

Survey of African Rhinoceroses

by Hans Klingel

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The alarming decline of rhinoceroses is public knowledge. The reasons for this decline are to a small extent loss of habitat, but mainly poaching for the horns for which there is a continuous and even increasing demand. Rhino horn is still considered an aphrodisiac by peoples of the East, and it has become a status symbol in Arab countries for use in dagger handles.

The distribution pattern of the 2 African rhinoceroses is quite different. White rhinoceros, *Ceratotherium simum*, have 2 small and isolated ranges and consequently 2 subspecies have evolved. At the turn of the century the northern subspecies, *C. s. cottoni*, was common in the southern Sudan, the north-east corner of Zaire and in north-western Uganda, and it also occurred in the Central African Republic. In historic times it has never occurred naturally east of the White Nile, but it was introduced to Kabalega (formerly Murchison) Falls NP, across the Nile from its natural range. The southern subspecies, *C. s. simum*, had a range which covered parts of South Africa and Botswana and possibly of Zimbabwe/Rhodesia, Angola and Mozambique. At the turn of the century it was reduced to possibly under 10 individuals in Natal, and it has recovered from this nucleus to presently several thousand. The subspecies has been introduced or re-introduced to many areas in southern Africa and also to Kenya.

Black rhinoceros, *Diceros bicornis*, had originally a large and virtually continuous range from Nigeria to Somalia and south to South Africa, except in unsuitable habitats (rain forest, desert). Several subspecies are recognized: *D. b. bicornis* (South Africa: Cape Province, South West Africa/Namibia), *chobiensis* (upper Zambesi valley), *minor* (Angola, Zimbabwe/Rhodesia, Mozambique, Malawi, Zambia, Zaire, Tanzania), *michaeli* (northern Tanzania, eastern Kenya), *ladoensis* (western Kenya, Uganda, southern Sudan), *brucii* (Somalia, Ethiopia, Sudan), *longipes* (Chad,

Cameroon, Central African Republic). Some of these subspecies are particularly threatened. Wherever possible translocations should take the subspecific differentiation into account and artificial hybridizing should be avoided.

In my capacity of chairman of the African Rhinoceros Group, for 1978, Survival Service Commission, IUCN, I conducted a questionnaire survey on status and trends of the 2 African rhinoceroses, the results of which and other information are summarized in this report.

I am grateful to all colleagues who have taken the trouble of filling in the questionnaires and returning them to me or who have provided me with relevant information in an other way.

I have included in this compilation areas which until recently were known to host rhinoceroses and from which they have disappeared in the meantime. The same will be true for many other areas for which I have no specific information.

Abbreviations:

CA	Conservation Area	prop.	proposed
Contr.A.	Controlled Area	q	questionnaire
FR	Forest Reserve	p.c.	personal communication, letter, report, unpublished manuscript
NP	National Park		
NR	Nature Reserve		
PR	Public Resort		
		=	stable
		+	increasing
		-	decreasing

SPECIES

country	area / size (km ²)	nos.	year	tendency	remarks	reference
WHITE RHINOCEROS (SOUTHERN)						
Botswana	Chobe NP	20	1978	=	rough estimate	Patterson (q)
	Moremi GR	15	1978	=	"	"
	elsewhere	20	1978	=	"	"
Mozambique	Maputo NR	35	1979			Hosinha (p.c.)
	Manhoca region	20	1979			"
	Gorongosa NP	8	1979			"
South Africa	Huhluwe-Umfulosi GRs + corridor / 960	1550	1976/9	+	aerial counts	Brooks (q)
	Natal GRs, PRs / 688,5	105,5	1976/9	+	ground counts	Brooks, Bourquin (q)
	Natal private land / 160	95	1975/9	+/=	ground counts	Collinson (q)
	Kruger NP / 19000	433-500	1978		aerial count	Joubert (p.c.)

SPECIES	country	area / size (km ²)	nos.	year	tendency	remarks	reference
WHITE RHINOCEROS (NORTHERN)	Sudan	Nimule NP	0	1977			McClinton (p.c.)
		Shabe GR	several	1977	-	rough estimate	"
		South Sudan	?	1977	-		"
Uganda		Kabalega NP /3500	0	1979			v. Gyseghem (p.c.)
		Ajais GR /650	0	1979			"
Zaire		Garamba NP /4920	525	1976		aerial count	Woodford (p.c.)

SPECIES	country	area / size (km ²)	nos.	year	tendency	remarks	reference
BLACK RHINOCEROS							
Botswana	northern Botswana		under 100	1979	-	rough estimate	Williamson (q)
Cameroon	Bouba Njida NP / 2200	53		1977	-	aerial count	Esser (q)
	Benoué NP + surr. / 3800	10		1978	-	rough estimate	"
	Faro NP / 3300	50		1962	-		Flizot (1962)
Chad	Zakouma NP / 3000	up to 5		1978	-	rough estimate	Newby (q)
	Siniaka-Minia GR / 4260	11		1978	-	rough estimate	"
	Bahr Salamat GR / 20600	4 - 5		1978	-	rough estimate	"
	Guera-Salamat	2 - 3		1978	-	rough estimate	"
Ethiopia	Mago + Omo NP (prop) / 800	up to 8		1978	-	rough estimate	Stephenson (q)
	southern border area / 1000	up to 10		1978	-	rough estimate	"
Kenya	all rangelands / 480775	1800		1977	-	aerial count 2,2% KREMU	(1978)
Malawi	Mvabvi GR / 500	5 - 10		1975/8	=	counts	Bell (q), Hayes (q)
	Kasungu NP / 2000	up to 40		1978	+?	counts	"
	Tuna FR / 200	?				unconf. reports	Bell (q)
	Vwaza Marsh GR / 992	?		1978		unconf. reports	Hayes (q)
	Nkhotakota GR / 1749	?		1978		no recent info	"

	Rovuma NP (prop) total for country	?	1979	largest pop.	Hosinha (p.c.)
Mozambique		ca.200	1979		"
Rwanda	Akagera NP / 2500	15 - 20	1979		Montfort (q)
South Africa	Hluhluwe GR / 230,7	199	1979	counts	Brooks (q), Hall-Martin (p.c.)
	Umfolosi GR / 477,5	60	1979	counts	"
	Corridor GR / 250	69	1979	counts	"
	Mkuzi GR / 250,9	60	1978	counts	"
	Ndumu GR / 101,2	25	1978	counts	"
	Itala GR / 270	9	1978/9	counts	" , Bourquin (q)
	Addo Elephant NP / 80	12	1979	counts	Hall-Martin (p.c.)
South West Africa/ Namibia	Etosha NP / 22270	180	1978	counts	Berry (q)
	Kaokoland / 55000	20?	1978	rough estimate	"
	Damaraland	30?	1978	rough estimate	Hall-Martin (p.c.)
Tanzania	Serengeti NP / 12500	672	1977	aerial count	
	Ngorongoro CA / 8000	110?	1966	rough estimate	Bigurube (q)
	Tarangire NP	?	1978		
	Selous GR / 47000	1200	1977	aerial count	Bigurube (q)
	" + surrounds. / 76000	up to 6000	1976	aerial count	Rodgers (q)
	Ruaha NP+Rungwa GR+ Kizigo GR	up to 1000	1977	aerial counts	"
	Rukwa, Ugalla GR, Katavi NP, Mlele, Msima, Rukwa Contr.s.	0	1977	aerial survey	"

Remarks (both species), by countries.

Angola: as far back as 1941 black rhinoceros occurred in the southern regions, but were already rare (Sidney, 1965). They may have become extinct in the meantime.

Botswana: poaching serious and increasing. Poachers enter from South West Africa/Namibia (Caprivi Zipfel). Re-introductions of white rhinoceros to Chobe NP, Moremi GR and Maun Wildlife Education Park have been successful. Status of black rhinoceros is precarious. Totals white rhinoceros: under 100; totals black rhinoceros: under 100. (Patterson (q), Williamson (q)).

Burundi: no rhinoceroses are left in the country, but horns smuggled in from neighbouring countries are legally exported. In 1977 (January to November only) 82 kg rhinoceros horn (plus 67679 kg ivory, 183 leopard and 76 other cat skins) were taken out of Burundi by SABENA Belgian Airlines. (Herman, p.c.).

Cameroon: poaching serious and increasing. No confirmed reports on the survival of black rhinoceroses in the Faro NP, which was the western limit of distribution of the species in the early 1960s. (Esser (q)).

Central African Republic: white rhino was exterminated in the 1930s (Sidney, 1965). Black rhinoceros: possibly up to 300.

Chad: poaching serious and increasing. 25 to 30 black rhinoceros were poached in 1976 alone. The situation is precarious, and the remnant groups will only be able to survive, if effective protection is guaranteed immediately. (Newby (q)). The Chad and Cameroon rhinoceroses are the only surviving members of the subspecies *D. b. longipes*.

Ethiopia: black rhinoceros have probably become extinct by now. (Stephenson (q)).

Kenya: poaching serious and increasing. Numbers have decreased to a fraction of those of only 10 years ago. In one NP (Meru) the population has been reduced from 300 in the early 1970s to 20 in 1979. (Elliot, p.c., Norris, p.c.).

Malawi: poaching is under control and not a serious threat. Small but stable or even increasing populations exist in some protected areas. (Bell (q), Hayes (q)).

Mozambique: white rhinoceros was successfully introduced in 3 areas. The planned Rovuma NP will be particularly important for black rhinoceros. (Hosinha, p.c.).

Nigeria: black rhinoceros are extinct since the 1930s. (Sidney, 1965).

Rwanda: the present population of 15 to 20 black rhinoceros originates from 6 introduced individuals (2♂, 4♀), in 1958. Poaching is under control. (Montfort (q)).

Somalia: no recent information. Black rhinoceros may have become extinct some time ago.

South Africa: poaching does not pose a problem and is non-existent in most areas. Occasional snarings of rhinoceros by people hunting antelope. White rhinoceros has been successfully introduced to a good number of places, including private land. The largest introduced population is in Kruger NP and consisted of 433+ individuals in September, 1978. The Hluhluwe-Umfolosi population of some 1550 individuals continues to produce a surplus, and over 2000 white rhinoceros have so far been taken out, mostly for re-introduction.

Black rhinoceros was also successfully re-introduced to several areas. (Brooks (q), Bourquin (q), Joubert (p.c.), Hall-Martin (q)).

South West Africa/Namibia: from 1970 to 1972 43 black rhinoceros were captured in areas where they were threatened by poachers and moved to the Etosha NP, where they and the original population are doing extremely well. Rhinoceros in the Kaokoland and in the Damaraland are severely threatened and have little chance to survive. (Berry (q), Hall-Martin, p.c.).

Sudan: the Nimule NP population of white rhinoceros has recently been exterminated by poachers. (McClinton (p.c.)). No recent information on black rhinoceros, but the situation is certainly precarious.

Tanzania: poaching pressure is serious and increasing in northern Tanzania, and this may indicate that horns are smuggled to Kenya. Selous GR has a low density of rhinoceros over a large area; the Selous population is one of the largest left in the whole of Africa. Up to 1973 sports (trophy) hunting was still possible in Tanzania. (Bigurube (q), Rodgers (q)).

Uganda: poaching has been serious during the last 8 years, and with an increasing tendency. White rhinoceros, which had a very limited range in Kabalega Falls NP and Ajais GR were systematically persecuted. The last survivors are believed to have been killed during and after the 1979 liberation of Uganda. (Edroma (p.c.), v. Gyseghem (p.c.)). Black rhinoceros had a larger range in northern Uganda, and some may have survived.

Zaire: no recent information has been received, but it is certain, that poaching is a serious threat to the remaining rhinoceroses. The Garamba NP contains the largest population of northern white rhinoceros, but the species seems to have completely disappeared outside it. Horns were smuggled to Uganda and offered to tourists (own experience). Black rhinoceros have in the recent past only occurred in Katanga (Shaba) Province, and they may have become extinct by now. (Sidney, 1965).

Zambia: comparatively large and intact populations of black rhinoceros exist in the Luangwa Valley, some small populations also in the Central and Southern Provinces. No recent and detailed information is available.

Zimbabwe/Rhodesia: no recent information is available. The situation is precarious. A major reduction of rhinoceroses was caused during the Tsetse-fly eradication scheme in the 1950s.