

# Rhino population sizes and trends

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The population statistics for all wild populations of black and white rhino as at the end of December 2003 are presented in tables 1–3. These statistics were revised and compiled at the AfRSG meeting held at Serena Kilaguni Lodge, Tsavo West National Park, Kenya, in June 2004. Estimates based on speculation or old data (speculative guestimates) are not included in the population totals given in these tables. Only country totals by subspecies are presented here as individual population details are kept confidential for security reasons.

## White rhino

Table 1 shows that the number of northern white rhinos (*Ceratotherium simum cottoni*) has declined markedly in response to increased poaching pressure by Arabic horsemen from the Sudan. Recent surveys (Kes Hillman-Smith pers. comm.) suggest that in 2004 numbers may have dropped to as low as 15. This subspecies currently faces the greatest threat to its continued existence since 1984. Emergency meetings have been held by local conservationists and stakeholders to develop an emergency action plan, and to raise additional funds for the conservation effort in Garamba National Park.

The total number of southern white rhinos (*C.s. simum*) in Africa is slightly lower than the estimated total number compiled at the 2002 Malilangwe AfRSG meeting. However, this does not reflect an actual decline in numbers. The difference is due to a lower population estimate for the biggest population (Kruger National Park). There is no evidence of any actual decline in numbers in Kruger as there are no signs of lack of breeding, increased mortalities or widespread poaching in this park, which would be expected if there had been an actual decline in numbers. Rather, the lower Kruger estimate is due to the use of a more conservative figure and is almost certainly an artefact of the sampling variability inherent in the method used to estimate numbers for this large

population. In the remaining southern white rhino populations, numbers have increased by 13.5% over the two-year period, December 2001–December 2003. In reality, southern white rhino numbers are therefore likely to have continued to increase overall since 2001.

## Black rhino

Numbers of the *Critically Endangered* rare western black rhino (*Diceros bicornis longipes*) in Cameroon remain small and are not adequately known. Some supposed photographic evidence of the presence of more western black rhinos does not appear to be spoor of black rhino according to a number of experts who have seen the photos. There may well be more western black rhinos remaining than the figure of five, but this requires confirmation. Plans are being developed to continue to survey rhino range areas in Cameroon to record signs and frequency of rhino signs and spoor.

The number of eastern black rhino (*D.b. michaeli*) continues to increase slowly. With an increased focus on improving biological management, it is hoped metapopulation growth rates can increase. A single rhino has also been found in Rwanda with a further two to four being recorded in Ethiopia.

Encouragingly, improved population estimation in the biggest south-western (*D.b. bicornis*) black rhino population has confirmed that numbers are higher than previously thought. Demographic (age and sex structure) data indicate that this population is also increasing. Numbers have increased in other populations of south-western rhinos, with the Namibian custodianship programme being especially successful in increasing rhino numbers rapidly through breeding.

Numbers of south-central black rhinos have also increased. However, conservative biological management in several key donor populations in South Africa has resulted in reduced metapopulation growth rates for a number of years in some populations. With the

Table 1. Numbers of white and black rhinos in Africa as of 31 December 2003 by country and subspecies

	White rhino				Black rhino					
	<i>C.s.cottoni</i> (northern)	<i>C.s.simum</i> (southern)	Total	Trend	<i>D.b.bicornis</i> (south-western)	<i>D.b.longipes</i> (western)	<i>D.b.michaeli</i> (eastern)	<i>D.b.minor</i> (southern-central)	Total	Trend
Botswana	-	67	67	up+intro	-	-	-	5	5	intro
Cameroon	-	-	-	-	-	5?	-	-	5?	?
DR Congo	22	-	22	down	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	4 <i>D.b.brucei?</i>	-	4	?
Kenya	-	218	218	up	-	-	439	-	437	up
Malawi	-	-	-	-	-	-	-	8	8	up+intro
Mozambique	-	2	2	?	-	-	-	0?	0	extinct?
Namibia	-	186	186	up	1,238	-	-	-	1,238	up
Rwanda	-	-	-	-	-	-	1	-	1	down
South Africa	-	10,536	10,536	up	71	-	36	1,177	1,284	up
Swaziland	-	61	61	up	-	-	-	15	15	up
Tanzania	-	-	-	-	-	-	42	24	66	up
Zambia	-	3	3	down	-	-	-	5	5	intro
Zimbabwe	-	250	250	up	-	-	-	536	536	up
Totals	22	11,320	11,350	up	1,310	5?	520	1,770	3,610	up

Compiled by IUCN SSC African Rhino Specialist Group. Table excludes speculative guesstimates.

Numbers primarily compiled at (SADC RPRC and WWF funded) IUCN SSC AfrSG meeting held in Kenya 6–11 June 2004.

Numbers of *D.b. minor* in Tanzania, *D.b. bicornis* in Namibia, *D.b. michaeli* in Kenya, *D.b. longipes* in Cameroon and *C. cottoni* in DRC may be higher but this requires confirmation.

White rhino trend is up but total numbers down 2.5% compared with 2001 due to estimate for largest population of southern white rhino (Kruger NP) declining due to using more conservative figure for 2003 than 2001, and undoubtedly in part due to sampling error (95% confidence levels around the 2003 estimate =  $\pm 23.3\%$ ).

South African total = 2003 figures used for state and defence force areas and 2002 figures for private, municipal, zoo and biosphere reserves.

The number of southern white rhinos outside Kruger has increased by 809 (+13.5%) over the last two years and there is no evidence of an actual decline in Kruger.

Subspecies totals > 500 rounded to nearest 10 rhinos.

Exact Swaziland numbers of *D.b. minor* given to AfrSG but are being kept confidential until authority is obtained to release them. In the meantime the table shows an approximation to the true number.

Poaching continues in Garamba NP and the latest estimate as of September 2004 is only 15.

adoption of a new black rhino biological management policy by Ezemvelo KwaZulu-Natal Wildlife, it is hoped that growth rates of South Africa's *D.b. minor* metapopulation can once again increase above the minimum target figure of 5% per annum. Encouragingly there are signs that South African metapopulation growth rates are starting to increase again. The estimated number of black rhinos in Kruger National Park is conservative and may well be higher. While poaching and increased snaring in some Zimbabwe populations of south-central black rhino is cause for concern, underlying growth rates in a number of Zimbabwean populations continue to be among the highest in Africa.

Overall the steady increase in the number of black rhinos continues, with numbers reaching 3610 by December 2003, up from the continental low of 2410 in 1995. This increase of 1200 in the wild in eight years represents an annual growth rate of 5.2% per annum. Some of this growth will be due to a much-improved population estimation in Africa's biggest black rhino population, and it may be that the actual underlying growth in numbers is just below the minimum target of 5% per annum.

## Poaching levels

While the overall trend in rhino numbers in Africa was still up, it is of concern that the reported numbers of rhino poached increased to 54 in 2002 and 84 in 2003. The massive increase in poaching of northern white rhinos in Garamba is especially serious as it threatens to eliminate the last remaining wild population of this subspecies if not checked. Declining manpower and declining budgets in a number of areas remain a cause for concern. Although the overall trend in numbers is encouraging there is no room for complacency.

## Key- and Important-rated populations

The increase in rhino numbers since 1995 is reflected in the steady increase in numbers of *Key-* and *Important-*rated rhino populations (assessed using AfRSG criteria) in Africa, from a total of 60 in 1995 to 99 in 2003 (table 2). In eight years (1995–2003) the number of *Key-*rated rhino populations has increased from 11 to 14 for black rhinos and 12 to 17 for white rhinos. The number of *Important-*rated rhino populations has also increased from 16 to 22 for black and 21 to 46 for white.

Table 2. Number of *Key* and *Important* African rhinoceros populations by country at 31 December 2003

Rating	White rhino			Black rhino			Total
	Key 1	Key 2 + (Key 3)	Imp.	Key 1	Key 2 + (Key 3)	Imp.	Key & Imp.
Botswana	0	0	2	0	0	0	2
Cameroon	–	–	–	1	0	0	1
DR Congo	1	0	0	–	–	–	1
Ethiopia	–	–	–	0	0	0	0
Kenya	1	0	2	0	2	7	12
Malawi	–	–	–	0	0	0	0
Mozambique	0	0	0	–	–	–	0
Namibia	0	1	2	2	0	2	7
Rwanda	–	–	–	0	0	0	0
South Africa	4	8	35	2	2(1)	6	58
Swaziland	0	0	2	0	0	0	2
Tanzania	–	–	–	0	0	1	1
Zambia	0	0	0	0	0	0	0
Zimbabwe	0	2	3	0	3(1)	6	15
Total 2003	6	11	46	5	7(2)	22	99
Total 2001	5	9	44	5	11	19	93
Total 1999	5	6	36	5	6	18	76
Total 1997	5	7	15	5	6	33	71
Total 1995	6	6	21	5	6	16	60

The 5 black and 6 white *Key 1*-rated populations conserved 1727 (47.9%) of Africa's black rhinos and 7265 (63.4%) of its white. The 9 *Key 2* and *Key 3* black rhino populations conserved an additional 690 (6.08%) rhinos with the 9 *Key 2* white rhino populations conserving 701 (19.44%) more rhinos. Thus the *Key*-rated populations conserved 67.02% black rhinos and 70.21% white rhinos.

### Ownership and management models

Table 3 provides a summary of the distribution of rhinos of the different subspecies according to management or ownership models. While the state-run conservation agencies continue to manage most of the rhinos in Africa (75.1% black rhinos and 70.0% white rhinos) the private sector also manages a significant proportion (22.6% of black rhinos and 28.7% of white). As before, while the majority of black rhinos on private land remain state owned and are managed on a custodianship basis, white rhinos on private land are privately owned.

Table 3. Number of African rhinos under various management systems in Africa, December 2003

Number of rhinos	White rhinos						Black rhinos						Total white & black					
	C.s.cottoni northern		C.s.simum southern		Total		D.b.bicornis s-western		D.b.longipes (western)		D.b.michaeli (eastern)				D.b.minor (s-central)		Total	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
Communal	-	-	32	0.28	32	0.28	142	10.85	-	-	1	0.19	2	0.11	145	4.02	177	1.18
Other defence force/ zoo NRS	-	-	48	0.42	48	0.42	-	-	-	-	6	0.34	6	0.34	6	0.17	54	0.36
Municipal/county council	-	-	39	0.34	39	0.34	-	-	-	-	36	6.90	-	-	36	1.00	75	0.50
Privately owned	-	-	3252	28.72	3252	28.66	17	1.30	-	-	34	6.51	106	5.99	157	4.35	3409	22.80
Private custodianship	-	-	0	-	0	-	116	8.86	-	-	152	29.12	390	22.03	658	18.25	658	4.40
State	22	100	7943	69.95	7943	70.01	1034	78.99	5	100	292	55.94	1110	71.41	2595	71.96	11223	75.07
State and privately owned	-	-	13	0.11	13	0.11	-	-	-	-	-	-	-	-	0	0	13	0.09
State owned with joint state and contractual management	-	-	18	0.16	18	0.16	-	-	-	-	7	1.34	-	-	7	0.19	25	0.17
Total	22	-	11323	-	11345	-	1309	-	5	-	522	-	1770	-	3606	-	14951	-

Table excludes speculative guestimates. Rhinos within Kruger National Park listed under 'State' while those in adjoining three private reserves listed under 'Privately owned'.