocks. This is the Red-billed quelea, *Quelea quelea*, a sparrow-like bird which lives on insects, grain and grass seeds but which can do immense damage to cereal crops in farm land. The flocks, sometimes many thousands strong, move with amazing symmetry, rolling like smoke as they fly to settle on a fresh patch of grassland.

Likely to be seen in this area is the Black or Silver-backed jackal, *Canis mesomelas*, MBWEHA in Swahili. Apart from feeding on the kills of the larger predators, jackals eat a variety of small creatures including Sacred Scarab grubs which they extract from the enclosing ball of dung.

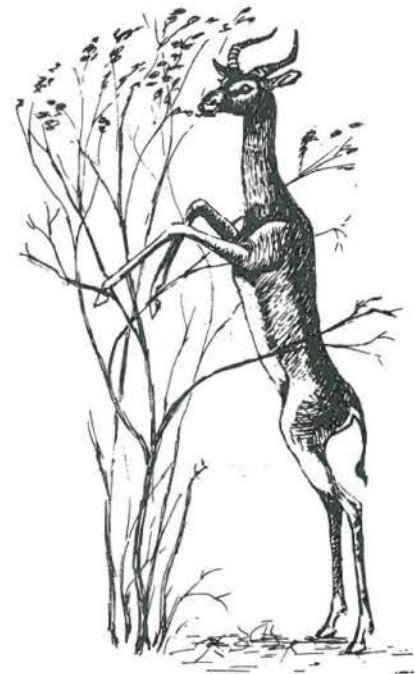
Four species of mongoose have been recorded in the Park, one of which, the Marsh, is very rare. The three most likely to be seen are the Dwarf, *Helogale undulata*, the Banded,



and the Slender, *Herpestes sanguineus*. All species are known as KICHECHE (plural VICHECHE) in Swahili. The Dwarf mongoose is about 20 cms. long in the body while the Banded is about twice that size. Both species live on snails, lizards, rats and mice, birds' eggs and fledglings, grubs, fruit and berries. They are usually seen in groups which take shelter in disused termite mounds. The banded mongoose particularly is known to eat a great many insects, being especially fond of grasshoppers and locusts.

The dwarf and banded are the only gregarious mongooses in East Africa. These are entirely diurnal while all other species are solitary and tend to be nocturnal, although the Slender or, as he is also called, Black-tipped mongoose will often be seen in daylight. He is about 40 cms. long in the body and carries his long, slender tail upturned at the tip. The colour varies from nearly black to ginger, with rufous-brown the most typical.

Although on the western limit of its range, an occasional glimpse may be had of the Gerenuk or Giraffe-gazelle. This interesting animal, called SWALA TWIGA in Swahili, is unmistakable on account of its long neck and its habit of standing up on its hind legs to browse from a thorn bush with its balance maintained by supporting its forelegs among the branches. *Litocranius walleri*, to give him his scientific name, also known as Waller's gazelle, is typically an inhabitant of waterless thorn country, and seems to survive without drinking. Shoulder height is just over one metre, and weight about 45 kilos. Only the males carry heavily-ridged horns.



Only the males carry heavily-ridged horns.

Conclusion

It is hoped that this Guide booklet will serve as an introduction to the natural history of the Tarangire National Park. Naturally, in such a confined space it has not been possible to mention everything but if it has aroused interest and given a broad outline of what can be seen it has gone some way towards achieving its object.

Although most of the larger mammals have been mentioned, space has prevented descriptions of some of the smaller creatures, not to mention the birds, butterflies and moths, reptiles and the very varied botany.

For those with real interest, a wilderness area like Tarangire can provide endless opportunities for investigation, study and, above all, pleasure in an environment unspoiled by man.

Please remember that driving slowly and quietly is the key to seeing unusual and interesting things which will be overlooked by the impatient visitor who, even though he may have managed to get some pictures of lions, turns a potentially unique experience into a hot, boring and dusty drive.



Distances

Tarangire Park Headquarters to: —

Arusha National Park	150 kilometres
Arusha Town	115 "
Haidedonga Hill	65 "
Lamprey's Camp	40 "
Lodge	10 "
Makuyuni	33 "
Manyara National Park	70 "
Matete	12 "
Mkungunero	95 "
Ngorongoro Crater	120 "
Serengeti National Park	273 "

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