



HISTORY OF THE D. B. MICHAELI

by Paula and Johann Robinson

Tanzania has two of the last remaining free-ranging (not fenced) black rhino populations in Africa. The Ngorongoro Crater is one of the best places where the endangered black rhino may be observed in its natural state. The second population occurs in the Moru Kopjes in southern Serengeti, but here the animals are not so easily seen.

There are five species of rhinoceros in the world of which two species are found in Africa - the White or Square-lip Rhino (*Ceratotherium simum*) and the Black or Hook-lip Rhino (*Diceros bicornis*). The black rhino found in the Serengeti-Ngorongoro Ecosystem belongs to the ecotype *Diceros bicornis michaeli* (called after Michael Grzimek, son of the well-known Prof. Bernhard Grzimek). There are not always visible distinguishing characteristics between the different ecotypes (most taxonomic work has been done on skull sizes). However, in *D. b. michaeli* there are two characteristics that can be seen in some individuals (not all) which differentiate them from the other ecotypes. Firstly, they tend to have a heavier fringe of hair on the ears, and secondly, the skin on the flanks sometimes forms 'grooves' or 'corrugations', which look much like the ribs of the animal. Some animals, however, are born with smooth skin and have very little ear hair.

Between 1974-1978 an estimated 700 black rhinos lived within the 12,920 km² Serengeti National Park - some areas, e.g. around the Seronera River, had a density of one rhino per 19 km². This density was still much lower than the reported one rhino per 3.1 km² in the woodlands, swamps, medium grasslands and short grasslands in Ngorongoro Crater. At this time there appeared to be one continuous population from Ngorongoro Crater westward through Olduvai to the Serengeti National Park and northward to the Maasai Mara Game Reserve. This population was probably continuous in distribution to Kenya's Amboseli and Tsavo National Parks, but because of intensive poaching in following years, these sub-populations became completely isolated.

In the national parks of northern Tanzania rhino poaching only became serious after 1975, and has caused a most dramatic decline in numbers in all areas. Demand for rhino horn on the world market was not only for medical purposes in the Far East, but also for a market in North Yemen, where horns are carved into dagger handles. This growing demand for rhino horn led to a tremendous increase in price, which encouraged well-organised, well-equipped and ruthless poachers.

In 1980 it was estimated that there were only 50-100 black rhinos left in Serengeti National Park, of which the only viable population of about 20 animals were found in Moru Kopjes in southern Serengeti. In Ngorongoro Crater the population declined from 108 animals on the crater floor in 1966, to an estimated 25-30 in May 1980. In the Olduvai Gorge 69 rhinos were counted in 1966, but by 1980, not a single rhino survived there. Although anti-poaching patrols in both Serengeti National Park and Ngorongoro Conservation Area at that time have reduced poaching considerably, it was not stopped completely.

By 1993, it was found that the only viable population of *D. b. michaeli* left in northern Tanzania was in the Ngorongoro crater. This population was estimated at around 14 to 18 rhinos, and they were breeding. Isolated individuals survived in the Serengeti (up to 5 animals) and a few in one or two other parks in Tanzania - elsewhere in northern Tanzania, the once common black rhino was now extinct.

In November 1993, Ngorongoro Conservation Area Authority (NCAA) and Frankfurt Zoological Society (FZS) jointly devised and agreed on a project proposal for the conservation of the rhinos of Ngorongoro crater. Intensive monitoring confirmed that there were only 13 rhinos (two adult males, six adult females and five immature animals or calves) left on the crater floor, but it was possible that some individuals might still occur just outside the crater walls. In January 1993, a sub-adult male, Rajabu, emigrated from the Ngorongoro crater and showed up in Moru area in 1995 where he met up with two adult females. In 1995 a similar joint project, between Tanzania National Parks (TANAPA) and FZS, was initiated in the Moru Kopjes area.

Since the start of the project in the Ngorongoro crater, only one rhino (an adult female) was poached and her 9-month old orphaned calf, Richard, was removed from the crater and hand-reared elsewhere. Although three more animals were lost to natural causes, the resident population has increased to 17 animals in May 2000. The Moru Kopjes population, however, has not suffered any deaths in recent years, and this population has increased to 7 animals in May 2000. It seems as if the establishment of these joint projects has successfully reversed the downward trend of the populations, but there is still a long way to go before the survival of the black rhino in northern Tanzania is assured.