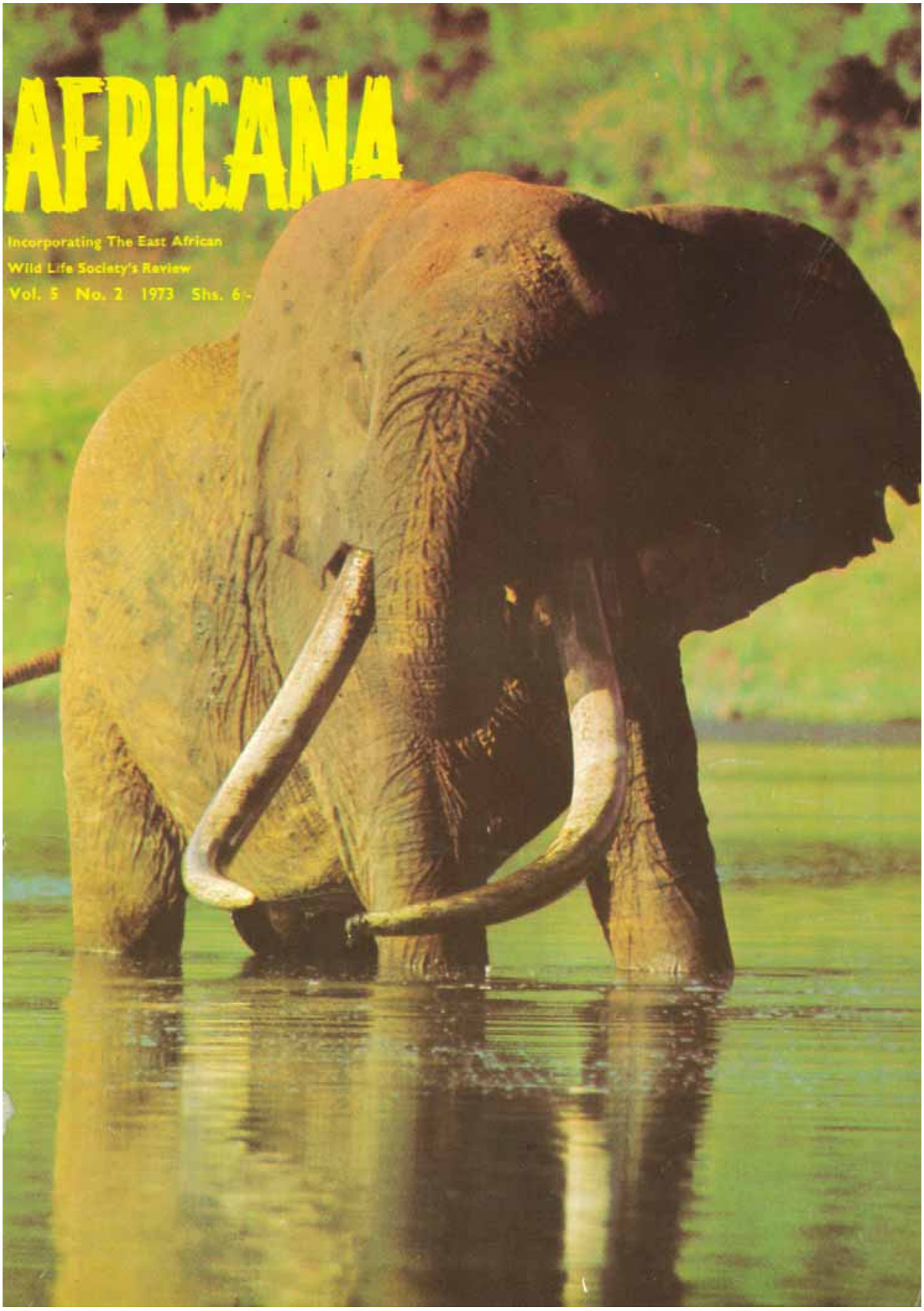
AFRICANA
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AFRICANA Vol. 5 No. 2. JULY 1973

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EDITORIAL

THE ANNUAL meeting of the East African Wild Life Society was held in May, and members were informed, basically, of an improved financial position and of reorganisation of the Society's procedure and priorities.

Mr. Oliver Brooke summarised an eventful and productive year in what is his last Chairman's report; he is leaving East Africa shortly after having led the Society for three years with great dedication and integrity.

He spoke, *inter al.*, of a build-up of reserve funds over the past year through the careful management of the Executive and a newly formed Management Committee. This money is now held in an "Animal Rescue and Conservation Fund" and is available for urgent unscheduled conservation projects in the coming year.

Further funds are held in trust for specific projects, including the acquisition of land in the Kitengela area bordering Nairobi National Park. Both Mr. Brooke and Kenya's Chief Game Warden, Mr. John Mutinda, spoke of the difficulties of settling this delicate but crucial issue of enlarging the Park. However, donors were asked to be patient and to feel confident that, eventually, the funds will be used for the underlying purpose for which they were given—which is to secure the future of this world renowned Park and its wildlife concentration.

Mr. Brooke mentioned the perennial problem of poaching in East Africa . . . . Since the Kenya Government's ban on dealings in spotted skins, the trade has "gone underground" and the callous demand from certain European countries is leading to continuing severe depredations of our leopard and cheetah populations.

Reference was also made to a "considerable" illicit trade in ivory and rhino horn, "aggravated by China and India stock-piling . . . in view of the fluctuating world monetary market."

Certainly the black-market price of ivory has risen steeply in the past few months and there are alarming rumours (though as yet unsubstantiated so far as *AFRICANA* is concerned) of large-scale slaughter of elephant.

In another area of wildlife protection, Mr. Brooke was able to report an impending Society success. This is a project to save a group of rare Sitatunga antelope resident in the Saiwa Swamp near Kitale; finance has been allocated for the construction of a fence to protect both the habitat and the animals and the go-ahead from the Kenya Government is expected soon.

An objective for the coming year is to close ranks in the conservation campaign here in East Africa; the Society is hopeful that there will be closer co-ordination between the various agencies at present working independently towards the same ideals.

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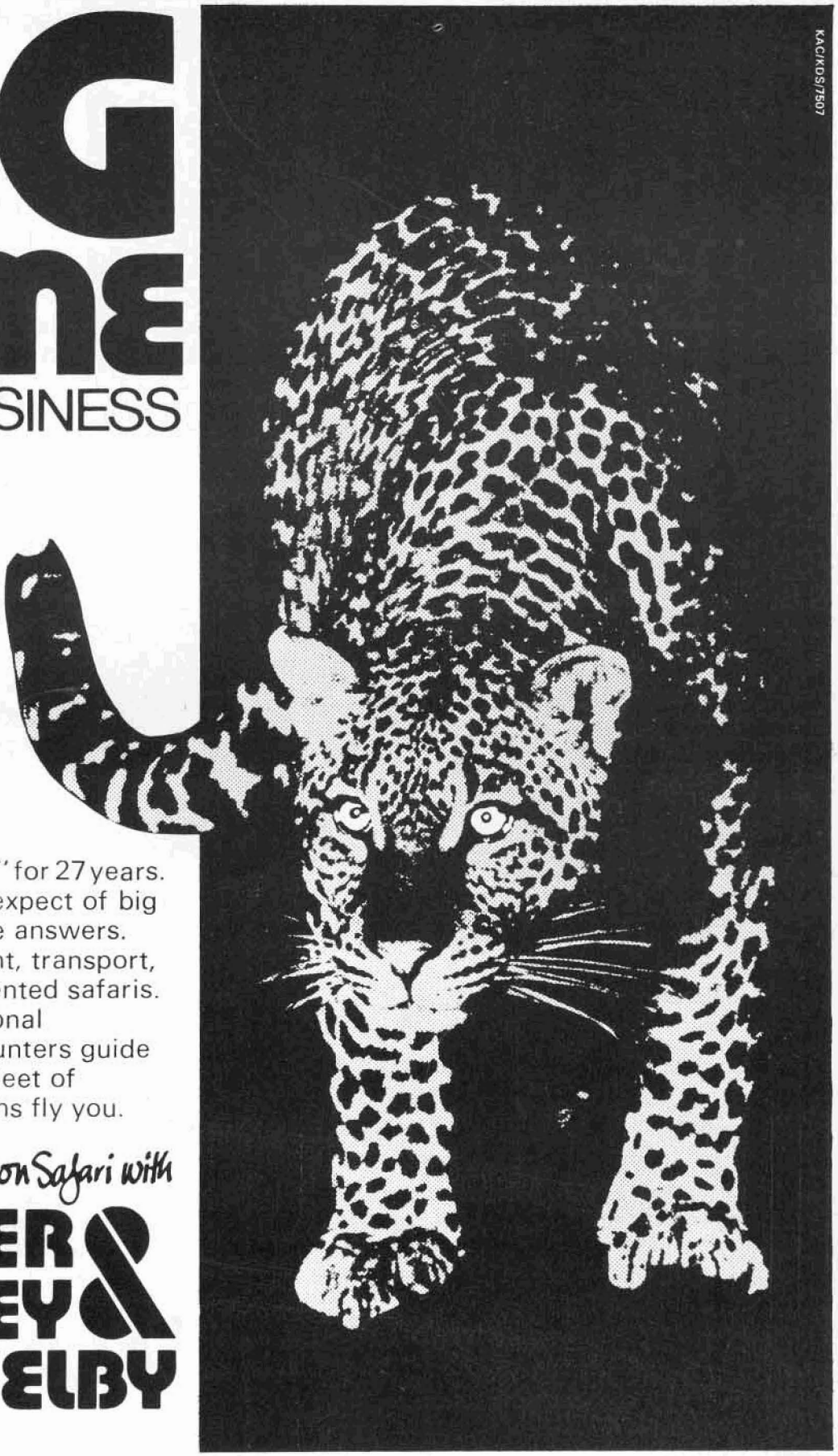
BIG GAME IS OUR BUSINESS



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ROWLAND WARD'S

P.O. Box 40991, NAIROBI, KENYA, EAST AFRICA

LETTERS TO THE EDITOR

Write to: The Editor, 'AFRICANA', P.O. Box 49010, NAIROBI

SUNU—MYTH OR FACT?

Sir—I read with great interest the letter from Mr. Venn Fey in *Africana* Vol. 4 No. 11, 1972, concerning the "Sunu" in the Aberdare mountain forests.

Having been Warden of the Aberdare National Park for 14 years, I have not seen any other species of pig other than the three species known to exist already, but I would be the last person in the world to suggest that the "Sunu" is a myth, particularly when one considers how comparatively recent, scientifically speaking, the Giant Forest Hog was first classified. The rain forests do have a capacity for maintaining secrets.

Most of the senior rangers of the Aberdare National Park were former freedom fighters in the area and were employed by me in 1959; their knowledge and experience is, of course, unsurpassed. These men have been actively engaged on forest patrols ever since, and I have had occasion to discuss with them the subject of the "Sunu" over the years.

Since reading Mr. Venn Fey's letter, I have had further discussions with these rangers, and in particular Mzee Wandare, an ex-Forest Dept. guard, aged between 80 and 90 years, who is generally accepted by the Nyeri Kikuyu as being one of the foremost tribal authorities on the Aberdare forest, its folklore and animal life; in other words, a man who has spent most of his life in the forest with the result that he is in total harmony, both mentally and physically, with the forest enviroment.

This old man and my rangers explained that the "Sunu" is in fact the normal bush-pig, "Nguruwe"; and generally accepted that the name was used more by the former generations than today.

Furthermore, it was a name used specifically to describe the red coloured bush-pig than the black form. The red in the mature animal is often soil discolouration, although the red variety of bush pig does occur as well. With immature animals the tendency is inclined initially towards a reddish appearance, more than the ultimate black, and enhanced by the prominent white hairs on the body taking on a red tinge, thus giving the appearance of a separate smaller species. Despite the colour and size variation amongst these animals, the "Sunu" and "Nguruwe" are one and the same species.

It is also of interest to note that the Nyeri Kikuyu also recognize two varieties of Giant Forest Hog; the common "Numera", and a smaller variety which they identify as "Nyuthe". Both in fact, are accepted as being Giant Forest Hog, but again it was common practice amongst the old African hunters of the forests to give different names to describe different size and colour variations of a same species.

The Waliangulu elephant hunters of the Kenya coastal and nyika bush country recognised and identified by name several types of elephant, the differences being distinguished by the size and shape of the body and tusks. The Indian ivory merchants also identified by name, different shapes and sizes of ivory.

Warthog are associated generally with the open plains and bush country, and not with the mountain rain forests, bamboo zones and afro-alpine moorlands; but I, and several members of the Parks staff, have seen warthog in these zones on the Aberdare mountains.

They are not common on the moorlands or in the bamboo belt, but nevertheless the fact remains that they do exist in these areas.

A newly appointed Assistant Warden from Mweka African Wildlife College expressed surprise when he encountered a warthog recently in the bamboo zone at approx 8,500 feet altitude. I would suggest that Mr. Venn Fey saw a group of warthog, as described in his letter, which strangely enough he likens to warthog and not bushpig; but possibly due to other circumstances that preoccupied his main attention at the time, combined with the fact that warthog would be the last animal one would expect to see in the bamboo, he did not recognize them as such.

The Aberdare warthog found in forest environment are very different from the warthog of the plains on the nearby Laikipia plateau; they tend to be considerably smaller, very red due to soil discolouration, and the ½ to ¾ grown youngsters boast extremely splendid and prominent white cheek hairs, which could, during a partially obscured and quick glance in the shadow and sunlight of a bamboo thicket, be mistaken for tusks.

The Nyeri Kikuyu do not recognize two different variations of warthog, however, although the differences are known. Mr. Venn Fey could be right, and there may be a new specie of red pig, but I personally would be surprised, as I have only ever seen the three specie—the warthog, the giant forest hog and the bush pig—in all my wanderings in the Aberdare forests; there are these variations, but always on close scrutiny they all fall into one of the known species.

F. W. Woodley,
Warden, Mountain
National Parks,
P.O. Box 22, Nyeri.

IONIDES MEMORIAL

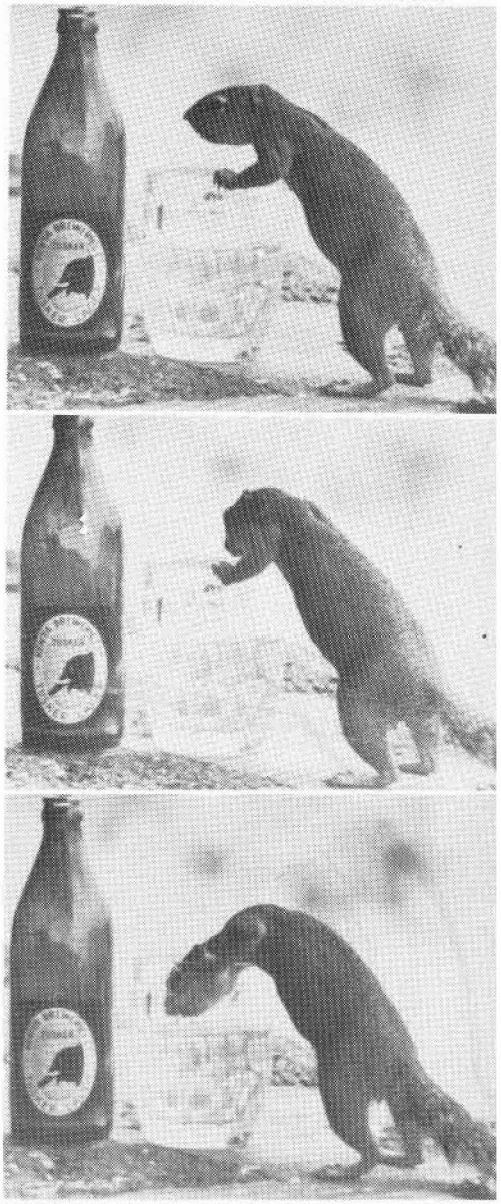
Sir—C. J. P. Ionides the well known herpetologist and naturalist, died in Kenya in 1968. He had collected reptiles in East Africa for nearly thirty years and had contributed greatly to East African hepetology. In addition he had played a very significant role in the development of the National (formerly the Coryndon) Museum, Nairobi and personally collected many of its rarer mammals.

There is no memorial to Ionides in East Africa and we feel that some tribute to his work is long overdue. A fund has therefore been started named "The C. J. P. Ionides Memorial Fund" in order to purchase and erect an exhibition cage and commemorative plaque to him in the Nairobi Snake Park.

Ionides collected large numbers of reptiles for the Nairobi Snake Park and did much to establish its world-wide reputation. It would seem fitting therefore that a tribute to his work in the form of a plaque and special exhibit should be displayed within the Snake Park. If donations exceed the figure required for such a cage and plaque the excess will be used for an extension to the Snake Park buildings.

We welcome the opportunity, through your journal, of drawing attention to this appeal and invite subscriptions which should be made payable to—"The C. J. P. Ionides Memorial Fund" and sent to the Standard Bank Ltd., P.O. 14438, Nairobi. All donations will be acknowledged and details of the memorial project will be published in due course.

J. H. E. Leakey, Lake Baringo;
J. E. Cooper,
c/o Veterinary Services Div. Kabete;
C. R. S. Pitman, London;
A. Duff-Mackay,
The National Museum, Kenya;
Marianne Mitton, Germiston.



Never a dull moment at Kilaguni, one of Kenya's most famous lodges. In this instance a Ground Squirrel draws attention away from the usual scene of elephants by treating himself to a cold beer.

The Editor welcomes letters from "Africana" readers on wildlife and related topics. The letters column is a "free forum" and contributions are subject only to essential editing. Please keep your letters short.

LETTERS

SERONERA ELEPHANT

Sir—As one who was Chief Park Warden of the Serengeti for many years, I feel that I must draw attention to certain major misstatements of fact in Dr. Croze's article "*Why the Shooting of Elephant Bulls at Seronera?*"

a) Dr. Croze states that the operation was carried out at the onset of the rains which he says therefore masked the true picture of the results obtained, as the elephant vacate the area in the wet season anyway. This moment was chosen because it coincided with the peak of destructive activity; to have allowed the elephant to continue to break up trees in the Seronera area at this time would have been to acquiesce in damage almost irreversible within the time span to which management has to operate.

(b) Dr. Croze criticises the fact that in 1967 the Research staff were not called in to obtain statistics of elephant killed and study the effect upon the rest of the raiding population. The management of the Serengeti Research Institute were fully briefed concerning this operation before it started. They were free to have such acess as they required to the carcases.

(c) Dr. Croze states that aerial photographs show a low level of tree loss through elephant damage, 2.6 per cent, and contrasts this with what he considers to be an adequate rate of regeneration. He ignores the fact that the statistics of overall destruction are not entirely relevant in this case.

As he points out, the destruction is unevenly spread, and results in certain areas being seriously decimated to the detriment of their aesthetic appeal.

The management policy for National Parks, as laid down by Professor Walter Russell in his report, states clearly that certain limited areas of aesthetic appeal, such as the one around Seronera, must be protected. This report has been accepted by the National Parks. Incidentally damage of this kind hits directly at the habit of certain riverine species such as leopard, which form a major tourist attraction in Seronera.

(d) Dr. Croze states that the Serengeti Research Institute has suggested methods of removing elephant from the Seronera area by chivvying, and claims that this solution was disregarded by management. The reverse is the case. Shooting was only resorted to after exhaustive experiments with chivvying, which were found to be ineffective.

In addition it became increasingly counter-productive, as the elephant grew short-tempered, stood their ground, and became a security risk for tourists. Furthermore, the sight of Management staff chivvying elephants with the maximum noise and disturbance that they could bring to bear, in the heart of the tourist circuit, was open to obvious objection.

(e) Dr. Croze states that in the 1971 operation "between 11 and 17 bulls were shot in the vicinity of Seronera". It is surprising that Dr. Croze, who has been furnished with full particulars, does not know that the exact figure was 11.

(f) Dr. Croze refers to the secrecy with which the 1971 operation was carried out, and states categorically that "carcases were dismembered presumably to hasten their disappearance".

As regards secrecy, since all 11 elephants were shot within a radius of seven miles of the Serengeti Research Institute within a period of 30 days, in open country attracting a maximum of vultures and predators, it is indeed astonishing that the "secret" should have been kept so successfully.

The allegation about the dismembering of elephant is totally false. On no occasion was this done, the only interference with the carcases being the removal of the tusks. I feel it is important that the record should be put straight in so far as the information published by Dr. Croze is factually wrong. Beyond this, I do not wish to comment here, except to state that since the 1971 operation, which was completed ten months ago, an entire dry season has elapsed. During this period, which is the crucial one for elephant damage in the Seronera area, the total elephant presence has consisted of the passage of seven bulls on one occasion. They travelled through without halting and caused no damage. Up to the time of writing (September 1972) there have been no further incursions by elephant in the Seronera area.

P. A. G. Field,
P.O. Box 159,
Nanyuki, Kenya.

● *We regret we were unable to include this important letter in a previous issue.*

THE FIRST ASCENT

Sir—I thought readers might be interested in an extremely difficult climb up the face of Nzaui.

The mountain lies 30 miles north-east of Emali and falling sheer from its southern rim is a 1,000-ft. grey granite face. Lord Lugard described Nzaui as the "massive sentinel that guards the gate to the heart of Africa". During the last century it became an important landmark for travellers to the interior.

There have been many attempts to climb the face of Nzaui. A few ambitious climbers tried to descend from the top but were defeated by thick bush at the side of the cliff. Recently two parties fought their way up from the road, but after hours of cutting through bush, were forced to abandon their attempt because they had barely enough daylight in which to descend.

In 1962, a team led by one of Kenya's leading rock-climbers, Barry Cliff, managed to reach the face and started climbing up a great crack which they felt might lead to the summit. After one hundred feet of climbing, they descended owing to the old problem of no time. This, until December, 1972, was the furthest anyone had been up the face of Nzaui.

Ian Howell has in recent years been the leading pioneer in Kenya climbing circles. During his two-year stay in Isiolo he virtually opened up the northern desert region as a climbing area. He has accounted for nearly all the routes on Mt. Kenya, and his experience covers the Alps, Andes and the Himalayas. In 1971 he was a member of the international expedition to Mt. Everest.

I had been wanting to attempt Nzaui for years and when I heard that Ian had his eyes on it, we joined up and decided to look over the area.

We had heard of a rest house owned by the Forestry Department, situated on the summit of Nzaui, and one Sunday we drove to the western side of the mountain. Here we took the Kyenze road for eight miles to the rest house, and from this point a path led to the top of the cliff which we soon reached.

The view was outstanding. To the south the plains stretched like a great carpet to the lower slopes of Kilimanjaro, and in the east we could see the length of the Chyulu Hills and Ngulia Mountain. Behind us lay the thick well planned forest of pines that covers the summit of Nzaui.

Earlier in the day we had studied a prominent crack on the Nzaui face from the road, and felt this was the finest feature on the cliff; the chances were that this could be the crack which Barry Cliff had started ten years ago. Now, as we stood on the top of the cliff, this crack lay over to our right and a good thousand feet below us. We therefore decided to try and break our way to the face from the road.

We planned to spend the following weekend at Nzaui. On the Saturday we would try to reach the cliff and if possible find a path to the rest house from the base of the face. Sunday would be our attempt on the rock.

We left our car by the main road just before lunch the following Saturday, and walked down to the wide Muoni River. Once crossed, we were soon on a small path winding its way up the hill towards the base of the cliff. Luck was with us and a few people from the local shambas showed us an easier way. The path narrowed and the bush gradually gave way to thick forest, but our guides were familiar with the area, and led us with comparative ease to the foot of the face. It had taken us only a little over one hour. We had no trouble finding the crack and here we left a full water bottle for our attempt the next day.

Our good fortune was still with us, and we were soon being guided round the side of the cliff and up through the forest towards the top of the mountain. It was not long before we reached the pine forest and from there we hastily descended to the rest house. This was a great help. It meant that we could reach the foot to the cliff in half an hour from the rest house, and if we made the top of the cliff, we would only be a short distance from our vehicle. All was set for the big attempt on the face first thing in the morning.

The day dawned miserably. The cloud hugged the slopes of the mountain and when we left the rest house at first light, it was raining heavily. By the time the foot of the face was reached, the rain had subsided to a milder drizzle, but the rock was wet.

We decided to press on with our attempt. Ropes were uncoiled, an assortment of pitons were arranged and Ian started up in the lead. He climbed slowly, taking care on the wet rock, and was soon forced to drive a piton into the crack, which was no more than a few inches wide. Once done, he swung left into a wider crack which looked as though it might lead to easier climbing. He was clearing a small bush from the crack when he came across an old rusty piton—it was a relic of Barry Cliff's attempt years before.

The cloud had now reduced visibility to about 15 ft. and I watched in silence as the ropes rose into the swirling mist. Every now and again it would clear a little and I would see Ian's ghostly shape fighting its way up the wall. It was not long before he had reached a stance and was calling me up.

The technique of rock-climbing is a simple one. The leader climbs the rock until he reaches a place where he can stand and belay. The second then climbs up the way the first man went, and while climbing, the leader takes the rope in from his stance. In this way the rope is always taut between the two bodies. If the second falls, the leader is securely fixed to his stance and can hold the second without being pulled off. The second then leads through on the next section.

Although the climbing was difficult,

I found that I was on form, and quickly removed the pitons Ian had left in; within 10 minutes I was at his belay 100 ft up the face. This was the point where the other party had given up. Now it was my turn to lead and I was immediately faced with an overhanging wall for about 15 ft. This had to be climbed with "direct aid" and I was forced to hammer pitons in and pull up on them. This type of climbing is strenuous and time absorbing.

In quarter of an hour I was up the overhang and pleasant climbing led up the crack which was now turning into a wide groove. However, I was now faced with another problem. From inside the crack literally hundreds of tiny spiders were climbing onto the walls and moving over my feet and legs. The climbing was difficult enough without having to spend time removing my hands from the cliff and slapping the affected parts of my body.

Luckily they did not seem to be biting and there was nothing to do but continue. Ian was having a similar time down at his belay and I could hear the sound of slaps and curses echoing up the cliff. Soon I found a poor belay and shouted for Ian to climb.

He moved up in his usual easy style. The next part looked difficult and when Ian arrived at my stance he decided to drill a bolt into the cliff for a better belay. This is also time consuming, as a hole has to be drilled into the rock, and then an expansion bolt driven in. This offers a safe attachment to the cliff. When it was done he continued in the lead.

When cracks widen into grooves the easiest climbing technique is to move up with your back on one side of the groove and your feet on the other. Ian climbed up this way for another 50 ft but then the cliff bulged and suddenly everything became serious. On his first attempt at the bulge, his feet slipped and he nearly fell off—and he would have gone over a 100 ft before I could hold him on the rope. Once again he tried, but he slipped again. Finally he was forced to drill another bolt into the wall and this took over half an hour to do, in which time he was in the same position unable to move.

I followed and found it hard but Ian stood at his belay completely unaffected by his ordeal. The ground ahead looked easier and the following three sections went quickly. By noon we were firmly established half way up the cliff with a good 500 ft of difficult rock-climbing vertically below us. The weather was clearing and the views were spectacular.

Ian rushed off in the lead and I followed to his belay; then I would take the lead, and so it went on. By mid-afternoon the heat was starting to take its effect and although we did not realise it at first, we were slowing down considerably.

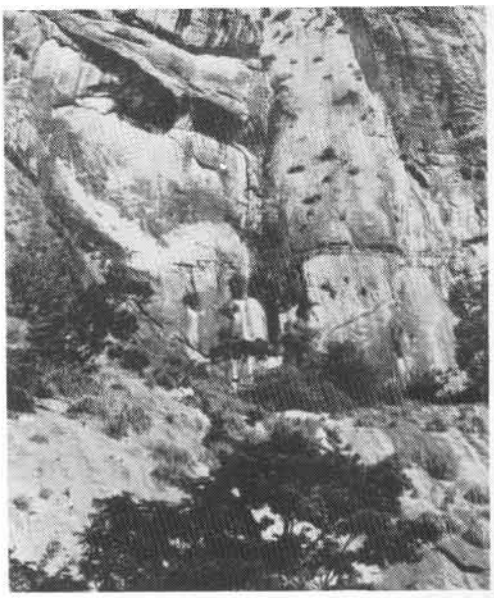
Above us the groove rose to a corner, and behind it we felt certain the gradient would relent a bit as it made its way to the summit dome. It was not long before our hopes were shattered. Behind the corner there stood an enormous overhang 40 ft above us. Ian began to climb up to the overhang and was soon trying to turn it on the left but could not manage it. He drilled another bolt in. This enabled him to move left round the overhang and he disappeared from sight.

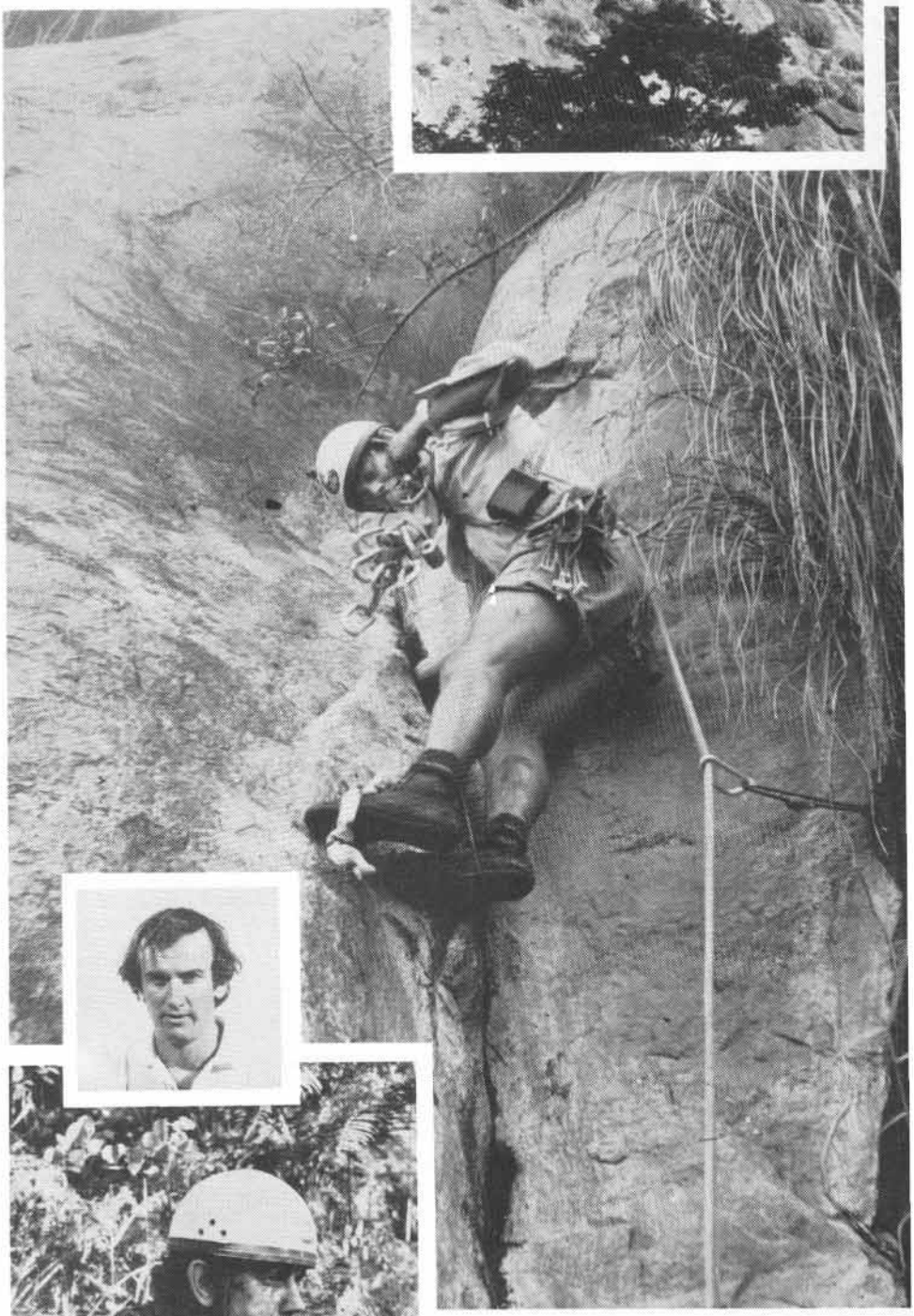
A shout broke the tension and I was told to climb. I moved up to the bolt and as I climbed round the overhang I glanced below my feet to see the face drop away sheer for a good 700 ft. It is situations like this that climbers remember for the rest of their lives.

Ian was about 40 ft above me and I was soon with him at the belay. Time was running out and we had only two hours till dark, so I quickly moved on. It was now considerably easier and I climbed a complete rope length. Ian followed and did the same. Eventually we turned a corner and 40 ft higher we saw the pine trees. It was almost over, and we stumbled up to the summit.

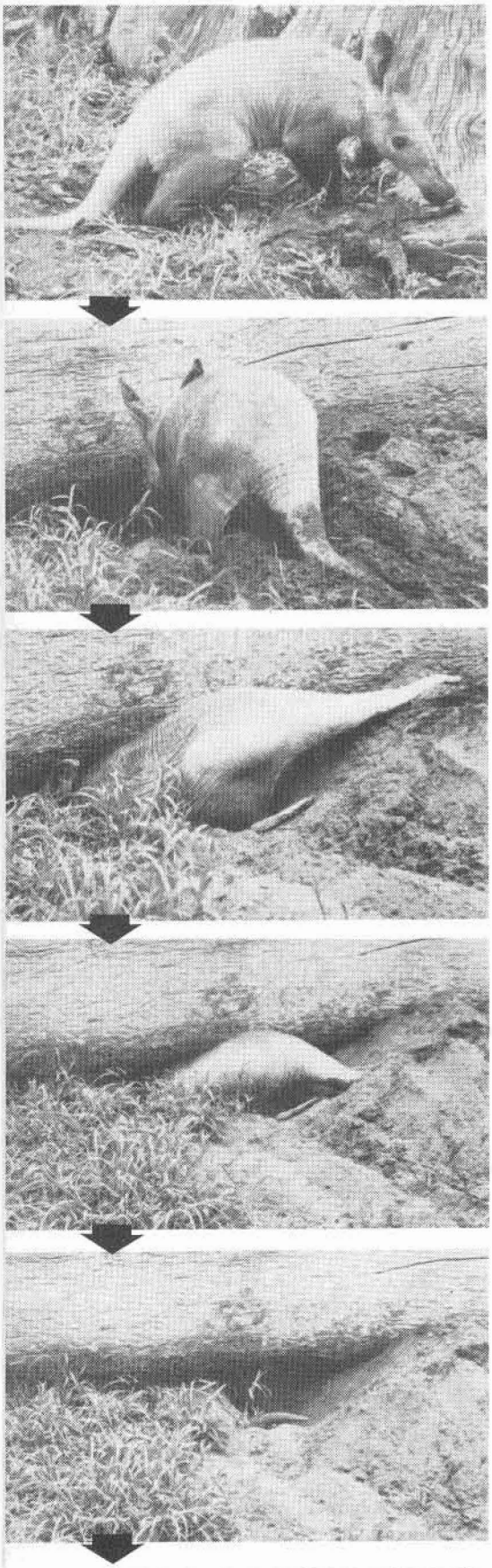
Nzaui had finally been climbed, and it had been as difficult as we had anticipated.

Iain Allan,
Box 18141,
Nairobi.





Top:— the 1,000 foot face of Nzaui
Centre:— climbing the crack
Inset:— Iain Allan
Bottom:— Ian Howell



A rare sequence of a rare animal: The Aardvark, (*Orycteropus afer*) which is normally nocturnal, is pictured here burrowing at a remarkable speed in search of its insect diet.
Photographs by John McDougall.

LETTERS

SISAL HISTORY

Sir—I wish to correct some information given in Mr. Bradley Martin's article on "Kenya's Historic Coast" (Vol. 4, No. 12).

The *Agave* hybrid planted at Vipingo was not produced there. This plant arose from a breeding programme started by the late L. R. (George) Doughty, Geneticist at the East African Agricultural Institute, Amani, Tanganyika and subsequently with this organization.

Doughty crossed *Agave angustifolia* with *A. amaniensis*, obtaining a number of high-yielding hybrids, none of which was thought to be ideal.

These offspring were transferred to the Sisal Experimental Station, Mlingano, Ngomeni, Tanganyika where G. W. Lock backcrossed them to *A. amaniensis*. The resulting progeny included hybrid No. 11648 which, after careful evaluation was issued to the sisal industry of East Africa for commercial use in 1960 and 1961 and is now grown on a number of estates in Tanzania as well as at Vipingo. The subject is discussed in more detail in "Sisal" by G. W. Lock Longmans Green & Co. Ltd.

Although carefully graded large suckers of the hybrid can be used directly for planting in the field it is suggested in 'A Handbook for Sisal Planters' (Tanganyika Sisal Growers' Association, 1965) that it may be more satisfactory to plant bulbils or small suckers in a nursery with subsequent transplanting as for ordinary sisal.

The principal advantage of the new hybrid is that it produces between 500 and 600 leaves per plant during the life cycle at a faster rate than the 200 to 250 leaves per plant grown by ordinary sisal (*A. sisalana*), with a consequent higher production of fibre for each planting.

J. F. Osborne,
(formerly Senior Research Officer,
Sisal Research Station,
Tanzania).

HOW DO THEY DO IT?

Sir—Recently while driving along some of the paved highways of Rhodesia and Zambia, particularly in the Victoria Falls area, I noticed numerous large shiny beetles (dung beetles?) and those big glossy millipeds (Megapeds?) with forests of legs crossing the roads.

Being a somewhat hazardous occupation to even the most fleet-footed of we humans, this road crossing obviously presented these more pedestrian gentlemen with a survival problem of the first order. However, I was impressed to find that their solution was the obvious one: with remarkably few exceptions they chose the shortest route at right angles to the road, within an accuracy of a few degrees.

How can they detect this direction, bearing in mind:

(a) The camber on the road puts the far side below their horizon,
(b) the vegetation coverage on both sides of the road is irregular,
(c) the edge of the road is irregular considered in relation to their size.

Any suggestions would be received with interest.

Charles Barton,
Kangaru School,
P.O. Box 17,
Embu.

ROAN PRESERVATION

Sir—In reference to "The Roan Story" of the April 1972 issue, I would like to enlighten readers (and possibly those involved with the capture) with some basic facts relevant to the presence of the Roan at Ithanga.

In 1948, the track of land extending from the Saba Saba Bridge on the Tana River to the Tana/Thika Rivers confluence (eventually amounting to nearly 60,000 acres) was owned by Ake Bursell. During the period 1948/68 management of the ranch was undertaken by either or both of his sons, who maintained strict protection of the Roan, and other game, for those twenty years. (Incidentally, I speak as a grandson of Ake Bursell.)

Previous to the Bursells' ownership of this land, the area had been practically decimated of all wildlife which, in the decades before, Meinertzhagen had observed in profusion, as evident in his book "Kenya Diary".

Let it be realised, then, that had it not been for the efforts of the Bursells in ensuring the continued survival of the wildlife there would not have been any Roan antelope to transfer.

Ian Gregory,
P.O. Ruiru,
Kenya.

BRAVO!

Sir—As a member of the East African Wild Life Society, I have received many editions of your magazine—and I simply would like to praise this publication and what it stands for.

"Africana" shows all sides and opinions of African wildlife management as it exists today. I especially enjoy the "Letters to the Editor", and "National Parks News", sections, although all of the magazine articles are extremely interesting.

Concerning wildlife preservation, communication is of the utmost importance. People supporting such organizations naturally want to be thoroughly informed as to what progress is being made with their donations. I am extremely pleased with the *Africana* magazine. Keep up the good work.

Fred Retzlaff,
Stevens Point, Wisconsin,
54481, U.S.A.

HUNT ON THE MOORLANDS

Sir—The other day I spent a very pleasant week-end at Osirwa Safari Cottages on the north-western slopes of Mt. Kilimanjaro. The highlight of the stay was a trip organised by the manageress, Mafalda von Kalckreuth, up onto the Shira plateau beneath Kibo peak. It was a marvellous safari with spectacular scenery. However, driving back over the moorlands we saw a most disturbing sight.

A full-grown male eland surrounded by a pack of dogs ran across our path. The eland had been harried to the point of exhaustion and was literally being run to a standstill. Following several hundred yards behind were three men carrying spears. They were so intent on their hunt—and confident that we wouldn't interfere—that they didn't even turn their heads when we shouted at them. They were right, of course. We were helpless to prevent the inevitable outcome of the chase so reluctantly drove on down the mountain side.

But since Mt. Kilimanjaro has been gazetted to become a National Park, we can only hope the authorities can put a stop to it.

—Ted Gugis,
Across Africa Safaris.
Nairobi.

SOS FOR DYING HIPPOS

Pictures and Report by JOHN McDOUGALL

LAKE BARINGO'S one hundred or so hippos looked doomed in mid-April. They were dying of starvation and malnutrition caused by a drought.

About 15 died in one week alone. Others had protruding spines and deformed legs. Some animals had legs so badly buckled that they could not stand properly.

The morning sun roasted the hippos until their skin split like over-ripe tomatoes. Stronger animals dragged themselves up to 16 km in a night searching for food. Two made a 32-km journey to neighbouring Lake Hannington where they died in its heavily alkaline water.

The Kenyan Game Department heard of the tragic situation and called in the East African Wildlife Society to help send relief fodder to the five main schools of famine-stricken hippos. Mr. Michael Sawyer, chief executive of the society, immediately made money available to pay for food to help prevent further deaths pending an investigation and a permanent solution for the problem.

Then the Game Department sent wardens Jack Barrah and Tony Carne to the Baringo district to make an on-the-spot inspection. They skirted round the 30-km by 14-km lake in a dinghy examining as many hippo as possible. Apart from the two schools which were being fed they were, as Mr. Barrah put it, "in a hell of a bad way."

There had not been any serious rain by mid-April for almost a year. And growing herds of cattle and goats had stripped all peripheral grass area round the lake. Another problem is that because of overgrazing and deforestation along the banks of rivers feeding the lake, principally the Pekerra and Molo, there had been tremendous erosion.

Tons of top soil and silt had been swept into the lake, turning it into red "treacle." The silt coupled with the drought had dramatically reduced the water level. Although in a few places the lake was six metres deep the average depth was two metres.

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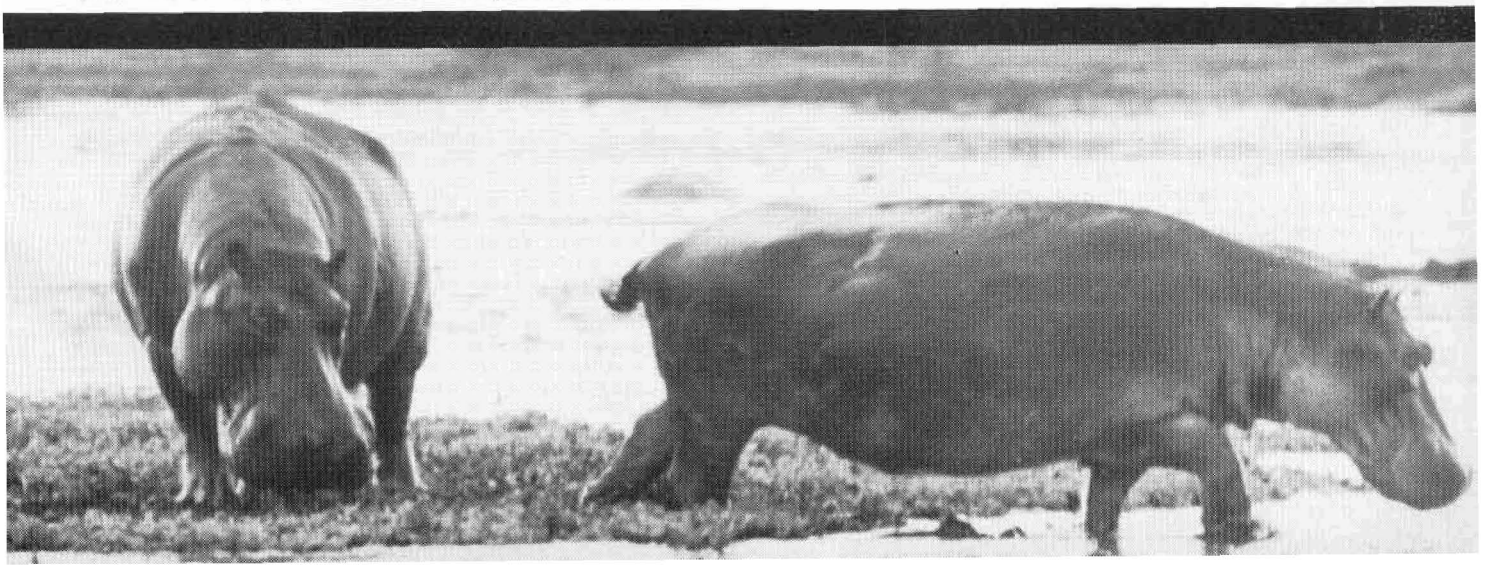

THE AFRICAN ENVIRONMENT... A HISTORY OF PROGRESS AND NEGLECT

"CONSERVATION OF VEGETATION IN AFRICA SOUTH OF THE SAHARA," edited by I. and O. Hedberg. Published by Acta Phyto Geographica Svecica 54; Uppsala, 1968.

THE KEY note of this excellent publication is struck on the first page. Why conserve natural vegetation?

The answer is quite clear. It is because of, and not in spite of, the human population explosion that it is now essential to take stock of our botanical background. Only by understanding and cherishing the environment upon which our existence depends can the pressing land use problems of today be solved.

Much of Africa's 20 million km^2 of vegetation cover is adapted to erratic rainfall and poor soil. It has not stood up to the increasing population pressure. The cruel fact remains that much of Africa has only reached the threshold of nationhood at the expense of an increasingly degraded environment.

Deforestation, fire, overgrazing, erosion and advancing aridity have practically brought the continent to its knees. Nevertheless natural ecosystems are resilient and provided conservation practices are approved and supported by governments now, the resources of Africa's vegetation could be rehabilitated. The cure will be expensive. The high reclamation costs already far exceed the means of Africa. But "the mixture" must be taken by the leaders and people of Africa in big doses.

The "new look" of forestry, agricultural, ranching and wildlife conservation is a topic of world-wide interest. Funds and skills are becoming increasingly available to save the African environment. Every opportunity must be taken to administer them wisely. It is the conservationist's hope that future generations will inherit a land they can use and not waste.

Objects and reasons, explanations and solutions, must be understood by every one. This book tells us plainly what is happening to our environment and what must be done now by us for the future, country by country, in West, East, Central and Southern Africa.

In West Africa the pressing necessity is to preserve samples of commonplace vegetation in view of the rapid destruction of natural forests. The object should be to reserve natural habitats so that the ecosystem remains self-perpetuating. To this end a National Park or similar sanctuary is often better than a forest reserve because the latter are maintained solely as a source of timber.

Little has been done to afford protection to special vegetation types and rare species of plants. Long-term public education and funds are needed to achieve this in the best possible way.

In Eastern Africa there has been both progress and neglect. Only meagre results have been achieved in Ethiopia and Somalia although the vegetation is of the greatest scientific interest. Deforestation and excessive grazing constitute the gravest threats. Suggestions for protection and conservation need to be tied to economic advantages if they are to be taken seriously.

Regarding flora, Uganda occupies an interesting position at the junction of several vegetation types. The forests have however been degraded towards secondary fire subclimax grassland by the growth of human and animal populations. Several indigenous associations of the lowland vegetation are now protected in National Parks where scientific studies are being made on fire and animal control. Suitable legislation is enforced.

In Kenya "game" conservation is well over 50 years old but it is only recently that the habitats have been studied. The touristic appeal of both are now reaslised and the educational and scientific aspects of National Parks is being planned. A special "plant sanctuary" has been established at Mutomo hill, the first of its kind and it is hoped the forerunner of many others.

Tanzania's poor and erratic rainfall combined with the low fertility of the plateau soils makes agricultural development difficult.

The pressing need to improve the standard of living for the 98 per cent of the population that is dependant on the land has already strained the natural resources. Shifting cultivation, overgrazing and uncontrolled fires continues to destroy forests and pastures throughout the country. Vast areas cannot be settled because of tse-tse flies. There are however parts of unparalled scenic beauty and animal wealth which are already National Parks attracting an increasing number of overseas visitors.

In the southern tropical African countries there has been an urge to create National Parks for recreation and tourism and to these have been added smaller areas of archeological and historical interest.

In Zambia, parts of which are sparsely inhabited, the plant catena survives and the greatest need is fire control. Investigations on the effects of fire on plant succession have already been carried out. Early burning has proved successful but shifting cultivation has degraded much of the natural woodland.

Malawi was a well-wooded and sparsely inhabited country 100 years ago but recently the vegetation has been degraded by fire. Forests survive as small scattered patches, the submontane types with West African affinities being of special interest. The suggestion is made that plantations to supply fuel and poles would relieve pressure on these indigenous forests. Botanical reserves of educational value might be made the responsibility of the people.

Protective legislation in Mozambique is relatively old, the Gorongosa National Park was established in 1921. Enforcement of the law and education of the people are present requirements. A good suggestion is the starting of "micro-parks" for the preservation of rare species of animals and plants.

The sparsely populated pastoral countries are dependant on habitat conservation for economic survival. Although in some cases only a water supply is needed it is pointed out that the provision of boreholes might cause an imbalance between the animals and pasture unless properly supervised.

South Africa is noted for endemic species. Although the Cape vegetation has been subjected to fires for centuries it is considered to be well adapted to them and regeneration is good. Public interest has increased in all aspects of ecosystem conservation. Nature and wild flower reserves have been established and such could be extended to private land.

Nevertheless it is noted that overgrazing and erosion wherever the plant cover is delicately balanced with the environment have resulted in the spread of desert conditions. In 30 per cent of the country the complete disappearance of indigenous vegetation has occurred.

In South West Africa vegetation is only protected in game reserves. In the tribal areas land husbandry education is much needed. The government of Swaziland has power to confine grass burning to the most desirable season and to prohibit cutting vegetation along streams.

Certainly this compilation by so many people who know what they are writing about should be widely read by everybody who is concerned with the welfare of the African environment.

D. V-F.

THE TREE WHERE MAN WAS BORN

"THE TREE WHERE MAN WAS BORN," by Peter Mathiessen and "THE AFRICAN EXPERIENCE," by Eliot Porter. Published by Collins at £5 (UK) K.Shs. 110/-.

I SEEM to be the only one in step with my views on this book. It so happens that I have seen a couple of reviews of it in other magazines (something I usually try to avoid) and friends have added their comments: in all cases they seem to be impressed with it. To my regret, I am not.

Some weeks ago I took a look at Norman Myers' "The Long African Day" and commented that it seemed to be two books in one. Well, this one really *is* two books in one and has two titles to prove it. The words are by Peter Mathiessen and he calls his contribution "The Tree Where Man Was Born". Eliot Porter took the pictures and labels his collection "The African Experience." According to the publishers, these two talents "are fused . . . to produce a study of astonishing power and virtuosity." To my mind they simply do not fuse, and therein lies its greatest fault.

The subject in East Africa (so don't believe *Time* magazine which didn't seem to know its West from its East in its review) and is a combined effort to present a portrait of the whole Sudan—Kenya—

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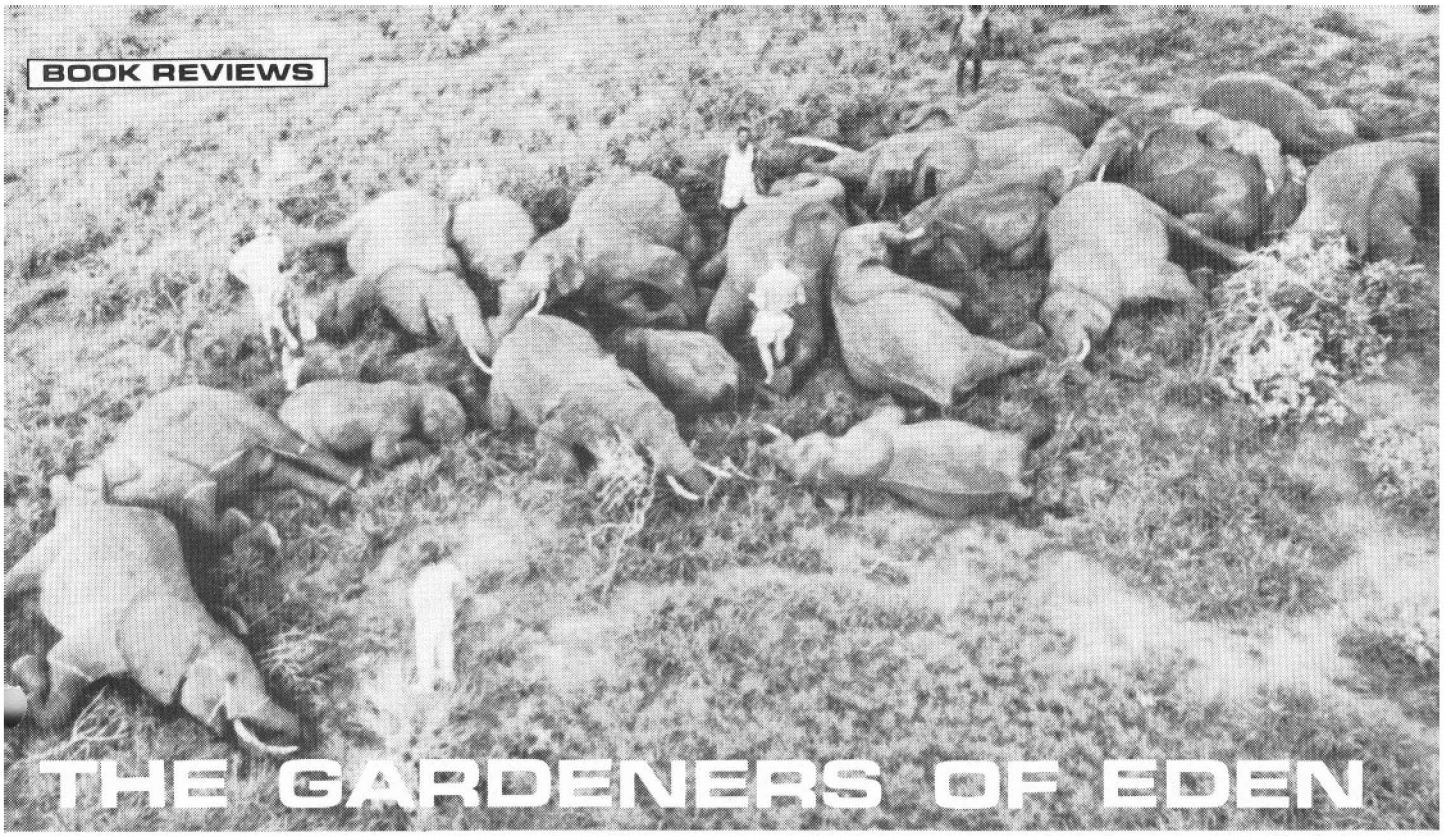


THE GARDENERS OF EDEN

This photo from the "Gardeners of Eden" is without caption. This is one of the minor irritations of the book — but presumably it is an illustration of a contol operation and, according to Mr. Graham, of "violence between man and animals" a major topic of the book.

"THE GARDENERS OF EDEN," by Alistair Graham. Published by George Allen and Unwin Ltd. at £4 (UK). K.Shs. 80/-.

IF ONE defines the word *waffle* as an excess of verbiage, and the word *piffle* as rather chaotic reasoning, then it is difficult to resist calling this book a prime example of waffle-piffle.

It comes as a surprise that it is only 240 pages, for the journey through it is tedious and monotonous, a great jungle of words—many of them couched as sneers at some individual or belief—as the author thrashes about being incredibly rude to game conservationists and their aims, but never once suggesting any solutions to the problems which undeniably exist in the world of wildlife conservation.

Conservation had, of course, to become an Aunt Sally sooner or later. Today's idol is tomorrow's villain, as the shades of, say, Churchill, Lawrence of Arabia and, already, John F. Kennedy would affirm. Agreed that it is no bad thing for even our proudest heroes and most strongly held beliefs to be thoroughly investigated if truth is to matter at all, but is "The Gardeners of Eden" the way to do it? Mr. Graham certainly won't win friends and, such is his venom, that I doubt whether he will influence people either.

The basic plea of the book is, I think, that emotions should not shut out reason in conservation work. The pity is that this surely wholly sensible view becomes submerged in a blather of sneers. The author's chief targets are generally former heads of the East African game departments and National Parks. Ritchie, Pitman, Kinloch, Cowie all suffer gashes from the flick-knife of this—dare one say it? — emotional writer.

His slashing ridicule of "professional game savers" illustrates his technique: "Provided the smoker can stomach it, a pipe is highly desirable since he-men are well-known to smoke pipes. The affection of masculine images in fact occupies a good portion of many gamekeepers time. Dark glasses either worn or slung round the neck remind onlookers that the wearer is accustomed to life in remote, rugged wildernesses . . . The never-failing excitement of driving sexy, four-wheel drive vehicles . . . is surpassed only by the craze for flying aeroplanes out of which sweaty wardens stare nauseously while hoping to spot game or poachers"—and so on and so on and so on. And this sort of waffle is from a man who insists on a dispassionate scientific approach to his subject!

Mr. Graham's attempts to pyscho-analyse his villains (the Game Savers, that is) take us into some remarkable piffle patches: he seems determined, for example, to convince me that the next time I stop my car in a National Park to look with pleasure on a passing parade of elephant, this is proof positive of my supressed aggression towards them and, apparently—for reasons that quite escape me—that my sex life is all to hell!

His comments about the sexual significance of elephant tusks is a gem: "And what better way of dealing with repressed oedipal murder wishes, than killing the elephant father figure, castrating him, and then taking the genitalia home?" Now, I ask you . . . ?

D.T.

THE TREE WHERE MAN WAS BORN *continued*

Uganda—Tanzania area, its wildlife and its peoples. Matthiessen digs into man's remote past, examines his present and speculates on his future. He describes the differing lands in which these different people live, discusses some of their problems (especially those concerned with the conservation or otherwise of the wildlife) and does all this by describing in detail his own personal experiences during lengthy travels out here.

His writing seems to me rather variable; on occasions, during an account of an actual journey, he stirs in an anecdote here and a piece of history there, dotting the whole thing with a profusion of people and place names so that, bewildered, I had to turn back a page and start a leg of the journey all over again to get my bearings.

But then he confounds me by writing simple, beautifully-evocative passages that catch just a little (and who can do more?) of the magic of Africa. He describes people I too have met out here and, with a brief phrase or a typical quote from their conversation, pins them to the page with superb accuracy. Thus I have no hesitation in accepting as wholly accurate his observations about people and places of which I am wholly ignorant.

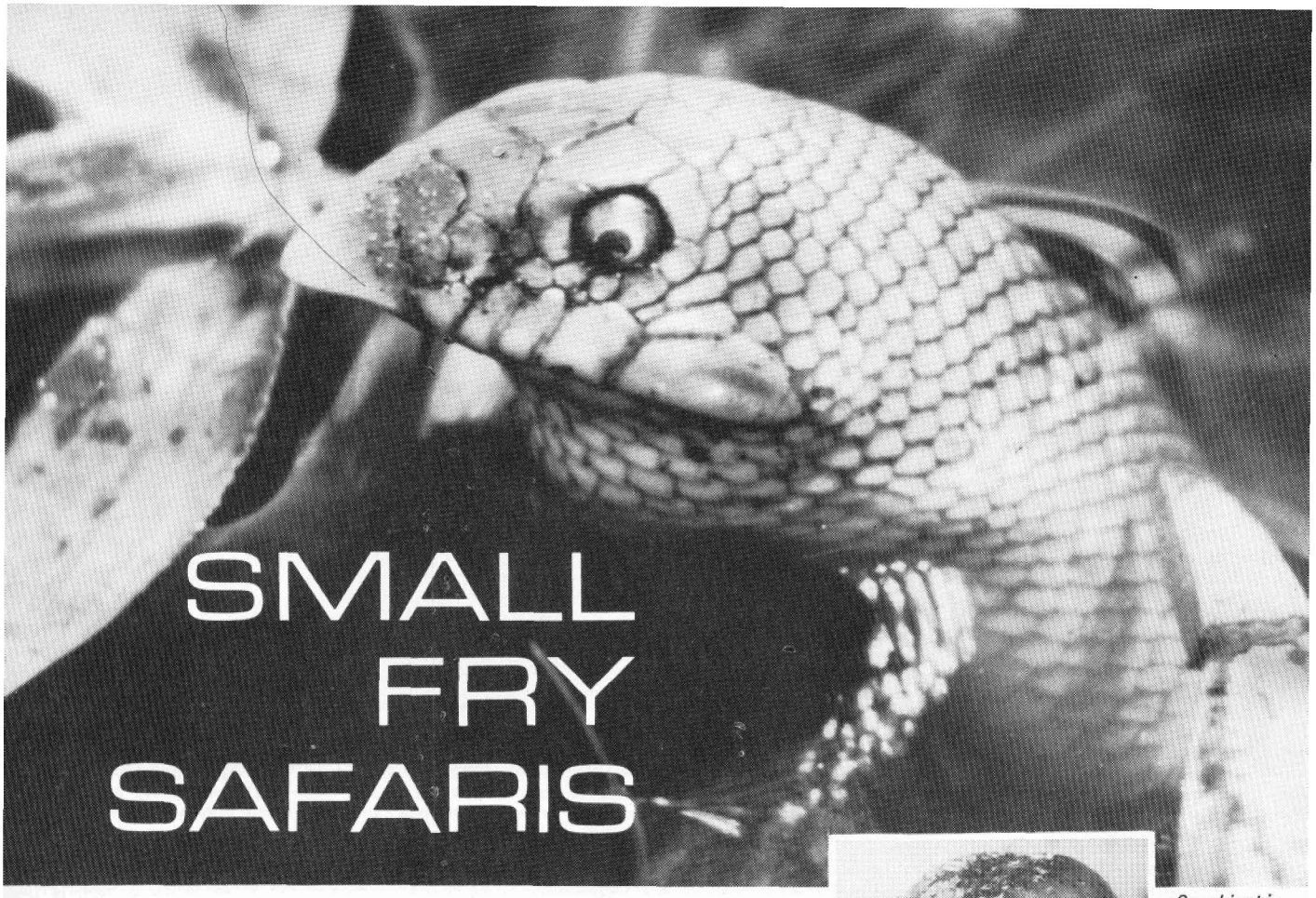
Eliot Porter's colour pictures occupy 80 of the book's 240 pages, and many of them are fine, as we would expect from a man of his experience. But too many seem ordinary. Frequently they do no more than record very pleasantly a view or an animal or a person, giving us nothing more than that, no sense of atmosphere or action or character.

The pictures do not attempt to illustrate the text every step of the way, and indeed whole areas and tribes described in the text get no showing in the plates at all. One accepts that this was not the intention, but do they—words and pictures together—really "fuse" into the something "altogether out of the ordinary" that is claimed? I think not.

I venture to suggest that neither the words on their own nor the pictures on their own would suffice to make up into separate books of any great merit: the fact that they have been brought under one cover with a bit of pretentious blurb about East Africa proving "the catalyst" for the fusion of two talents just does not create the instant happening we were promised. A cruel judgement? Well I did warn you that I seem to be the only one in step—and under those circumstances its hardly surprising that a few corns get trodden on!

D.T.

SMALL FRY SAFARIS



Scaphiophis

by DESMOND VESEY-FITZGERALD

IT was quite exciting at the start of our minisafari to encounter a tarantula. The East African tarantula spends the day in silk-lined holes in the ground, coming out at night to hunt particularly during the rains. I have never heard of one harming anybody, not even campers asleep at night.

The most dangerous spider in Africa is the black-widow, which was actually introduced from North America and is now well established on the coast. This is quite a small black spider with a red mark on the body. The black-widow bite is extremely painful and about 5 per cent of the victims may die. Some years ago a doctor at Mbeya sent me a tube full of spiders, one of which was supposed to have caused the death of one of his patients. In the tube was a native African *Latrodectus*, the black-widow genus. So my advice is, respect but do not trust spiders, not even small ones, until you know more about them.

I was lucky to come across a solfugid kill. It had pounced upon a grasshopper, *Catantops*. Different kinds of Solfugids are common, particularly in dry places and the Arabs call them the "father of runners". It should be clear to anybody that solfugids are not spiders. They have a joint body and 10 legs instead of eight. They are really more like scorpions, but do not sting.

Solfugids played a minor role during the war in the western desert. We used to wile away idle hours pitting our champions against scorpions, a tin hat making a convenient arena. Sometimes the contestants wouldn't play so we then dropped in an armour plated scarab beetle. The beetle bustled about stirring the scorpion and solfugid into a state of frenzy without getting into trouble itself. Usually the solfugid won.

I wonder why moths that fly by night are so beautiful. There are so many wonderful creatures that fly about at night—even the swarms of bugs around the light in camp are worth having a look at. By day, they hide and it is practically impossible to find where they have gone.

The hawk-moth, *Poliana*, can hardly be seen while sleeping on lichen encrusted bark. A potential predator needs a keen eye. Hawk-moth catapillars too, are patterned to be inconspicuous among the leaves that they feed on. The camouflage effect is enhanced by the caterpillar's habit of resting head downwards.

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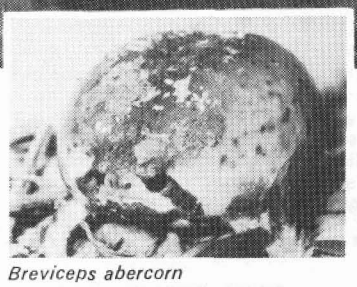
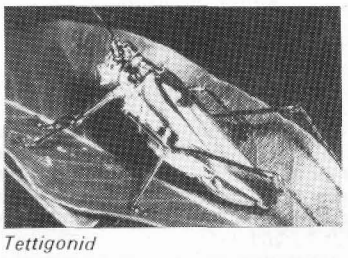
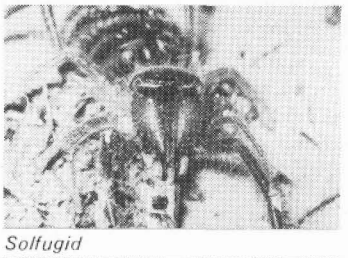


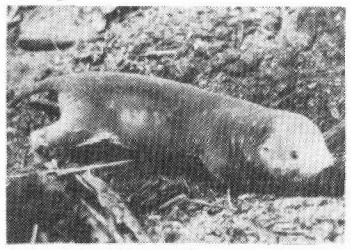
Breviceps abercorn



Tettigonid



Solfugid



Heterocephalus glaber

The life story of the little wasp, *Ropalidia*, is fascinating. The adults are all queens, that is to say each lays a few eggs, one in each cell of the paper comb. When the grub hatches it is fed by the parents until it completely fills the cell. Then the grub spins a silken lid to the cell which the parent wasps ornament with fragments of wasp-paper. Inside, the grub pupates and in time the full grown young wasp emerges. As the colony grows, new cells are added to the comb. The comb hangs from a short stalk which is varnished so as to repel ants.

During the rains strange creatures emerge from ground. When the plains get flooded, the grey beaked-snake, *Scaphiophis*, pokes its head up to breath.

The frog, *Breviceps*, is the classical toad-in-a-hole, spending some 360 days a year in this rather unexciting way. Then when the rains come and the white-ants fly, *Breviceps* emerges and gorges. It is about the size of a match-box and most of its obesity is wind. It sweats milk when alarmed. One supposes that looking like a cream bun—the cream is acrid—makes the creature less attractive to its arch-enemy the night-adder. If you pick it up, it deflates rapidly with a hissing, squeaking noise, and 10 to 1 you will drop the thing like a hot cake!

The naked mole-rat, *Heterocephalus*, inhabits the under world of the arid parts of Ketya. Only when its burrows are flooded does it ever come above ground. With its naked skin and pinkish feet, I think we must feel some affinity. And besides, this creature has a poisonous mouth. The massive dentures that stick out in front are used for digging and can bite one's finger to the bone. Their saliva seems to contain venom and can cause a nasty wound. In this respect, *Heterocephalus* has the distinction of being the only venomous mammal.

It is therefore with some relief that we find our way back onto the main road. There is so much to see and do on a grass-root safari that I certainly hope to go back to this wonderland many times again.

UGANDA'S RODENTS

Zelotomys hildegardeae

THERE are many attractive and interesting mammals living in the National Parks of East Africa which the average tourist never sees—the rodents. While rats and mice are sometimes glimpsed scurrying across a road or track, the visitor does not get a chance to view them in detail.

However, rodents are more numerous than generally supposed. In the long grass savanna so typical of Uganda's parks, they are so abundant that some scientists believe their influence on the ecology of these areas may be as important as the effects of large mammals. There is no doubt that where there are high densities of large herbivores, less rodents are found than in areas relatively free of big game, this being partly due to disturbance and the effects of reduction of food and cover.

Rodents have successfully adapted themselves to life in a wide variety of habitats . . . from montane forests to lowland forests, and from swamp to savanna. As all these habitats, with the exception of montane forest, are found within Uganda's parks, there is an astonishingly rich variety of rodent life.

Uganda rodents vary greatly in size, from one of the smallest mice in the world, the *Mus minutoides* (a cousin of the European house mouse) which is only 60 mm. long (excluding the tail) and weighs about 10 gm., to one of the largest rats in the world, the giant rat, *Cricetomys gambianus*, which is over 350 mm. long and weighs up to 1kg. Still larger, but belonging to a different family of rodents, is the beaver-like cane rat, *Thryonomys swinderiamus*, which weighs up to 9 kg.

Uganda rodents do not only vary in size. Structurally there is a wide range of fur patterns which make identification relatively easy. Few people find cause to admire rodents for purely aesthetic reasons, but a few Uganda rats and mice are attractive. The striped grass-mouse, *Lemniscomys striatus*, has a pure white underside, and a grey-brown back streaked with numerous creamy white longitudinal stripes. The insectivorous harsh-furred mouse, *Lophuromys*, has short, rather bristly chestnut fur on the dorsal surface, while the belly is a rich pinky-orange colour. The small spiny mouse, *Acomys*, which is found in the drier regions of northern Uganda, such as the Kidepo Valley National Park, has a stiff, hedgehog like patch of spiny hairs on its back.

Just as the large mammal community has its carnivores, scavengers and herbivores, so has the microcosmic "mouse community." Many rodents species are purely herbivores, eating the stems and leaves of grasses, or the fruits and seeds of grasses and dicotyledons. Others, such as the striped grass-mouse and the multimammate mouse, *Mastomys natalensis*, are omnivorous, eating both plants and insects, (the latter, incidentally, may have up to 19 young in a litter, thus challenging the pig as the world's most prolific mammal, and obtaining its common name as a result of having up to 12 pairs of teats). Still others, such as the harsh-furred mouse, are mainly carnivorous, eating ants, termites, and other small insects. The broad-headed mouse, *Zelotomys*, which emits a curious toad-like grunt when alarmed, may be called "the hyaena of the mouse world", for it eats not only live prey but is known to eat carrion.

Many avian predators and small carnivores are dependent to a large extent on rodent for their food. Some of the larger mongooses, small cats and birds of prey, particularly owls, often prey almost exclusively on rodents, and it is possible that their distribution and numbers may largely reflect the abundance of rodents.

Some species of rodents are serious agricultural pests in East Africa, doing considerable damage to cereal and root crops. *Rhabdomys*, *Mastomys* and *Arvicanthis* are three culprits. Some species have adapted to living in and around houses and towns. The giant rat (which is easily tamable and makes an amusing pet) and the multimammate mouse may be seen around human habitation in almost any part of Uganda, although the latter is slowly being replaced in some areas by that unpleasant customer, the brown rat, *Rattus rattus*. As these species are known to carry the fleas which spread bubonic plague, efforts are being made to eradicate them from the towns.

However, rats do have their uses. The cane rat, *Thryonomys*, has delicate tasting flesh not unlike rabbit, and is prized in certain areas for food. It is usually caught by means of drives using dogs and nets. Spears are sometimes taken on the hunt.

During the past decade, mammalogists in Uganda have turned their attention to the study of these fascinating animals. In the Ruwenzori National Park, scientists at the Uganda Institute of Ecology, have been studying the distribution, feeding habits, breading cycles, population dynamics and behaviour of grassland rodents. Current research on rodents is being carried out in the crater region of the Park, an 80-square-mile region of geologically recent but extinct explosion craters which are largely covered by the pyrophilous broad-leaved spear grass, *Imperata cylindrica*. This grass is not palatable to the large herbivores, except in its early growth stages. This factor, together with the distance of fresh water, means that there is a low density of large mammals in the area, making it ideal for the study of the ten or so species of rodents which occur there in relatively large numbers.

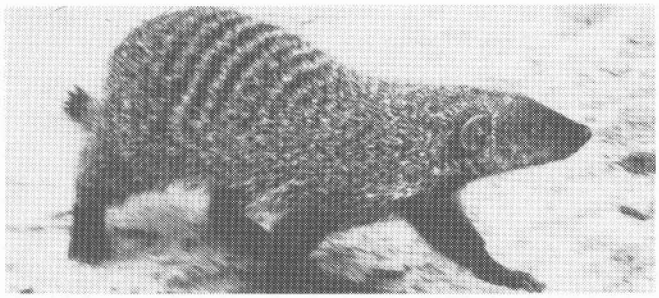
From the crater region, information has already been obtained on the reproductive biology and basic ecology of most species of rodents. To supplement this knowledge, studies on the fluctuations in population density, population regulatory factors, home range and movements, longevity and factors correlated with the onset and termination of breeding of the grassland rodents are being pursued.

There is tremendous scope for rodent research in this habitat and in the other habitats of Uganda's parks. Eventually, it is hoped, a picture will emerge of the complex interactions these animals have with each other, with large animals, and with the whole ecosystem. This picture will increase our already considerable understanding of mammal ecology in the tropics.

Picture and text by **C. L. Cheeseman and A. C. Field.**

Small Fry Safaris continued on page 14

THE BANDED MONGOOSE



FOR three days members of the pack of mongooses had visited my large trap regularly for a late afternoon feast of fishheads. On the fourth day I set up the mechanism to release the trap door and sat at a distance of 50m waiting string in hand to set off the trap.

There were 29 animals in the pack and I resolved to pull the string when 10 or more entered. Thus began several frustrating afternoons. It was astonishing how the numbers swelled rapidly to 8 or 9 but no more. And other things interfered.

A family of warthogs tripped the string just as the mongooses approached scaring them off for the day; a fish eagle landed on the hook holding the door up and dislodged it; an elephant moved the trap several feet and buckled the frame; a marabou stork repeated the fish eagle's performance. Finally however, came the day when the mongooses approached, entered, stayed and increased in number. I pulled the string, and the door crashed down. We counted the surging mass of 17 mongooses and they became quiet when we placed a tarpaulin over the trap.

One by one we siphoned them off into side traps, weighed, sexed, individually marked them with dye patterns and released them at their den site. Surprisingly they did not become trap shy and over a period we trapped the whole pack and found it consisted of 13 males and 16 females.

I carried out the trapping and marking programme to investigate the social roles of pack members. It was virtually impossible to identify individuals under field conditions. Group life is rather uncommon in the family *Viverridae* which besides the mongooses includes the genets, civets, and altogether about 75 species making it the largest family of carnivores. Like other small carnivores the great majority are solitary and nocturnal.

The banded mongoose (*Mungos mungo*) is one of only five species of viverrids known to live in relatively stable social groups larger than a single family unit. In many other social carnivores such as lions, wild dogs, wolves and hyenas, co-operative hunting is an important function of the society, but the social mongooses—although they move as a group—find their food individually. By studying the social organisation of the banded mongoose I hoped to ascertain some of the adaptive advantages of group life in the social mongooses.

Mongooses are exceedingly curious and providing I was perfectly still they would sometimes approach and investigate my car even going underneath it. At the start of the study five packs of from 10 to 29 individuals occurred on the 4.95 sq. km of Mweya Peninsula. Although their home ranges overlapped extensively the packs seldom met but when they did the scene was often spectacular with up to 50 mongooses engaged in pitched battle. Two evenly matched packs would bunch and approach each other en masse until they met and became a surging mass of biting screeching combatants. This would break up into small groups of chasing mongooses which eventually regrouped into their respective packs for a fresh assault.

If the size discrepancy between packs was great the smaller pack usually quickly retreated. For example, my wife was watching one pack—a group of 12 animals—at its den near the centre of its range when mongooses from another pack of about 26 animals appeared upslope. They swept downslope in a torrent, as my wife said 'like the hordes of Ghengis Khan,' and drove the smaller pack away from their den.

On an average day a pack emerges from its den soon after sunrise, travels and forages until the heat becomes too great, then rests up for about four hours, emerging in the late afternoon to forage its way to a den arriving about sunset. Most packs cover two to three km in the course of their daily activity. The average period at any den is about a week but packs vary considerably in den usage some spending only a night or two in a den before moving while others have a few dens which are used for periods of a month or more and frequently returned to.

Dens are usually in thickets, erosion gulleys or termite mounds, but one pack sometimes showed a preference for man-made structures using a pile of hippo skulls, the sump of a disused toilet and a rubbish dump. They once inexplicably chose to move their young to a den at the head of a gulley just 10 metres from the noisy local canteen.

I am sometimes invited to confirm that mongooses feed mainly on snakes, but banded mongooses take them only rarely. Their principal foods are millipedes and insects (particularly dung beetles, termites, ants, crickets, earwigs, cockroaches and grasshoppers). Vertebrates (frogs, toads, snakes, birds, mice) and fruits are occasionally taken but do not form a high proportion of the diet. The well known mongoose habit of throwing things between the hindlegs is practised on dungballs, large beetles, eggs and snails.

Particular males seem to act as pack guardians. Sometimes a mongoose becomes separated from the pack and runs churring in a zigzag pattern trying to re-establish contact. Then one or two males often leave the main group and return to the lost member to escort it back to the pack. One of my most interesting discoveries was that this male guardianship extends even to the nursery. Within a pack reproduction is synchronized so that several females give birth about the same time and it is not unusual to see a pack accompanied by 10 or 15 kittens of about the same age. During the first three weeks the kittens remain in the den, usually guarded by one or two adults, while the rest of the pack go out foraging. The pack ordinarily returns to the den for the noontime siesta and small groups leave during the remainder of the day with some adults always remaining with the young. By following the marked pack out in the morning and identifying the individuals present I could determine which adults stayed at the den and to my surprise they were not lactating females but males. Two particular males were most likely to stay with the kittens.

Group guardianship of the young continues when they start to forage regularly with the pack. At any alarm the pack immediately groups with the kittens at its centre and moves in this formation from open ground to cover. This bunching into a close group is a very typical reaction of the banded mongooses both in defense as when crossing open ground and in offense. A pack encountering a fish eagle on the ground runs together and then slowly approaches in a mass giving the superficial impression of a much larger animal and causing the raptor to fly off.

Although I observed many aggressive interactions between packs it was several months and only when I had marked animals before I definitely confirmed that mating between packs occurs.

Relations between pack members are typically amicable and aggression is ordinarily only expressed in brief spates over food or between males competing for an estrous female. Mutual grooming is common and pack members are forever rubbing against each other, marking each other with the anal glands and sometimes pulling themselves through another's urine. It seems likely that each pack develops a distinctive scent which aids in the identification and cohesion of group members. Outsiders are invariably attacked, yet the attraction of the pack is exceedingly strong.

My tame animals had many aggressive encounters with a wild pack which sometimes visited our house and tried to attack my pets through the wire mesh of their cage.

My present research is directed toward determining the social roles present in mongoose society, particularly those involved in the co-operative care of the young. Long term observations should also reveal the processes involved in the formation of new packs. During the 1½ years I have been working with mongooses I have observed three pack splits. With the passage of time the animals lose all familiarity and when the new packs occasionally were sighted by the parent packs they were chased aggressively.

Dr Jon P. Rood. ●

LAKE BARINGO HIPPO *continued from page 9*

The Wildlife Society arranged for relief supplies of lucerne and Rhodes grass which herpetologist Jonathan Leakey transports from Naivasha, about 150 km away.

The fodder was spread on the lake shore and the hippo schools ate it at a rate of 20 bales a night at a cost of about 500/-

There were two feeding centres. Any animals whose condition had deteriorated too far were shot.

However, feeding only provided a temporary solution for if the supplies managed to sustain the hippos until the rains came there might well be twice as many to feed when the next drought occurs. The basic problem is not so much one of drought as appallingly bad land management and overstocking—as the barren lake shores and degraded countryside show. Apart from remote Lake Rudolf, in Kenya's desert north, most of the lakes and rivers in the Rift Valley are silting up. Water levels are dropping dramatically as top soil is eroded and swept away by the rains, exposing bare rock. Resulting from deforestation rivers which once flowed for eight months of the year now run for two months only during the rains.

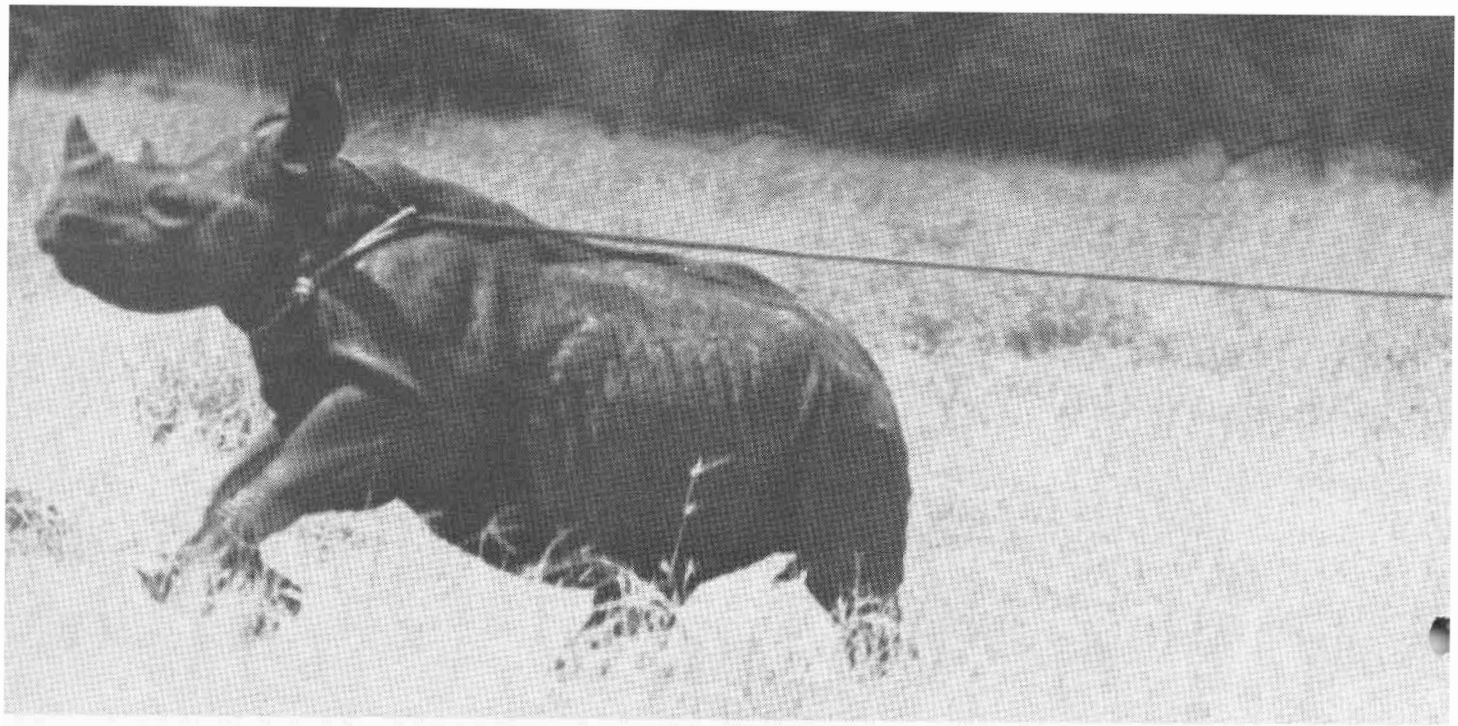
As a late afternoon wind arose a dense, yellow blanket of cloud swept across the land obscuring the islands. "That is dust," explained Mr Willy Roberts, who lives in the area, "the Baringo ecology is changing—at this rate the lake will be a swamp in less than 20 years." ●

The Seago-Parkinson capture team in action
photo by Liza Ruben

THE ANIMAL CATCHERS

by TONY PARKINSON

PEOPLE today are becoming more conscious of wild animals than ever before, partly because of the diminishing wildlife the world over. Many thousands visit the zoos and animal parks annually which are springing up all over the world. This in turn induces people to take an interest in conservation and quite often leads to a desire to see the animals in their natural environment. In any case there would be millions of people who would not be able to see wild animals if it were not for such institutions as parks and zoos.



Above: Rhino secured—photograph by Liza Ruben.
Right: Rhino capture by means of a tranquillizer dart has developed into a sophisticated and safe procedure. A leading specialist in this technique, Dr. John King, Senior Scientist with the African Wildlife Leadership Foundation, is pictured in action by Vic Tomasyan.

Few people have any concept of how an animal is supplied to a zoo. They just accept the fact that it is there and cannot visualise the difficulties and infinite care which is required before it is possible to put an animal on display. Unfortunately because of a few ruthless dealers and trappers scattered throughout the world who seem to have very high losses, the catching and transporting of animals to zoos is frequently frowned upon.

This is largely because of the adverse publicity these people attract to the business, and also a total lack of understanding by the public as to how animals are acquired in the first place.

So often the good work being carried out by other organisations and the care taken by the bigger and better zoos largely goes unheard. The tremendous strides which have been taken such as the new parks where animals are free to roam in large areas and the breeding successes speak for themselves.

Of course these new open parks are encountering numerous problems such as the re-infestation of internal parasites and the control of other diseases, and the damage that results to trees and flora within the park.

But these are being dealt with and are only of a temporary nature. The main thing is that a major breakthrough in the exhibiting of wild animals is in process.

There is of course no substitute for animals in the wild, but with the new forward-looking trend in zoos and parks they could well become the custodians of some of the rarer species of the world thus ensuring their survival for at least a while longer, and I foresee the day when our own role will be reversed and that certain animals from zoos will be reintroduced back to the wild to their former habitat.

First, of course, animals have to be caught and there are many ways in which this is done. Quite often there is a particular catching technique for each species of animal—a few of these methods I will try to explain.

In Kenya the trapping of animals is strictly controlled by Government and this country sets an example to the rest of the world. A Capture Committee consisting of leading conservationists meets once a month to discuss applications put before it for capture of any animal.

An application for capture must be accompanied by an order in the form of a letter from the approved zoo. The Committee quite rightly will refuse an application to a particular zoo if they do not have sufficient information about the zoo concerned. When, and only when, they have satisfied themselves that the animal will be properly looked after do they approve the order.

Only trapping organisations which are licensed and approved of by the Game Department are then allowed to carry out the capture and export, but before this can be started licences have to be bought from the Game Department and these are only issued against an Application for Capture Form approved by the Committee.

The trapping concern is directed either to private land where animals are making a nuisance of themselves or to a particular hunting block as in the case of rhinos where quite often they are causing trouble in new Settlement Schemes either by chasing and killing people or by trampling down the crops.

The Game Department prefers rhino caught on a 'one for one' basis with no licence fee involved. In other words the trapper moves into the area and catches two rhino—one belongs to Government and will be released into a National Park, the other the trapper will be allowed to export against an approved order recovering his costs of the operation.

In this way all concerned are satisfied, since the animals which were giving trouble have been removed, the National Parks gets an additional rhino and the trapper fulfils an order to a zoo bringing in valuable dollars for an export.

There is an old saying that any fool can catch an animal; this may be partly true though I certainly do not agree since the condition of the animal after capture will depend on the ability of the catching team to carry out the operation quickly with as little stress being put on the animal as possible. So the work is done by a well-trained team; also the construction of the holding pens for after-capture is enormously important. These must not be too big or too small, —and of course, so constructed as to convince the newly caught animal that he cannot jump out.

The pens should have grass tied on the sides to a height of at least seven feet. This has a definite salutory psychological effect since an animal assumes that if he cannot see out, he cannot get out and nothing outside can see him. This usually keeps a newly caught animal very quiet.

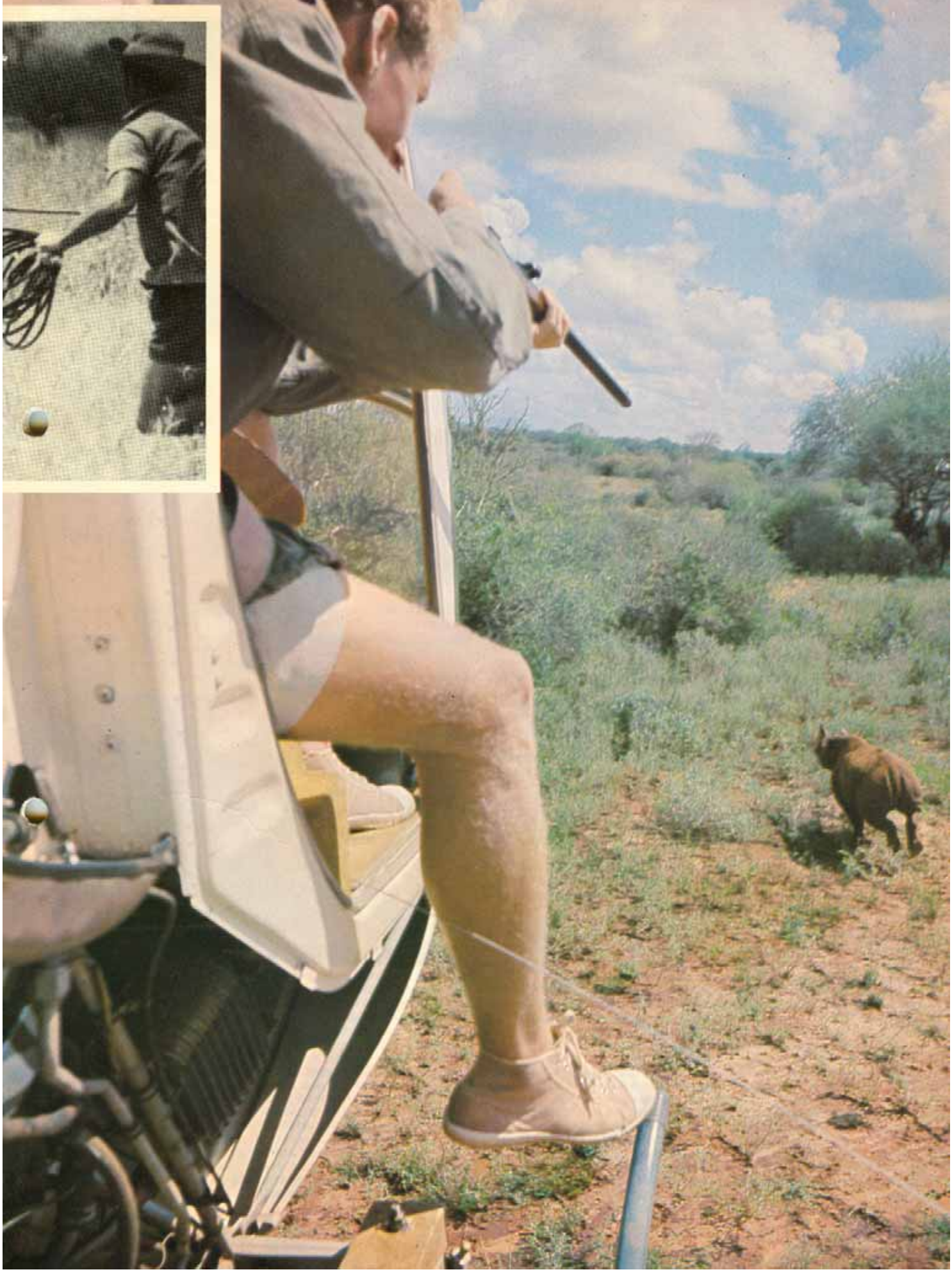
After a few days the grass starts to get eaten off the sides or knocked off and the animal is slowly introduced to people and usually becomes tame after a few days.

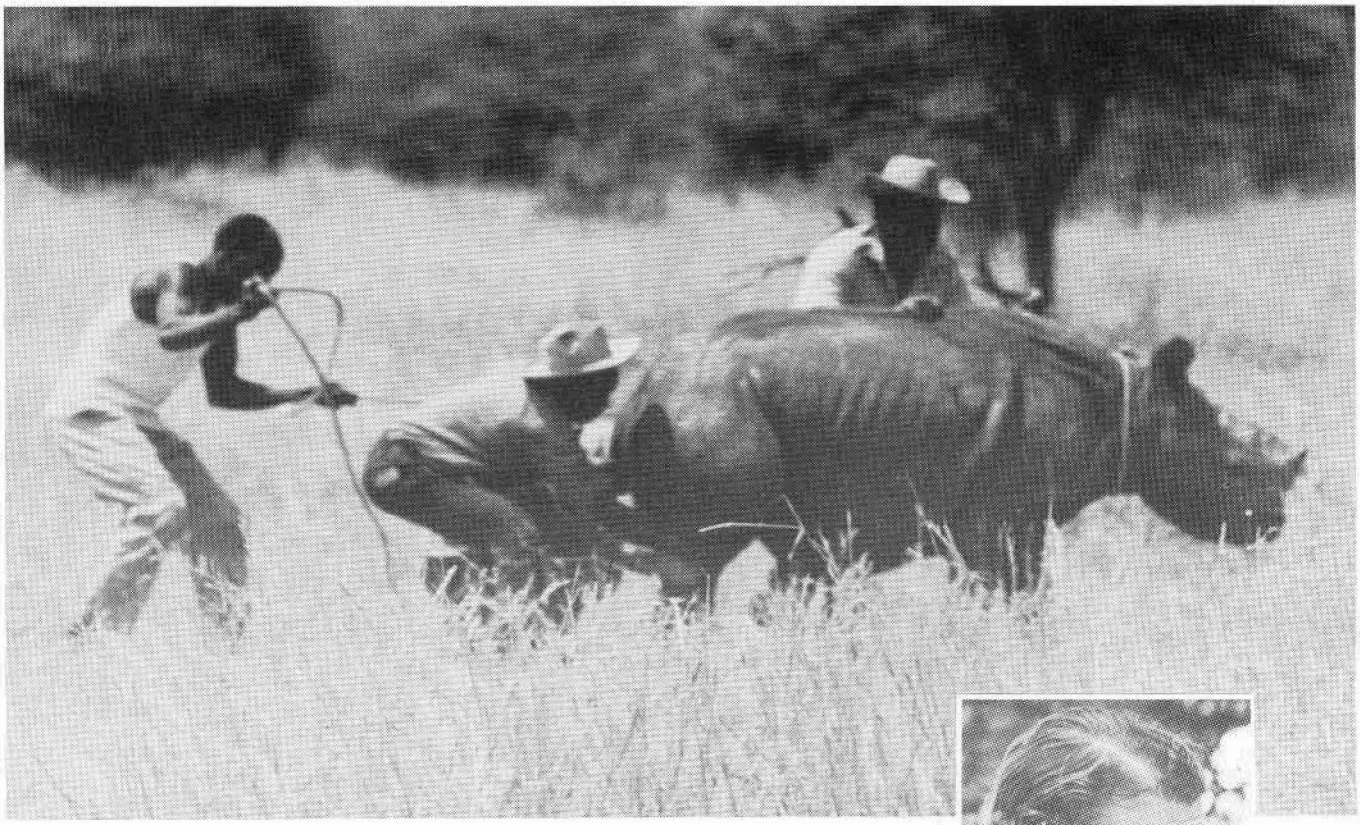
Quite often we mix in one or two tame animals which quickly teach the newcomers to eat and accept captivity.

The methods of capture vary. Giraffe, zebra, wildebeest and eland can be caught very easily with a specially adapted motor vehicle. If large quantities of animals are required, such as for translocation to National Parks, then it is possible to drive large herds into a specially built trap which has wings leading out from it and the driving is done with the use of a helicopter and horses.

Other methods are by the use of spotlights at night time, traps whereby the animal catches itself, and of course the use of drugs which immobilise the animal, though strangely this method is really only successful in my opinion on the larger animals such as rhino, elephant and maybe lion. But then lion will usually walk into a box trap in any event.

continued on page 18





The technique most used in our work is with the catching car. This only requires four or five people—the driver, two ropers whose job it is to put a noose over the animal's head, and two others who help collapse the animal on the ground once caught.

Having selected, for example, a herd of giraffe—by driving slowly we manoeuvre them on to a chosen piece of ground. During this time we will have noted the number of animals in the herd of the required size and sex.

We usually like to catch giraffe which are not more than 9½-10 feet tall since bigger animals are difficult to transport on the roads with so many low wires and power lines.

When the giraffe are in the right position the chase begins. We cut out the pre-selected animal and drive it at high speed away from the herd. We then allow it to make a turn back towards the herd at which time he will run in a straight line.

We now close in on him and the roper puts the noose over his head. The driver slowly brings the animal to a stop with gentle pressure on the brakes at which time the other members of the catching crew get off the truck and hold the rope which is then released from the catching car. The animal is quickly collapsed on the ground and a head cover is put over his eyes to cut out any unnecessary shock. The team now work quietly and secure his feet.

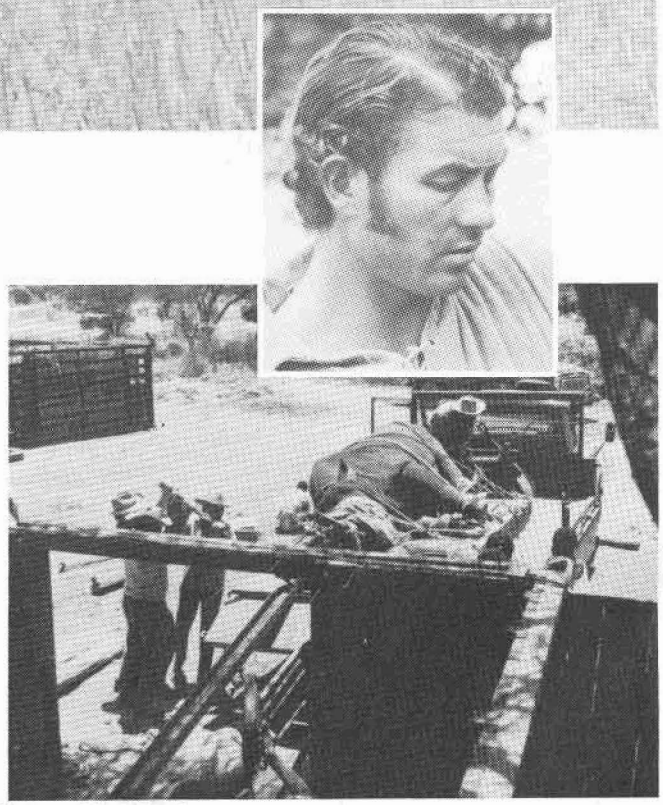
The total time from the start of the chase to the moment the animal is collapsed on the ground should never exceed three minutes. An average chase runs out at about two and a half minutes and if an animal is chased beyond this damage could result.

A special crate which has two compartments is then brought to the scene of capture. The animal is stood on his feet with the head cover still on and pushed into the crate. When the doors are shut and bolted and the animal cannot see out we take off the head cover. Usually the animal stands quietly.

Since giraffe are inquisitive animals the rest of the herd in most cases can be found watching this activity some few hundred yards away and it is quite a simple job to select another giraffe and catch him in the near vicinity of the first one.

When this is done the second animal is put into the crate alongside the first giraffe, separated by a partition and they have a calming effect upon each other. They are then loaded on to the lorry by the use of ramps and transported back to base and to the holding pens which are in normal circumstances less than one and a half hours drive away. It only takes three or four days before the animals are coming to the front of the cage to see people.

Too much emphasis has in the past been given to the actual capture of animals, probably because it makes for exciting reading and has a romantic touch to it. Many people seem to think the capture is the beginning and end of our work. This is, of course, quite wrong.

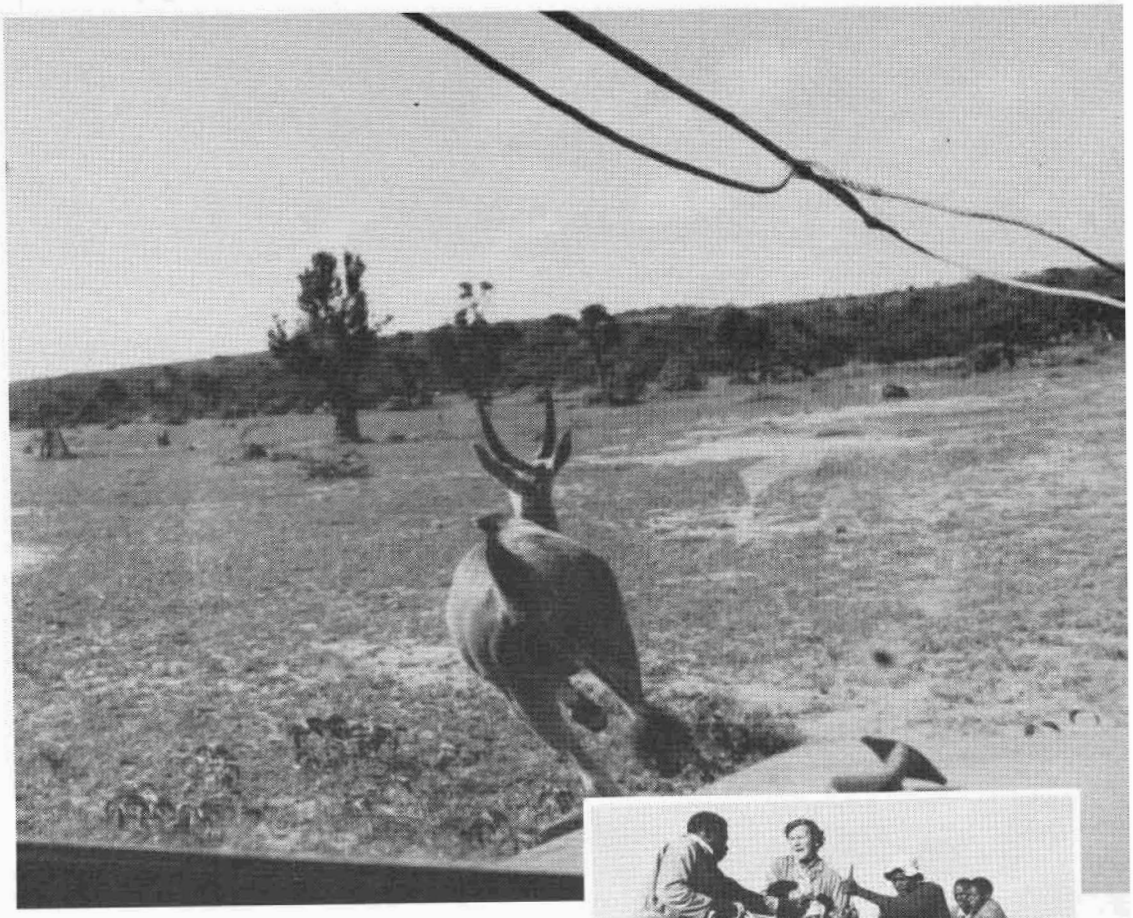


Top: **making fast!**
Inset: **Tony Parkinson**
Bottom: **Preparations for transportation**
Pictures by **Liza Ruben**

The late Dr. Mann who was Director of the National Zoo in Washington D.C. came to Africa on several collection trips and when he returned to the States was inevitably questioned by reporters: "Did you have any problems when catching the animals?" Dr. Mann replied: "If we didn't catch the animals we had no problems; if on the other hand we did manage to catch them then we had many problems".

This seems to be our own attitude to our work. Once animals are caught, then the problems begin: the quiet handling that is necessary, the gentling down period, the transfer period from natural foods to artificial ones, and so on.

ANOTHER CAPTURE ...THIS ONE FOR A 'FLYING ARK' PROJECT FOR NIGERIA



A special animal capture exercise was undertaken in Kenya recently by the Mount Kenya Game Ranch, specifically Don Hunt and his team, pictured above collecting immature antelope. Don was helping to fulfil President Kenyatta's promise to Major General Gowon to provide nucleus breeding species for hopeful re-generation of game animals in Nigeria. The exercise took more than six months in the bleak Leroghi Plateau, near Maralal, and almost 100 animals and birds were captured by the Game Ranch team with the assistance of Senior Game Department Officials, Michael Macharia and Henry Mulandi.
The animals were dispatched to a zoological breeding station at Kano, Nigeria, in a special "Flying Ark" air charter operation at the end of May.

Young animals are given milk, and while the animals are settling down they are given access to a travelling crate to walk in and out of voluntarily so that when the time comes to lock them in for shipment or translocation they regard it as home.

Crating the animals is probably the most difficult and skilled job that has to be done before they can be sent off. Each crate has to be tailor-made for an animal and usually each species has a different type of crate.

For zebra it is necessary to design a crate that is long enough so the animal can move back and forth, high enough so his head does not touch the roof, and wide enough so he can lie down and get up with comfort, but not turn round. If the crate is only two inches wider than it should be, then the animal will manage to do this and injure himself in the process.

So, as you can see, it is most important the crates are made to the correct specifications for a particular animal. The crate must also have a sliding door each end, one for giving food and water and the other for cleaning. A small window is left in the crate at the front for the animal to put his head out and see what is going on and this also serves as an inspection area for us to keep a constant eye on his condition.

Giraffe are given entirely different types of crates—we allow them to have enough room to turn around, lie down and stand with ease. There is also an adjustable roof to protect him from the weather.

Rhinos have crates made with bars at the front so they can see out; this stops them suffering from claustrophobia and keeps them interested during the voyage.

Another job is to work out the exact amount of food that each animal will require during its journey and, usually, we allow about 25 per cent extra in case of delays at sea.

During shipment one of our own personnel usually accompanies the animals to their destination. This usually means very hard work, but it is also very rewarding in that the animals respond to the constant attention.

The business of capturing and translocating animals, if conducted by the right people who have been trained thoroughly, need not entail high losses—there should never be more than five to eight per cent loss from capture to delivery into a zoo.

However, as I have said, the business is so often abused by a few people out to make quick money that we feel the time has come for the capture and transport of wild animals to be under the supervision of some international body, such as I.U.C.N., whose job it would be to co-ordinate between the various game departments, zoos and parks of the world. ●

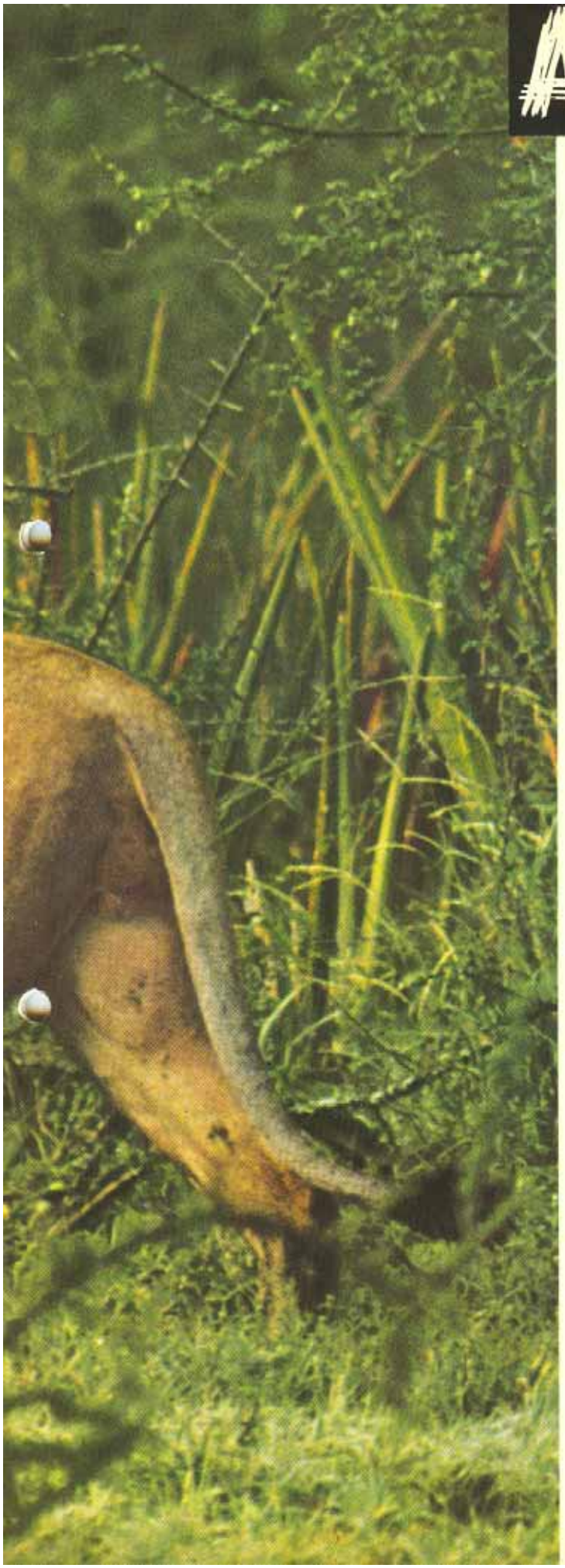


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photo by John Dominis

Whinchat *Saxicola rubetra*. A migrant from the Palaearctic region this bird was netted in the same two hectares the previous year, and is known to have made the Europe-Africa journey three times.

HOW TO NET BIRDS

by DAVID K. JONES

Only our headlamps pierced the darkness as we nosed out onto the murram road just before dawn.

Passing through sleepy Siaya town there was no-one about and only the odd cyclist on the road told that this crowded piece of rural Kenya was inhabited at all. Few people indeed travel on this road before dawn but to Peter and Hazel Britton (my hosts) this was a routine drive, the last of 15 monthly trips to an area of acacia thorn near Lake Kanyaboli, a few km from the shore of Lake Victoria. Here every month Peter and Hazel have set up their mist nets in order to do a census of the bird population.

It was still dark as we pulled off the road and bumped the last few hundred metres across country, dodging the bushes and small acacia trees. But the first light was showing in the eastern sky as we unloaded the long bamboo poles from the roof of the Landrover.

After 15 trips the Brittons knew the lie of the land well, but care was still needed as the nets must be set in exactly the same situation each time to make statistical results valid.

As a newcomer to netting I was intrigued to see what the nets looked like. The idea was simple. Bamboo poles about four metres tall are held up like tent poles by guy lines pegged out at angles. Horizontal cords are strung from pole to pole to make the full length of the net which is normally 20 m.

The nets themselves hang from the horizontal cords like a tennis net but are a fine mesh made from thin nylon thread. The nets are black—difficult to see against any background other than the sky—hence the name, mist nets.

The horizontal cords are stretched tightly between the poles but from the cords the nets hang loosely so that any bird flying into them gathers a loose bag of net in which it is trapped. It is usual to have four panels of nets, one above the other, and these can be closed by sliding all the horizontal cords together down the poles.

Peter and Hazel set the nets up with all the panels closed. With all five nets set up it is simple to walk around them and open them all practically simultaneously. This is important because the nets are open for a measured four hour period—so that a valid comparison can be made between each of the monthly netting periods.

The nets up, we returned to the Landrover and unfolded table and chairs. Hazel produced a cake and flask and we tucked in.

Then the first round of the nets was made, Peter and Hazel working quickly and deftly to free the birds from the nets and pop them into light cloth bags. As we walked round I pestered them with questions.

"*You obviously need to be adept at disentangling the birds to avoid injuring them,*" *I said.*

"Indeed yes; but the sale of mist nets is rigidly controlled nowadays and in all countries of the world they are only allowed for scientific use by experienced people. They were originally invented in Japan where they were used to catch song birds for sale as cage birds. Of course the song bird population was decimated but that lesson has been learned."

"*I was expecting some kind of trap when I first heard of netted birds.*"

"You were probably thinking of the Heligoland trap which is a large funnel of wire netting tapering to a cage. It is very useful for trapping migrant birds in large numbers; and then there is the crow-type trap which is a large cage with many funnel entrances. These are very effective when baited with food in hard weather or a water drip in dry country.

But the mist nets are so portable and are the best for our work here. Incredible when you think they were almost unknown outside Japan just 20 years ago."

By this time we had walked around all the nets and collected half a dozen birds including an immature beautiful sunbird, a rattling cisticola and a black-headed puff-backed flycatcher, perhaps the prettiest bird netted during the morning. Back at the table each bird was removed from its bag and its vital statistics taken. Wing length was recorded and each bird was weighed. The condition of moult and main flight feathers was noted down. When possible the age and sex of the bird were also recorded.

Then each bird was ringed. Four sizes of ring were available and the most suitable was selected and carefully closed around the leg of the bird with special ringing pliers which form the aluminium ring into a neat circle.

"*Where do you get your rings from, Peter?*"

"All the rings in East Africa are issued by the East Africa Natural History Society. They are only issued to qualified ringers of whom there are about 20 in East Africa at the moment."

"*How many in England then?*"

"Usually around a thousand. It puts it in perspective if you know that about half a million birds are ringed annually in the U.K. against 17,000 here."

Once the ring was in place the bird was released and we started the round of the nets again. As I began to get my bearings in the area I wondered about the directions of the nets relative to each other. "*Is this important, Peter?*"

"Not really; the most important thing is some kind of background to the net so that the birds can't see it. This one for example is along this line of bushes. It is no use sticking a net out in the open. We want to census the birds as effectively as possible so on our first visit here we tried to choose good sites for catching the birds. In a forest or in a papyrus swamp where the whole area is homogeneous the most efficient method is to put the nets in a straight line—along a fire break for instance. On a hillside you follow the contours. If there is a stream you follow the stream. But in this area the bushes and trees are so scattered we must make the best use we can of them."

"*Obviously these nets can only catch the smaller low-flying birds. Does that mean you are only interested in the smaller birds?*"

"Basically, yes. That flock of cattle egrets flying overhead is irrelevant. We are interested in censusing the birds that live here in this area. Now doves do breed here and they normally escape from the nets. But we can easily count them visually. And we also observe their nests."

"*Have you seen many nests in your 15 months here?*"

"Well in this area of two hectares we have seen 17 which have got as far as having either eggs or young. You know about 80

per cent of the nests in Africa fail because of rodents, snakes, lizards or even a heavy storm, especially a hail storm."

"Is there any other way you can get data besides the netting and the visual sighting of birds?"

"Not really. In temperate zones you can census an area very effectively by simply walking round and listening to the singing males. But that method doesn't work here. The birds are not nearly so territorially conscious and also the breeding seasons are so indistinct. So netting and observing are the only ways."

"And how do you rate the relative effectiveness of netting as against visual observation?"

"Well you could census an area by netting alone, but not by observation alone; the results wouldn't be reliable enough. And then there is so much more you can discover by netting: changes in weight at different times of year and how this fits into the breeding cycle; changes in moult and the time taken to moult; and then we can make a statistical estimation of the population from the number of recaptures.

"An allowance must be made for factors like mortality but done properly this is the most effective way of finding the total population. The great thing about netting is it allows you to make a detailed study of living birds."

Now we had walked around the nets a second time and Peter and Hazel had again collected those birds which had been netted. This time the most interesting bird was a whinchat which was already wearing a ring. In my ignorance I was quite prepared for this bird to have been ringed by another ornithologist in another area. But Peter and Hazel soon put me wise. Only two birds from Eurasia have ever been renetted alive in East Africa, a swallow in Tanzania and a marsh warbler in Kenya. And with only 20 people actively ringing in East Africa the likelihood of it being someone else's bird is remote.

So Peter and Hazel knew that the little whinchat would be wearing their ring. Back at the Landrover the records confirmed this and also produced one of those astonishing facts of bird life. Our little whinchat was a migrant from the Palaearctic region having been hatched somewhere in Europe or Russia. Originally netted on this site in January, 1972, here he was back again on the same two hectares in November, 1972, having undoubtedly summered in Europe.

The statistics indicate a likelihood that he was hatched somewhere in Eastern Europe. Out of 17,437 birds ringed in East Africa between July, 1970, and June, 1971, 37 recoveries were notified. Of these 18 were recovered in East Africa and the rest were found in the Soviet Union (14), Yugoslavia (1), the remaining four being netted whilst in transit in Iran (2), Saudi Arabia (1) and Iraq (1).

But wherever the little whinchat was hatched he has done the journey between his birth-place and Africa at least three times; just how a nocturnal migrant 15cm long can find the same area of two hectares in the middle of Africa twice remains one of the major mysteries of bird life. In January he weighed 14.5 grams and now he was 15.2 grams so his journeys had done him no harm.

In fact, the Brittons have renetted 44 birds in their 15 visits to this study area and a total of 235 in this and other areas which gives them some figures to work with.

The whinchat remained for me the highlight of the morning although we made several more trips round the nets finding such birds as a red-faced crombec, a speckled mousebird (a representative of the only family of birds endemic to Africa), a masked weaver, and a mariqua sunbird. With the exception of the red-backed shrike which wanted to pull Peter's finger to pieces most of these birds seemed remarkably calm.

"Do all birds take it so quietly, Peter?"

"Oh no! Woodpeckers make an enormous noise; and once when we caught a parrot it made such a racket Hazel let it go before we ringed it!"

"And do you ever catch anything else?"

"Sometimes bats; once a yellow-winged bat with a tiny baby clinging to it. It's a partly diurnal bat and flew off happily with its young when we released it."

It was a surprise to me when we renetted a rattling cisticola which had already been netted once that morning.

"So netting them doesn't frighten them out of the area Peter?"

"Not at all. In one area we have netted the same kingfisher more than 20 times. In habitats like papyrus and forest undergrowth birds are sedentary."

"How many areas do you net in Peter?"

"Three others, in three different habitats; papyrus swamp, overgrown shambas and thicket."

"Have any interesting results emerged from your data already?"

"Yes, I think so. For example the abundance of birds, that is the avian biomass, seems to be more constant in different habitats than one would expect at first sight. In the papyrus area there are relatively few species with the right adaptations of large feet and short rounded wings.

"To compensate, each species is present in much larger numbers so that the total number of birds exploiting the habitat is roughly the same as here where there are many more species but in smaller numbers.

A bird in hand is worth statistics in the book. Rattling Cisticola *Cisticola chiniana* (female).

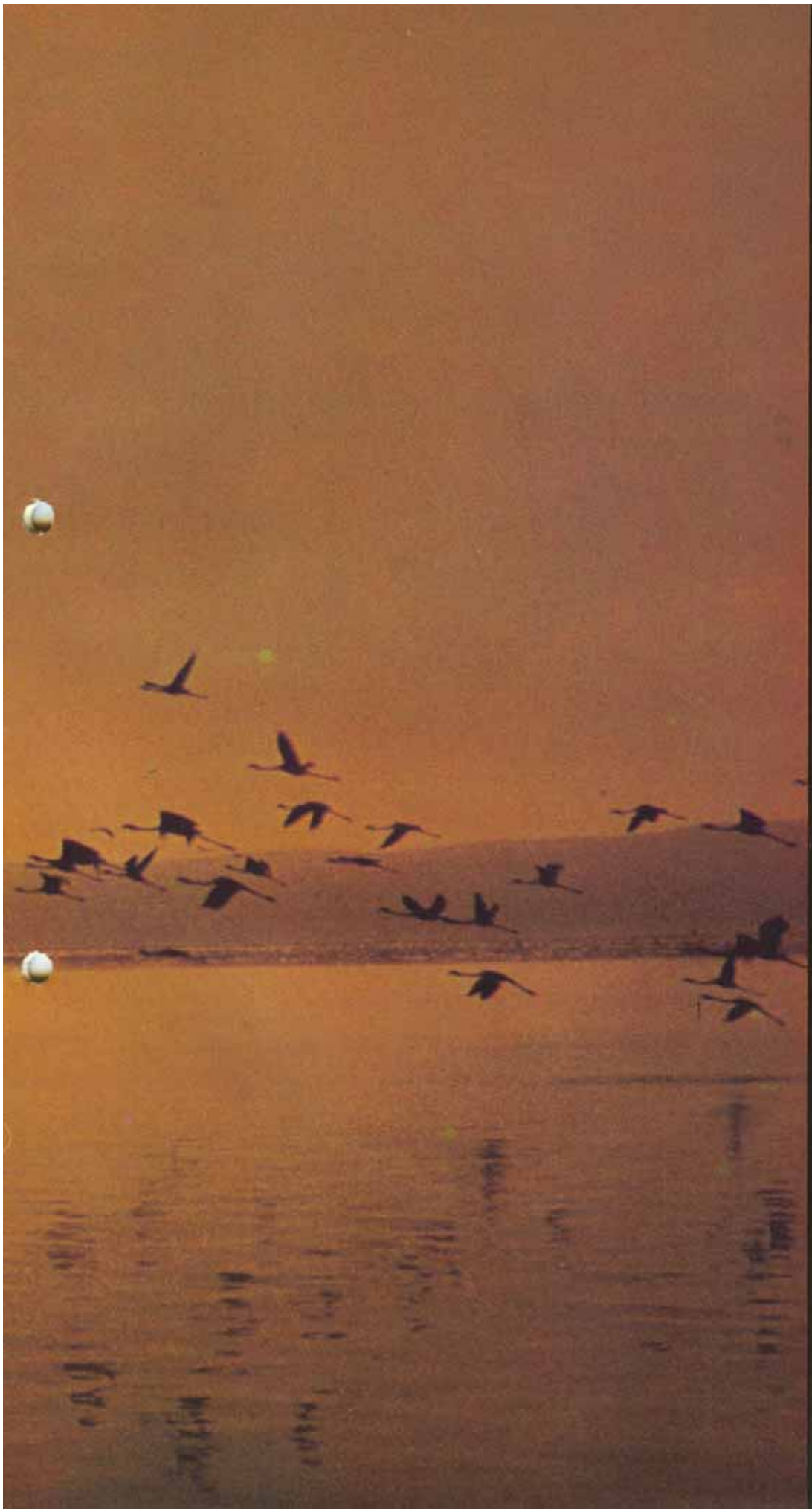
"Not that we know enough about the papyrus birds. Along the shores of Lake Kanyaboli one of the commonest birds is the white-winged warbler, yet its nest and eggs are still undescribed. But Hazel says it's just a matter of someone putting up the money for an adequate amount of waterproof mosquito repellent and a mosquito-proof suit and she'll solve that problem!

"We have noticed another interesting fact in the thicket area. When the garden warbler (which is a Palaearctic migrant) is present there are more individual garden warblers than all other species put together. Which suggests that for the rest of the year the environment is being only partially exploited. Then again the thicket area looks more biologically attractive but it doesn't carry nearly such a variety of birds as the overgrown shamba area."

"And where shall we find your results if we want to read them?"

"I cannot say yet, but I hope in a journal dealing with quantitative ecology. The conclusions I've just mentioned are tentative at present and will need testing statistically."

At 10:30 we walked round the nets for the final time closing them all up at the end of the four-hour period. Peter and Hazel hope to use the techniques they have successfully exploited to take a serious ornithological look at yet another area, perhaps to study how the different vegetation on different types of soil affects the bird life in the same forest. ●



LAKE NAKURU: A VITAL ISSUE FOR KENYA AND THE WORLD

LAKE NAKURU . . . but how long will this finest bird spectacle on earth survive?

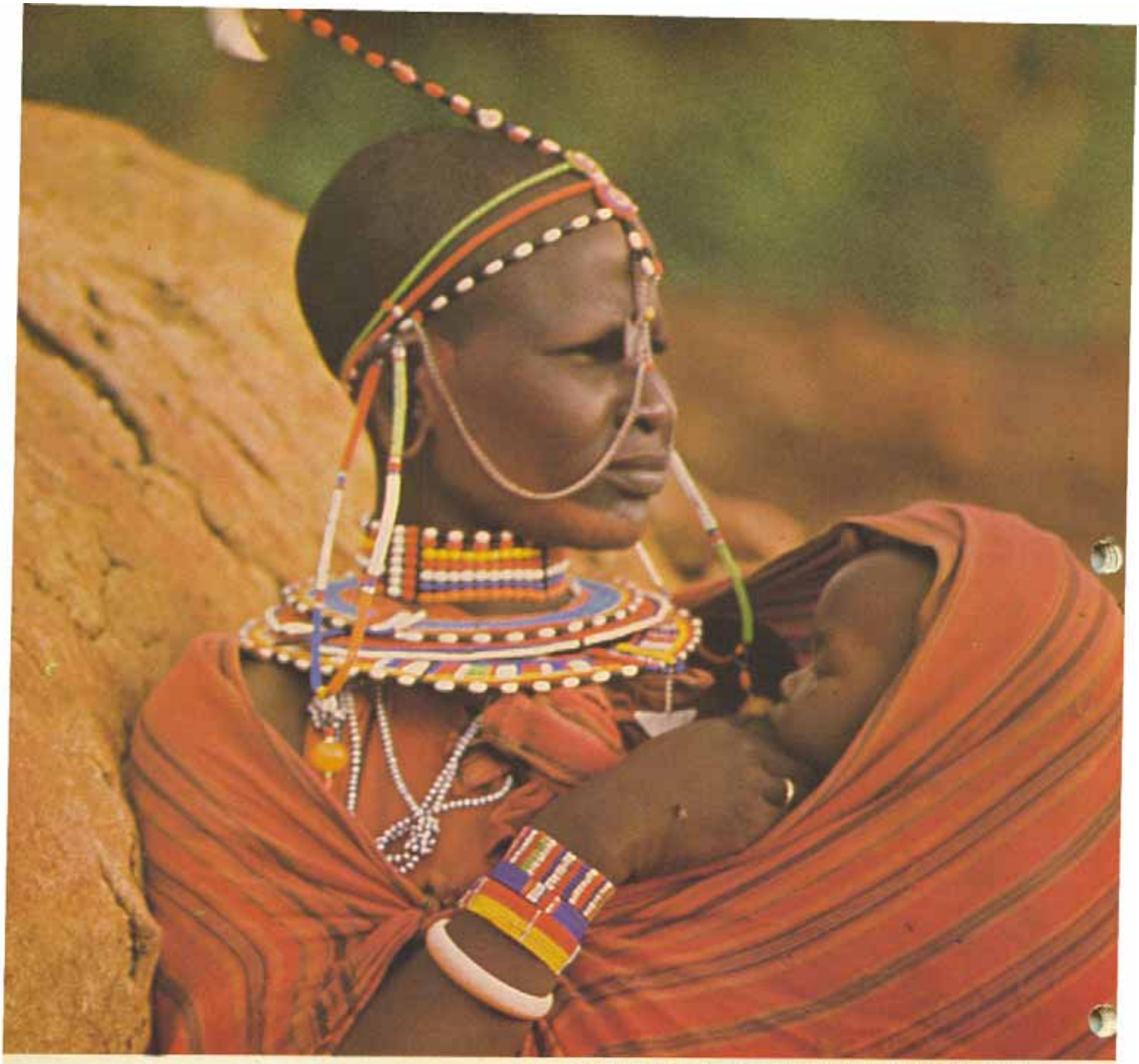
This is the principal conservation issue in Kenya at the moment—the fate of up to two million flamingos which live on the lake's edge.

Nearby Nakuru, one of Kenya's largest industrial centres, is now a thriving town of 70,000 people.

Growth brings industrial pollution. Three-quarters of a million gallons of sewage—full of pollutants—flows into the lake every day. Into the lake go DDT-type insecticides from frequent mosquito-eradication campaigns, by-products from fertiliser and cattle-dip production, oil and human effluent.

The World Wildlife Fund is giving priority to an appeal for money for a new sewage plant, for buying out farmers who have settled too close to the water and for scientific equipment. So far £20,000 has been raised for the scheme.

photo by
Valentina Roselli-Cecconi
P.O. Box 24798
Nairobi



Maasai mother and child *pictured by* **Valentina Roselli-Cecconi**

BOOK REVIEW BY DICK THOMSETT

MAASAI

"MAASAI," by Cynthia Salvadori and Andrew Fedders. Published by Collins at £2.75 (UK). K.Shs. 61/-.

MAASAI-ITIS used to be a well-known and wholly accepted East African disease in the years before Uhuru. Every European who was sent to a Maasai area to preside as a provincial, district or veterinary officer seemed to be afflicted with it.

It took the form of a loyalty bordering on the fanatical for the Maasai people they were meant to control. Not, of course, that anyone ever got far in trying to control this most independent of tribes. Instead, they fell in love with them.

And there was some sort of symbiotic relationship there too, for, aloof and stubborn and arrogant though the Maasai may have been, they seemed to return the affection and loyalty just as fiercely, despite their traditional contempt for all things non-Maasai.

Today the disease in that particular form is virtually a thing of the past, but happily there remain at least two people who are still very clearly afflicted, the authors of "Maasai". Their affection for and their knowledge of their subjects is evident in all the book's 112 pages.

"Maasai" is, at first thumb-through, just a picture-book with captions; and, to be blunt, the pictures (all black-and-white by the way) don't strike one immediately as being particularly attractive or artistic. But begin at the beginning and read your way through and the whole thing takes a new shape and many new dimensions, for Mr. Fedders' captions and Miss Salvadori's pictures involve us intimately in the day to day life of the Maasai, and show us just what their elaborate ceremonies and customs are all about.

In so doing they really get down to fascinating details, explaining especially the significance of the wide variety of personal decorations —beads, bangles, paint, hairstyles—worn by both men and women; surprisingly they are rarely just for vanity but have important symbolic purposes. An exception to this, as it happens, is the sprig of leaves we sometimes see tucked under the arms of many Maasai; it is a simple form of deodorant!

"Maasai" is by no means a great book (we still await the "classic' or "definitive" study of this magnificent tribe); the pictures will win no international prizes; and yet this is a valuable and fascinating book, increasing immensely and pleasurably our knowledge and, above all, our respect for these fine, proud gentlemen of the plains. Maasai-itis? Dammit, I think it's infectious! **D.T.** ●

MANYARA — YET ANOTHER TIGHT SPOT FOR ELEPHANT

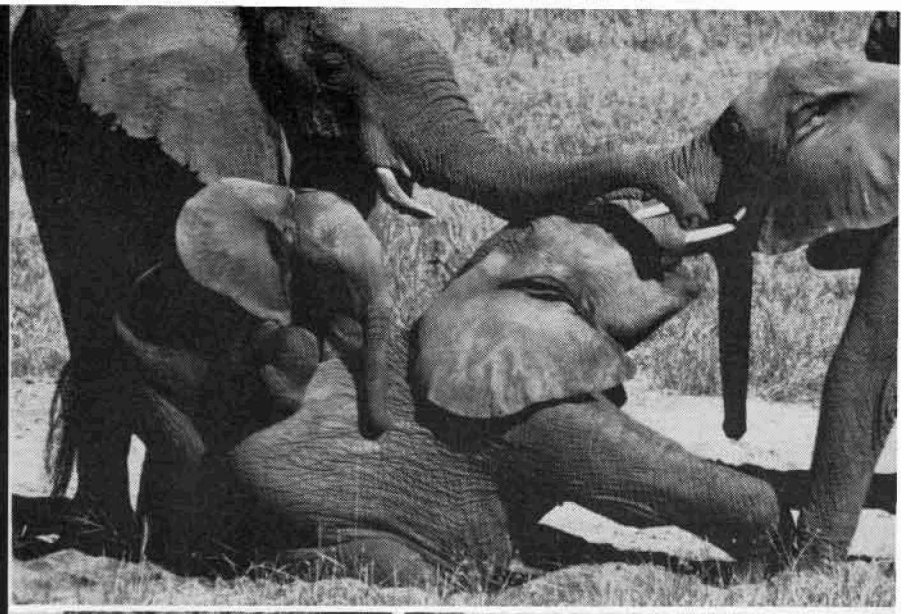
pictures by

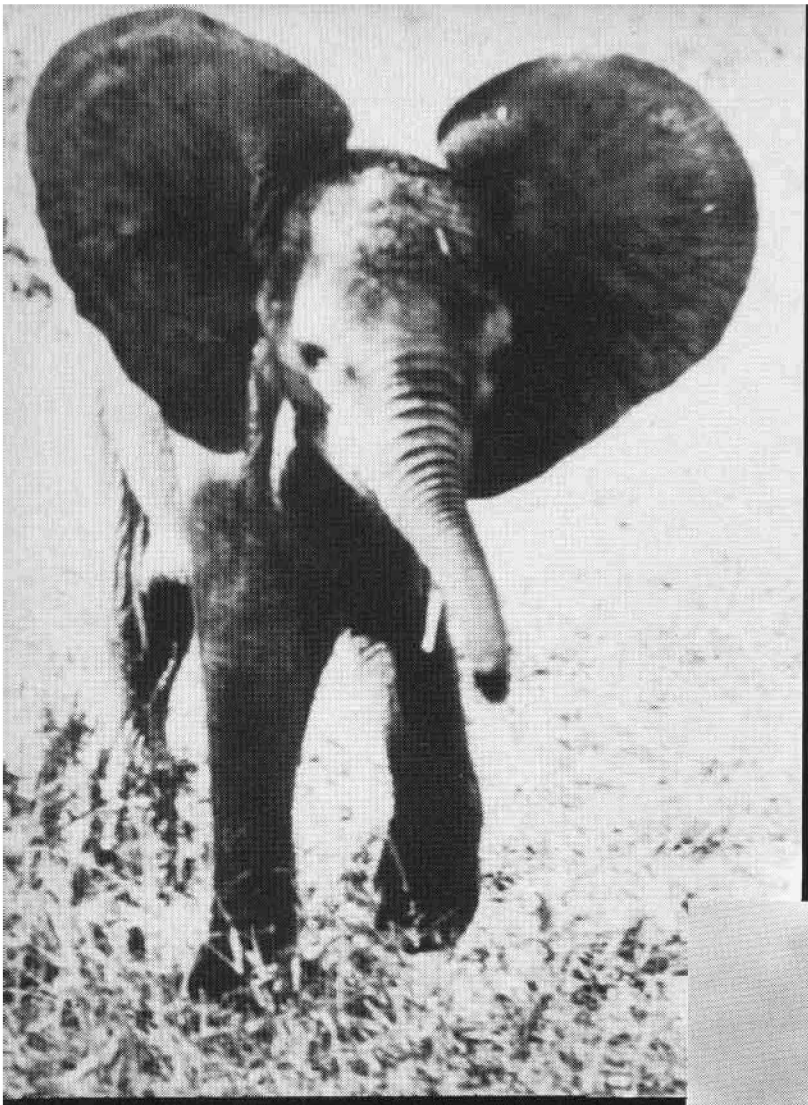
ORIA & IAIN DOUGLAS-HAMILTON

A recent survey at Lake Manyara National Park showed there was a density of more than five elephants to the square kilometre—the most densely populated elephant area yet recorded in Africa.

In addition to this, the Park is a bottleneck in the Northern "milk-run" circuit of Tanzania Parks, which is beginning to cause erosion problems.

For these reasons and others, the report recommends that about 80 sq. km. along the south-west shore of Lake Manyara, below the escarpment and adjacent to the Park, should be restored to its former status as a wildlife refuge.

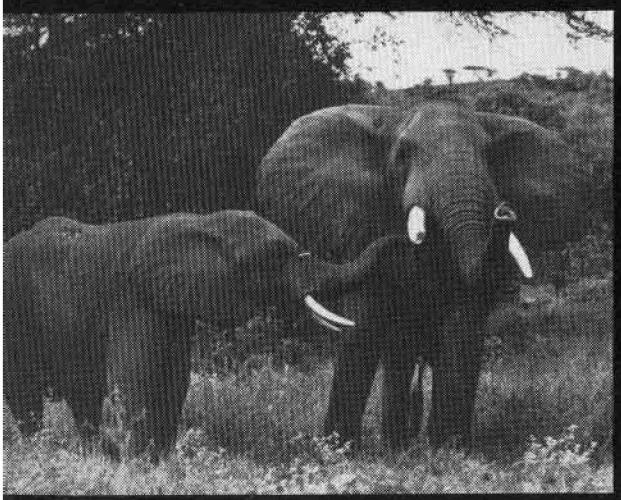




A very young elephant displaying

Above: A newly born calf tries to suck from its elder sister. The teenage sisters seem to be very maternal and always stay close to the young calves.

Below: charging elephant



A young bull greets a mature bull by putting his trunk in the other bull's mouth

Until the mid-1950s this area formed part of the elephant's range. At the time it was decided to grant leases to farmers who had sufficient capital to put in irrigation schemes necessary to make this marginal land pay.

One early objective was to clear the bush and create an anti-tsetse belt to protect agricultural development schemes well south of Lake Manyara. But none of the farms have been completely cleared and large areas of bush remain; the farms would seem to be in decline.

The success of the present Park and the dependent hotel coupled with the cultural and economic value it offers the people of the area and the nation as a whole is an important justification for extending the Park, the report says.

In ecological terms, this southward extension of Lake Manyara National Park would provide an adequate range for the elephants and ease the present density problems, perhaps by half.

The acquisition of the new area—the Magara—would also link the Park to vast Marang forest reserve. With the three areas united, a balanced ecosystem should be created where a mosaic of woodlands and forests might well reach a dynamic balance with the elephant population.

The Tanzania National Parks authorities, including the energetic new Warden Benjamin Kanza, are making strong recommendations for the vital extension.

It is reported that a fund raising campaign for land acquisition is underway, and that Professor Grzimek's Frankfurt Zoological Society and Anglia Television (UK) have promised substantial donations.

Mature bulls play-fighting before unconcerned impala beside lake manyara ▲

▼ Family group

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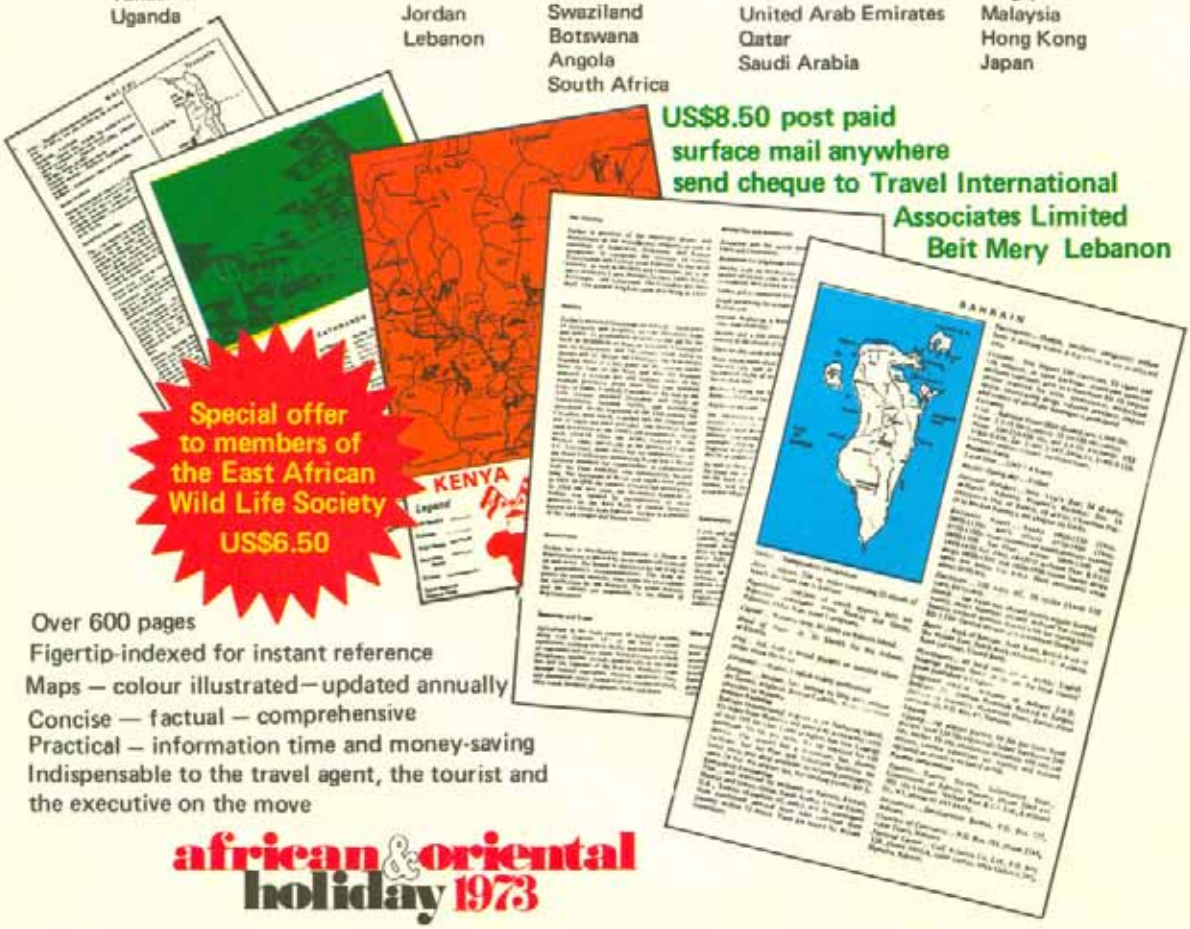

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NEWS FROM THE NATIONAL PARKS

Compiled by JANET BROOKE

KENYA

ORPHANAGE:

A mare zebra foal and a male pygmy hippo calf have been born and the leopard, Beauty, has given birth to three cubs.

ON APRIL 10, the female pygmy hippo (*Choeropsis liberiensis*) at the Orphanage gave birth to her third offspring. But this time the baby has now survived almost three months and is healthy. The two previous babies died soon after birth.

This latest baby was born at 4 p.m. in the pool which had been built for the two adults. He weighed six pounds and was 16 inches long. The mother would not let her baby suckle much until after three days.

After birth, the baby hippo had to be taken out of the pool so he would not drown or be attacked by his father. He was moved with his mother to the nearby paddock where a garden sprinkler was set up to keep the skin of the hippo moist. He enjoyed playing under the sprinkler. Most of the time, the mother and her baby can be seen together in a small mud pond. Occasionally, the baby will run around the paddock and eat grass, although his diet is still predominantly milk.

Visitors to the Orphanage will take great pleasure in seeing this delightful rare baby animal whose parents are originally from Liberia. **Esmond Bradley Martin.**

* * *

A male lion cub, about five months old, has been brought to the Orphanage. The cub was found stranded at Masai Mara Game Reserve. He is doing well and is named after the late Dr. Leakey.

* * *

A male chimpanzee has been collected from the Eden Roc Hotel at Malindi. He had become so wild, he could cause extensive damage if he broke out of his cage.

* * *

A 4½-year-old male rhinoceros, reared at the Orphanage and later transferred to the Oldonyo Sabuk National Park, broke his anterior horn when he caught it between two boards. The hanging remains were amputated and the wound dressed and cleaned. The animal recovered well but has lost some of his social status among the other rhinos.

Two stock raiding male leopards, one from Makuyu and the other from Langata, have been caught and were released into Masai Mara Game Reserve.

NAIROBI NATIONAL PARK

TWO female Cheetah, "Patience" and Penny", have given birth to 2 and 4 cubs respectively. Unfortunately Patience lost one cub but Penny's four cubs are doing well.

* * *

One female Cheetah was found with a loose snare around her neck not far from the Main Gate, despite the snare she managed to kill a bush buck. She was darted and the snare removed.

"Mkuki", the male Rhino was involved in a fight, presumably with another male and was badly lacerated. He had difficulty in walking and it was thought he might die, but he is recovering from the ordeal.

* * *

During the quarter 5 Wild Dog were seen at No. 8 on a young Kongoni but, as usual, they left the Park after several days.

* * *

The buffalo herd is regularly seen along the forest edge but the two big bulls remain isolated from the herd. Three calves were born, raising the total number to 46.

* * *

Two lionesses, "Tomasina" and "Karla", gave birth to 4 and 3 cubs respectively; the cubs were first seen in early January.

* * *

The forest pride has not yet separated although recently one male cub was missing and is suspected to have been killed by one of the two big males. Mating has taken place between "Anthony" (the younger male) and one of "Tomasina's" daughters. The mating period lasted for just over a week.

* * *

There has been a decrease in number of the Plain's Game especially in Zebra and Wildebeeste. After the short rains most of Kongoni moved into the Kitengala, where the grass is permanently short, while a few Eland returned to the Park.

* * *

The calving period of the plains game has taken place coinciding with the rainy season.

ABERDARE NATIONAL PARK:

The annual fire danger season this year only attained a relatively low risk, due to brief rainy spells and the success achieved by reducing grasses and debris during widespread control burns carried out over most of the moorland zones in October and November 1971.

* * *

The baby elephant, Miss Murogwa, has progressed remarkably well since the operation to remove the infected bone in her right foreleg carried out in January. She is able to walk almost normally. Latest X-rays are encouraging and indicate a complete recovery.

* * *

The new airfield at Fort Jerusalem at an altitude of 10,500 ft, has now been completed and favourable trials carried out with the Super Cub 5Y ACE equipped with the long-reach, fine-pitch propeller and balloon wheels. The old Queens (West) Gate has now been dismantled and moved to the new site at Fort Jerusalem. The newly named Fort Jerusalem (West) Gate will serve the main route from Naivasha and will also act as a ranger patrol base and fire lookout. Work will begin shortly on tarring the entire western escarpment. The road will be totally closed during the week days while this is being done but it will remain open to visitors during the weekends.

The Aberdare National Park and moorland will be accessible only from Nyeri and Mweiga.

* * *

Both Treetops Hotel and the Ark Game Lodge have enjoyed good game attendance. The rains commenced just before Easter with good falls over all areas. All roads were closed.

MOUNT KENYA NATIONAL PARK

THE NEW climbers hut at 15,700 feet was completed and formally inaugurated in February in a ceremony attended by members of the Austrian Alpine Club (who gave a substantial donation) the Mountain Club of Kenya (the builders) and Kenya National Parks. The event was duly recorded for both Kenya and Austrian television by cameramen who made the long march to the hut.

* * *

Construction on the self-help bandas at roadhead (10,000 feet) on the Naro Moru track is now complete. Water supplies, landscaping and interior decorating remain to be completed before they officially open in July. These bandas will accommodate 30 persons and will be used by unacclimatized climbers for the first night in an effort to reduce the incidence of Pulmonary Oedema among visitors to the mountain. They are of course available also to parties wanting a peaceful weekend in the high mountain forest.

* * *

The rescue team was called into action a total of 23 times during the past climbing season (December to March); most of these rescues involved walkers stricken by Pulmonary Oedema. There were four accidents involving climbers on the peaks, three of these

continued on page 40

A BIZARRE EXPEDITION FOR CONTACT WITH MOUNTAIN GORILLA

by ALAN GOODALL

"Come, come come." The loud shouting pierced the silent forest and, as far as I was concerned, was the final straw in the most bizarre gorilla tracking I had ever seen. How could anyone try to approach gorillas using noisy techniques like these, with any hopes of even glimpsing the animals, let alone trying to carry out scientific research?

AFTER spending some eight months studying Mountain Gorilla in the Hagenia woodland on the Virunga Volcanoes, I felt that I knew a little about the tracking, observation and life of gorilla in the wild. The techniques that I was familiar with had been initiated by George Schaller in his pioneering study, and later extended by Dian Fossey, with obvious success. As far as I was concerned, everything that we had done so far this morning in the Parc National du Kahuzi-Biega was 'wrong'!

To start with, instead of reaching the gorilla habitat after several hours of hard foot slogging, we arrived by car, and what is more, the road through the park was tarmaced! To my relief, however, the gorilla *did* still live in the forest and we were intending to go and see them on foot.

After parking the car by the side of the tarmac road, I followed the Pygmy guides, and Adrien Deschryver, the Park Conservator, along one of the many tracks which led into the forest.

To me the peace and quiet of the forest is sacrosanct, so I was somewhat surprised, and more than a little disappointed, to find that our Pygmy guides chatted loudly as we followed the track. It led through part of the bamboo forest, and the Pygmies deftly cut down any bamboos or vines which had recently grown over the track.

The noise of the metal pangas cutting through the bamboos sounded like rifle shots, and I desperately wanted to shout for quiet. Adrien did not seem perturbed, and as he seemed such a quiet yet very efficient person, I forced myself to be patient and ignore this rape of the forest.

No one had been to track the gorilla for several days, so we had to search the area for hours for recent signs of tracks and food remnants. Suddenly a faint, but familiar, "pok-pok-pok-pok-pok" stopped me in my tracks. The keen ears of the Pygmies had also heard this chest beat, and they excitedly began to jabber amongst themselves, and then to Adrien about the best way to reach the gorilla.

Gorilla demonstrating
photograph by the author

As we set off, I immediately noticed that the atmosphere had changed, the Pygmies now spoke rarely and quietly as they carefully cut a track through the dense undergrowth for us to follow. They paused frequently to listen, before carefully cutting the vegetation to one side, as we travelled towards the noises which we could hear.

After about twenty minutes of travelling like this the noises stopped, and so then did we. Adrien looked at his watch, "It is twelve o'clock," he said, "they will rest until two o'clock, so we will have to wait."

I was surprised by his confidence in this statement, but we all settled down to eat and talk while we waited. As two o'clock approached I smiled to myself but, to my amazement, at precisely 1.59 I heard some faint crackling in the vegetation, and at *exactly* 2 p.m. the sounds of many bamboos being broken filled the air! Adrien did not say a word, until at 2.15 he turned to the Pygmies: "Tegende", he said softly, and off we went.

We again travelled quietly and slowly with frequent stops to listen. Suddenly a large male roared and crashed through the dense vegetation about 20 yards away. A smile lit up the hitherto serious face of Adrien. "Now we have a contact," he said. Then, to my surprise, he raised his head and shouted loudly "Come, come come-come, come."

The male gorilla roared again and once more crashed through the vegetation. "At least I have *heard* one of the Kahuzi gorillas." I thought to myself.

I asked Adrien whether the gorilla usually ran away like this. He gave a little laugh and explained that far from running away, the gorilla were actually coming to see us! This really was a little too much to swallow, but my carefully phrased reply stuck in my throat when I heard movements in the vegetation nearby.

"Climb up this tree and you should be able to see better," Adrien said. So with the help of a mighty push I scrambled and crashed my way through the dense canopy of vines entwining the small tree. Despite moving out onto a side branch, I could only see vague movements ahead and below me.

"There's the big male," Adrien said, "I have cleared some of the vegetation now. Come down here and you see him." I clambered down, while Adrien shouted "Come, come, come. Bwana mkubwa come," and discovered that he had cut down a lot of the vines with his pocket knife, and made a large hole in the dense vegetation.

I peered into the gloom, but could not make anything out clearly. "Look along the barrel of my rifle," Adrien said, and to my horror he raised his rifle and stuck it straight out. Not knowing quite what to expect now, from either Adrien or the gorilla, I did so, and as my eyes accommodated to the gloom, the thing that I had taken for a tree stump moved, then roared loudly.

Bamboo stems were now being crashed and broken nearer and nearer, and then I suddenly realised that not only were the gorilla coming closer, but that they were feeding on the way!

Some of the group eventually came to within four or five yards of us and for the first time, I was able to observe and make notes on how they fed on the bamboo shoots in this dense forest. Furthermore I was able to move around, though slowly, in order to observe several animals, from different positions, as they slowly moved and fed nearby.

After about half an hour the group slowly moved away, feeding as they travelled through the bamboo, until even their noises faded away.

As we returned along the track towards the car we heard the big male roar again, and this convinced me that I had not been dreaming, but that this "bizarre" expedition had given me some unique observations which I would not have believed possible in this dense forest.

My opinions had of course been drastically revised. As I thanked Adrien profusely and congratulated him on his unique work, I was excited at the possibilities he had opened up for scientific research.

However, now that I have completed a year of research in two types of habitat in the Parc du Kahuzi-Biega, I realised that spot judgements, such as I had made at the beginning of this first contact, are futile and misleading. I have now discovered that the gorilla move about in a vast home-range and only occasionally come close to the roads. Usually many hours have to be spent tracking up and down the densely forested hills and through the many swamps. It also takes quite some time to learn the skills which are essential for good contacts in this type of forest.

Thus while I share John Heminway's hopes that the gorilla of Kahuzi-Biega will not become over exploited (*Africana Vol. 4 No. 11 1972*), I would assure him that after trying to observe the animals for nearly four months in dense *primary* mountain forest, there are regions of Kahuzi-Biega which will provide opportunities for even the most intrepid would-be gorilla explorer. And, thanks to Adrien Deschryver's pioneering work in the more open secondary forest areas, opportunities exist for many keen people, whose health or age may blunt their exploratory prowess, to actually *see* gorilla in the wild.

continued on page 41

THE SOCIETY'S NOTES

Compiled by Ted Norris of The East African Wild Life Society

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Mr. R. A. M. Birkett.

THE "WAY OF THE WILD"

Our own film, "The Way of the Wild", is popular in Canada. The young pupils of Cilaire Elementary School donated 10c each from their weekly allowance—a total of $12.30. This is a wonderful effort from one of the youngest age-group schools.

Captain H. J. Pat Barron says the film is being shown in many schools, and various clubs and groups. Mr. Tony Lopes, one of the Canadian representatives from the Kenya Tourist Office in New York, says he is being hard pressed by many television stations to allow them to televise "The Way of the Wild."

SAIWA SWAMP

WE have heard from Charles Ouma, who is in charge of the Saiwa Swamp, giving us details of visitor numbers during 1972.

Residents	Non-residents	Children	TOTAL	Vehicles
743	488	590	1,821	196

Monthly figures show this new national park is becoming more and more popular. In January, 1972, there were only 36 visitors but in December there were 319 for the month.

Mr. Ouma reports that during the year 38 young sitatunga were sighted which he considers to be a very conservative estimate of the births that have actually taken place in the swamp.

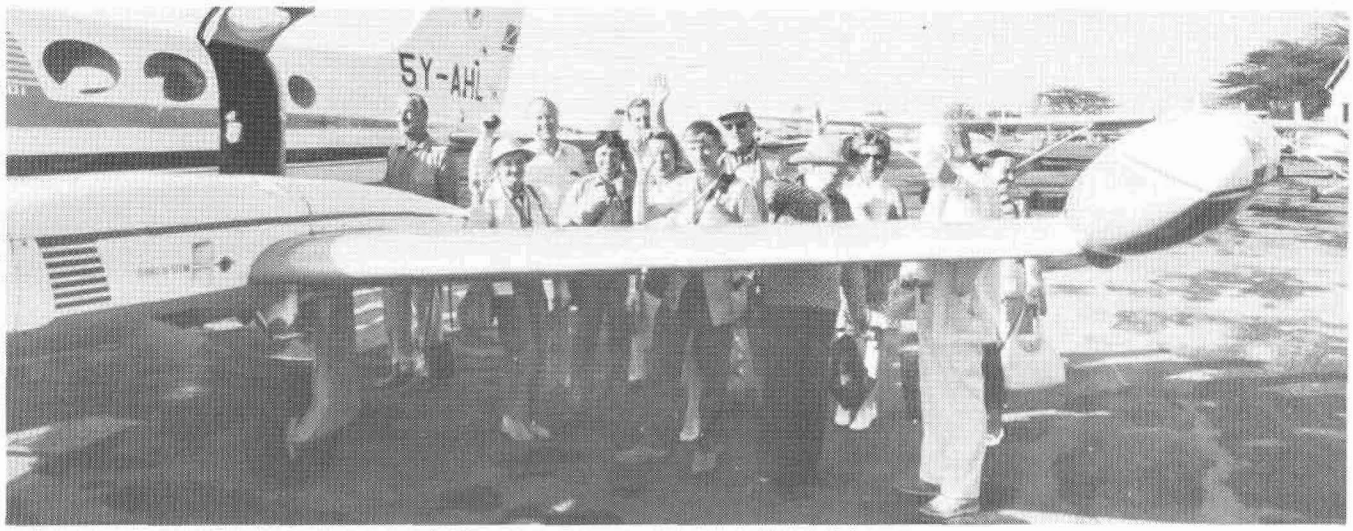
"THE TERRITORY OF THE OTHERS"

ON Sunday, March 18, 1973 the French Embassy commenced the French Film Week by screening "The Territory of the Others." The first 35 mm. French wildlife film to be made took seven years to complete. It was selected for the 1971 Hollywood Oscars; won first prize at the Trente Festival; grand prix for technical superiority at Cannes; grand prix of the French Cinema Academy and grand prix (scientific) Jugoslavia, 1971. It was also shown at the second international congress of the World Wildlife Fund at London in 1970. The directors, Francois Bel and Gerard Vienne, have produced a revolutionary film. They used no spoken commentary and used natural recordings taken during filming, blending them into a natural symphony. At times the sounds were somewhat over-powering and difficult to associate with the sequence themes.

The photography was suberb in beautifully chosen natural settings. When achieving such high photographic quality, the physiological effect on the subject must be considered. The puffins had the normal routine of feeding their young disturbed by the camera hide being sited too close to their nesting burrows which made them dwell apprehensively with their beaks full of fish. The black guilemot was shown with dried fish in its beak, something unnatural showing the bird was too nervous to enter its burrow. The playing back of the recording of a red deer stag's roar, making it charge up to the camera in a dramatic manner was unwarranted, however spectacular the result.

Francois Bel and Gerard Vienne are at present making a film of East African wildlife. If it maintains the quality of "The Territory of the Others" it will be a film not to be missed.

The Society are extremely grateful to the French Embassy for having donated Sh. 600/- as part of the collection made at the premiere showing of this film.



Top: A party of the Society Sponsored Safari about to fly to Tsavo.
Right: Mrs. Geoffry Kent, director of Abercrombie and Kent Ltd., handing over a cheque of donations from members of the Safari to Mr. Oliver Brooke, the previous Executive Chairman of the Society. Looking on are H.E. the American Ambassador and Mrs. McIlvane, *Col. Cowie, Mr. Geoffry Kent and Mr. Michael Sawyer, Chief Executive* of the Society.

THE SOCIETY SPONSORED SAFARI

22 members of the Society living in the U.S.A. came on a two week Safari in March. The tour sponsored by the Society was organised through Abercrombie & Kent Limited of Nairobi.

The itinerary covered the Serengeti National Park, Masai Mara Game Reserve, Tsavo National Park, the Mt. Kenya Safari Club and the Ark.

The party were divided into two groups and luxury tented camps were provided in the Serengeti, Mara and Tsavo. The tour guides were Dennis Milbank and Bunny Wright who looked after the Simba and Bongo groups.

The Safari was a great success, thanks to the organisers and to Dennis and Bunny. The general opinion of the Safari was that it had been 'an experience of a life time'.

The Society will be sponsoring another safari early in 1974.

WORD OF THANKS

THE society received this letter the other day: We feel you ought to know once again how much we enjoyed our safari with the society, and what a tremendous success we feel it was for all concerned. Whether or not we can share in your future plans remains to be seen, but we fervently hope with this year's success in mind, that it will be a continuing project for the society.

Your magazine *Africana* draws increasing membership with each issue. If people respond with such interest and concern for your reading material, it only stands to reason that they will be eager to see places about which they have read, and to meet the people they have come to know through *Africana*.

Because of you and the excellent planning of Abercrombie and Kent's staff, we felt our days in the bush camps happily filled, bringing us closer to the wildlife many of us have yearned to experience with all our senses. It was doubly satisfying to know that you were close by to not only introduce us to many interesting people but to explain and to help us better understand the language and the customs of our African hosts.

May your next programme go as successfully, may it continue for many years to come, and may we have the great opportunity of joining you soon again.

Best personal regards,
Lew & Mary Jane Culler.

EXTENSIONS OF NATIONAL PARKS IN KENYA

IN November, 1972, the World Wildlife Fund director-general, Mr. Fritz Vollmar, held a series of meetings with President Kenyatta, the Vice-President and Minister of Home Affairs, Mr. Moi, the Minister for Tourism and Wildlife, Mr. Shako; the Attorney-General, Mr. Njonjo and the Director and Chairman of Kenya National Parks. The W.W.F. director-general reported on the success of the present W.W.F. publicity and fund-raising campaign for the extension of Lake Nakuru National Park and discussed the possibilities of further W.W.F. participation in developing the national parks network, particularly the establishment of Amboseli as a national park and the extension of the Nairobi National Park.

COLONEL MERVYN COWIE

THE Zoological Society of San Diego has awarded its gold medal for 1972 to Colonel Mervyn Cowie. This award is made to people who are leaders in wildlife conservation.

Col. Cowie, the force behind the creation of Kenya's National Parks, was for 20 years director of Kenya National Parks. He still performs an active roll in wildlife matters by being a Trustee of our society and a vice-president of the Fauna Preservation Society.

We extend our hearty congratulations to Col. Cowie for the honour bestowed on him.

"SPOTTED CATS"

MRS. B. LYDALL informs us she received a Christmas catalogue from a leading London department store and was horrified to find a full-length leopard skin coat advertised. She protested strongly to the firm. The managing director said they were in complete sympathy with Mrs. Lydall's view and that they strongly supported the International Union for the Conservation of Nature and the World Wildlife Fund.

A plaque is, in fact, displayed in their fur department which states:— "This establishment supports the principles of conservation and deals only in those skins authorised for fur purposes by the International World Wildlife Fund, and pledges itself not to handle skins of endangered species other than existing stocks duly approved."

The fur trade and the World Wildlife Fund agreed to stop importation of leopard skins for three years but skins in existence could be used. All leopard skin coats have been sealed and numbered by a special committee of the World Wildlife Fund set up for this specific purpose.

The managing director says confusion exists between realistic steps to protect the species and extreme attitudes which suggest that valuable skins already made into coats should not be offered for sale.

We must, however, point out it is nearly certain those skins used to make up these coats were illegally obtained in their country of origin and smuggled to dealers. The managing director says no furrier would want the extinction of any species on which the fur trade depends and it is for this reason their suppliers have not bought any skins, during the last five years, of any endangered species.

This may be so, but it needed a considerable outcry from conservationally minded institutions (then the public) to make the furriers realise what effect their businesses were having on certain species. It is obvious the furriers just look upon animals as a commercial article from which a handsome profit can be made.

We have also had a mail order list sent to us by a member in the United States which advertises game skins, mounted heads, karosses, handbags and so on from a South African firm. Many products of leopard skin feature prominently in this price list. From the articles listed it points to exploitation of wildlife for commercial gain and makes one wonder how many of the animals were legally obtained.

As leopard skin articles are offered expressly for commercial gain their import into such countries as the United States should be impossible.

MAJOR PELT SEIZURE

THE BIGGEST case of trade in illegal pelts was smashed recently after a crate of pelts broke open at Kennedy International Airport.

A New York company pleaded guilty to a 50-count charge of purchasing and receiving 5 million dollars worth of illegal pelts. Fourteen other companies, all of New York, and 19 individuals were charged in the case.

Involved were skins of 15,470 otters, 30,068 ocelots, 5,644 leopards, 1,939 jaguars, 468 pumas, 46,181 margays, 1,867 cheetahs, and 217 giant otter. All had been exported from Brazil and Mexico, which of course were not the countries of origin.

It is alarming to see the number of cheetah, which could only have originated from Africa, in spite of their protection.

HARASSMENT OF WILDLIFE

IN our last issue we published views of visitors to our national parks in respect of the habit of harassing wild animals by vehicles for the sake of pictures.

The dangers of this habit were shown in February when a visitor to the Serengeti National Park was savaged by a leopard. The mini-bus in which a party of visitors were game viewing was driven across country, coming upon a leopard, which was disturbed. Another mini-bus, seeing the leopard, joined in and the animal was, in effect cornered, and it took refuge under one of the vehicles. The occupants of the vehicles were taking pictures through open windows. Noisy cine cameras whirred and, no doubt, there was a lot of loud talking. The leopard sprang at a woman leaning out of a window. The impetus of the attack took the leopard half way through the window as it clawed and bit at the woman. Her husband kicked the leopard in the face to knock it away and was bitten on the foot.

The woman had received surgery and hospital treatment but she said—"It was a beautiful animal just as scared as me. It was not its fault. It thought it was being attacked so defended itself."

* * *

Kenya national parks have realised the problem created with increased tourism, so have instigated a survey into the pressure of vehicles and their effect on the environment and the animals. This survey, which is being financed by the society, is primarily centred on Nairobi National Park, Nakuru National Park and Amboseli.

OXFORD UNIVERSITY EXPEDITION TO THE COAST OF EAST AFRICA, 1971

THIS expedition was to investigate the distribution of *echinoderms* from the shore of the fringing reef at Diani, with particular reference to habitats, food preferences, behaviour and parasites.

Of all starfish in the world, probably the best-known is the large, spiny 16-armed crown of thorns starfish *Acanthaster planci* which has become notorious due to its increase in numbers on a variety of Indo-Pacific reefs on which it feeds by everting its stomach over the coral polyps and gradually destroying the living reef. Large areas of the Great Barrier Reef of Australia are reported to have been destroyed by this animal and 90 per cent of the reef around the Pacific island of Guam has suffered a similar fate.

This starfish is present at Diani and Shimoni to the south. It would seem the high densities of *Echinometra mathaei* are indicative of the last stages in the destruction of the reef ecosystem.

Over fishing and the increased shell collecting for the booming tourist industry is causing a severe destruction among the marine fauna. When plans are completed there will be eight hotels which will make the situation worse.

The problem at Watamu (before the creation of the Marine National Park) was similar to that at Diani thus showing the trend can be reversed quite rapidly and that reef fauna has a considerable propensity for recovery from ecological disruption. Although the development of the area for tourism is being encouraged by the government, the depletion of the animal population on the reef removes one of the factors encouraging visitors to this fascinating coast.

Tourists must be encouraged not to remove animals from the sea, backed up by legal sanctions. Hotels and those benefitting from tourists must realise the preservation of local marine fauna is necessary in their own interests.

THE SOCIETY'S AIRCRAFT 5Y ADY

DURING January and February this year, the aircraft was flown for 156 hours, of which 43 hours were flown on the elephant count and 35 hours on radio tracking of elephants.

In March the aircraft was due for its C of A renewal and a Check III which grounded it for nearly a month. Our pilot, Mr Tim Morgan, took this opportunity of availing himself of some well-earned overseas leave.

WILDLIFE CLUBS OF KENYA

THERE are now 158 wildlife clubs in Kenya which represents 20 per cent of all secondary schools. The individual membership totals to 6,320 pupils.

The Wildlife Clubs of Kenya Association have set themselves a target to have 200 schools belonging by the middle of 1973. The Association is now providing an extended programme for school leavers, so that farmer members can continue their interest and participation after they leave school as associate members.

The national headquarters have published an attractive brochure describing the aims and activities of the clubs, and the association now has its own badge designed by one of its members depicting an emblem of a bushbaby, emphasising the club's interest in all forms of wildlife. The seminars which are held regularly are popular and of great value in stimulating greater interest in the club activities.

AMBOSELI

THE New York Zoological Society has donated £49,000 for the supply of water to the Amboseli Masai—which will enable Amboseli Reserve to be increased in size to 150 sq. miles and for its upgrading to a National Park. The boundaries of the increased area have been demarcated and it is hoped water installation will be completed later this year.

This decision has been made possible largely by the generosity of Mr. Royal Little. It is hoped more visitors from the many lodges situated nearby will not replace cattle in destroying the habitat. It is a pity so much valuable space will be taken up by the lodges—which can increase pollution and cause destruction of the habitat by the use of vehicles unless controlled.

TRADE IN WILD ANIMALS

A plenipotentiary conference was held in Washington in March to conclude the drawing up of an international convention on the travel regulations for certain species of wild animals and plants. This conference was important to Kenya, as the director of National Parks, Mr. Perez Olindo had previously rejected a document put forward by the I.U.C.N. under the influence of F.A.O. Mr. Olindo made it clear he thought the rejected document inferior to a host of existing national and, indeed, state legislation on the import, export and transit of wildlife. He said the draft convention was abandoned because of the intervention of the I.U.C.N. and F.A.O. which caused many member states and international conservation organisations to complain over the lack of consultation.

Mr. Olindo also said that if this draft was accepted as a basis of discussion it would be considered the session believed that it was right and proper for all wildlife to be exploited to the extent that it was threatened with worldwide extinction. He put forward an alternative draft convention which was accepted by 86 member states and now signed by 32 states. This was a great step forward as it had provided for member states to draw up a list of endangered species within their own borders.

Mr. Olindo is to be congratulated over his untiring efforts to get a realistic approach to such an important question accepted internationally.

Appendix I: holds exporting and importing states to ban specified species, especially when used primarily for commercial purposes. The trade in these specified species is subject to strict regulation which can only be authorised in very exceptional circumstances. The species affected in East Africa are: kirk's red colobus, lesser ground pangolin, leopard, cheetah, crocodile (*crocodilus niloticus*), python (*Python molurus*).

Appendix II: not so strict, although export requires the prior grant and presentation of export permits to the importing state. The scientific authority must be satisfied the specimen has not been obtained illegally.

The affected species in East Africa are: Serval cat, caracal, black rhinoceros, monitor lizard (*Varanus sp*).

Appendix III: any species which a member state has within its borders which may be threatened locally can be included. Any such species included must then be accepted by all member states with similar procedures as under Appendix II.

This is a far seeing inclusion which allows individual states to make arrangements for their own species threatened within their own state borders.

LIONS IN NAIROBI NATIONAL PARK

(A survey carried out by Judith Rudnai and sponsored by the East African Wildlife Society).

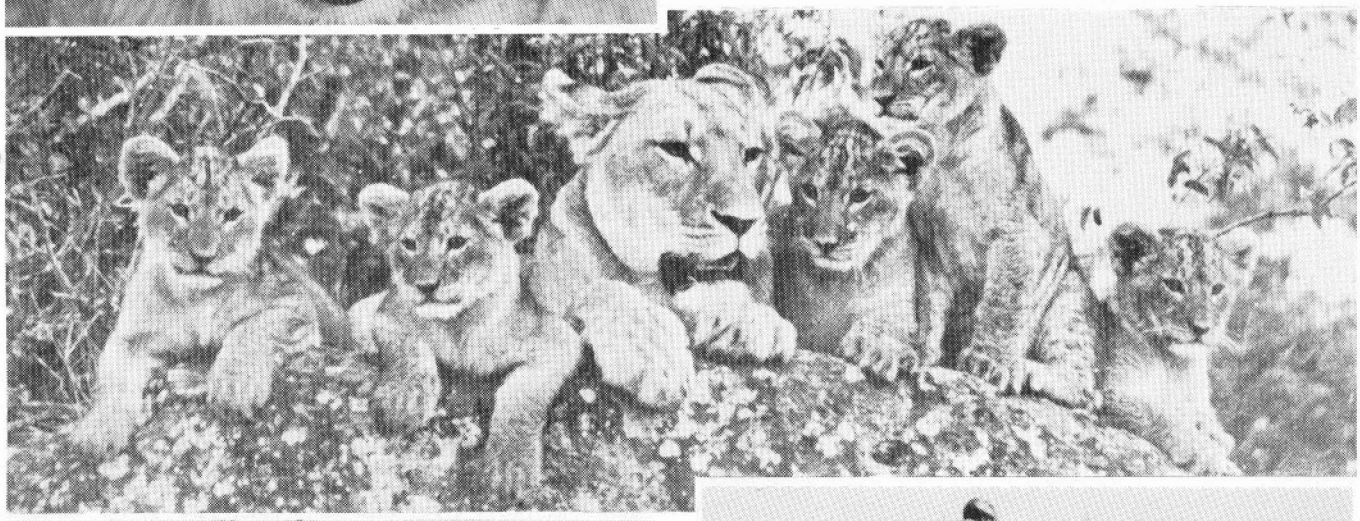
It is difficult to say anything new about lions. However, Judith Rudnai in a survey sponsored by the society replaces casual observation and speculation with facts and a detailed study extending over a period of five years.

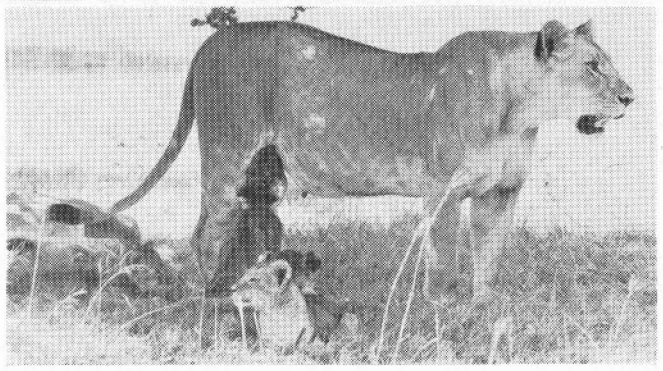
To recognise individuals by a more permanent feature than scars or injuries an interesting observation is used based on variable muzzle patterns with which she was able to identify lions returning to the park after an interval of two years.

Throughout the period of observation the lion population within the park was found to fluctuate between 25 and 35. From previous records it would appear that this has been so for the last 20 years and is comparable with the lion density of Ngorongoro Crater. The population, however, is not static and continual interchange occurs between the Nairobi Park and the adjoining Kitengela area. It is in this context that the report is of particular value.

A full report on the survey will be published in the East African Wildlife Journal.

photographs by **Judith Rudnai**





CONSERVATION AWARD FOR PRESIDENT KENYATTA

THE society wishes to congratulate President Kenyatta on his well deserved award, "The Hall of Fame Award on Wildlife", in recognition of his high ideals in wildlife conservation.

Dr. Njoroge Mungai, Kenya's Minister of Foreign Affairs, when receiving the award on behalf of the President, said in New York: "The honour was not only timely but, also, befitting to a great man who has gone out of his way to conserve the natural resources of Kenya for the benefit of all mankind."

WHAT THE MINISTERS SAY...

THE Minister of Tourism and Wildlife, Mr. Shako, told the Kitui and Masaku County councils—when presenting £7,000 for development projects—the money had come from contributions collected from hunting fees. It was important to tell the people to respect wildlife as it meant profit for them. He said such regular donations should encourage more people to appreciate that wildlife contributed directly to human beings so it was in their interests to report the activities of poachers.

An Assistant Minister for Tourism and Wildlife, Mr. J. M. Kariuki, said the Government would always strive to guard wildlife jealously.

EAST AFRICAN WILD LIFE SOCIETY
P.O. Box 20110, Nairobi Kenya, East Africa

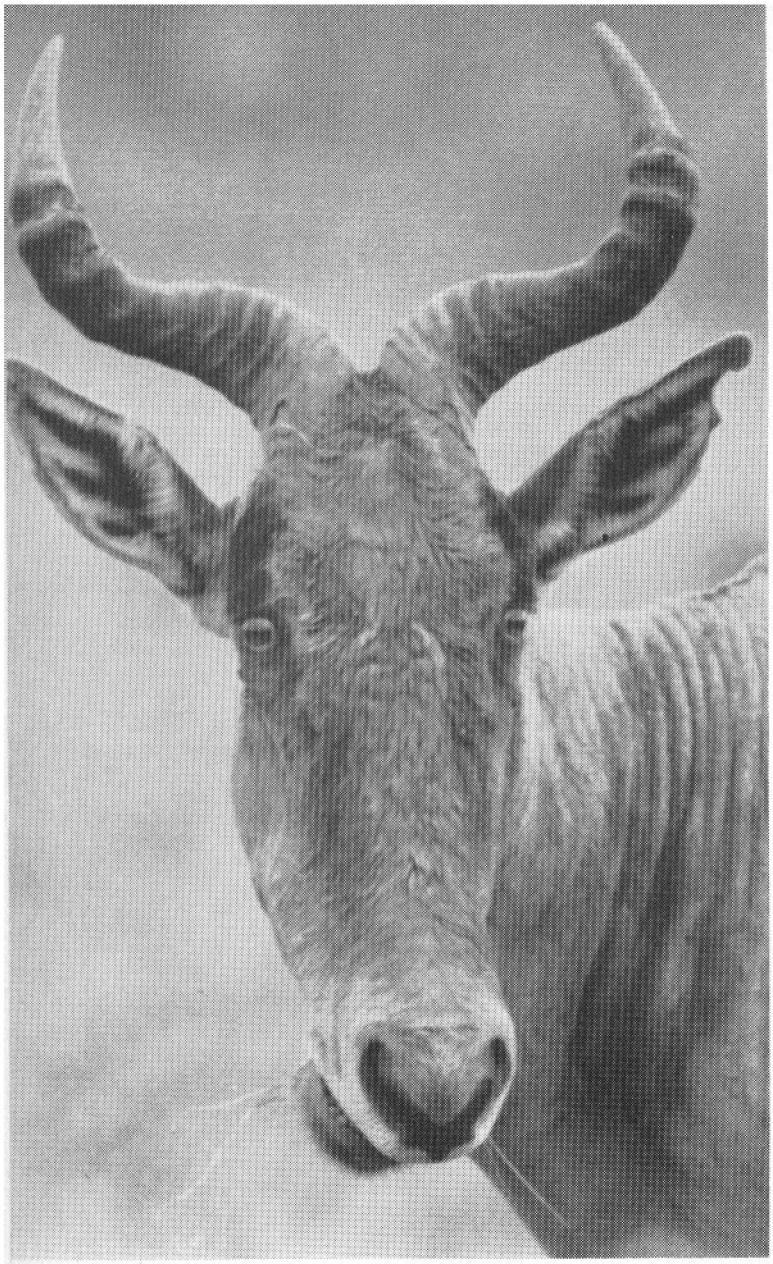
Annual Subscriptions

Corporate	Kshs. 1,000/-	U.S.$ 143	B£ 60.62P
Supporting	Kshs. 200/-	$ 29	B£ 12.18P
Contributing	Kshs. 100/-	$ 15	B£ 6.09P
Ordinary Overseas ..	Kshs. 70/-	$ 10	B£ 4.26P
Ordinary E. Africa ..	Kshs. 40/-		
Junior E. Africa (under 18 years) ..	Kshs. 25/-		

Life Membership Fees

Donor	Kshs. 2,000/-	U.S.$ 286	B£ 121.24P
Regular	Kshs. 500/-	$ 72	B£ 30.31P

Members of the Diners Club



Photos and Text by **Mark Stanley Price**

SOCIETY NOTES

KONGONI IN NAIROBI NATIONAL PARK

THE following is a report by Mark Stanley Price on Kongoni, a project partly funded by the society:

"Head extremely long and narrow, the frontal region more or less expanded into a bony pedicle growing from the summit of the skull, imparting a 'stupid' aspect to the animal." That is how the author of a well-known guide-book to the mammals of Africa describes the members of the hartebeest clan. Naturally enough, as I am studying Coke's hartebeest, or kongoni, in the Nairobi National Park and Athi Plains, I cannot accept this unfavourable and anthropomorphic observation.

Functionally, they seem to be excellently adapted to life on the open plains. Nonetheless, I am quite used to receiving comments such as "Why are there so many kongoni in the park?" or "A lot of kongoni have suddenly arrived in the park" or even ". . . but kongoni don't do anything. They just stand there!" I am also asked why I want to study such an abundant animal. Therefore, what I shall do in this article is to try to answer some of their points, with reference to the Nairobi Park, rather than the Athi Plains.

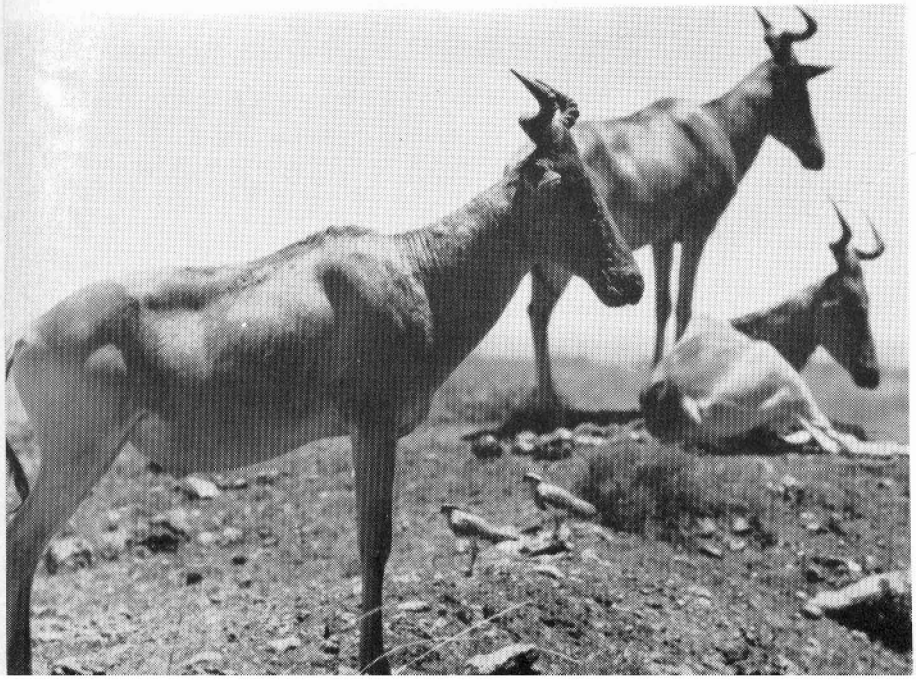
The primary aim of my project is to study the feeding ecology of the kongoni, in terms of what it eats, when and where. This is obviously connected with the movements of the species. I am also interested in the relationship between the kongoni and other species of herbivore, especially the wildebeest, zebra and the two gazelles. I am also looking at the interaction between the ecology of the species and its social organization on a seasonal basis.

To try to do this, I am studying the kongoni in the Nairobi Park and also in the Athi Plains to the south. Because of the differences in size: 44 to 750 sq. miles, and in density of kongoni: 46.5 to 6.9 per sq. mile, although the areas are adjacent, one can use them as if it were a deliberately designed experimental situation. There is also the important difference that the 5,000 kongoni of the plains share their habitat with some 45,000 cattle, 12-14,000 wildebeest and 8-10,000 zebra. In the park there are now no cattle and the kongoni is the most numerous herbivore for most of the year, and again this difference and the reasons for it could help in the formulation of management plans for either area.

In most dry seasons the park attracts several hundred zebra, up to 300 wildebeest and up to 300 eland. The numbers of the incoming zebra fluctuate most, to an extent roughly proportional to the dryness of the plains. The additional wildebeest are an insignificant fraction of the total population of 12,000 which might come in. Thus, as a refuge the park is most important for the zebra and the eland.

However, under exceptional conditions, such as the drought of 1960-61 caused, the wildebeest and the kongoni also migrate into the park. By an accident of rain in the park in September, 1972, when there was none outside, these unusual migrations were repeated. During September the park was supporting a phenomenal 3,600 wildebeest, 4,100 zebra, 3,100 kongoni and 350 eland, totalling over 11,000 large herbivores, compared to a normal 4,000. In this month the game-viewing was at its most spectacular for eleven years, which is pleasing, but it also shows how important the high density of water in the park is to some animals even if they have to resort to it only once in a decade.

Obviously, the methods of study in the park and the plains must differ. In the park, ground counting and close observation is possible, but in the plains there are fewer roads and the animals



are less amenable to close approach. Moreover, during the rains the plains are virtually impenetrable. For this reason and because of the size of the area involved, counts are done from the air.

This counting has been possible only with the provision of financial support from EAWLS, which has also helped with the running costs of a field vehicle, thereby enabling me to devote more time in the plains in the areas with high densities of animals located from the air.

At the moment, there are about 2,050 kongoni in the park. In 1960, there were probably 1,200 which were reduced to 668 in 1962 as a result of the severe drought of 1961. Ever since then the kongoni have increased, reaching 1,300 in 1967. The reasons for the increase above the pre-drought level are unclear, and there are probably several, but during the same period the wildebeest have suffered what appears to be a lasting reduction, and in 1967 about 900 cattle were removed from the park.

However, the number of wild animals in the park has remained constant for some years at about 4,000, although the total weight or biomass has decreased. This implies some degree of under-utilisation of the park, and certainly during the long dry season of 1971 there were areas of long grass devoid of animals.

Another, indirect, consequence of the drought was the construction of more dams in the park with the object of making the park an even greater concentration area for the animals of the plains in the dry season. This has probably been one important reason for the increase of kongoni. Work in the lower density plains shows the animal to be extremely conservative in that it prefers to stay in an area, provided there is enough water, at the same time accepting considerable reductions in the quality and quantity of grass. Thus, in the plains there is little difference between the wet and dry season ranges of the species, and its migrations are far less marked than those of the wildebeest and zebra. Consequently, it is possible that the dams of the park have made such a dramatic improvement in the environment of the kongoni that they can now survive in increasingly large numbers in the park with only very local seasonal movements being necessary. These will be described later.

Early in each dry season there comes a point at which people remark to me that there are suddenly a lot of kongoni back in the park. In fact, my counts conducted each month in all stages of wet and dry seasons show that migration into or out of the park is insignificant. The reason for the apparent fluctuations in the population is due to the movements of the kongoni within the park.

When the rains break, the water available to the animals for drinking is suddenly increased and more widely distributed. Almost at the same time, the water content of the grass starts to increase i.e. this causes the kongoni to disperse into the areas of whistling thorn. Their reason for choosing this vegetation type is that it shows the most rapid increase in dry matter volume after the rains, yet its water content is lowest of any vegetation measured. One might think that after a dry season the kongoni would feed on the grass with the highest water content. However, this is not necessarily so as they have to make a considerable adjustment during the change from dry hay to lush, fresh grass, and the selection of the drier grass might reduce the magnitude of this adjustment.

The length of time spent in the *Acacia* depends on the amount of rain in the first place and on the rate at which the grass dries out, and the latter will be affected by the ambient temperature. Thus, after the rains in December, 1971, when the weather was hot, the kongoni spent only one month in the thorn areas. After the late rains of May and June, 1972, when cooler weather followed, the kongoni spent three months in the same area.

As the grass in the *Acacia* dries out, the temporary rain pools disappear, and at a certain point the kongoni can no longer meet their water requirements from the moisture in the grass, and they must actually drink water. All these factors combine to draw them out on to the open plains on red soil, which are nearer the dams and rivers. This produces the sudden apparent increase in their numbers.

The grass on the red soil is shorter than on the black, and its growth response to the rain occurs only after a delay of a month. In fact, the dry standing crop may drop during the first wet month, indicating that the processes of decomposition, stimulated by the rains, have a greater net effect than that of growth. However, by the time the kongoni appear on these areas, the grass has had a good growing season with almost no pressure from any grazing animals.

As the crop of grass on the short grass areas is depleted, the kongoni gradually move down the slopes to feed in more bushy grassland. Finally, if the dry season is long they will feed on the steep, rocky slopes near the bottoms of the valleys. The grass here always has a reasonable proportion of water in it, and it is surprising that this vegetation type is not used earlier in the dry season. However, the kongoni avoid steep slopes of more than six degrees from the horizontal, especially if there is bush nearby that might harbour a predator. In addition, the dominant grass on these slopes, *Cymbopogon*, is strongly aromatic and is known to be distasteful to cattle. This may also cause the kongoni to avoid this grass community until the dryness or scarcity of grass elsewhere forces its use.

By this stage, the rains should break again, starting off the dispersal into the whistling thorn for the second time of the year. If they are late, however, the kongoni may spread out into all the vegetation types, presumably in the hope of finding some better grazing that had been missed before or had recovered since they were last there.

This description is, of course, an oversimplification because I have not distinguished between the effects of the long and short rains or mentioned the effect of fire which is an important, though now infrequent, factor in the ecology of the park.

Moreover, these seasonal movements are not identical for all the kongoni. The cycle as described above is that of the female herds with their attendant offspring, which form the bulk of the population. As the species is strongly territorial, at least under the conditions of high density found in the Nairobi Park, a system of regularly spaced-out territorial males develops in those areas that females are currently occupying. My data show that in any month of the year only about 30 per cent of all adult males are territorial; most males are in bachelor herds. However, as the females move around, the territorial system does also, so that although the proportion of males which are territorial may be the same in two consecutive months, this proportion may consist of different sets of individuals.

Inevitably, though, there are some males which always stay in their own territories even though there are no females nearby and will not be for several months to come. Conversely, there are others known to me which leave their territories and rejoin the bachelor herds as soon as the female herds have left their vicinity. These males, or their successors, will then reappear regularly in their old haunts at the appropriate time, in anticipation of the arrival of the females.

The movements of the bachelor herds are on the whole more conservative than those of the females. When the grass in the whistling thorn areas dries out and the kongoni leave it, the bachelor males almost immediately take up resisidence on the open slopes near the dams. Thus, although the females come down to the dams to drink, and may then move back to their feeding grounds, the batchelor males always stay around the water. This accounts for the apparent predominance of male kongoni in the park in the dry season.

The grazing sequence may also be modified by the presence or absence of other species, especially the zebra, whose numbers in the park fluctuate considerably, mostly as a result of conditions in the drier plains to the south. When in the park, their presence seems to open up the areas of long grass to the kongoni, due to their trampling action and their habit of selecting the long flower stalks for eating. Nonetheless, this does not affect the general pattern of movements of the kongoni which have occurred consistently with each rains since I started my study, 18 months ago.

Kongoni consume rather coarse food, and as a result spend up to 10 out of every 24 hours feeding. Despite the great differences in the quality of the grass, there seems to be little difference in the amount of time they spend grazing in the wet and dry seasons. However, the different weather in these two seasons is responsible for considerable changes in their daily activity. During the cool weather some animals in a herd are always active and feeding is recorded in almost every daylight hour. During the hot and dry months, the activity patterns are less flexible.

In such weather feeding starts at dawn and by 9.30 a.m. the kongoni are almost without exception standing motionless and chewing the cud. It is at this time of day that the kongoni that want to drink move off to water, where there is considerable social interaction between members of different herds. After this the animals are inactive until about midday when they may feed sporadically for an hour. As the afternoon wears on, members of the herd gradually stop chewing the cud and lie down to sleep. The period of greatest inactivity is at about 3.00 p.m., when the air temperature is at its greatest and most visitors are beginning to come into the park. On a hot day, the kongoni will not start to feed again until 5.30 p.m., so the visitor can easily be left with the false impression that these animals do nothing. The obvious solution for the disgruntled tourist is to visit the park in the early morning.

These are only some of the lines I am pursuing in my project on the ecology of the kongoni over the whole ecological unit of the Athi plains, which includes the park. A large proportion of this research has been possible only with the support of the EAWLS. However, in this article I have concentrated on these aspects which I hope are of interest to the majority of members of the Society. Because of this, I hope that when they next visit Nairobi Park they will understand more of what they see the kongoni doing, and will also appreciate that the park is far from being a static and non-dynamic area where no ecological change occurs. ●

NEWS FROM THE NATIONAL PARKS

continued from page 31

climbing accidents occurred during abseils (roping down after an ascent) which many experienced climbers regard as the most dangerous aspect of climbing. The latest of these accidents resulted in the death of a young climber from the RAF Akrotin (Cyprus) mountain rescue team. He was struck by a rock and swept from a ledge near the summit of Nelion.

* * *

An airfield is being constructed near the Naro Moru H.Q. It utilizes a forest clearing at about 7,800 feet and will be long enough to accommodate heavier rescue aircraft.

* * *

A rubbish clearance project is underway to remove all litter from the mountain. The Teleki Valley and Naro Moru track have been cleaned by a large crew of labourers, who carried about 400 man-loads of rubbish out of the Valley. Other areas will be cleared as weather permits. The clearance programme is in conjunction with a campaign to get all visitors to the mountain to carry out their own litter. The high altitude environment is too delicate to accommodate the accumulation of trash from the ever-increasing number of visitors.

* * *

A rock climbing training camp is now in progress at Shaba mountain near Isiolo. A new group of ten recruit-rangers are being instructed in rock climbing techniques as the second phase of their training for the Mountain Rescue Team. These recruits spent the past season with the Rescue Team on the mountain assisting in carry-off rescues.

LAKE NAKURU

IT WAS an exceptionally dry quarter and as a result the level of the lake dropped considerably. From observation, it appeared that the Flamingo population had reduced, although the main concentration was to be seen in the south.

* * *

The construction of the main road to the Park was begun by M/s Baustrag the contractor. The road will be tarmac up to the main entrance gate and from there to Nderiti in the south will be murramed. Other access roads on the south shore were murramed by the Park's staff and ditches dug along the road which are serving two very useful purposes both as drainage and to prevent visitors from driving off the road. These ditches have proved very effective and most drivers have now learnt to park their vehicles at the parking bays, provided along the road and walk to the shoreline.

* * *

Miss Daphne Nightingale continued her White Pelican ringing study and several birds were ringed and tagged. An instrument has been installed at Nderiti by Mr. P. L. M. Chabeda of the Kenya National Parks Environment Research to monitor the moisture content and the possible presence of pollution agents in the atmosphere. The samples are being collected on weekly basis for laboratory analysis at the University of Nairobi.

* * *

Ranger patrols were intensified in the south following an increase in the number of animals seen with snares around their necks. Regular patrols were carried out in the areas adjacent to the Park boundary and a total of 62 snares were recovered and destroyed. One encouraging aspect is that the poachers activities in this area "backfired" when a snare intended to catch a wild animal caught and killed a fine domestic cow instead! As a result, the poachers removed the remaining snares!

* * *

A male bushbuck was found dead on the northern boundary having apparently been killed by a wire snare. A total of 3 waterbuck, one young Thomson's gazelle and 4 Reedbuck were found dead in the Park. Three bodies of the reedbucks found dead were completely decomposed. The cause of death could not be identified though it is suspected that they died from deficiency of copper and cobaltin (veterinary findings of recent months).

* * *

Dogs straying into the Park from Nakuru Town are still a problem. However, the rangers continue to shoot any dog on sight within the Park boundary. A total of 16 dogs were shot during this period.

* * *

A baby hippo was born at Hippo Pool and has become one of the main attractions in the area.

* * *

A group of children from eight different European countries who raised a large sum of money overseas for the purchase of the extension of Lake Nakuru National Park visited the Park during the month of February.

We are very grateful to these children for their generous contribution which will help to save Lake Nakuru for us and the future generations.

Njoro camp site has been improved and the general maintenance of the Warden's house carried out.

TSAVO WEST:

Tsavo West Rangers on the summit of Kilimanjaro.

Another animal count was carried out in January. The figures for the park almost doubled those of the previous count. This is attributed to the park being much wetter. There were, for instance, many more elephants east of Jipe which had come from the Mkomazi and many more in the block between the main road and Ngulia range, which the warden thinks moved in from Tsavo East.

* * *

The usual problem of animals getting into the compound were experienced at Mbololo and Kilaguni. The elephant-proof fence at Kilaguni has been rebuilt but one bull still manages to cross the fence—performing a circus act each time. He stands up on his hind legs, gets his front legs across the wire then see-saws over. No fence can take 6 tons and the warden thinks the best solution is to dig a ditch round the lodge.

* * *

The warden tried to dart a bull elephant with a big suppurating wound on his withers. When the dart hit the elephant it ran a few paces then turned round and charged. After killing him the warden found the arrow head had worked its way right through to the groin causing tremendous suffering to the animal. Dr. Hagen of the Frankfurt Zoological Society happened to be there and he and his wife were touched to the extent that they wanted to start a big fund raising scheme for anti-poaching activities.

TSAVO EAST:

Work continues on the Lugards Falls/Sala road to bring it up to all weather standards. A new gate, ranger quarters and public toilets are near completion at the Manyani entrance to the Park. Major alterations and extension to the education centre are in progress. When completed, accommodation and other facilities for up to 50 students will be available.

* * *

Heavy isolated storms in the vicinity of the headquarters and the Voi Safari Lodge resulted in large concentrations of elephant congregating in this area throughout April. Herds numbering 500 and more could be viewed from the lodge, providing a memorable sight for visitors to the park. Elsewhere, rains to date have been disappointing, and large sections of the Park remain dry.

* * *

A further elephant count undertaken in January revealed that there were still some 14,000 elephants in Tsavo East, despite the known mortality of 5,000 in 1970/71. This suggests immigration took place before or immediately after the drought. Surveys of adjacent areas to the park show that the effects of the die-off, will result in a decline in the population over the next two decades. A detailed study of the 1970/71 mortality has now been completed and awaits publication.

* * *

Radiotelemetry work on the movements of elephant within the park continues. Results so far show a more widespread movement of family groups during the wet season than was previously thought.

* * *

Poaching continues to cause grave concern. The present value of ivory and rhino horn is high and has increased considerably in the past two years. This is an incentive for poachers to hunt in the park. The situation is difficult to control when sentences passed on offenders often do not act as a deterrent.

* * *

The tame impala mentioned in previous notes, which was mated with a wild ram, has given birth to a male offspring. The actual birth was observed and recorded in detail, and a note has been kept of subsequent events. The baby, now 4½ months old, has been successfully weaned and has established itself among a wild herd. The mother still spends the days in the warden's garden and the nights in the bush.

TANZANIA

It is regretted that Tanzania Parks were unable to supply their news.

NEWS FROM THE NATIONAL PARKS

UGANDA

KABALEGA

Poaching has been high. On March 6 eight poachers were seen near Agelleo hill skinning a young elephant. The rangers chased them and three were arrested—two being wives who were taken along to carry meat.

* * *

Out of 92 crocodile nests found in February along the Nile between Lake Mobutu and Kabalega Falls, 32 were destroyed by predators. Baboons destroyed 27 nests, honey badgers six and monitor lizards one. Sixteen nests hatched that month.

KIDEPO

Iain Ross, chief warden of Kidepo Valley National Park, retired on February 15. Ross did most of the pioneer work for his park which he administered well for seven years. He was the last expatriate game warden in Uganda and has been succeeded by Paul Ssali.

* * *

ESJ Productions, an American film company, has just completed a seven-month film project in the park. Supervised by producers Eugene and Natalie Jones it will be a two-hour, colour feature film for world release.

It tells the story of the six-month transition period for Paul Ssali taking over from Iain Ross as game warden. Some of the dramatic scenes in the film include Ross and a team of rangers shooting it out with leopard poachers, Ssali leading other rangers through a chest-high swamp after poachers in a fierce storm and a day-and-night battle against a raging bush fire.

Another scene shows Ross out in a Landrover carrying out a recce of elephant over-grazing in the park. The vehicle carried a camera mounted on a chair arm 2 metres out from the side. A huge female elephant attacked the Landrover, tusked it three times, dragged it nearly 10 metres and almost completely demolished two doors. The charge and tusking were captured on film.

* * *

On March 22 poachers "posted" a letter (in the middle of a track) to the park rangers warning them to stop harassing poachers. The letter threatened an attack on the park headquarters if the rangers did not ease up. Nothing has happened since.

* * *

A white-eared Kob (*Adenota kob leuoctis*) was sighted near the Park headquarters during March. It is the first time this animal has been recorded in the park and is believed to be still there.

* * *

Dr. S. K. Eltringham, of the Uganda Institute of Ecology, successfully darted a lioness and treated her for serious bleeding from a broken lower canine tooth, a bruised jaw and a seriously bruised back leg. It is believed she suffered the injuries when she tried to kill a buffalo.

RUWENZORI

Hippos are increasing fast on the peninsula. But one newly born hippo at Rwenjubu was trampled to death by a bull hippo fighting a competitor for the school. ●

GORILLA *continued from page 33*

The ease with which this can be achieved varies considerably, and one takes pot-luck. Some elderly visitors who said that they could only manage a two-hour walk, were lucky enough to watch the gorilla for five hours across an open valley, after a walk of no more than thirty yards! Many other, perhaps less fortunate visitors will attest to many hours of toil, rain-drenched days, safari ants or the incredibly nasty hornets. However, all will unanimously agree as to the uniqueness of the occasion, and the thrills which it gave them.

The animosity which has arisen and continues to arise between park management staff, and research scientists throughout the world of conservation, is often I feel, a sad example of the result of hastily made judgements of either people or situations.

At Kahuzi-Biega I was extremely lucky in that, despite some early reticence over "boffins" in general, Adrien Deschryver unselfishly handed over to me, and to Dr. Michael Casimir, the full benefits of years of hard work spent trying to habituate two groups of gorilla to contact by man.

The Zaïre Government, the parks officials of Zaïre (I.N.C.N.), and I.R.S.A.C. gave me complete freedom and every help in my research. Adrien, furthermore, never regarded the gorilla as *his* but wanted as many people as possible to see them, hoping that these two families of gorilla would save many many more from destruction.

I learned a great deal from Adrien, the Pygmies and the gorilla of Kahuzi-Biega and, in return, I hope that the thesis I am presently writing will provide the Park authorities of Zaïre with a more precise understanding of how the gorilla go about their daily lives within the confines of the Park (including the timing of their lunch time breaks!). ●

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