Notes on Black Rhino in Ngorongoro Crater

Emmanuel Ambrose

Background

The Black Rhino is one of Africa s most endangered mammals and Tanzania supports only 46 individuals (Mackay, 2002). The historical status of Black Rhino at Ngorongoro has been detailed elsewhere (Mkenda & Butchart, 2000) with an estimated 108 on the Crater floor alone, and a further 70 in the Olduvai region in the late 1960s (Goddard, 1967). The population crashed in the 1980s at the height of illegal poaching and smuggling of rhino horn, with just 10 or 12 surviving in 1990 (Heyworth, 1995).

The population has recovered slightly in the past decade, with about 18 Black Rhino resident on the Crater floor in 2000, including two individuals introduced from South Africa s Addo National Park (Mkenda & Butchart, 2000). A total of five individuals died between 2000 and 2001 (Pretorius, 2001 and Makyao, 2002), but two calves were born in 2001. In 2002, another two calves were born in the Crater, but one of these died in April of that year when it was just two weeks old. The calf was apparently separated from its mother and fell into a ditch where it was preyed upon by Spotted Hyenas. At the end of 2002, the Black Rhino population on the Crater floor was 16.

Individual Recognition

The primary objective of my project has been to identify individual rhinos on the basis of their horn shape or other physical features. By the end of 2002, I had been able to individually recognise six individuals, which were also photographed. Four adult females, one sub-adult bull, and one adult bull have all been given code numbers, and names. Getting close enough to the rhinos to photograph them was no easy task, as they frequently lie in tall grass during the day. It is hoped that further individuals will be identified and photographed in the months ahead.

The benefit of individual recognition is that it makes it possible to monitor the movements, social interaction and diet of particular rhinos, thereby giving a clearer picture of the ecology of the species in the Ngorongoro Crater.

Diet

The usual diet of Black Rhino consists of shoots, leaves, buds, flowers, twigs and stems of various herbs and shrubs. At first glance, the dominance of grass on the Crater floor does not appear to be suitable habitat for these browsers, but closer investigation reveals an abundance of small herbs growing among the grasses. Of these, *Justicia betonica, Achyranthes aspersa, Sida cuneifolia* and *Sida ovata* are the favoured plant foods according to my observations, with *Solanum incanum* fed upon only rarely. Other species recorded include *Indigofera* (Goddard, 1968) and the exotic weed *Datura* (Mkenda & Butchart, 2000). Black Rhino will also browse from *Acacia xanthophloea* trees pushed over by elephants in the Lerai Forest.

With its prehensile upper lip adapted for selective feeding, the Black Rhino is regarded as a pure browser with a marked preference for leguminous herbs and shrubs (Estes, 1991) . However, my observations indicated that the rhinos in the Crater also eat a variety of grasses. Between the months of March and May, and from November to January, Black Rhinos were seen to eat

Individually recognisabl

Black Rhino M1 (John)

Black Rhino F1 (Felster)

Black Rhino M4 (Kijana)

Ngorongoro Crater

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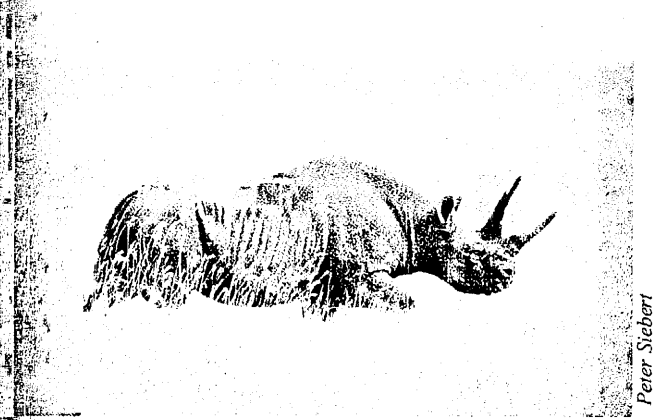
Individually recognisable Black Rhino resident on the Ngorongoro Crater floor


Peter Siebert

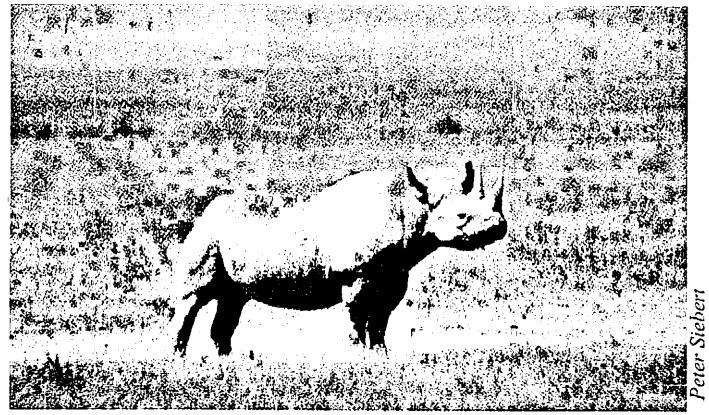
Black Rhino M1 (John)


Peter Siebert

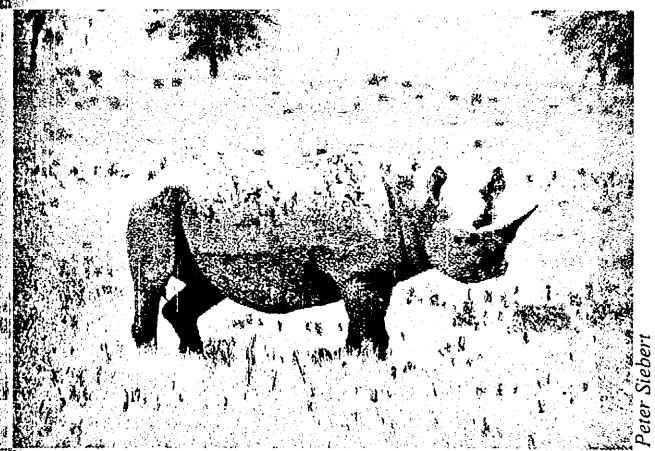
Black Rhino F8 (KB)


Peter Siebert

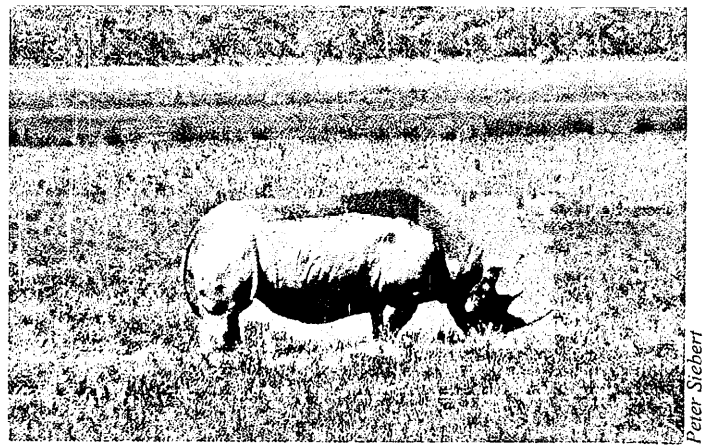
Black Rhino F1 (Felster)


Peter Siebert

Black Rhino F3 (Vicky)


Peter Siebert

Black Rhino M4 (Kijana)


Peter Siebert

Black Rhino F7 (Papageno)

Peter Siebert

Cynodon dactylon, Sporobulus spicatus, Pennisetum clandestinun, Themeda triandra and *Hyparrhenia rufa*. I watched all of these instances carefully, and could clearly see the pink upper lip of the rhinos when they were eating the grass.

Home Ranges and Movements

The home ranges of females F8, F3 and F7 have been mapped by Amiyo T.Amiyo the co-ordinator of the Ngorongoro Rhino Conservation and Monitoring project. The range of the dominant bull - M1 - is more extensive than that of the females. In the rainy season between March and May, Black Rhinos frequently interacted with elephants in the Shamba la Faru area, but no aggressive was observed. During November and December a total of eleven Black Rhinos remained around Shamba la Faru for a period of four to six seeks. The usual number of rhinos occupying this area is between five and seven.

Acknowledgements

My thanks to Peter Siebert for taking the photographs of the various rhinos and to Amiyo T.Amiyo (Co-ordinator of Ngorongoro Rhino Conservation and monitoring) for his assistance. I am also grateful to my fellow rangers at Ngorongoro Crater Lodge for their participation.

References

Estes, R.D. 1991. *Behaviour Guide to African Mammals.* Russel Friedman Books, South Africa.

Mkenda, E & D.Butchart, 2000. Notes on the Status of Black Rhino in the Ngorongoro Crater. *Ecological Journal* 2: 68-69. CC Africa, Benmore.

Goddard, J. 1967. Home range, behaviour and recruitment rates at two black rhinoceros populations. *East African Wildlife Journal* 6:1-18.

Goddard, J. 1968. Food preferences of two black rhinoceros populations. *East African Wildlife Journal* 6:1-18

Mackay, R. 2002. *The Atlas of Endangered Species.* "Earthscan, London.

Notes on Jack

Martin Mallya

Background

Three species of jackal occur
Golden and Side-striped are s
on how they are able to coexi
slightly different habitats in th
grassland.

My own field observation
the daylight hours when gam
though the Golden Jackal is th
diurnal in habits. The Black-b
as being primarily nocturnal (E
in the Crater, as it was only se

Diet

For the Golden Jackal, probabl
with insects, reptiles, birds, sn
Cape Hare and Thomson s Ga
pairs always being more succe
regularly seen close to the lak
Black-backed Jackal may take
spectrum. Individuals are mor
of three or more may take the
backed Jackal feeding togethe
Ngorongoro Crater, although
carrion and small prey items (

When the Wildebeest are c
(Late January to February), bo
Individuals and pairs can ofter
plains. In addition to feeding c
beetles are a major attraction f
inside the Crater also drop thei

Surprisingly, no instances o
Black-backed jackals. Neither s
may happen after dark. During
dens on the Crater floor. A sing
on the Sopa Lodge road, and th
occasion, I came across a dead