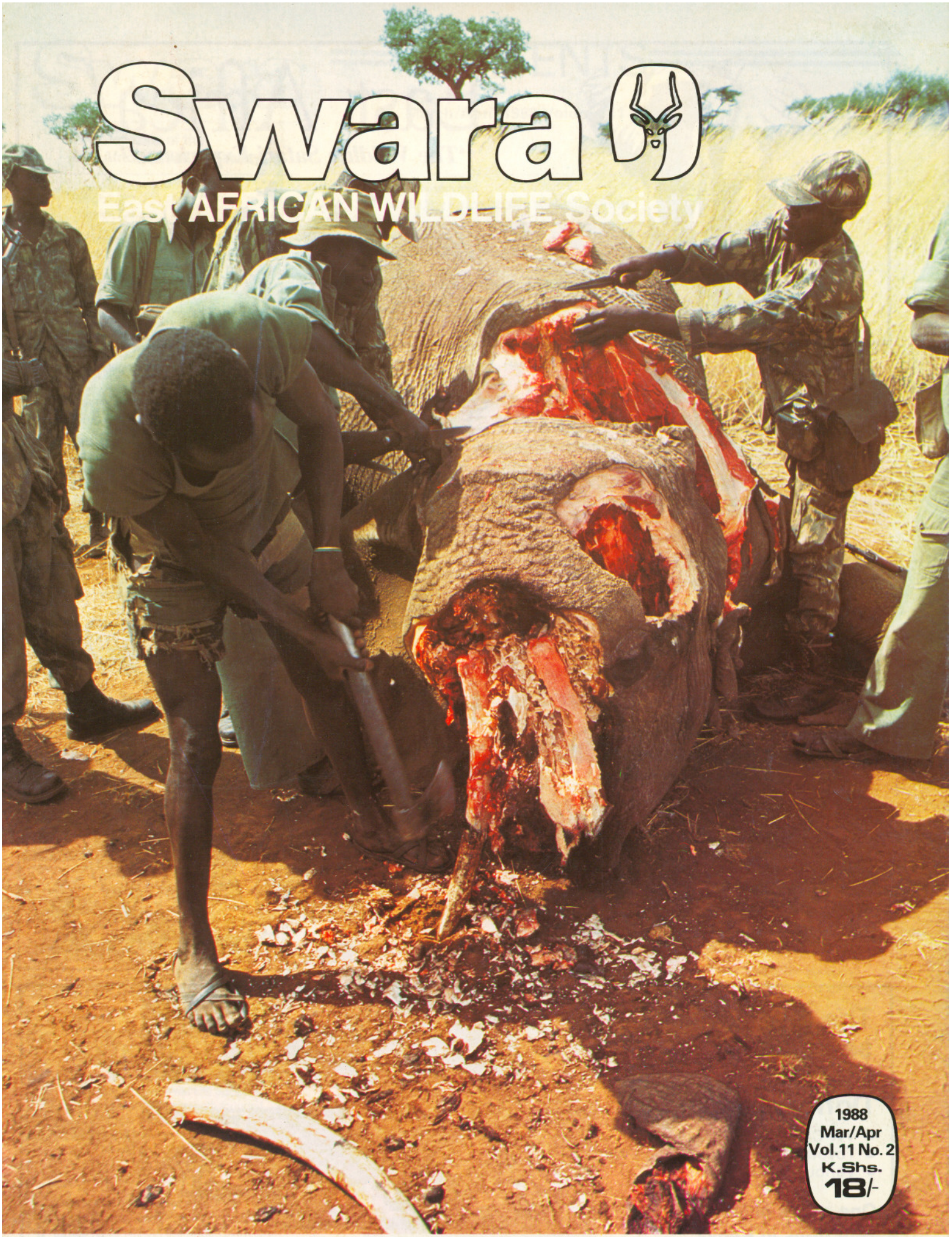
Swara

East AFRICAN WILDLIFE Society



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Inside:

ELEPHANTS, RHINO MAN, TELEKI...

Swara

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Cover photo:
This elephant was killed by Sudanese soldiers in 1981 when they invaded Uganda's Kidepo National Park. In the ensuing gun battle, two Ugandan soldiers and a ranger were killed before the Sudanese were driven off. Here Ugandan soldiers and rangers cut off the tusks
W.E. Garrett

The impala antelope is the symbol of the East African Wild Life Society. Swara (sometimes pronounced Swala) is the Swahili word for antelope.

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Swara is a bi-monthly magazine owned and published six times a year by the East African Wild Life Society. The Society is a non-profit making organisation formed in 1961 by amalgamating the Wild Life Societies of Kenya and Tanzania (both founded in 1956). It is Society policy to conserve wildlife and its habitat, in all its forms, as a national and international resource. Please see page three for full details and membership rates.

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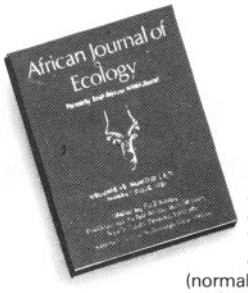

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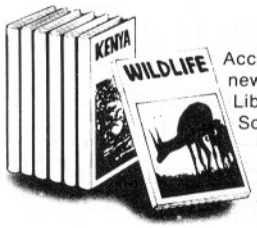

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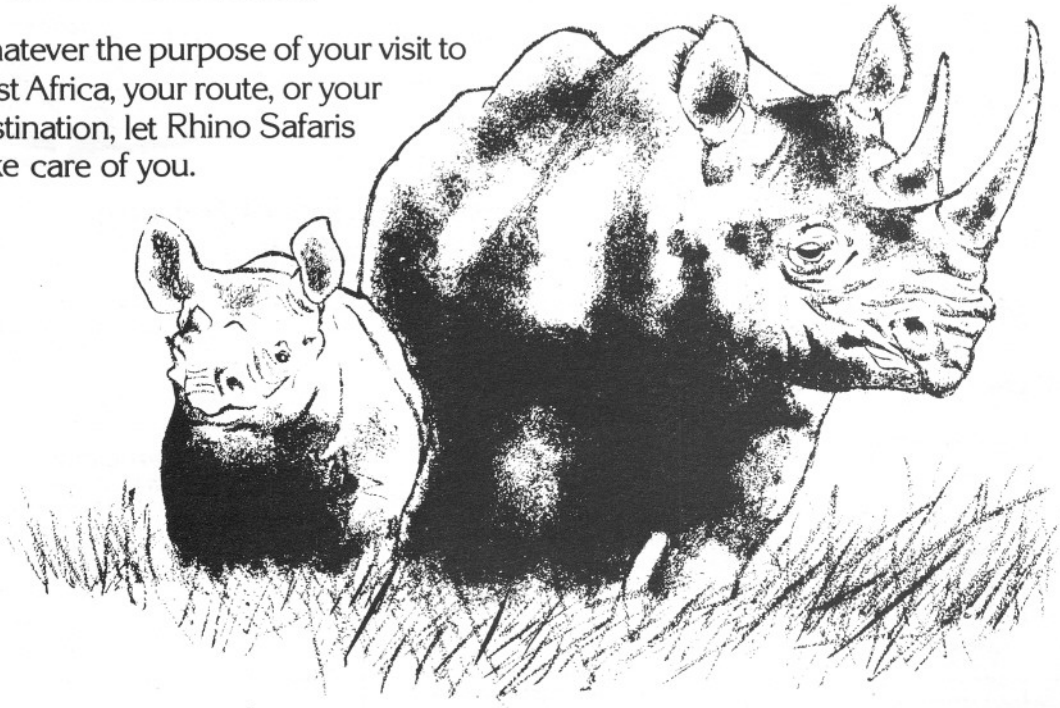

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COMMENT

Disciplinary action against Kenyan wildlife officials

by Nehemiah arap Rotich,
Executive Director, EAWLS

The East African Wildlife Society warmly applauds the recent statement by Kenya's Minister for Tourism and Wildlife concerning disciplinary action in the areas under his ministry.

In a statement issued on 7 January, Mr George Muhoho announced that seven top officials in his ministry had been sacked, eight field officers had been interdicted and a further 12 were under investigation for committing grave mistakes which violated their duties and terms of employment. 'This is just the beginning,' he said. 'We are not going to stop until all corrupt, dishonest and self-enriching elements are wiped out from the ministry at all levels.'

The offences committed by the disciplined officers ranged from 'condoning poaching of wild animals, absenting themselves from duty in order to give poachers a field day, killing giraffes and selling their meat, and diverse cases of general inefficiency .... they have also failed to account for public funds under their care.'

Mr Muhoho recognised that there had been a 'tremendous increase' in the number of zebra, lion, giraffe, gazelle and wildebeest since the ban on hunting was introduced in 1977, but that there had also been a 'severe decline' in certain species of wildlife. The minister referred in particular to the current poaching of elephants in Tsavo East National Park. 'But,' he added, 'we shall not give up.'

COMMENT

As Society members will recall, in the 'Comment' in last year's July/August issue of *Swara,* I wrote of the need for discipline among wildlife officials and for better control from headquarters, so the minister's actions are particularly welcome. We believe that the wildlife and natural resources of this country are enormously valuable assets and the continuing plunder of these by greedy officials simply has to stop.

The Society would also like to suggest that the clean up, now begun, should be continued to its ultimate conclusion, for the civil servants are but a part of the story. It is known that public officers need political protection and private sector outlets. Let the authorities dig deep; the country needs its natural splendours, its fish, its forests, and its tourism. The exploitation of these for the nation's benefit is what is called for and the minister's action is an excellent beginning to the New Year.

Discipline is a matter that Kenya's President, H.E. Daniel arap Moi, has so often spoken about. It is obvious that the President is serious about this issue and his concern for the nation's environment and natural resources is well known and often quoted. The Minister for Tourism and Wildlife and his Director of Wildlife have never had a better opportunity to get conservation back on the road. The East African Wild Life Society stands ready to provide every possible asistance in this vital and long overdue endeavour.

The events of the last few months provoke the question of how far Kenya should privatise its public sector. It would, perhaps, be unwise to think of privatising wildlife management completely, but would it not be worth considering the value of putting the management back on a parastatal, profit-making basis? The former Board of Trustees for Kenya's national parks had problems, but not of the magnitude nor the kind that today's Wildlife Conservation and Management Department are experiencing.

It is certain that a public corporation could make enormous profits for the country. The Society believes that under the wise leadership of H.E. the President, the semi-privatisation of an industry such as wildlife could be made to work. The central concern would be discipline and with the leadership we enjoy, this could be relatively easy.

The East African Wild Life Society would urge the minister to review the possibilities and then introduce a new approach to the management of wildlife in this country.

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EASTELEA HARARE

The great East African elephant disaster

by Iain Douglas-Hamilton

Everyone knows that for years poachers have been killing elephants for ivory. What nobody appears to be aware of, other than a few wardens and wildlife scientists, is the extent of the destruction of elephants in East Africa, and how fast the remaining elephants are disappearing.

This wave of killing elephants for ivory is the second of its kind, the first having all but wiped out elephants in much of East Africa before the turn of the century. With the advent of game laws and protected areas, elephants recovered, and until 1970 it was thought that they were safe from this form of extermination.

It has been my work to monitor the changes of elephant populations over the last 12 years for a number of conservation organisations, development agencies, and government wildlife departments. During this time I have organised or participated in many elephant counts in the three countries of East Africa.

Last year the best available elephant data were assembled in a UNEP report, sponsored by WWF and the Elsa Wild Animal appeal. Anne Burrill and I co-authored this report. The study took the data and modelled elephant population estimates for Africa, country by country, using a giant geographical information computer at the the Global Environment Monitoring System/UNEP. The object was to provide African countries with the best elephant information so that they could agree on ivory quotas, under the new CITES Ivory Export Quota Agreement. The report was presented in time for the CITES meeting in Ottawa in July 1987.

In the course of this work we looked at East African elephant trends. This region out of all Africa has been particularly famous for its elephants, and there was a great deal of data. Wilbur Ottichilo from the Kenya Rangeland Ecological Monitoring Unit painstakingly assembled the results of the latest KREMU surveys, and we compared these with previous counts. Tanzania and Uganda also provided the necessary information, including counts which I helped co-ordinate in the Selous Game Reserve, Lake Manyara and the Uganda national parks. Many colleagues in wildlife research contributed, including members of the African Elephant and Rhino Specialist Group of IUCN.

The results are summarised in the table on page 11, which is updated only with respect to the count made in Manyara last November. It represents a comprehensive picture of changes in elephant populations in East Africa over the last 15 years for Kenya and Uganda, and over the last ten years for Tanzania.

From the table it is obvious that elephants before 15 years ago were still very numerous even outside protected areas. In fact many thousands were shot annually in the 1960s in order to protect crops, without any overall negative impact on numbers. The ivory from these 'control' operations, and licence fees from elephant sport hunting, helped to make the wildlife departments of those countries self-sufficient.

The resurgence of the ivory trade began in 1970 with a rapid increase in the price of ivory. The elephant crashes that have occurred are not unique to any particular country, and have been replicated in Uganda, Kenya and Tanzania.

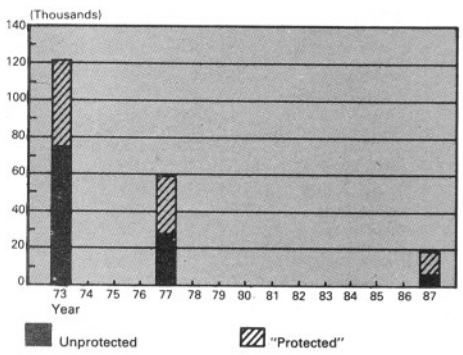
In Uganda the fall was the most dramatic in the early 1970s, when Amin's men looted the national parks for ivory, including the Murchison Falls Park south of the Nile, where elephants dropped from 9,000 to 1,700 in three years. (They have since been virtually eradicated.)

The Kenyan record was not such an abrupt fall, but in absolute terms the number of elephants lost was greater. However, the trends in Amboseli, the Mara and Laikipia provide exceptions to the general decline. In each case, these safe havens have been crowded with refugees.

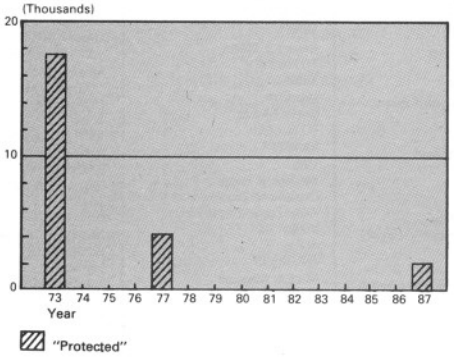
The Tanzanian elephant collapse got going later and at a slower rate, although in actual numbers of elephants the loss was the greatest. For example, 55,000 elephants were lost in the Selous Game Reserve over ten years. Today there are still 55,000 left, which amounts to nearly half of East Africa's elephants.

Some of the key indicator populations had not been sampled for a while when this table was assembled. Results coming in since last July suggest that we may have seriously underestimated the rate of decline for some populations, for example Lake Manyara, which now has been recounted and only numbers 180 to 200, compared to the 430 we had assumed. Ruaha Rungwa was estimated at some 22,000, but results currently being analysed by the Serengeti Wildlife Research Institute will give a far lower figure. Finally, the elephants of Mkomazi Game Reserve, which were estimated at 2,800 in 1968 and 670 in 1977,

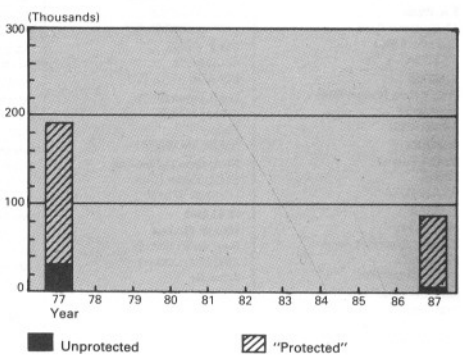
Kenya elephant population



Uganda elephant population



Tanzania elephant sample



Iain and Oria Douglas-Hamilton

Iain and Oria Douglas-Hamilton

Iain and Oria Douglas-Hamilton

A typical family unit of mothers and their immediate offspring in Lake Manyara (top); a young female in Tsavo (left); playful contact between members of a family unit reinforces strong social ties (above).

Frants Hartmann

Iain and Oria Douglas-Hamilton

Above: A group of elephants in Tsavo West National Park.
Left: A small baby suckling its mother in Lake Manyara National Park.

have now declined to 90 animals, rather than the 193 we had extrapolated.

In the rest of Africa, data is more scanty, but most of it paints a picture for the elephants which is similar to or worse than East Africa. Only in parts of southern Africa are elephants still numerous, although even here the largest population, living in the north of Botswana, has probably immigrated from elsewhere, fleeing the fighting and the poaching. It is beyond the regional scope of this article to give the whole continental picture, but what data exists is summarised in the UNEP report, which will soon be available in popular form.

It is now universally recognised by responsible scientists that the current offtake of ivory is too high, not only in East Africa, but in most of the continent. As leading wildlife scientist David Western and his colleagues have shown in a computer model, a constant offtake of ivory if excessive will cause a population crash which starts slowly and then accelerates, and this seems to be what has happened.

Even the most cautious scientists now recognise that the elephant will become an endangered species if the present offtake of ivory continues. For East Africa the data would suggest that the elephant is already an endangered species. There is no way the East Africa elephants could sustain over the next ten years the ivory offtake of the last ten without going extinct.

There is a strong case to suggest that the Western public and Far Eastern ivory buyers bear a heavy responsibility for the destruction of elephants. The CITES quota system if it can be made to work could help to aid law enforcement by identifying clearly that small proportion of legal ivory making up today's trade. The illegal trade should then be eliminated. It would help devalue ivory if people would refuse to buy, sell or wear it.

The time to stop buying ivory and to launch a 'Save the Elephant' campaign is now, not in ten years when the elephant has

gone the way of the rhino. Such a campaign should work closely with African governments and NGOs such as the East African Wild Life Society to stop the elephant killing.

There are some signs to show that the disastrous elephant situation could be reversed. For one thing in 1900, when everyone thought that the elephant was about to become extinct, game laws were enforced at the eleventh hour and the decline was halted.

In Kenya, with the appointment of Dr Perez Olindo as Director of the Wildlife Conservation and Management Department, there is an atmosphere of reform in the air. It is apparent from a February count in Tsavo (whose results are being worked up) that most of the heavy mortality occurred before the last 12 months, and that current poaching is mainly on the fringes of the park and in areas outside.

In Tanzania, following the Selous Survey in 1986, massive anti-poaching operations were launched and the government appears serious in its determination to stamp out poaching. The anti-poaching forces have acquired a new aircraft. The Tanzanian government has banned the private trade in ivory and the ivory carving industry, which acted as an uncontrollable loophole. Foreign donors have proved to be willing to give money and provide equipment to rehabilitate the national parks and reserves.

In Uganda also there is strong support from EEC and UNDP for the national parks organisation, but no recent news has come of the largest elephant population in the Murchison Falls park. Traditionally, there has been a strong commitment to wildlife and applied research in Uganda, which is currently attracting international support and which has proficient local participants.

The crux of the matter now is for East African leaders to give priority to halting elephant poaching and to eliminating the illegal ivory trade. The ivory trade is totally outlawed to private individuals in both Kenya and Tanzania, but poachers do not exist where there are no ivory buyers to receive the goods.

With a real commitment on the part of the East African governments and donor agencies, there is no doubt that the tide which has been flowing so strongly against the elephants can be halted and put into reverse. Without this commitment, we can expect the elephants to nosedive to the low hundreds.

Dr Iain Douglas-Hamilton is a leading conservationist known for his work on elephants. He received his doctorate in 1972 for a five-year study of the ecology and behaviour of the elephants in Tanzania's Lake Manyara National Park. While campaigning to get the Lake Manyara park extended, he made a television film with Anglia and also co-authored a best-selling book, *Among the Elephants*. He is presently analysing elephant data from all over Africa in a joint project sponsored by the European Economic Community and the WWF, in the course of which he assisted in co-ordinating the recent Tsavo elephant count (see 'Society Highlights' in this issue).

Trends in sample East African elephant populations

Kenya sample

Districts excluding protected areas	1973	1977	1987	15-year change	15-year % change
Garissa	14,500	7,092	678	-13,822	-95%
Lamu	7,000	3,412	310	-6,690	-96%
Tana River	32,000	6,524	1,152	-30,848	-96%
Kilifi	10,000	806	100	-9,900	-99%
Kwale	2,000	1,420	182	-1,818	-91%
Isiolo	2,000	1,275	154	-1,846	92%
Samburu	9,000	1,318	427	-8,573	-95%
Turkana	1,500	1,318	444	-1,056	-70%
Laikipia	1,000	3,060	2,791	1,791	179%
Narok	5,000	1,921	243	-4,757	-95%
Unprotected sub-total	**84,000**	**28,146**	**6,481**	**-77,519**	**-92%**
Protected areas					
Mara NR	720	710	1,100	380	53%
Amboseli NP	550	450	680	130	24%
Meru NP	1,500	2,000	427	-1,073	-72%
Samburu Buffalo Springs NR	2,500	531	632	-1,868	-75%
Marsabit NR	300	900	529	229	76%
Mt Kenya NP	2,500	3,000	2,000	-500	-20%
Mt Elgon NP	500	1,000	200	-300	-60%
Aberdare NP	3,000	3,000	2,000	-1,000	-33%
Tsavo ecosystem	35,000	19,300	5,700	-29,300	-84%
Protected areas sub-total	**46,570**	**30,891**	**13,268**	**-33,302**	**-72%**
Kenya total	**130,570**	**59,037**	**19,749**	**-110,821**	**-85%**

Tanzania sample

Unprotected areas				10-year change	10-year % change
Arusha complex		16,660	2,146	-14,514	-87%
Tabora region		8,399	1,958	-6,441	-77%
Kilombero		5,848	2,230	-3,618	-62%
Unprotected sub-total		**30,907**	**6,334**	**-24,573**	**-80%**
Protected areas					
Selous GR and Mikumi NP		109,000	55,000	-54,000	-50%
Ruaha NP, Rungwa GR, Kizigo		43,685	21,986	-21,699	-50%
Serengeti NP		3,008	395	-2,613	-87%
Manyara NP		453	180	-273	-60%
Tarangire NP		3,000	3,000	0	0%
Mkomazi GR		667	193	-474	-71%
Protected sub-total		**159,813**	**80,754**	**-79,059**	**-49%**
Tanzania total		**184,872**	**87,088**	**-97,784**	**-53%**

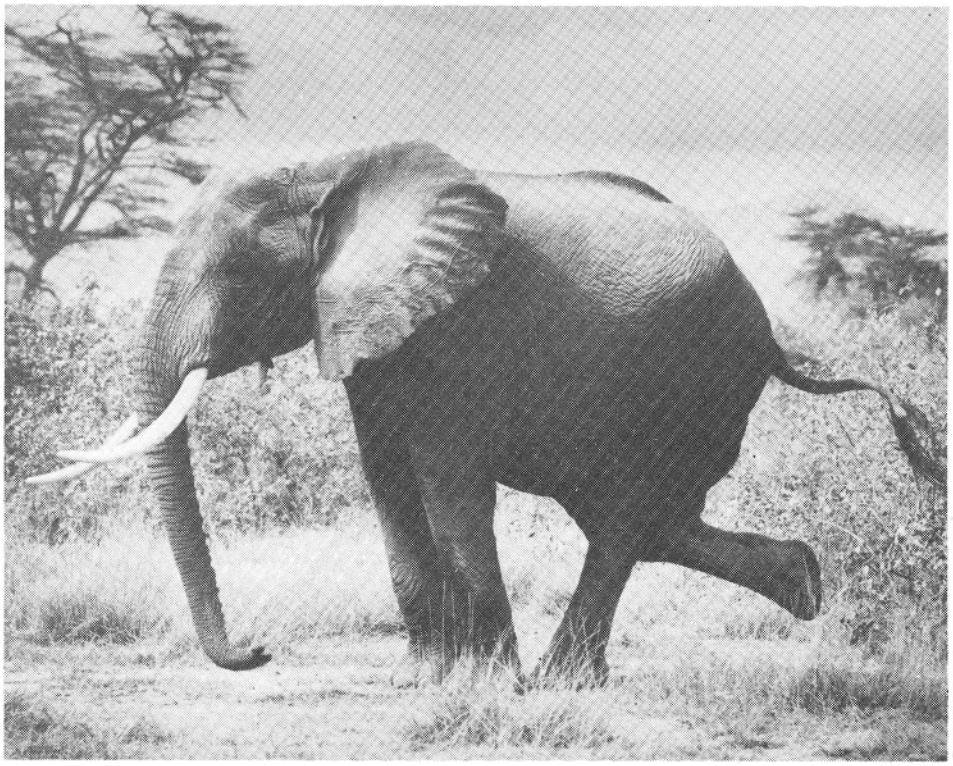
Uganda sample

Protected areas				15-year change	15-year % change
Kidepo NP	820	615	430	-390	-48%
Queen Elizabeth NP	3,000	1,200	700	-2,300	-77%
Murchison Falls NP	13,800	2,375	725	-13,075	-95%
Protected total	**17,620**	**4,190**	**1,855**	**-15,765**	**-89%**

These figures are reproduced from the *African Elephant Database Report*, UNEP 1987, and are derived from a variety of sources, many of them sample counts. These estimates include almost all of the elephants in Kenya and Uganda and about 75 per cent of those in Tanzania.

The Lake Manyara elephants

by Iain Douglas-Hamilton



Frants Hartmann

The elephants of Lake Manyara formed one of the few populations I thought was safe. It is a small isolated park of incredible beauty, and well known in Africa for its high density of elephants and the ease with which they can be watched. Long-term elephant studies, initiated in 1966, made this one of the best-known elephant populations in Africa. It was the first where elephants were studied in the wild as individuals. Its small size makes it relatively easy to patrol, and for years it escaped the general East African elephant trend. This happy circumstance lulled me into a false sense of security.

For 20 years, I have flown periodic aerial surveys to count the elephants. From air and ground work, I knew that the population had gently increased from 1967 to 1985. In 1967 there were just over 300 elephants counted from the air and in subsequent surveys these increased to a maximum of 485 in 1981. 1984 and 1985 both gave slightly lower numbers, but well what might be expected from movements in and out of the park.

In November 1987, Professor Karim Hirji of the Serengeti Wildlife Research Institute, and I made another count. This time only 181 elephants were counted, by far the lowest number ever recorded. In just two years the population had more than halved. Dead elephants were at an all time high and numbered 94, giving a carcass ratio of 34 per cent. Just over half of the dead appeared to have died within the previous 18 months. Since dead elephants are difficult to spot from the air, it is likely that for every one we saw there was another we missed.

The Manyara elephants have now become much shyer and tend to stick in thick bush. They have almost given up the habit of walking out on the open shore in the evenings in huge herds, as used to be their custom (which is a sad loss for the tourists). The older age groups are underrepresented and Patti Loesche, who studied them last year, repored that she saw one wounded elephant per day on average.

During my trip around the park for the survey, I saw one elephant with spear wounds at the Musasa river, half-way down the park. I saw none of the old matriarchs that I knew before, but I did see the three young matriarchs Tuskless, Virgo and Phoebe. One of these had no tusks, another only one. Otherwise there were no large elephants, either bulls or cows, to be seen in the park. It appears that almost every elephant over the age of 30 is missing, and must be presumed killed. It is as if a whole older generation has been wiped out.

The drop of -25 per cent year over two years is much worse than the national average. In the Selous Game Reserve, for example, elephants were decreasing at a rate of -5.5 per cent per year.

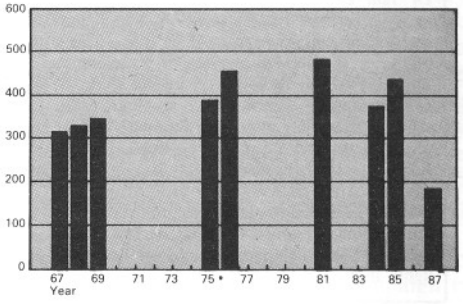
The Manyara elephant situation shows that there is nowhere that the safety of elephants can be taken for granted. If it is considered as an indicator population, the implication is that elephants are decreasing in Tanzania and possibly elsewhere faster than has been realised.

It is possible that this sudden negative trend is related to a further rise in the price of ivory. Although I have no data on the price of ivory in Tanzania, it is known that the international price of ivory showed a sharp increase in 1987. One major batch of ivory sold in Brussels at a price of about $150 per kilo, compared to $100-120 the year before. The danger is that poachers will find an incentive to come after even the small and supposedly well-protected populations like that of Manyara.

The Tanzanian national parks authorities have taken action since receiving the count report, and anti-poaching operations in Manyara have been redoubled. They still lack equipment, however, especially transport for the anti-poaching operations. It is to be hoped that international donors will step into the gap and provide a rapid response in terms of transport, equipment, fuel and whatever is needed to protect this unique population.

In addition, the ban on private trade in ivory in Tanzania needs to be reinforced, especially by consumer countries, preventing illegal Tanzanian ivory from being imported and entering their markets. It would help greatly if a TRAFFIC office were to be set up in East Africa to help monitor ivory movements abroad and, through the CITES quota system, to identify which ivory is legal and which illegal. If the illegal ivory could be eliminated, the pressure on the elephants would be greatly reduced.

Manyara elephants



Ian Redmond

Elephants file into the pitch-dark depths of Kitum Cave, Mount Elgon National Park, Kenya to mine salt-rich rock. The cow keeps a matronly trunk on her calf to prevent it straying near a crevasse in the dark.

Underground elephants under attack

by Ian Redmond

Unless more money is found now for the basic equipment needed by anti-poaching forces, over the next decade we can expect to lose more than half the elephants in the great national parks of East Africa.

Rumours – particularly those concerning bad news – have a tendency to get worse at each telling. I was reflecting on this fact as I bumped and slewed along the muddy forest track in Mount Elgon National Park, Kenya, last July. It was two years since I had last visited my study site, to make further observations on the unique salt-mining elephants, and during that time I had heard several second- and third-hand reports of ivory poaching in the park (see 'Islands of elephants', *Swara,* March/April 1987). My natural optimism was hoping that these verbal accounts had been exaggerated, and I scanned the bushes for a sign of a reddish-brown, elephantine back or some fresh, football-sized droppings on the roadside.

Then the stench hit my nostrils. The sickening smell of rotting flesh hung heavily beneath the trees, clashing with the visual beauty of the sunlit forest. It grew stronger as I drove along, then faded, leaving a lingering taste in the back of my mouth. Near to the path up to Kitum Cave, the same thing happened again, but I put off the unpleasant task that lay in store. The sun was sinking fast behind the mountain and, alone, it could take some time to locate the decomposing animal. I shouldered my pack and walked up to the cave to

... Ele-fund

settle in on the familiar rocky ledge before dark.

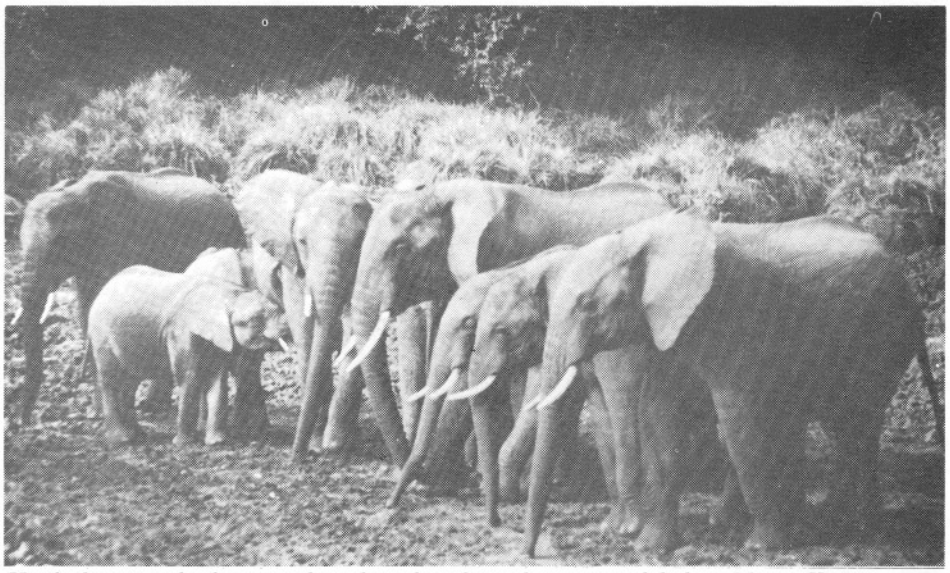
No elephants visited the cave that night, and there were no signs of fresh mining activity, so I took the opportunity to examine the cave interior. Little had changed since the 1982 roof fall, in which the back third of the 175-yard cave was blocked to elephant traffic. The muddy side-chamber was somewhat enlarged by tusking, and droppings showed that some adventurous elephants had clambered on to the new roof-fall, in total darkness, to find new mining sites. The lack of fresh dung seemed ominous, but on the other hand, once it has lain in the cave for a few days, it is difficult to tell whether it is a couple of weeks or a couple of months old.

The next morning I drove around the lower circuits of the park track and was relieved to find fresh droppings of the previous night. An adult elephant had been tusking the roadside cutting in search of salt, and a half-chewed branch had been dropped in the middle of the road. There were still some elephants left, thank goodness, but how many? I drove down to the park headquarters to meet Ben Amoko, the new warden.

The news was bad – almost as bad as the rumours. Since February 1986 there had been heavy poaching for ivory. Poachers apparently came from both sides of the Kenya-Uganda border (which crosses the summit of Mount Elgon), but it was clear that the sudden appearance of automatic weapons was a result of the troubles in Uganda. By June 1986, the situation became so serious that the warden felt obliged to close the park to the public and bring in reinforcements from the Kenyan army and police – even using helicopters on occasion. Mr Amoko told me that one of his bridges had been blown up by poachers, to hamper his movement of rangers, and I later heard unsubstantiated reports of poachers using anti-tank guns to kill elephants.

The park remained closed to the public for three months, but by the end of 1986 things were looking better. Occasional attacks on elephants still took place, but between January and March 1987, 11 poaches were captured and imprisoned. The warden has replaced delapidated log bridges and a ford with sturdy concrete bridges, and greatly improved some of the park roads with murram. And the Kenyan Wildlife Conservation and Management Department (WCMD) has stationed a special anti-poaching unit in the park. But poaching attacks still take place, and the protection of the park and its elephants is hampered by a simple lack of funds for fuel, vehicle repairs and maintenance.

After hearing the warden's report, I went with one of the rangers to see the result of the latest attack. Leaving the car where the stench was greatest, we pushed through the undergrowth for 50 paces or so before finding the first carcass. A heaving mass of maggots spilled out from under the



Ian Redmond

Herd of cows and calves searching for salt with trunk tips at a salt lick on Mount Kenya.

Ian Redmond

Carcass of a 12-year-old bull elephant, ambushed on its way into Kitum Cave.

thick brown skin, and bones were scattered randomly by the attentions of larger scavengers. Under a thicket I was surprised to see that the elephant's skull was not much bigger than a basketball – it was a calf of perhaps three and a half year of age. The tusks must barely have been the size of pencils – what a bloody waste.

The second body was bigger – a young male of about 15 years. The skull showed that his whole face had been cut off in a single plane, apparently confirming rumours that the poachers came equipped with chain saws for speedy removal of the tusks. It occured to me that it could have been Charles – a tolerant young bull who had allowed me to photograph his tusking technique in a side chamber of Kitum in 1982. There was no way I could be sure, but the age was about right, and the mere possibility sent my mind racing. Standing beside the mutilated body, I felt the same surge of gut-wrenching sadness and anger that accompanied my discovery of Digit's body nearly 10 years before. Digit was the young silverback mountain gorillas whose death, at the hands of poachers, triggered the highly successful Mountain Gorilla Project and Digit Fund, which together have ensured a future for what Dian Fossey called 'the greatest of the great apes'. Whether or not this was Charles rotting at my feet became immaterial. The fact was, someone had shot one of my study animals and sawn his face off. Why? To supply a mindless market among the wealthy for ivory trinkets and bangles. There had to be something I could do to help prevent this sort of carnage.

My guide, Corporal Peter Lumula, was picking empty brass cartridges out of the leaf litter. They were small calibre – ridiculous ammunition for the job; it had taken a lot of bullets to finally finish the elephant off. I asked Corporal Lumula how it had happened, and pieced together his information with that gleaned from other local sources. The attack had taken place in early July. A small herd of elephants was being tracked by the gang of poachers as they approached Kitum Cave for an evening of salt-mining. As the elephants circled the cave to climb the approach path, the poachers positioned themselves on the cliff top above the cave. Then, as the lead elephant was picking its way up the steep

Ian Redmond

One of the natural uses for ivory: two young bull elephants sparring.

Ian Redmond

This Hong Kong ivory factory sells legal ivory but highlights the elephant's plight.

entrance path, the poachers opened fire. There was no pretence at marksmanship, just bursts of rapid machine gun fire in the general direction of the elephants. Terrified and wounded, the herd scattered with the poachers in pursuit. But unbeknown to the hunters, a party of Kenyan women were sitting on the observation rock inside the cave mouth. It was an outing organised by the Kitale Museum to interest local people in their remarkable park. When the shooting started, they fled screaming all the way down to the warden's house some two miles away, but by the time the rangers were mobilised, the poachers had melted into the night, taking the ivory with them.

At the time of my visit, a total of 42 elephant carcasses had been found by park staff since the poaching began. But if the July attack was typical, the number of elephants wounded must be much higher. If they wander away to die days or weeks later, in Elgon's densely forested valleys, their bodies may never appear in the statistics. Because of the difficulties in counting elephants – dead or alive – in dense forest (aerial surveys are impossible) no accurate figures exist for Elgon, but it is clear that there has been subsantial decline. Few visitors to the park now see elephants and some local naturalists put the current figures as low as 50. This is only an educated guess, but we can be pretty sure that a population that was numbered in hundreds three years ago (500 was the usual guesstimate) is now numbered in tens.

The elephants of Mount Elgon are unique because of their subterranean habits, but their plight is typical of elephant populations in many parts of Africa. Elephant numbers have declined drastically in the past 10 years, but only recently have the members of the African Elephant and Rhino Specialist Group (AERSG) reached a consensus that the present rate of exploitation (legal *and* illegal) is unsustainable. Dr Iain Douglas-Hamilton, who has recently co-authored a major report for the United Nations Environment Programme (see the article by him on page 8 of this issue of *Swara),* points out that East Africa alone has lost 145,000 elephants in the past decade. 'There are now 109,000 left,' he told me, 'but if the "harvest" continues at the current level – 14,500 killed per year – the East African elephants will be finished in eight years! In reality, though, we expect the decrease to level out once they reach very low numbers.'

This downward trend works out as -10.4 per cent per annum for Kenya, and -8.1 per cent for East Africa as a whole. For West Africa, the figure is -17.8 per cent but data is patchy. Only in Southern Africa, where ivory poaching is better controlled, is there a slight overall increase of 0.7 per cent per annum, but this masks problem areas such as Kaokoland, Namibia, which shows a decrease of -17 per cent, and the Luangwa Valley, Zambia, which is losing 5.2 per cent every year.

It is often easier to comprehend such trends when actual figures are known. Luangwa Valley, for example, had 56,000 elephants in 1973, 33,510 in 1979, and at the last count in 1987, they were down to only 21,900. Comparison of figures for protected and unprotected areas shows clearly that anti-poaching efforts in national parks and reserves are effective in slowing the decline, but frequently these efforts are hamstrung by the loss, or lack, of basic equipment. Again, Mount Elgon is a case in point.

The warden has a fleet of eight vehicles; six are off the road needing spare parts or new tyres. Mr Amoko told me, 'It would take my entire annual transport budget to get just one of these vehicles fully repaired and back into action.'* According to the Kenya WCMD Senior Warden, Ted Goss, 'There is a desperate need for funds to keep the transport moving, both for repairs and operating costs. For the anti-poaching work on Elgon, minimum repairs would amount to US$6,000 and maintenance costs for adequate patrolling of the park would be approximately $23,000 per year.' Not an impossible sum, but of course this is just one park, and similar sums could be put to effective use in dozens of parks across Africa.

According to Iain Douglas-Hamilton, 'If the offtake of ivory is not drastically reduced, we can expect to lose all the major populations of elephants in the great national parks of East Africa, other than a small remnant.'

In recent years we have seen just such a catastrophic decline in black rhinoceros numbers, but only now is there a major concerted effort to protect this species. Are we prepared to sit back and watch the same thing happen to the African elephant?

The time for action is now, and action means money. The African Ele-Fund is an international appeal to raise funds for practical elephant conservation. It seems that a disaster is always needed to spur people into action; for me, that disaster is what is happening to my study animals on Mount Elgon, and the African Ele-Fund is a response. Every dollar donated will be spent in the field – the appeal is organised by volunteers, and administered for free by

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* Since this article was written, the East African Wild Life Society has spent over Ksh 120,000 in emergency funds to buy new parts for the Mount Elgon vehicles.

... Ele-fund

existing conservation organisaitons. So where will your money be spent?

Initially, we will concentrate our efforts in East Africa; a local Steering Committee, comprising Daphne Sheldrick, Dr Iain Douglas–Hamilton and Nehemiah arap Rotich, Executive Director of the East African Wild Life Society, will pinpoint urgent needs by means of park profiles drawn up by fieldworkers and wardens. And one of the first priorities is the Mount Elgon National Park.

Dr Perez Olindo, Director of the Kenyan WCMD, told me, 'We consider the protection of the Mount Elgon National Park to be of the utmost importance. We are planning now to enlarge the park to encompass all the remaining forest and Afro-Alpine moorland on the mountain. But this will put even more strain on our limited resources.'

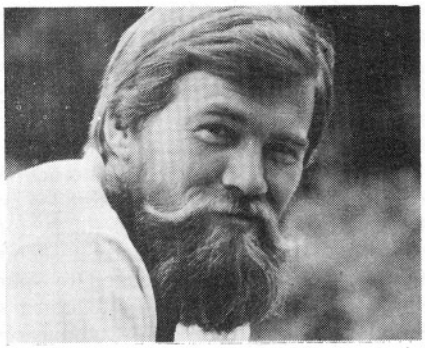
In Kenya, the conservation infrastructure exists, there are well trained anti-poaching units, all they need in this case is the equipment to operate effectively – and this is where your donation can help. Please make cheques payable to The African Ele-Fund and send them to your nearest address:

The Internatinal Wildlife Coalition, 1807 H Street NW, Washington DC 20006, USA, or

IWC-UK, Care for the Wild, 26 North Street, Horsham, West Sussex RH12 1BN, UK, or

East African Wild Life Society, P.O. Box 20110, Nairobi, Kenya.

Only with a concerted effort from all the conservation organisations, and the support of an elephant-loving public, can we prevent the African elephant from following the same disasterous path as the black rhino. And this must be done *before* numbers fall to a critical level. Action in Africa must also be coupled with publicity worldwide, to reduce the demand for ivory, which is fuelling the illegal slaughter. In this way, we can *all* help to Save the Elephant.



Ian Redmond is a wildlife biologist, photographer and writer. He has studied mountain gorillas in Rwanda and Zaire and the cave elephants in Kenya's Mount Elgon National Park (see *Swara,* July/August 1982). He broadcasts regularly for the BBC Natural History Unit, including his own radio series entitled *Bushy Tales,* and has advised on the making of several documentary programmes for American and British television. Ian is a graduate of Keele University and a Fellow of the Zoological Society of London.

Why save Mount Elgon's elephants?

All over Africa elephant populations are becoming isolated from each other and surrounded by cultivation. Instead of a continent filled with elephants, with only a few scattered tribes of humans, the roles are fast being reversed. Now we have islands of elephants in a sea of humanity. And in many parts of Africa these islands are being wiped out by a wave of ivory poaching. If this is the case, why should we be particularly concerned about the elephants in the Mount Elgon National Park, Kenya rather than any other beleaguered population? The answer is that they are unique.

Anatomically, they are normal African elephants who, despite living in a montane forest habitat, are classed as bush elephants *Loxodonta africana africana.* But behaviourally they are unlike any other elephants known. Mount Elgon is home to the world's only underground elephants.

They do not live underground, but every two or three days they visit vast caves, venturing deep into the dark zone, to mine salt. Their diet of forest plants is deficient in certain minerals, and to make up the deficit they must find a salt-lick. On Mount Elgon, the only available salt is in the walls of caves, some of which extend, more or less horizontally into the mountain, for 160 metres. It is one of the most remarkable sights in nature to see a whole herd of elephants swallowed up by the blackness as they slowly feel their way, trunk to tail like circus performers, into the depths of the earth.

If we just sit back and let the ivory poachers finish their bloody work, it is not just another population of elephants we have lost. The whole spectacle of elephants in caves, which we have barely begun to understand, would disappear. Even if, at some future time, elephants were reintroduced to Elgon's forests, there would be no guarantee that they would enter the caves. A baby elephant learns from its parents and elders where to find food, drink, salt and other necessities. Knowledge is passed down from generation to generation, and each population has the accumulated experience and wisdom of its forebears as a kind of culture. The use of the caves is a feature of Elgon elephant culture, and as such would die with the last Elgon elephant.

It is not unusual for elephants – both African and Asian – to tusk at cliffs if the rock contains useful mineral salts. This activity sometimes creates overhangs and small caves, but in all known locations but Mount Elgon, these collapse before they get deep enough to develop a dark zone. On Elgon, the cave roof is capped by a layer of very hard basalt, an old lava flow, and any collapses of the softer volcanic agglomerate occur within the cave. The results of my research support the theory that the caves have thus been dug by the elephants, perhaps over thousands of years. And this explains why Elgon elephants do not just mine in the daylight zone in the cave mouth, where they can at least see what they are doing. The underground behaviour has evolved alongside the cave.

As the cliff became an overhang, and the overhang became a cave, which gradually grew deeper and deeper, no single generation of elephants would perceive the change. Each new calf would accompany its mother – as the few remaining ones do today – and would therefore consider it normal to enter as far as the cave went. And so it may be that the propensity to venture up to 160 metres in total darkness, underground, has resulted from an unbroken line of instruction dating back to the first cliff diggers.

The spectacle of the elephant caves, each with its huge rock arch and sunlit waterfall over the entrance, along with the fascination of elephants underground, has the potential to become a major tourist attraction. And tourist revenues would help to cover the cost of protecting the park in future, but unless urgent action is taken *now* to stop the killing, it will be too late. That is why the African Ele-Fund has made the Elgon elephants a top priority. Already, several thousand pounds (from public donations and a grant from the East African Wild Life Society) have been spent in making vehicles roadworthy for anti-poacher patrols on Mount Elgon. But that is only a start. More money will be needed to better equip the patrols and to improve radio communications both on Elgon and elsewhere. The African El-Fund is committed to improving practical conservation of elephants and their habitats wherever they are threatened. We can only do that if *you* care enough to help.

Please send your donations to one of the addresses at the end of this article. And if you would like to join the Ele-Fund-Raisers, please enclose a sae for details.

HORIZONS

KENYA

African wild dog information request

John Fanshawe and Pieter Kat would like to thank those observers who have already sent them information on sightings of wild dogs in response to the request in the September/October 1987 edition of *Swara*. All the records are being collated and will contribute to an article to be placed in a future issue of the magazine. In the meantime please can we urge anyone who has seen dogs and not reported them to contact either Pieter Kat, National Museums of Kenya, Box 40658, Nairobi, Kenya, or John Fanshawe, 57 Argyle Street, Cambridge CB1 3LS, UK. Information on the dogs detailing date, location and pack size are requested. Your records are extremely valuable and can contribute to the conservation of these increasingly endangered animals.

George W. Frame

African wild dogs.

Pan-African Ornithological Congress

The Seventh Pan-African Ornithological Congress is to be held in Nairobi from 28 August to 5 September 1988. The provisional scientific programme includes sessions on African tropical forests, Palaearctic migration in Africa, African wetlands and their birds, and systematics and zoogeography. Depending on demand, evening sessions and special interest group meetings will also be organised on such subjects as agricultural problem birds, bird ringing and African bird journals.

One of the major objectives of this congress is to assist and encourage the participation of African delegates, and the organisers of the congress have appealed for donations to help finance this aim. They have also asked for volunteers willing to help the organising committee with numerous small tasks.

Anyone interested in participating in the congress or in helping out with its organisation should contact Dr Hussein Isack, Ornithology Section, National Museums of Kenya, P.O. Box 40658, Nairobi, Kenya; Telephone: 742161/4; Telex: Museum 22892.

WIDER HORIZONS

Royal Chitwan National Park, Nepal

Nepal's best known and most accessible national park, Royal Chitwan, is situated in the Rapti Valley about 120 kilometres south-west of Kathmandu. The park covers an area of 932 square kilometres at an altitude of 150 metres above sea-level and is best visited in the winter months from October to April. There are approximately 90 Bengal tigers, 150 leopards, 400 great one-horned rhinos, 300 sloth bears present in the park, as well as a number of different types of deer, both the gharial and marsh mugger crocodiles and more than 400 species of birds. There are several different lodges and camps providing accommodation, of which Tiger Tops is both the most famous and expensive. Tiger Tops also has the advantage of its own airstrip, which cuts out the tortuous six-hours drive from Kathmandu.

During a recent (December 1987) visit to the Royal Chitwan, we stayed two nights at Gaida Wildlife Camp Lodge and two nights at their tented camp. There is nothing like the quantity of game to be seen as in East African parks, but, one does have the opportunity of going out on safari on elephants, by foot, by Land-Rover or canoe to see what is around, which on clear days includes some good views of the Himalayas. Most times we went out with trained naturalists, whose expertise and enthusiasm enabled us to spot 128 different birds during our stay, including some very colourful parakeets, a red-headed trogon and numerous kingfishers, woodpeckers and herons. It is rare to see tiger or leopard but we saw rhinos virtually each time out, two sloth bears, both types of crocodiles as well as various deer and monkeys. We were

Squacco heron: one of the sessions at the Pan-African Ornithological Congress will be concerned with wetland birds and their habitats.

J.F. Reynolds

impressed with the personal attention we received during our stay and by the knowledge and keenness of the staff at both camps.

Andrew Sloan.

New lemur discovered on Madagascar

A West German biologist has set the world of zoology buzzing by accidentally finding a new species of lemur on Madagascar. Bernhard Meier, who does post-graduate research at the Ruhr University in Bochum, told Reuters he was looking for another, rare species of the furry tree-dwellers when he came across the hitherto unknown golden bamboo lemur. Even then, weeks passed before he realised his luck.

The university called his find a zoological sensation, marking the first identification of a new primate in almost 60 years. Primates, the highest order of mammals, include humans. Lemurs resemble monkeys but have more pointed muzzles and long, soft fur. The golden bamboo lemur is about 80 centimentres (26 inches) long, including tail, and weighs just over one kilo.

Meier, 37, told Reuters that he went to Madagascar in an attempt to confirm a report that the greater bamboo lemur had been seen in thick forest around Ramonafana. Originally thought to have died out early this century, the greater bamboo lemur resurfaced in 1972 in a piece of isolated woodland bordering a coffee plantation, far from Ramonafana.

Meier said his only means of identifying the greater bamboo lemur was a small black and white illustration he had cut from a book. He had no way of knowing that the larger mammal lacked the gold and red-brown fur of the new lemur.

Madagascar was thought to have only two types of lemur, including the fairly common grey bamboo lemur. So when Meier saw the non-grey lemurs soon after his arrival at Ramonafana he felt sure it was only confirmation that the greater bamboo lemur was more widerspread than had been thought.

A team of scientists from Duke University in North Carolina, working separately on the same quest, also took the animals to be greater bamboo lemurs and hurried off to tell the world of the rarity's presence.

Since he had time to spare, Meier said he decided to look up the original colony, which had been found by a team of French scientists including Professor Andre Peyrieras from the university in Tananarive, Madagascar's capital. But when he saw the lemurs there he could hardly believe his eyes. 'I saw an animal that I had never seen before,' he said. 'It was twice as large, the colour was different and the noise it made was unlike any I had heard.'

Then, said Meier, it dawned on him that there must be a third species of lemur in Madagascar. It took much longer to convince his colleagues at home and sponsor Yves Rumpler of the Louis Pasteur University in Strasbourg, France. His 'Come quickly, have found new lemur' message met blank disbelief. Tired of waiting, he left for home with photographs of his new discovery.

Meier said that confronted with these, his zoology teacher at Bochum, Professor Holger Preuschoft, admitted: 'It's impossible Meier, but you're right.'

Last April he returned to Ranomafana with Rumpler and Peyrieras. They used recordings of the species' calls to lure the new lemurs so that Peyrieras could dope them with narcotic darts fired from a blowpipe. Before being given to Tananarive Zoo, the scientists took tiny skin samples from the animals, which were later grown in culture in Strasbourg for a thorough analysis. A chromosome count and other tests confirmed the official debut of a new species, *Hapalemur aureus,* the golden bamboo lemur.

Last summer, the Duke University team under Patricia White went back to Ranomafana, and confirmed the presence in the region's forests of the greater bamboo lemur. Now Meier, White and the World Wildlife Fund are working with the government in Tananarive in an effort to create a 70,000-hectare (173,000-acre) protected area around Ranomafana.

Stanley Parker, courtesy of Reuters

Johan W. Elezenga

Black rhino.

Rhino exchange

Six black, and four white, rhinos have been given an unusual send-off as part of a rhino swap between Zimbabwe and Swaziland. The swap, funded by WWF, is intended to help protect the endangered black rhino by reintroducing it to Swaziland and to increase the population of white rhino in Zimbabwe.

Six black rhinos captured in the Zambezi Valley were transported to Swaziland on 29 December last year, putting them out of the reach of poachers who have killed at least 250 rhinos in the space of 40 months. The swap brings the animal back to a country where it was once indigenous. The black rhinos have been given sanctuary in the newly-declared Mkhaya Nature Reserve, protected by an electrified fence.

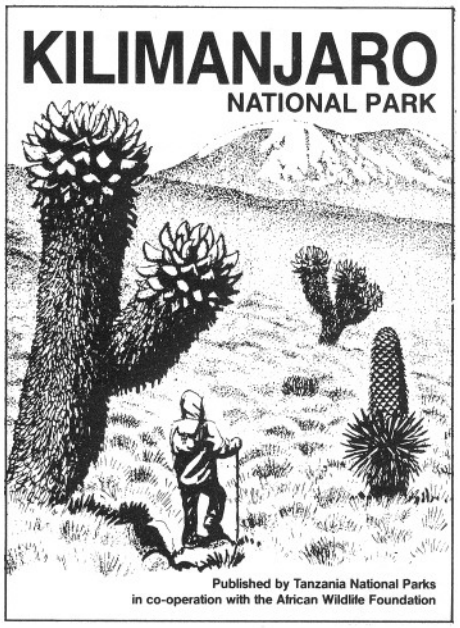
In return, Swaziland sent four white rhinos to Zimbabwe the next day. WWF hopes other operations can be arranged to protect the black rhino by dispersing the vulnerable populations.

Zimbabwe has an estimated 500 black rhinos in the Lower Zambezi Valley, the largest contiguous group in Africa. But raiding gangs of poachers armed with automatic weapons shoot the animal for its horn, worth as much as US$11,629 per kilo in Thailand. The horn is used to make dagger handles and traditional medicines. In less than two decades, the world's rhino population has declined by 85 per cent. Black rhinos, numbering 65,000 only 18 years ago, are now down to 4,000.

Charles de Haes, Director-General of WWF International, who helped arrange and witnessed the exchange in Swaziland, said 'This is an important example of international co-operation to save an endangered species; we shall continue our efforts to ensure that viable populations of black rhino are protected from the ruthless onslaught of gangs of murderous criminals who kill the rhinos to derive profits from their horns which are sold for ineffective medicinal purposes.'

WWF News

BOOK REVIEWS



Kilimanjaro National Park
Jeanette Hanby and David Bygott
Tanzania National Parks and the African Wildlife Foundation, 1987, US$5.

This latest in a series of guides to Tanzania's national parks, published in co-operation with the African Wildlife Foundation, is a neatly compiled introduction to Africa's most popular mountain. It is not a detailed climber's guide, but anyone planning to do one of the more difficult ascents would still do well to have a copy, for in addition to very good general descriptions of the alternative approaches to Kibo and Mawenzi, it contains a more than adequate overview of the natural history of the mountain. True naturalists will of course want more information, but the average trekker or climber will find most, if not all, of his or her questions about geology, vegetation, climate and so on satisfactorily answered. There are also sections giving information on park regulations, accommodation, and facilities, with all the necessary addresses and phone numbers for making bookings, and a good, informative section on mountain medicine (which is something no climber on Kilimanjaro should be without).

Perhaps the best thing about this guide is the attractive way in which it is organised and illustrated. Following short introductions to the history, geology, and climate of Kilimanjaro, there are descriptions, each accompanied by a map, of the six main walking routes up Kibo, the circuit route around Kibo, and the approaches to Mawenzi. The average hiking times between points along the routes are also listed.

Nearly half the text is then devoted to describing the five main ecological zones on the mountain, beginning with the cultivated areas on the lower slopes. David Bygott's fine black and white drawings are a real plus, enabling the reader to identify the more outstanding flora and fauna of the different zones with relative ease. There are only a couple of minor contradictions between the illustrations and the text, for example in the illustration on page 37 *Lobelia holstii* is listed as being blue, but in the text on the following page it is described as pink. The guide concludes with a short bibliography and a checklist for birds and mammals.

To sum up, this is a good, handy, and attractive little guide which will enhance any visitor's experience on Kilimanjaro. It would be nice to see a similar publication for Mount Kenya.

David A. Buitron

Many readers of *Swara* have expressed an interest in obtaining copies of the new Tanzania National Parks guidebooks, which are currently only available in Tanzania. The East Africa Wild Life Society has arranged with the African Wildlife Foundation for a limited number of sets of all six guidebooks to be made available to Society members. The set includes *Serengeti, Lake Manyara, Tarangire, Arusha, Mikumi* and *Kilimanjaro National Parks*. Sets will be sent by airmail on receipt of a US$50 cheque, payable to the African Wildlife Foundation, at P.O. Box 48177, Nairobi, Kenya. The donations will be used to further the conservation education projects of the Tanzania National Parks. Individual Society members living in Kenya may purchase a set for Ksh 450 by calling in at the EAWLS shop.

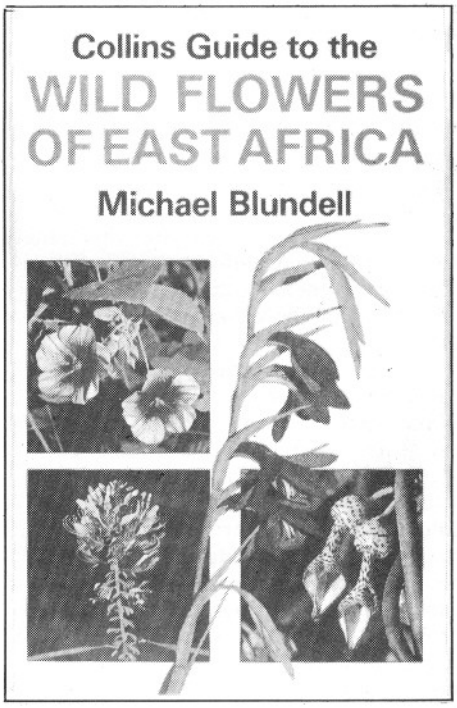
Collins Guide to the Wild Flowers of East Africa
Michael Blundell
Collins, London, 1987, Ksh 290

Sir Michael's new book is the result of several years of painstaking work, and a great improvement on his previous *The Wild Flowers of Kenya* (Collins, 1982). This new volume contains more species, more information and more photographs, and covers a much larger geographical area, from Ethiopia to Mozambique.

Aimed at both the general reader and the serious botanist, the text is in taxonomic sequence, covering the 20 main families of flowering plants, but not the grasses or the sedges. Descriptions are simple and concise, and information on range and altitude will be invaluable.

The colour photographs are first class, arranged in colour sequence as before, with some of the larger plants being given a full page.

The introduction is comprehensive, and at the back are included line drawings of flower parts, forms of inflorescence, leaf shapes, a conversion guide and a glossary of botanical terms. Inside the covers are basic



maps of East Africa, Kenya, Uganda and Tanzania.

This is an essential book for the naturalist, a superb production and a joy to own.

Jean Hartley

Arthur Donaldson Smith and the exploration of Lake Rudolf
Pascal James Imperato
Medical Society of the State of New York, Lake Success, New York, 1987, US$10.

This is a tale by one Doctor of Medicine about another. A bald statement, you may think. But there is no doubt that the fact that Arthur Donaldson Smith was a qualified doctor as well as an explorer appealed so strongly to Pascal Imperato that he was motivated to undertake the amount of research which underpins this fascinating – if perhaps over-detailed – account.

I, of course, have been acquainted with Donaldson Smith for years. Not in the flesh, you understand. Some fifteen years ago I became so acquainted with him through his nightjar. Who, I wondered, is this Donaldson Smith, whose resonant name so overburdens the smallest nightjar to be found in Kenya? Now I know. I also know that Donaldson Smith discovered a number of other species of birds and mammals previously unknown to science, but though *'smithii'* was included in their Latin appellation, the nightjar and a rarely seen sparrow weaver are the only ones which perpetuate his name in English. Geographical features named after him have mostly disappeared, which seems a pity when he was such a fine naturalist and fearless traveller and adventurer. So live long, little nightjar, and may your habitat never erode.

... books

First published in five parts in the *New York State Journal of Medicine* (whose editor Imperato is), the material in this booklet is here all incorporated under the title at the head of this review. The five parts fall into natural, if somewhat long, chapters and part one is largely devoted to Donaldson Smith's early life. Having trained in America and Germany, he went into medical practice at the age of 24. Two years later, his father died and he came into a sizeable inheritance. From then on, there was no holding him. Medicine be damned, adventure was the thing.

After a hunting trip to Mexico he was soon big-game hunting in Somaliland. While there, he conceived the idea of an expedition into the interior of what became about then a British Protectorate. This was a turbulent corner of Africa, and the other colonial powers, Germany, France and Italy, were all competing against the British to annexe territory. A usual method was for explorers and sportsmen (and the game was prolific) to distribute small flags of their countries, a fragile kind of annexation but kindlier and cheaper than invading armies. It was not unusual for the next hunting expedition from another nation to destroy the first flags and hand out their own. So for me, the considerable fascination of this booklet lies in its setting out in a readily accessible and fairly concise volume the history of discoveries and subsequent colonisation by Europeans in north-eastern Africa. A summary, in fact, of the geopolitics of the time. Arthur Donaldson Smith is a convenient peg on which to hang this history, though that is not to diminish his stature and abilities as an explorer and naturalist.

An agreement between the British and Germans in 1886 had delineated their respective spheres of influence in East Africa, but though Tanganyika and the southern part of Kenya were clearly allotted areas, the 'vast area of northern Kenya, where Lake Rudolf was located, was as yet unclaimed.' Donaldson Smith's aim in 1889 was to reach and accurately locate Lake Rudolf, and in this he succeeded. In 1899 he penetrated even further east than in his earlier expedition. Part II of the booklet describes in some detail the journey of Count Teleki and Lieutenant von Höhnel to the area in 1887-88, and their discovery of 'this vast inland sea' which was then named after Crown Prince Rudolf of Austro-Hungary, and is now known as Lake Turkana (see the article by Dr Imperato on page 31 of this issue).

In the early 1890s, another wealthy American decided on a second expedition to East Africa, and wrote impulsively to von Höhnel inviting him to accompany him. This was William Astor Chanler, he of the reedbuck. He knew of the success of the Teleki expedition, and realised that this success was largely due to excellent preparations, crediting von Höhnel's scientific and organisational abilities for much of this. In time, feeling the travel itch again, von Höhnel accepted – and again we learn many fascinating details about Chanler.

Subsequent parts of the booklet tell of Donaldson Smith's further adventures, and the discovery on his second expedition of Mount Marsabit and its crater lake, Lake Paradise. Smith did much detailed mapping of hirtherto unknown areas. Dr Bowdler Sharpe of the British Museum's Natural History department was generous in his praise of Smith's natural history collections, and his accurate mapping, which among other things recorded the changing shapes of the Omo delta and northern Lake Turkana.

In further considerable detail, Imperato follows Donaldson Smith's later life, and throughout the book wanders into interesting byeways. If you are at all interested in the European discoveries of Africa's wonders, this booklet is very well worth the reading. Among the snippets of information I picked up was that Queen Victoria, contrary to popular belief, did *not* present Mount Kilimanjaro to her grandson Kaiser Wilhelm as a birthday present, but that it was assigned to the Germans under the Heligoland Treaty of 1890 because the Germans had so clearly established a presence on it. Again, Mount Kulal was erupting, rather spectacularly, as recently as 1895. But the snippet which most enchanted me was the account of Donaldson Smith encountering near Lake Stefanie a tiny gazelle new to science and later named after him, *Madoqua guntheri smithii*. It was locally known, he recorded, as a 'dig-dig'.

Joan Karmali

SOCIETY HIGHLIGHTS

Donations to the Conservation Fund

Over the last two months the East African Wild Life Society has received over Ksh 43,000 in donations to our Conservation Fund. We are most grateful to everyone for their generosity, and in particular to the following, who each gave Ksh 1,000 or over: Marion F. West, A.P. Nield, Hamilton Harrison & Mathews, Mr and Mrs B.R. Edwards, Evelyn Bateman, Mrs Peter B. Benedict, the Banana Republic Travel Company, David Richardson, Richard W. Wilbke, Wiliam M. Taylor, Nancy-Carroll Draper, Mrs R.W. Hurstman, and H.H. Isler.

Save the Rhino Fund

The Society's supporters have also given the substantial sum of over Ksh 30,000 to the Society's Save the Rhino Fund over the past two months. We would like to thank them all for their donations, and in particular African Wildlife Safaris, Dr and Mrs R.C. Patel, the Provincial Insurance Co of East Africa Ltd, the Alfa Romeo Owners Club (Kenya), the Friends of Fort Jesus, James F. Chapman and the Coast Hotels through Mrs Lorna Hayes, who all gave sums of Ksh 1,000 and over.

Alan Binks

Tsavo animal count

At the invitation of the Director of Kenya's Wildlife Conservation and Management Department, Dr Iain Douglas-Hamilton helped co-ordinate an aerial count of the elephant, buffalo and rhino in Tsavo National Park at the beginning of February. The following organisations and individuals made very sizeable donations through the Society, worth nearly Ksh 110,000 in both money and kind, to help cover the cost of the survey: the International Union for the Conservation of Nature and Natural Resources, the WWF Regional Office for Eastern Africa, the African Wildlife Foundation, Abercrombie and Kent Ltd, Bateleur Safaris Ltd, The Gallmann Memorial Foundation, Hilton International Nairobi, Rhino Safaris Ltd, East African Ornithological Safaris Ltd, UNEP – Global Environment Monitoring System, African Fund for Endangered Wildlife (Kenya) Ltd, Safariworld Kenya Ltd, Nilestar Tours (International) Ltd, General Motors (Kenya) Ltd, The Elsa Trust, Ryan Investments Ltd, Kenya Shell Ltd, Governor's Camp – Musiara Ltd, Ker and Downey Safaris Ltd, the Norfolk Hotel, Simon Trevor, The Onyx Nairobi and Ciba-Geigy Trading & Marketing Services Co Ltd. The very quick and generous response of these organisations made the count possible. We hope to be able to publish the results of the survey in the next issue of *Swara*.

IUCN General Assembly

A thousand environmental scientists, administrators and activists from 93 countries attended a ten-day conference in San José, Costa Rica in early February to debate the state of the planet from Antarctica to zebras. The economics of conserving natural resources dominated their discussions.

The 17th Triennial General Assembly of the International Union for Conservation of Nature and Natural Resources (IUCN) was the biggest and most productive in the union's 40-year history. Delegates from IUCN's unique, and sometimes contentious, membership of states, government agencies and private organisations, plus experts from the network of IUCN's specialised commissions, approved a programme setting priorities for the next three years in conservation and sustainable use of natural resources for development.

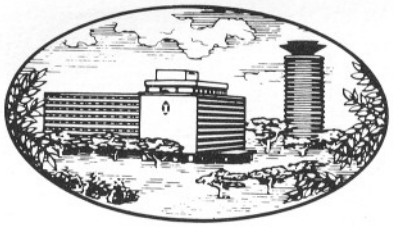
The East African Wild Life Society is a member of IUCN and we were represented at the assembly by our Executive Director, Nehemiah arap Rotich. The assembly elected the Chairman of the Society's Scientific and Technical Committee, Dr Walter Lusigi, as one of the three regional councillors for Africa.

The Society's Executive Director, Nehemiah arap Rotich, with Costa Rica's President Oscar Arias.

African Association of Science Editors

The Editor of *Swara,* Shereen Karmali, went to a week's conference in the Ethiopian capital Addis Ababa at the beginning of February. The conference was organised by the African Association of Science Editors and its theme was 'New Technology and African Scholarly Publishing'. It was attended by nearly 150 participants from all over Africa and by others who came from as far away as Bangladesh and Peru. The conference was extremely well run and informative, and Shereen returned feeling that although *Swara* is clearly not a scholarly journal, both the magazine and the East African Wild Life Society could still make valuable use of a computer to update our mailing lists, handle correspondence, and to edit and lay-out the magazine. Any offers?

IN KENYA... INTER-CONTINENTAL, AGAIN AND AGAIN.



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Developing an appropriate curriculum for training Africa's wildlife managers

by John Boshe

The curriculum in wildlife training institutes is strongly biased towards the biological sciences and so, argues the author, is failing to meet the real needs of today's wildlife managers.

In Africa today, over one hundred million hectares of land have been set aside for conservation in more than 300 parks and reserves. If governments are to be able to justify doing this to such a high proportion of the continent's land, these protected areas have to be seen to make a contribution to a nation's social and economic development. There are, of course, a multitude of factors which will help to ensure that they do this, but to my mind the most important is the proper training of the men and women who manage them.

Several training institutions both in and outside Africa have played key roles in training wildlife officers at technical and professional levels. The establishment in 1963 of the College of Africa Wildlife Management in Mweka, Tanzania marked the beginning of professional training in wildlife management in Africa. About ten years later, Garoua Wildlife School in Cameroon was established to cater for francophone African countries. Between the late 1970s and the mid-1980s, various other African countries set up their own technical-level wildlife training institutions, and yet others have indicated their intention of doing so. These institutions are all in addition to Mweka and Garoua, which continue to play a regional role in professional training.

The current curriculum

Establishing and maintaining a wildlife training institute is one thing, but providing appropriate training for a wildlife officer's many and varied duties is quite another. The number of wildlife training institutes on the continent has increased fourfold over the past decade, with a corresponding increase in the number of trained wildlife officers. However, over the same period, the success of wildlife conservation activities has declined to a point where it is a cause of much concern. Various authorities attribute this problem to falling standards in wildlife training, the worsening economic situation and ever-increasing pressures on land.

While accepting the validity of the last two arguments, I remain doubtful that the standards of wildlife training have fallen. Wildlife training in Africa has improved tremendously, but perhaps in the wrong direction. A survey of four wildlife training institutes – Mweka, Garoua, the Nigeria Wildlife Institute and Egerton College in Kenya – reveals that the curriculum at all the colleges can be broadly classified into basic sciences, applied sciences and the humanities. The percentages for each category vary from one institute to another, but basic and applied sciences form the largest portions, with humanities constituting only a small part of the entire curriculum (see Table I).

Its shortcomings

The managers of today's protected areas are largely concerned with man-made problems and with deciding how human activities can be harmoniously integrated with conservation programmes. Human encroachment on to protected areas is undoubtedly the biggest problem currently facing wildlife managers. This is because the philosophy behind the initial creation of these parks completely excluded the local inhabitants. The local people naturally find it difficult to accept that what were once their traditional grazing and hunting areas are now only accessible to tourists.

In an attempt to solve this problem, UNESCO's Man and Biosphere programmes propose 'Opening up conservation to man', arguing that since all natural areas have been modified by man, creating a reserve by excluding man can upset the ecological balance. Modern conservation philosophy *must* be based on the idea of 'Conservation by and for the people'. Protected areas cannot have a future unless the people living in and around them are assured of making a living. These people

... curriculum

have to be convinced that the parks or reserves promote their own interests. An excellent way of achieving this is to ensure that the local people participate actively in the management of conservation areas.

Unlike in the past, therefore, the problems faced by today's wildlife managers are more sociological than biological. For example, a survey conducted in 1984 indicated that about 80 per cent of all students graduating from Mweka College each year are assigned to conservation duties which are mostly related to law enforcement and administration. These duties involve dealing directly with people rather than wild animals and their habitats. This change in the kind of problems faced by managers calls for a different emphasis in training. By their very nature, these problems are dynamic, changing in complexity and magnitude as the years go by.

It is therefore apparent that the current curriculum falls short of meeting the real needs of a modern wildlife manager. In the first place, there are too many basic science subjects, most of which are not required for an officer to effectively carry out his duties. In the second place, the time allocated to these subjects means that they are covered in greater detail than is often necessary.

The technical and applied science subjects are reasonably varied and relevant to protected area management, but here again there is a tendency to go into unnecessary detail. Some of these subjects require expensive and sophisticated equipment. While training institutions might be able to afford such items, they are often not available in the field. Managers trained to work with these tools tend to use their absence as an excuse for failing to carry out their duties effectively. Learning how to use sophisticated equipment in practical training is valuable but it is important that trainees do not become dependent on it for carrying out their duties.

As far as the humanities and social sciences are concerned, it is clear that very little importance is attached to these subjects despite the contribution they could make to modern conservation activities. It is my opinion that more time should be allocated to this field and a wider range of subjects introduced.

Amongst those colleges that have been in operation for more than five years, curricular review has been a common and regular exercise. But the question remains whether these reviews adequately accommodate changes in conservation philosophy and recognise the dynamism inherent in the problems faced by wildlife managers.

When these colleges were established, the recruitment of teaching staff and the procurement of teaching equipment was determined by the then curriculum. As a result, both the staff and equipment have a considerable bias towards the biological sciences. Because training programmes are generally influenced by the teaching equipment available and the teaching staffs' fields of specialisation, curricular review and development exercises have tended only to up date the biological information taught rather than promote an entire rethinking of the curriculum. The curriculum in wildlife training institutes has therefore remained up to date and strongly biased towards the biological sciences, while failing to meet the real needs of today's wildlife managers.

Table I: The curricula of four (anonymous) African wildlife training institutes

Institute	Percentage of the entire curriculum		
	Basic sciences	Technical/ applied sciences	Humanities/ social sciences
A	35	50	15
B	25	55	20
C	32	60	8
D	26	60	14

The major subjects in each category include the following, with only minor variations in the time allotted for each subject:

Basic sciences: botany, chemistry[1], zoology, ecology, physics and mathematics[1], geomorphology/soil science, herpetology[2], and fisheries science[1].

Technical and applied sciences: natural history of African mammals, wildlife management techniques, ornithology, surveying and field engineering, ballistics and weapon training, range/habitat management, protected area planning and management, herbarium and taxidermy techniques, management of wild animals in captivity, biostatistics[1], first aid and survival techniques[2], use of light aircraft in wildlife management[2] and motor vehicle mechanics[1].

Humanities and social sciences: economics, geography, sociology[2], administration, law and court procedures, and communication skills[1].

[1] Subjects taught in only two colleges.

[2] Subjects taught in only one college.

John I. Boshe did his first degree at the University of British Columbia, and an MSc in wildlife science at New Mexico State University, USA. Since 1978 he has been lecturing in Tanzania at the College of African Wildlife Management at Mweka on wildlife management techniques and behavioural and evolutionary ecology. He is currently deputy principal of the college. Mr Boshe has also been a visiting senior lecturer at the Japan Animal and Plant Academy and the Garoua Wildlife College, Cameroon.

Developing an appropriate curriculum

Wildlife management today really means the management and control of human activities in and around protected areas. Wildlife training should therefore take into account the legitimate needs and aspirations of the human population. Only if this is done can wildlife training institutions begin to instil the knowledge and skills necessary for a successful widlife officer.

To achieve this, the present curriculum needs to be gradually transformed in a number of ways. The number of basic science subjects should be reduced to include only those which are directly relevant to maintaining wildlife resources and which are not adequately covered in secondary school. Such subjects would include botany, zoology, ecology, geomorphology/soil science, anatomy and physiology. These subjects should be covered only in sufficient detail to prepare students for the applied and technical subjects. Basic sciences should not constitute more than 20 per cent of the entire curriculum. Prospective students should be required to have good O-level passes in the other basic science subjects, such as physics, chemistry, mathematics and general biology, before they are admitted to a wildlife college.

The present number and types of technical and applied subjects in the curriculum should be maintained. The practical sessions in these subjects need to be emphasised while guarding against making students dependent on expensive and sophisticated equipment. The total time given to this group of subjects should not exceed 40 per cent of the whole curriculum.

The humanities and social sciences need to be given special priority. Both the number of subjects and the total time allocated to this field need to be increased. The following subjects could usefully be included: administration, economics, public relations, geography, sociology, law and court procedures, communication skills, anthropology, psychology, philosophy, human demographic factors, wildlife extension programmes and developmental studies. To do them justice, I would recommend that 40 per cent of the curriculum should be devoted to the humanities and the social sciences.

The depth of coverage of these subjects would need to be sufficient to provide students with the skills to interact with people effectively and professionally, and to moderate and limit the activities of people in and around protected areas without provoking antagonism or violence. Such skills would not only enable managers

John Boshe

The African College of Wildlife Management at Mweka.

to look with more objectivity at the problems of protected areas, but would also help them to evaluate the causes of these problems and to formulate inexpensive and constructive measures to solve them.

Resistance to change

We all have a natural tendency to resist change. It could also be argued that a drastic restructuring of the curriculum would be wasteful of equipment and people.

However, if these changes to the curriculum are done gradually, there need be no staff redundancies or waste of equipment. Few of these institutions ever have enough teachers at any one time so those who became surplus to requirements in one college could easily be absorbed by another. The equipment released from daily teaching use could still be used by the academic staff for research. An additional advantage of the new curriculum is that it would not need the purchase of new equipment. The recruitment of teaching staff specialised in the new social science subjects could also easily be accommodated within existing staff development programmes.

In conclusion, the problems of managing protected areas have changed both in scope and magnitude over the past decade. The human dimension in the management of these areas plays an increasingly important role, and wildlife training programmes need to take this into account. I believe that the curriculum I have proposed in this article would provide students with the necessary knowledge and skills to effectively manage the continent's wildlife conservation areas.

Students on a field trip.

John Boshe

Camerapix

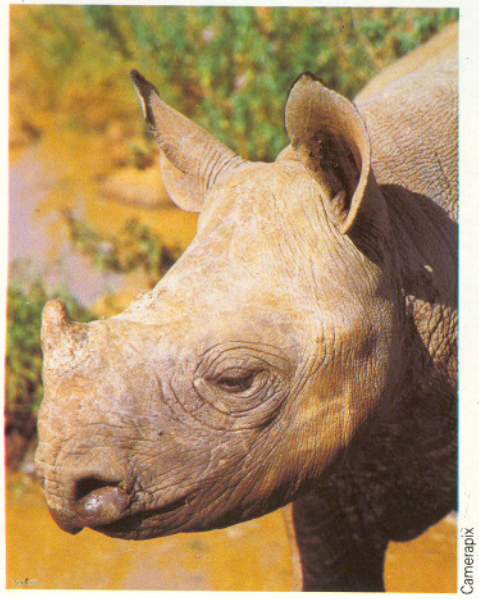
What makes Michael walk?

by Fleur Ng'weno

What powers this man in his crusade to save the rhino? Michael Werikhe doesn't even like to walk very much. But in this case, the ends justify the means.

Michael's love for nature took root at the edge of sea, like the mangroves and coconuts he climbed. At the turn of the century, his pioneer grandfather had travelled from his ancestral home in eastern Uganda to settle in the coastal town of Mombasa. As a child, Michael was left in the care of his grandmother in Mombasa, and as soon as he was old enough to walk alone, he began to explore the seashore, the old reef with its tidepools full of life, the mangrove swamps at the edge of the tide.

He brought home little animals, lizards, tortoises, and young or injured birds that he cared for until they were strong enough to fly. His passion for these living things was so strong that even his grandmother overcame her prejudices and let him look after them at home. Brought up to fear snakes, he discovered that the snakes he met in the wild wished him no harm, and he began a lifelong fascination with them.



Camerapix

Michael's interest in nature may be rooted in a lonely childhood, but he was never afraid to share his enthusiasm with others. At primary school in Mombasa, he persuaded the other children to care for animals instead of teasing them. The teachers took notice and helped him to start a tortoise pit for the school.

When the family moved to Nairobi, the teachers at Hospital Hill School encouraged him to bring animals to class and helped him to find information in books, although they sometimes despaired that he did not spend enough time on his other studies. Michael was good at sports and good at science, but often neglected the other subjects.

In Nairobi, Michael discovered the Snake Park at the National Museum, a short walk from school. Here were other people who liked snakes as much as he did! Soon he spent every spare moment there, and by the time he was twelve years old, he was treated like one of the staff.

Here was a herpetologist without a degree, but primary school leaving exams in Kenya do not test for herpetologists: Michael's grades were mediocre. He man-

aged to secure a place in a boarding school at the coast, which was at least a rich snake habitat. His snakes first met a hostile reception from the other boys, but Michael's powers of persuasion soon won them over, to the point that they even let him keep snakes in the dormitory, as long as he slept on the bottom bunk so that he could catch any that escaped! A whole class of boys grew up with an appreciation of snakes and their place in nature.

Secondary school exams do not test for herpetologists either, and after Michael finished school he was employed for a while at a beach hotel. Determined to work with wildlife, he found a job with the game department, and was sent to work in the government's Ivory Room. Before the ban on hunting in Kenya, elephant tusks and rhino horns were sold at auction in Mombasa. To the other people sorting the tusks and rhino horns, it was a job. To Michael, it was a chamber of horrors, the ghosts of rhinoceros and elephants that once walked in majesty in the wild.

Unable to bear it, he quit and went to work for a snake collector. This was a job he could do well, a job that kept him outside in the nature he loved. Then Michael discovered that the collector was exporting the reptlies abroad, and that many of them were dying in transit. This was a final disillusionment. He quit again, and went to work in a factory. At least that was clean work.

The factory was AVA, Associated Vehicle Assemblers, in Mombasa. The management was quick to note young Werikhe's interest in nature and gift for handling animals. They arranged for him to give talks to the workers about snakes, and soon put him in charge of the guard dog section.

He enjoyed the work, yet it was not enough for the young man with a dream. He read avidly, reading of man's inexorable destruction of natural habitats and the precipitous decline of the black rhinoceros, whose horns he had held in his hands. Like so many young people fired with the message of conservation, he wanted to *do* something. But what could he do?

The Kenyan government was doing something. It had banned hunting and equipped a strong anti-poaching unit. But still the rhinos were dying.

Conservation organisations were doing something. They were alerting the world to the plight of the rhino, and fighting for international regulations to ban trade in wildlife products. But still the rhinos were dying.

Werikhe saw the rhino as the focus of all the threatened wildlife that he loved. He had to do something. And so he decided to walk from Mombasa to Nairobi to raise funds for the rhino.

AVA was supportive and agreed to give him time off, but do you give money to any earnest young man who comes walking down the road? Not likely, so Werikhe decided to go to Nairobi and ask the Wildlife Clubs of Kenya for sponsorship. Nathaniel arap Chumo, the National Organiser, was suspicious at first; was this a con-man? Once convinced of Werikhe's intentions, he introduced him to N.K. arap Rotich, the East African Wild Life Society's Executive Director, and a partnership was born between Michael and the Society.

With the support of EAWLS, the Wildlife Clubs, and AVA, Michael set off on the hot and dusty road, taking a snake with him as a talking point when he met people along the way. The rewards of that journey were much greater than anticipated. Much-needed money was raised for the rhino; but more, Werikhe stirred the interest of the people he met, and became, himself, representative of Kenyans committed to conservation. I care, he said, do you?

This was a turning point in the evolution of wildlife conservation in Kenya. Up till then, it had been widely assumed that most Africans did not know or did not care about conservation, although the parks, the reserves, the anti-poaching units, are largely manned by Africans. Now here was someone who was not paid to work for wildlife, but sacrificed his own time and comfort for the cause.

Swara readers know the rest of the story. Rhino poaching intensified as the demand for rhino horn dagger handles went up in North Yemen and the demand for rhino horn as medicine continued in Asia. The Kenyan government began a programme of rhino sanctuaries, aided by a consortium of conservation organisations.

Michael walked across East Africa, as you read in 'Michael Werikhe: Rhino Man' by Gavin Bennett in the July/August 1985 issue of *Swara*. He found an answering chord of sympathy among the people of the East African countryside. The money he raised supported research projects, an overhauling of the water system in the Nakuru Park sanctuary, and other equipment. But the poaching of rhinos in the wild went on.

Dr Esmond Bradley Martin and his colleagues started a promising campaign to reduce the demand for rhino horn at its source. Research on the rhino and management of rhino sanctuaries increased, and hope rose for the rhino in Kenya. But pressure intensified on the rhino in Tanzania and Zimbabwe.

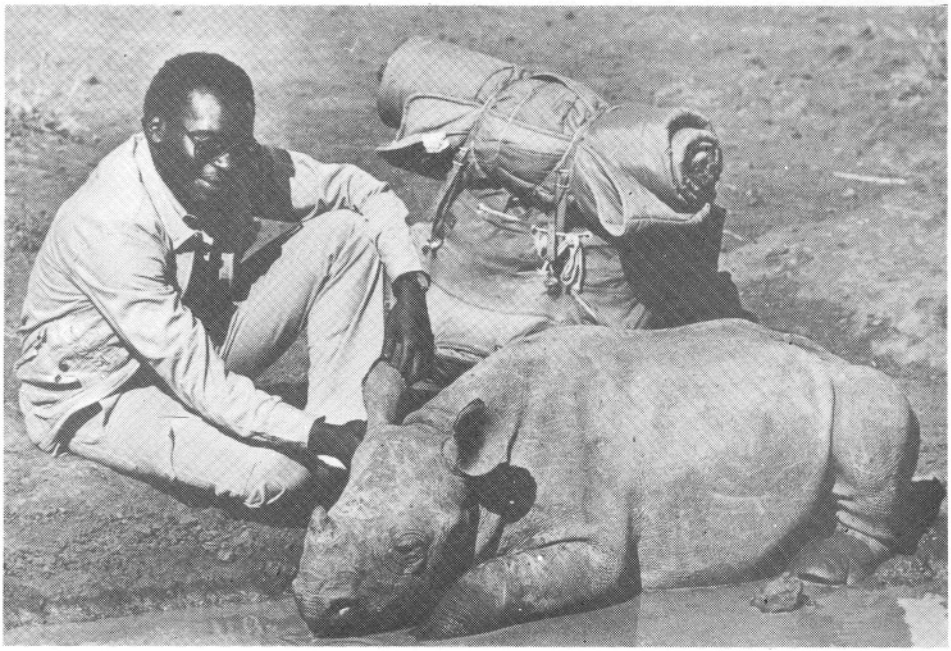
Now Michael Werikhe is walking in Europe. Starting from Assisi in Italy, home of St. Francis of Assisi, considered by many as the patron saint of animals, he will walk through some of Europe's most scenic countryside and most polluted industrial cities. He is scheduled to be in Italy in May, Switzerland in early and mid June, Germany from late June to the end of July, the Netherlands from the end of July to late August, and Britain from late August to early September 1988. *Swara* readers are invited to meet him and even walk awhile! The walk is co-ordinated by the East African Wild Life Society and the World Wide Fund for Nature, so your local WWF office or EAWLS representative will have up-to-date information.

During 1987, Michael, now 31, was married to Helen. At AVA, he started an afforestation project, rehabilitating a water runoff into a little wetland with a series of five dams to clean up the water, and planting hundreds of new trees. As usual, he has enlisted the help and support of the neighbourhood.

I asked Michael what message he would like to leave with the readers of *Swara*.

'I would love to meet *Swara* readers in Europe,' he quickly answered. 'I hope they will send money to protect the rhino, and convince their friends to avoid buying ivory, rhino horn and other wildlife products. I hope they keep up their membership in the East African Wild Life Society, for without the members, there would be no *Swara*. And I believe that each of us can do something to save the rhino.'

Then Michael quoted his friend, the late Emanuelle Gallman: 'I wonder if our children will see the land as it is now, for can such beauty go unspoiled for long? I hope they will see it, and may in turn tell their children of the beautiful land and creatures of East Africa.'



Camerapix

Count Samuel Teleki's 1888 expedition to Lake Turkana

by Pascal James Imperato

Erdelyi Lajos

Count Samuel Teleki at the start of his expedition.

It is exactly a hundred years ago since the first Europeans set eyes on Lake Turkana, the last of the great African lakes to be scientifically placed on the map of the world.

Lake Turkana is situated in north-western Kenya and for many years was known as Lake Rudolf, having been given that name by its first European visitors, Count Samuel Teleki and Lieutenant Ludwig von Höhnel.

Lake Turkana was in a sense not visited until quite late in the history of the European exploration of East Africa, primarily because it was peripheral to the Nile and its sources and therefore of no great geopolitical importance. Yet information about its existence had filtered back to Europe long before Teleki and von Höhnel set eyes on it on a March afternoon in 1888.

The first mention in print of a large lake in the vicinity of Lake Turkana was made in the form of a map which appeared in 1858 in the memoirs of the German missionary and first European to see Mount Kenya, J. Ludwig Krapf, who had lived in East Africa between 1837 and 1855. In his book, *Reisen in Ost- Afrika,* Krapf showed the presence of a large lake in what is now northern Kenya which he called Lake Zamburu (Ufole?). Krapf had obtained his information about this region from coastal traders.

The next mention of a lake in this region was made by Leon des Avanchers, a Capuchin missionary from Savoy who gathered much geographic information about the interior from traders at Brava on the Somali coast. Avanchers published his information in 1859 in the form of a letter in

... Teleki

the *Bulletin de la Societe Geographique*. On the map that accompanied this publication he showed a Lake El Boo in the general vicinity of Lake Turkana.

In 1870, Thomas Wakefield, a Methodist missionary working on the East African coast, published an extensive article on caravan routes into the interior in the *Journal of the Royal Geographical Society*. Wakefield also published a detailed map with this article on which Lake Samburu appears in the general vicinity of Lake Turkana. Wakefield's information was gathered from a Swahili-speaking ivory trader, Said ben Ahedi, who claimed he saw the lake. Sadi's description of the lake's size was extremely accurate. By the mid-1870s Lake Samburu regularly appeared on maps produced by other explorers who had travelled through regions near Lake Turkana.

In 1881 the British Association for the Advancement of Science resolved at its annual meeting that the 'snowy range of Eastern Equatorial Africa should be explored as soon as possible'. The association financed the expedition, the Royal Geographical Society sponsored it and Joseph Thomson, a 24-year-old Scotsman who had already made two successful trips to East Africa, was chosen to lead it.

Thomson left the East African coast for the interior on 6 March 1883, eventually reaching Taveta, which by then had become a major caravan launching station. There he hired Sadi ben Ahedi and two months later, after an aborted start, joined up with Jumbe (Chief) Kimemeta. Kimemeta was a leading trader from Pangani who had already travelled into northern Kenya. By agreeing to join his cravan up with Thomson's expedition, Kimemeta changed Thomson's fortunes. Had he been literate in a European language he would have gone down as the 'discoverer' of many East African landmarks. Thomson and Kimemeta went on to Lake Baringo and from there Thomson journeyed to Lake Victoria. He arrived back on the coast in May 1884, having travelled over 3,000 miles in 14 months.

Thomson's book, *Through Masai Land,* published in 1885, was a sensation. In it he gave the precise location of Lake Baringo, which he saw, and told of Lake Samburu lying to the north. Informants told Thomson that the lake had crocodiles, hippopotamuses, white fish (Nile perch) and that its waters were salty. On the map that accompanied his book, Thomson accurately placed Lake Turkana, but the configuration was essentially the one first published by Wakefield.

Thomson's book was published in German in 1885 and came to the attention of Crown Prince Rudolf of Austria-Hungary, who was the patron of both the Austrian and Hungarian geographical societies. He saw in this lake an opportunity for Austria-Hungary to gain a place in the annals of African exploration and also an opportunity for her to enter into the European scramble for Africa.

Erdélyi Lajos

Jumbe Kimemeta, who accompanied Count Teleki to Lake Turkana.

Count Samuel Teleki von Szek was born in Transylvania (now Romania) on 1 November 1845. Teleki eventually became an intimate friend of Crown Prince Rudolf and shared his political views, which were considered extremely liberal for the times. Teleki was also a bon vivant bachelor who gave the conservative court an opportunity to separate him from Rudolf by committing a minor social indiscretion with Rudolf's wife, Stefanie. Teleki, who was told to absent himself from the country for several years, decided on a prolonged hunting trip to Africa. It was Rudolf who persuaded him to combine this trip with one of exploration to fill in the last large patch of unknown territory on the African map.

In order to finance the trip, Teleki sold one of his hunting estates and a family heirloom diamond. He also scientifically prepared himself for the journey by travelling to London and elsewhere to perfect his knowledge of botany, geology, and zoology and to acquire surveying skills. In 1886 he visited Rudolf and Stefanie on the island of Lacroma on the Dalmatian coast. The emperor's yacht had been put at the disposal of the imperial couple and its navigator was Ludwig von Höhnel, who had graduated from the Marine Academy at Fiume in 1876. The imperial couple, who had got to know von Höhnel, liked him very much and eventually persuaded Teleki to take him along.

The success of expeditions of this kind hinged on the quality of the personnel, and Teleki and von Höhnel spared no effort in recruiting the best and the tried and tested. Von Höhnel arrived in Zanzibar on 31 October 1886 and Teleki on 29 November.

Jumbe Kimemeta was recruited and put in charge of packing the trade goods, crucial for bartering in the interior. In the end, Teleki and von Höhnel sailed for Pangani from Zanzibar with 450 porters, 200 Zanzibaris, nine guides, 70 loads of iron wire, 200 muzzle loaders, 100 loads of glass beads, and 80 loads of cloth, making altogether 470 loads, including a canvas and an iron boat. By the standards of the day this was an enormous expedition.

On 4 February 1887, the expedition started inland from Pangani, where Teleki had picked up additional men. Von Höhnel's two-volume account of this expedition, *Discovery of Lake Rudolf and Stefanie,* has long been a classic of African travel. By 30 April 1887, they had reached Taveta, a caravan centre previously visited by a number of European travellers. Two months later they were at Ngongo Bagas, near modern-day Nairobi, which was a stopping point for the coastal trading caravans where food was obtained from the Kikuyu through barter. Teleki set out for Kikuyuland in late August where he attempted to climb Mount Kenya, reaching an altitude of 16,200 feet according to his own reckoning, and the Teleki Valley on the high slopes of the mountain commemorates this climb. The cold and damp weather forced Teleki to give up his attempt to reach the top, a task for which he was not equipped.

On 7 December 1887, the expedition reached Lake Baringo, the northernmost point seen by Thomson during his trip. It was here at the village of Njemps that they learned that there might be two lakes to the

Lieutenant Ludwig von Höhnel.

John Winthrop Aldrich

Count Teleki with two elephants shot south of Lake Baringo, 16 December 1887.

north. On 10 February 1888, leaving men and supplies at their Njemps base camp, Teleki and von Höhnel set out for the north with Kimemeta, 197 porters, six guides, eight Somali and 15 Askari. They now entered a region that had never before been seen by a European. By 2 March they reached Mount Nyiru, where they met a Samburu by the name of Lembasso. He confirmed the existence of two lakes to the north, the Basso Narok (black lake) and the Basso Ebor (white lake). Lembasso agreed to take them to visit the Basso Narok. Marching up through the dry, parched landscape, they sighted the lake on 5 March 1888 which Teleki named Rudolf in honour of his friend and patron.

The following day they actually arrived on the southern shore of the lake and then continued their march up the eastern shore until they reached the northernmost end on 3 April. They then set out for the Basso Ebor, the second lake that they had been told about that lay to the north-east, and on 21 April they reached its southern shore. Teleki named it Lake Stefanie in honour of Rudolf's wife, a name that has since been changed to Chew Bahir by the Ethiopian government. They then returned to the northern end of Lake Rudolf just as the rainy season was getting into full swing.

Teleki kept a detailed game book, listing the wildlife he shot during the expedition, and von Höhnel in his meticulous account had much to say about wildlife and its distribution at that time. Teleki was a great hunter and during the journey shot 54 rhinoceros alone. A slaughter by today's standards, his account of these shootings is valuable in that it provides evidence on the distribution of rhinoceros throughout what is now Kenya. Elephants were plentiful along the eastern shore of Lake Rudolf then and Teleki shot a number of them. Near Alia Bay he shot five elephants and later, when he was on the southern shores of Lake Stefanie, he shot three. Northern Kenya then contained much game, and rhinoceros were especially plentiful along the dry river beds.

The expedition started south again, where von Höhnel on a side trip discovered an active volcano at the southern end of the lake which he named Teleki in honour of the count. The gulf at the southern end of the lake near the volcano is still referred to as von Höhnel Gulf. However, the lake has receded since that time and the volcano is now quite a distance from the lake's southern shore and is dormant.

It took them three months to travel from Baringo to the coast, where they arrived at the mission station of Rabai on 24 October 1888. They had been in the interior for almost two years, and had visited the last of the great African lakes not previously seen by Europeans. After a two-month stay in Zanzibar, in part necessitated by their both being very ill with malaria, they travelled to Harar in Ethiopia before returning to Europe in the spring of 1889. By this time Crown Prince Rudolf was dead, having committed suicide on 30 January 1889 at Mayerling. Thus, on his return, Teleki never saw the man who had been the patron of his successful and acclaimed expedition.

Neither von Höhnel nor Teleki received heroes' welcomes in Vienna when they returned even though they had given Austria-Hungary an honoured place in the annals of African exploration. There were two reasons for this. Jealousy was clearly one, as von Höhnel describes. Even von Höhnel's fellow officers gave him a cool reception. 'What did Africa matter to them?' he wrote. The other had to do with Crown Prince Rudolf's suicide. Von Höhnel explains that:

> Count Teleki . . . did not reap the deserved reward for his enterprise. In consequence of the tragic death of the Crown Prince Rudolf one was on the look out for scapegoats whom one might hold responsible. The friends of the Crown Prince were of course the cause of the tragic development. My travelling companion had been one of these and though utterly innocent and though he had been a devoted friend to the Prince, abstentious in every way, he had to suffer for his friendship. His name was unpopular in high circles and this also was a reason not to speak of his travels and achievements.

Teleki never returned to Africa, but subsequently travelled to Indonesia and India. However, he left no accounts of these later travels. Teleki died at this home in Budapest after a long illness on 10 March 1916, at the age of 71. He was buried in the family vault at his Transylvanian estate, Saromberke.

Teleki's former estate is now the Gongenyszentimrei Forestry School and Saromberke is known as Dumbravioara (Romania). The impressive Teleki library founded by Teleki's great-grandfather in 1802 is now housed in the nearby small city of Tirgu Mures. Most of Teleki's African artefacts and hunting trophies disappeared during World War II. A few trophies that were saved by the Mueramures hunters' committee are on exhibit at the Forestry School museum. The Teleki mausoleum is preserved at Dumbravioara and was recently restored. In 1977, Erdelyi Lajos, a photographer from Tirgu Mures, published an excellent biography of Count Teleki in Hungarian, under the title *Teleki Samu Afrikaban.*

Von Höhnel later accompanied the American explorer William Astor Chanler of New York on his expedition to the Lorian Swamp in 1892-93. During this trip, they made the first European contacts with the Rendille people, accurately fixed the geographical position of Mount Kenya's peak and charted the course of the Ewaso Nyiro river. Von Höhnel later returned to Africa in 1905 at the head of a diplomatic delegation from Austria to the Emperor of Ethiopia. Following World War I there was little need in land-locked Austria for Rear Admirals like von Höhnel. He eventually retired, but by the late 1920s had become so penurious that he asked his old friend Chanler for financial help. Chanler settled a $40 a month pension on him, which continued until the outbreak of World War II. When von Höhnel died in Vienna on 23 March 1942, the Nazi authorities removed all of his papers from his home for safe keeping and their whereabouts, if they still exist, are unknown.

Nineteen eighty-eight marks the centennial of the visit to Lake Turkana by Teleki and von Höhnel. The monuments to their historic and remarkable journey consist not only of von Höhnel's writing, but also of places on the slopes of Mount Kenya and along the lake's shore that bear their names.

Dr Pascal James Imperato MD is a specialist in public health and tropical medicine, who lived and worked in both East and West Africa for six years and who has returned many times since. A former Commissioner of Health of New York City, he is currently Professor and Chairman of the Department of Preventive Medicine at the State University of New York Health Science Center in New York City and Editor of the *New York State Journal of Medicine.* He has spent much time in northern Kenya and has written articles on the history of medical services at both Marsabit and Moyale. His recently published book, *Arthur Donaldson Smith and the Exploration of Lake Rudolf* (1987), is a history of the exploration of Lake Turkana.

LETTERS

From Jack Cresswell, Nairobi, Kenya

I read with interest Ole Seehausen's thoughtful article 'Zanzibar: an island under pressure' *(Swara,* November/ December 1987).

Mr Seehausen refers to 'dynamite fishing' of mainland Tanzania reefs, but the island reefs and marine life are not ecaping destruction by explosives either.

In mid-December 1987 a group of friends and I visited Mafia Island and spent hours fishing and goggling in the clear waters of Chole, a tiny island at the south-east corner of Mafia, opposite Mafia Island Lodge.

We were dismayed to find black, lifeless craters blown in the reefs by the local 'bombers' who, according to the local boatmen, operate almost daily. Local residents claimed the 'bombers' can easily obtain dynamite: they simply shrugged when asked about attempts to halt the damage.

We actually trolled close to a 'bomber boat' lying at anchor in a small coral cove, its crew waiting for the best tide for bombing (and for us to move off).

Like the misguided 'progress' at Kibandiko Island reef described by Mr Seehausen, dynamite fishing is destroying Chole's marine habitat for short-term gain. It is also wiping out the main attraction for the few toursits who visit Mafia.

From Samir N. Haria, Nyeri, Kenya

A few weeks back I learnt about the killing of two young lions in the Tetu division of Nyeri. These lions had slipped out of the Aberdare Park at night and had not caused any harm.

The lions were shot and killed by more than ten bullets, which was very ruthless. Let us assume that the lions were dangerous, but shooting them like that was rather cruel and senseless.

From what I have gathered the game wardens were helpless. A priest in the area took the gun and helped by the public at large shot the lions.

I am most troubled by the news of the lions because I have seen films and read books about animals which have been tranquilised and moved to places which were safer both for them and humans.

The game wardens are doing an excellent job, but I think they need specific training to handle situations like these.

From Nico de Booth, Nieuwerkerk, The Netherlands

During the last week of July 1987 I visited the Kahuzi-Biega gorilla sanctuary in Zaire with a group of Dutch people. On the day itself, we walked several hours in the forest before meeting the gorilla family. After we were divided into smaller groups, we were allowed to approach the gorillas under guidance. However, because they were in the bush, they were at first hardly visible.

To get the animals to come closer, the guides made a noise by beating on trees and on the ground. This noise clearly irritated the gorillas while at the same time arousing their curiosity as to what was causing it.

I was a member of the last group. On hearing all the noise yet again, the dominant male became so angry that he made an attack, and stopped only a few metres in front of us. We were lying flat on the ground to try and appease him, whereas the guide threatened him with a piece of wood.

Our encounter with the gorillas was halted immediately after this incident. The guide said 'He is very angry and I don't know why.'

Although I am not an expert on handling gorillas it is obvious that these methods are a constant source of irritation to them. I realise that these animals are protected because they bring in revenue (our excursion cost $30 per person), but placing them under such daily stress can only be harmful in the long run.

From speaking to people who have visited gorillas in other parts of Africa, I get the impression that more friendly meetings are possible which provide just as good photographic opportunities, but just take more time.

I hope that the publication of this letter in *Swara* will provoke a discussion that will result in more friendly protection for these splendid mountain gorillas.

From Samir N. Haria, Nyeri, Kenya

I recently visited the Rift Valley lakes of Nakuru, Elmenteita and Naivasha. Lake Nakuru had very few flamingoes, but there were many flamingoes on Lake Elmenteita.

I also noticed that on all three lakes the level of the water had fallen drastically and that at Nakuru and Elmenteita the shoreline had dropped by over two kilometres.

On Lake Naivasha there is a lot of swamp vegetation growing on the shoreline. This vegetation is advancing into the lake so that it seems that the lake will become a swamp in the future.

Do you know if anything is being done to stop the swamp vegetation from advancing?

Dr Steven Njuguna, member of the EAWLS Council and a senior lecturer at Kenyatta University, replies:

The decline in the water levels of Lakes Naivasha, Elmenteita and Nakuru is mainly due to natural phenomena such as climatic changes. This drop in the lakes' levels is likely to have been enhanced by various human activities: the damming of rivers, the abstraction of water for irrigation and domestic use, and inadequate soil and water conservation measures in the catchment areas. Fluctuations in the lakes' levels are known to have occurred periodically as far back as the records go (around the year 1890), and the lakes' levels are known to have been much lower than they are today.

There is nothing being done to stop the swamp vegetation from advancing as the water level drops in Lake Naivasha. The swamp area between the open water and dry land is the richest habitat in the entire lake ecosystem. It serves as a source of

Lion.

Frants Hartmann

... Letters

nutrients and food for the plant and animal communities of the open water; it is the breeding and nursery ground for fish; it also provides habitats for a wide variety of animals such as birds, mammals, insects and fish. When the lake level rises again, this vegetation will be inundated and another swamp zone will be created at a higher level.

From Phyllis Austin, Brunswick, USA

I went on a safari in Tanzania in the fall of 1985 and chose a travel organisation I thought was concerned with tourist impact on the landscape, particularly the Serengeti. To my surprise and dismay, our guide thought nothing of dumping our food garbage by the roadside, driving off the roads for better wildlife views, and running game off kills. By the end of the two weeks, most of us on the trip were very upset and wrote letters of complaint to the company's president – to no avail.

It didn't take long to figure out that if our guide was breaking the rules so nonchalantly, others must to. In fact, our Ngorongoro Crater park warden approved of getting as close to wildlife as possible, even when it meant scaring off predator from prey. He said that if Americans didn't get good photos, they wouldn't return to Tanzania.

Our group of 13 may have been the exception, but the majority certainly would have voted to back off and not travel off-road – if we had been given a chance to have a say. We respected the wildlife; our guide and company didn't. With some explanation, I think most wildlife enthusiasts would agree that it's the well-being of the animals that deserves the highest priority, not tourists' close-up pictures.

I favour Tim Caro's proposal for restricting tourist numbers and increasing park fees. Without controls now, we will destroy by our sheer hordes the wildlife and wilderness remaining. We must remember Bernard Gzimeck's passionate cry – 'The Serengeti Shall Not Die' – and we must mean it.

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