



Wilderness from an Elephant's Point of View

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The African wilderness, for me, is epitomized by elephants, so let us consider wilderness from an elephant's point of view. Elephants need a great deal of space. So from an elephant's point of view, the more wilderness the better. At present, where elephants do well in Africa there is much habitat to support them, and so a host of other species is surviving along with them. In this sense, elephants are an indicator of the welfare of the wilderness. Despite serious episodes of decrease over the last thirty years in their range north of the Zambezi, elephants still occur in abundance in huge and often remote wildland areas in Africa, and are still believed to have a total range of over 5 million square kilometers. Much of this is defined by hearsay, the maps are out of date, and as human population increases people build new roads and open up land used by elephants. More and more of this elephant range will be thrown into doubt. Nevertheless, elephants are still found in all but five countries out of the forty-three countries south of the Sahara, and are believed to have gone extinct in only two in the last thirty years—Mauritania and Burundi. They live in some of the most beautiful wildernesses; deserts, forests, savannahs, mangrove swamps and high altitude moorland. Despite all the killing for ivory that has taken place over the last thirty years, elephants have great powers of renewal and several major populations in African savannahs are now recovering from their losses of the 1970s and 1980s.

It is an axiom of conservation that a balance needs to be found between the needs of man and the needs of wildlife which must include the protection of natural habitats and wilderness areas. National parks and protected areas are priority needs. However, preserving habitat is not enough to guarantee the



Across this vast expanse, we pinpoint elephants' positions every hour using GPS radio collars programmed to store the fixes in the collar. We then relay the information up to our aircraft that flies by. On the map, we are able to plot out the elephants movements as they move from one protected area to another. The elephants make intelligent use of all this diversity. Their core areas are in the protected areas, where we find areas of intensive use we call hotspots. Each distinct segment of elephant range is linked by thin corridors to the next, and we have found that elephants streak down these corridors to get from one place to another. They behave as if they are aware of danger zones often crossing them rapidly by night. The more elephants we track the more we realize how inter-linked all the land units are by a network of elephant trails.

Our moving maps show how the elephants traverse the landscape. Each little dot is an elephant being tracked with a GPS radio and it is possible to see how they are attracted to fresh green grass where the rains have recently fallen. We have also tracked transfrontier movements of bulls from the Amboseli National Park in Kenya across the border into the West Kilimanjaro area of Tanzania. Interestingly, these bulls spend 90% of their time outside the Park. One bull, in a heightened state of sexuality known as musth, paced up and down in the protected area at high speed. After a month or so he decided to make a reconnaissance across the border from Kenya into Tanzania where he found an area of woodland, superior to that of Amboseli. After investigating the other side, he returned to the Park, resumed chasing the females and then finally moved back to Tanzania where he took up residence for the next four months. This transfrontier movement was important to this bull to reach his bull holding area where better food would enable him to grow strong in preparation for competing with other males for females.

Our technique of GPS elephant tracking is clearly relevant to the establishment of the new transfrontier parks elsewhere in Africa. Similar elephant tracking programs would reveal the key routes and allow conservation planners to link up vital segments of elephant range into balanced ecosystems.

Finally radio-tracking has shown us how elephants and people cohabit in the Samburu ecosystem in Kenya. It has highlighted the importance of maintaining the traditional tolerance between these pastoral people and the elephants that has endured for centuries.

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Elephants in the wilderness are mercifully unaware of historical changes. From their point of view they still need to find food and water, avoid danger and find or avoid other elephants. In Kenya, we are trying to understand the elephant's point of view, by following their movements in great detail. Save the Elephants in collaboration with the Kenya Wildlife Service has initiated an advanced radio-tracking program. We hope to understand from this how elephants make decisions and what they need to secure their future.

Our core area is a superb undeveloped wilderness in Northern Kenya. It is also a MIKE site. The highest point is Mt. Kenya where the snows fall and melt. The water percolates through the montane forests until it runs through farmlands down to lower forests. The rivers flow north and turn through the Samburu national reserve and other private and public protected areas. It is one of the most exciting areas in Africa because it has a rare combination of land uses. Local pastoralists, the Samburu and Maasai, have set up their own privately owned sanctuaries with lodges, with the help of large scale ranchers in the south who themselves have turned their properties into wildlife conservancies. Within this complex elephant domain, there are also long-established National Reserves like Samburu where we are based, and Meru National Park nearby. In between is no man's land disputed between different ethnic groups. So the elephants are confronted with a mosaic of land uses, some safe, others dangerous to die.





population showed a steady increase. Since the ivory ban they have increased by 50% in ten years. This has been matched by similar increases elsewhere in East Africa. The forest populations of West and Central Africa are impossible to monitor for trends, but in Southern Africa the trend as before has been steadily upwards.

From the first beginnings, the monitoring of elephants has improved. Ever since the mid-1970s there has been a group of volunteer scientists called the African Elephant Specialist Group, working under the auspices of IUCN, that has compiled figures on elephants. Today, this group is very active with a network of scientists. Information on elephant status is sent to a well-organized computerized data base where a geographical information systems analyst compiles elephant figures and produces beautiful maps of the elephant range.

The maps of the African Elephant Database show the ranges of elephants in the different regions of Africa. All the information is carefully graded and estimates of elephant numbers are sorted into definite, probable, possible and speculative categories. Some major changes have occurred since the specialist group first started its work. At present Southern Africa has nearly the same number of elephants of the rest of Africa put together. Yet thirty years ago it was the other way round when East Africa had the largest proportion. Knowing the history we are forced to realize that the numbers in themselves were no protection for elephants in East Africa.

Now in places like Botswana there are the same high densities that we once enjoyed in East Africa in the 1960s. These regional differences in elephant status have led to different attitudes to elephant management and the ivory trade. It has also led to a different perception of the threats to elephant survival, East African nations being much more circumspect about resuming an ivory trade. The hardest paradox to explain is that despite the overall decline of elephants in Africa, there is increase, even overpopulation, for an important minority.

As memories fade of the elephant slaughter, the movement grows to relax the total ivory ban. It is therefore ever more important that the monitoring of elephants should be improved so that a sensitive system is put in place that will be capable of giving an early warning if changes should be induced by renewed ivory trading. Fortunately, such a system is being set in place by the CITES treaty, which goes by the name of MIKE or Monitoring of the Illegal Killing of Elephants. This is based on selected sites across Africa.



was remote from the minds of ivory traders. The idea of killing off their own livelihood didn't seem to signify.

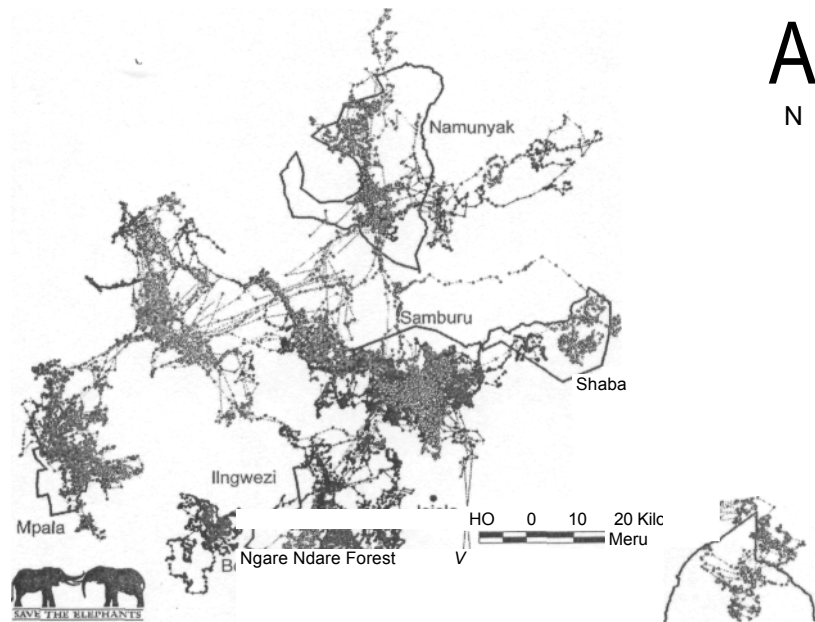
It was only in Southern Africa that elephants were secure in the 1970s and 1980s, and several populations were believed to be expanding in Botswana, South Africa and Zimbabwe, and they have continued to do so until today.

The best places for elephants were in the Selous Game Reserve in Tanzania where I estimated over 100,000 elephants from an aerial survey in 1975 and where there was little trace of poaching. However, within one decade this changed. The Selous number was halved by ivory poachers and the carcass ratio shot up. I also found, in the Ruaha-Rungwa Complex in Tanzania some 40,000 elephants in 1977, which later were to decline to 10,000. In Tsavo, Kenya's greatest national park, elephants fell from over 40,000 in 1970 to just over 6,000 by 1988.

Early 1980 I came to Uganda for die second time. The national parks, Queen Elizabeth and Murchison Falls had been some of the most famous elephant parks in Africa. Here I witnessed the greatest proportional destruction of elephants I had yet seen. Dead elephants lay like fallen leaves along the trails. Out of the 8,000 elephants that had been living south of the Nile in Murchison Falls National Park, there was only one herd left of 160 survivors huddled together in a terrified mass. I witnessed and photographed whole elephant families shot down, with empty cases from automatic rifles littering the ground. These scenes colored my views. I feared then that this situation was indicative of what was happening to elephants in most of Africa. Ivory was legal all this time and all attempts to regulate the trade had failed.

By 1980 as the continental survey came to the end of its first iteration I had already concluded that there was no will or ability within the ivory trade to regulate itself. The Wilderness Congress in 1977 had sounded the first alarm internationally about the serious threat to elephants from the ivory trade. However, it was not until 1989 that any united international action was taken. At the eleventh hour the politicians of East Africa woke up to the impending near total loss of their elephants. In Kenya 12 tons of ivory was burnt in a huge bonfire to put it beyond the reach of the trade. In the same year the nations of the world introduced a total ivory trade ban through the CITES, convention. Finally the situation of the elephants began to turn around.

In East Africa it was possible to monitor the improvement, especially in Tanzania, Kenya and Uganda. In the decade of the 1990s the Tsavo elephant



The survey lasted for four years, and was succeeded by other surveys in the 1980s. The ivory poaching in Kenya spread to Northern Tanzania and to other countries across Africa. Some like Chad, Somalia, and Central African Empire had been tranquil when the survey began but soon the elephants were subjected to a rapid increase in poaching.

In the overview I found that West Africa had only fragmented populations. There were a few transfrontier populations including one in the Gourma area of Mali, where elephants move across boundaries, but by and large dense human populations surrounded the few pockets of West African elephants. One population still lived up in Mauritania but it has since gone extinct. West African elephant habitats were under tremendous pressure from the human populations. In Ivory Coast we found intensive logging and we were informed that along the tracks cut by the bush meat hunters radiated into the forests often cleaning out almost all edible species. This problem has grown to even greater proportions and is epidemic today.

In Central Africa I visited Gabon with vast untouched forest where elephants were still abundant, but in the rest of Central Africa, especially in Zaire, the ivory trade was reputedly even more out of control than it was in Kenya. In essence it seemed the resource was being mined and any kind of sustainable use

future of wildlife. Ultimately, man is the chief ecological determinant, and overuse of wildlife through unregulated trade and poaching of animals for meat, skins and other products can remove wildlife even where the habitats are still intact.

In the case of the elephant this was particularly marked at the time of the 1st World Wilderness Congress in 1977 when the ivory trade was uncontrolled and rampant in most of the continent, apart from some countries in Southern Africa. The price of ivory had gone up by ten times between the 1960s and the 1970s. In Kenya, where the problem was first identified, it was believed that half the elephants had been lost to ivory poachers by the mid-1970s, an estimated drop from 180,000 down to 60,000—and it was to get worse, with Kenya's elephants descending to about 20,000, before the situation got better.

Fears for the elephants' future led to a continental concern. I was engaged in the first pan-African elephant survey, sponsored by IUCN, the New York Zoological Society (now World Conservation Society) and the WWE This survey was just two years old at the time of the 1st Wilderness Congress, and in collaboration with many other scientists I helped compile the first continental figures of elephant numbers country by country. Scientists and conservationists all over the continent began to pool figures on elephant numbers and trends from all the regions of Africa. We were also asking whether or not the ivory trade had the will or the ability to regulate itself? Don't forget that was over twenty-five years ago.

