

The Last Rhinos of Northern Tanzania

NGORONGORO

Story and photographs by Reggie Heyworth

No other high profile species in Africa, recently so common and widespread, is now so genuinely endangered.

SWARA READERS NEED VERY LITTLE introduction to the plight of the black rhino throughout its range in sub-Saharan Africa. Not only has the dramatic decline in numbers of wild black rhino made the headlines, but also the controversy over the various ways in which range states and conservation organizations have tried to help the rhino has generated acres of print. No other high profile species in Africa that was recently so common and widespread is now so genuinely endangered in the wild; and the slow regeneration time of rhinos ensures that even if the current status of rhinos can stabilize, it will be many years before real progress can be measured.

Rhino Range States

Certain rhino range states have had the dubious distinction of attracting far more interest and comment than others. South Africa has ensured that it is always in the forefront of any debate on rhinos, partly because (by default) it now holds such a large proportion of Africa's black rhinos. South Africa is also a high-profile protagonist in the debate over the rhino horn trade, and its undoubted success in saving the southern white rhino from near extinction during the course of this century gives South Africa a unique status. Kenya rhino conservation efforts have also attracted interest, not only because of the large number of foreign visitors to the country and the high tourist profile of many of its rhino sanctuaries, but also because of its tough and well-publicized stance in trying to stop the rampant elephant and rhino poaching of the late 1980s.

Other range states have had their moments of glory in the fight to save the rhino: Zambia was the focus of much donor support and attendant public-

ity to combat the poachers in the early 1980s, to no avail. Zimbabwe was then in the frame, as the poachers moved south and, if recent counts are reliable, continued the carnage, in spite of determined efforts by the Zimbabwe authorities to thwart them. The dehorning of the desert rhinos in Namibia has recently put them in the spot-light, and deservedly so as in all likelihood this population is now the largest truly wild population of black rhinos left in Africa.

Tanzania

Tanzania, however, has rarely attracted much attention and seems almost to be a backwater as far as rhino conservation is concerned, in contrast to its high profile during the ivory trade debate, culminating in the CITES meeting at Lausanne in 1989. This lack of publicity is perhaps a fair reflection of the awful scale of the rhino tragedy in Tanzania: rhinos were once so common in Tanzania's extensive wildlife areas that no one bothered even to try to count them, so the rather glib assertion goes unchallenged that in 1970 around 20,000 rhinos still existed, in spite of the killing of many hundreds in the 1950s and 1960s to make way for the spread of agriculture. It is unlikely that barely 0.5% of that number, a mere 100 rhinos, now survives in Tanzania, and most of them are probably isolated to a degree that dooms them to extinction. Little wonder, therefore, that Tanzania has not been grabbing the headlines of rhino conservation.

Given the determination and efficiency of the poachers, it is perhaps surprising that there are any rhinos left at all in Tanzania. As the country's economy imploded during the late 1970s and early 1980s and tourism virtually dried up with the



closure of the border with Kenya from 1977 to 1984, there was no money and no incentive to offer more than token resistance to the poachers. With the wages of Wildlife Division staff often unpaid for months at a time, the infrastructure and staff discipline within Tanzania's protected areas collapsed, with rhinos becoming the most conspicuous victim. By the time the situation had improved with the recovery of tourism, relative economic stability, a nationwide crackdown on poaching in 1989 to 1990 and the outlawing of the international ivory market, the situation of the rhino was so desperate that it seemed almost too late to take a stand, particularly when so many other problems had to be faced in Tanzania's protected areas after years of neglect.

Part of the problem of trying to get any rhino conservation effort for Tanzania off the ground was ignorance of the rhinos' status. To rectify this, the Wildlife Division of the Government of Tanzania carried out a survey, funded by the Frankfurt Zoological Society, from 1990 to 1993. Local Wildlife Division staff reported back on the status of rhinos in the protected areas of their responsibility, and most of the areas regarded as most likely to harbour rhinos were surveyed on foot. The results of this work were collated in time for Tanzania to present a draft rhino conservation plan, with project proposals for funding, to the UNEP-sponsored workshop on rhino conservation in Nairobi in June, 1993. The two most important proposals for *in situ* rhino conservation related to the small and scattered rhino population of the vast Selous Game Reserve, and the surviving population of Ngorongoro Crater. Although the high hopes in Tanzania that new donor funding to support the

proposed projects were not fulfilled, the long term assistance from GTZ (of the German Government) combined with the Wildlife Division has improved the Selous Game Reserve's infrastructure, security and staff morale, although rhino specific work has been limited as little is known about the rhinos' numbers and ranges.

Frankfurt Zoological Society (FZS) has been actively involved in the Ngorongoro Conservation Area (NCA) since the mid-1980s, and both Bernard and Michael Grzimek, who did so much to publicize the importance of the Serengeti-Ngorongoro ecosystem and who were synonymous with FZS's conservation work in Tanzania, are buried on the edge of Ngorongoro Crater. It is on the 260 square kilometre floor of this spectacular Crater that the last breeding population of black rhinos in northern Tanzania survives. This unique status, added to their exceptional visibility to the increasing numbers of tourists visiting Ngorongoro Crater, has made them into a conservation priority for the Wildlife Division and led to the request to FZS at the end of 1993 to join the Ngorongoro Conservation Area Authority (NCAA) in a long term project to save and increase this population.

At first sight the floor of the Crater does not appear to be ideal rhino habitat: most of the floor is open plains and seasonally submerged soda flats, with two areas of swamp and two relatively small forested areas of predominantly yellow-fever acacia. Year round streams running into the Crater and springs on the Crater floor create a haven for wildlife, but there is relatively little of the dense thicket and bush areas with which black rhinos are normally associated, as in Tsavo or Hluhluwe. However, in the mid-1960s, at least 108 different

Above; 'Amina' was born in 1986 and her calf, 'Richard', in December 1994. 'Amina' was shot in August 1995.

Facing page; This solitary young male rhino on the Crater's lake shore is 'Runyoro', born August 1990.



Left; 'Amina' and her calf 'Richard' in the Ngorongoro Crater.

rhinos were identified in the Crater and further populations were believed to flourish in other parts of the NCA's 8,300 square kilometres and north into the contiguous Serengeti National Park.

Building a Database

In spite of the good visibility in the Crater there was no exact knowledge of the number of rhinos when we began daily monitoring in March 1994, and there proved to be some wishful thinking on the numbers that might be found in the bush and thicket areas on the edge of the Crater, and in the surrounding highland forest. So the first priority was to account for every rhino in the Crater, as well as to gather as much information as possible on their ranges, seasonal movements, daily habits and associations. New identification photos of all rhinos seen were compiled and the experienced Crater floor rangers, with a new vehicle, radios and uni-

forms, began a programme of patrols specifically to locate, identify and record as many of the rhinos as possible each day.

Accumulating many hundreds of hours in the field between us, after a year of field work the first authoritative picture of the Ngorongoro rhino population since the early 1980s began to emerge. The 108 rhinos identified in 1964 to 1966 in the Crater had dwindled to a total of 15 rhinos by March 1995, a number that has been further diminished by the poaching of a young mother rhino in August, 1995, leaving an eight-month old male calf. This calf was lucky to survive one attack by lions and two attacks by hyenas during its first few days without its mother, before a successful capture (and translocation) operation was carried out. The population now comprises two adult males (of whom one monopolizes all breeding opportunities and the other is very rarely seen); five adult females; two sub-adult males; one sub-adult female and three female calves. Extensive survey work in the surrounding forests and full use of the information network of the Maasai tribesmen living around the Crater have failed to provide proof that more than one to two further rhinos live in NCA outside of the Crater. Certainly there are no 'visitors' to the Crater to increase the gene pool, and with one male monopolising breeding opportunities it is inevitable that genetic diversity in this small group will continue to diminish.

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Protection

At present, however, it may be a luxury to worry too much about in-breeding when the overwhelming priority is simply to stop further rhinos being poached. By 1982, the population was no more than 25 and continued poaching, perhaps of no more than one or two rhinos a year, reduced this to as few as 10 or 12 rhinos in 1990, although we cannot be sure because of the lack of effective monitoring. So the most urgent priority that the NCAA has been tackling has been the re-organization of their anti-poaching force, recruitment of new leadership and increased co-operation with the local Maasai pastoralists, to try to ensure that poachers are intercepted before they can get to the Crater. FZS's role has been to provide technical support, in the form of donating vehicles, radios and camping equipment etc. Long term, however, the greatest hope for the rhinos' future security lies in the co-operation and involvement of the Maasai pastoralists who live all around the Crater. Historically, this has not been an easy relationship, as conflicts between the priorities of NCAA, administering Ngorongoro on behalf of Tanzania as a nation (and, indeed, on behalf of the whole world - Ngorongoro Crater is a UNESCO World Heritage Site) and the more parochial priorities of the local Maasai have inevitably broken out. However, much progress has been made and on the specific question of the importance of the conservation of the rhinos, NCAA finds much common ground on which to unite with the local Maasai.

'A female rhino was poached in August 1995, leaving an 8-month old calf lucky to survive one attack by lions and two attacks by hyenas'

Rhino Ecology

Security and anti-poaching work are inevitably major project priorities and will continue to be even more so, after the recent poaching incident. However, this small population provides an almost unique chance to observe wild black rhinos in their natural state, as most of the rhinos are relatively habituated to vehicles and can be observed easily in the Crater's open terrain. We have been particularly interested in those aspects of rhino ecology that have a direct bearing on their survival prospects, such as breeding success, inter-calving intervals, neo-nate and calf survival, predation and emigration. This long term study is now half-way into its second year, but already some interesting facts are emerging that show that even in the total absence of poaching, the road to recovery for Ngorongoro's rhino population will be a hard one.

First, predation of calves is a real danger, particularly in Ngorongoro Crater which probably has the highest density of lions and spotted hyenas anywhere in Africa. The latter are notoriously efficient hunters of rhino calves and are easily too quick for the lunging and myopic mother rhino. However, food for all the Crater's predators is relatively abundant and the mother rhinos have shown an uncanny knack of calving during the rainy season (when innumerable wildebeest and zebra calves offer hyenas and lions an easy catch) and of avoiding the vicinity of hyena dens while their calves are still particularly vulnerable. Hyenas are probably not a serious threat once the rhino calf has reached around six months of age, but even into adulthood, rhinos have been attacked and even killed by lions in the Crater. One 30-month old rhino calf, newly independent of its mother when she gave birth again in August 1993, disappeared completely and may well have been preyed upon by lions; when every rhino is so important, and each birth greeted with such excitement, it's a real loss when one chances to fall foul of predators, but a chance that the rhinos have to live with.

Second, it appears that one of the main reasons for only a slow recovery of rhino numbers in the last five years has been emigration of young adult males. Two males have emigrated from the Crater as they approached sexual

maturity at around seven or eight years of age; one has disappeared completely (believed poached outside the Crater) and the second was followed all the way to western Serengeti, covering an area of some 3,000 square kilometres during his wanderings. He definitely appears to have left the Crater for good, and perhaps future sub-adult males will do the same as they presumably try to disperse from their natal area in order to find unrelated females with whom to breed. In the 1960s, the Crater would no doubt have been compensated for these emigrations by immigrations of young males from neighbouring populations around Eyasi, Olduvai and the Ngorongoro highland forests, but these populations have almost certainly long since been wiped out. Particular efforts over the next few years will be made to follow the progress of the two sub-adult males remaining in the Crater and, in the long term, the practicalities of introducing an 'immigrant' (and hence unrelated) young male will have to be considered.

The third important factor affecting the rate of recovery of the Crater rhinos is the fertility of the adult females, now reduced to five in number of which three at present have calves at foot (all born since August, 1993); however, the two older females have had no surviving calves since 1984 and 1986 respectively. From photographs taken in 1982, it is clear that these two females are now quite old (perhaps well into their thirties) but rhinos are long lived and are known to be able to have calves up to a late age. Possibly they have had calves which have immediately died or been predated as neonates. We do not at present have enough information to know the reasons for this hiatus, and even if we did it is questionable whether we could do other than let nature take its course.

That, perhaps, is another reason why Tanzania does not grab the headlines when it comes to rhino conservation; the vastness of Tanzania's protected areas and the limited resources that the country can afford to devote to its wildlife areas inevitably militate against expensive intervention or the grand gesture. In essence, the Ngorongoro Rhino Conservation Project has as its main aim the elimination of any human influence on the rhino population, which means the elimination of poaching. There are no fences to help, only the readiness of NCAA's rangers and the goodwill of the local Maasai, neither of which can operate effectively if they become the object of too much attention, if their secrets are laid bare. It is still early days for Tanzania's efforts at rhino conservation to bear fruit and Tanzania's rhino numbers start from a tragically low base. For all these reasons, I doubt whether you will read too many other papers or articles on rhino conservation in Tanzania, certainly compared to other range states, but please remember that a lot of people in and around Ngorongoro are making a real effort to reverse the damage of the last 20 years, and to let the rhinos breathe again. ¶