

RHINO NOTES

Rhino population sizes and trends

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Population statistics for all wild populations of black and white rhinos as at the end of December 2005 are presented in tables 1–3. These statistics were revised and compiled at the AfRSG meeting held at Mlilwane Wildlife Sanctuary, Swaziland, from 27 June to 2 July 2006. This meeting was sponsored by UK's Department for Environment, Food and Rural Affairs (DEFRA). 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

The number of northern white rhinos (*Ceratotherium simum cottoni*) has declined rapidly (table 1) in response to an upsurge in poaching pressure. Only four animals have so far been confirmed by intensive aerial surveys, follow-up flights and limited ground patrolling. This subspecies currently faces the greatest threat to its continued existence since 1984.

Southern white rhino (*C.s. simum*) numbers continue to increase rapidly. The population estimate for the biggest population (Kruger National Park) is higher than in 2003 and to some extent this reflects inherent sampling variability associated with getting population estimates for this very large population in a very large park. However, when viewed over time, population estimates for Kruger's white rhino population show a clear and marked upward trend. In the remaining southern white rhino populations, overall numbers have also increased by 780 since 2003. Numbers of southern white rhinos on private land in South Africa, however, are likely to be underestimated, as survey data for most of South Africa's privately owned southern white rhino populations were available only for 2004 and not 2005.

Black rhino

Foot surveys were recently undertaken over much of the range of the western black rhino (*Diceros bicornis longipes*) in Cameroon. Before the fieldwork started, survey leaders Jean Francois and Isabelle Lagrot spent time with experienced black rhino monitors in both KwaZulu-Natal, South Africa, and Zimbabwe, where they gained field experience in finding and identifying black rhino signs. For part of the survey they were joined by Africa's foremost rhino tracker, Jackson Kambwe from Zimbabwe. Unfortunately the survey teams failed to find any rhino signs in the areas covered. They also confirmed the strong suspicions of a number of AfRSG members that the supposed photographic evidence produced by an NGO to justify claims that rhinos still survived in greater numbers were of faked, not real spoor. As there were no rhinos left to monitor, trackers had taken to faking spoor in an attempt to keep their jobs. The survey teams also came across regular evidence of poaching and poachers. Thus it is feared that the western black rhino may have become extinct. Surveys continue in other areas not yet covered.

The number of eastern black rhinos (*D.b. michaeli*) continues to increase with marked increases in the major range state, Kenya. This is in part a response to more attention being paid to biological management. The single black rhino remaining in Rwanda died in 2006, but it is included in the 2005 statistics. There has been no confirmation of the continued existence of a possible 2–4 in Ethiopia. Numbers of this subspecies continue to increase rapidly in Tanzania and out of range in South Africa.

Estimated numbers of south-western black rhinos (*D.b. bicornis*) in 2005 were slightly lower than for 2003. However, this appears to be solely a function of the sampling variability inherent in the method used to

Table 1. Numbers of white and black rhinos in Africa as of 31 December 2005 by country and subspecies

Species	White rhino				Black rhino				Trend
	C.s. <i>cottoni</i> (northern)	C.s. <i>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> (south-central)	
Botswana		99	99	up+intro				5	5
Cameroon						extinct?		extinct?	extinct?
DR Congo	4		4	down					
Ethiopia							?		extinct?
Kenya		234	234	up			540	10	540
Malawi								?	10
Mozambique		?	?	?					?
Namibia		293	293	up	1,141				1,141
Rwanda							1		1
South Africa		13,521	13,521	up	80		41	1,258	1,379
Swaziland		75	75	up				16	16
Tanzania							57	44	101
Uganda		4	4	new					
Zambia		2	2	down				6	6
Zimbabwe		308	308	up				527	527
Totals	4	14,536	14,540	up	1,221	0	639	1,866	3,726

Compiled by IUCN SSC African Rhino Specialist Group

Table excludes speculative guesstimates.

Numbers were primarily compiled at the UK DEFRA-sponsored 2006 IUCN SSC AFRSG meeting held in Swaziland.

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

South African white rhino total = 2005 figures used for state and defence force areas and 2004 figures for private, municipal, zoo and biosphere reserves

Numbers of *D.b. bicornis* in Namibia show a slight decline since the last meeting, but this is due to a decline in the estimate of the largest population, which most

probably is just a function of the inherent precision of the method used to estimate numbers in this park. Other data indicate the underlying trend in this population remains up. Numbers of this subspecies continue to increase in other populations.

Species totals >500 have been rounded to nearest 5 rhinos.

survey the largest single population of this subspecies. Other indicators for this population such as recorded mortalities and demographic data indicate that it continues to increase. Since 2003, numbers have also increased in other populations of south-western rhinos on state, private, custodianship and communal land.

The number of south-central black rhinos (*D.b. minor*) has also increased slightly but is below the minimum target level of 5% per annum due to continued suboptimal performance in some donor populations (following a period of conservative biological management) and increased snaring and poaching deaths in some Zimbabwe populations. With increased implementation of the Ezemvelo-KZN-Wildlife black rhino biological management policy, it is hoped that underlying growth rates of the South African metapopulation can once again increase above the minimum target figure of 5% per annum. While poaching and increased snaring in some Zimbabwe populations of south-central black rhinos are cause for concern, fortunately underlying growth rates in a number of Zimbabwean populations continue to be among the highest in Africa. And in joint Zimbabwe Wildlife Authority/WWF operations, over 50 rhinos have been treated for snare wounds, and others have been moved from vulnerable areas affected by land resettlement to new safer areas. The result is that despite increased mortalities, total numbers of this subspecies in Zimbabwe in 2005 are only slightly (-1.7%) lower than 2003. Had it not been for these field actions coupled with the good underlying growth in a number of lowveld populations, Zimbabwe black rhino numbers would have declined markedly. However, if high levels of poaching and snaring continue, numbers may decline further in this important range state. The numbers in Kruger National Park are conservative, and may well be higher. A block count trial is planned for one of the major areas in this park, and if successful its application to the whole park should improve knowledge of this AfRSG-rated *Key 1* population.

Overall, the number of black rhinos in the wild has increased by 1316 in 10 years, since numbers bottomed out at 2410 in 2005. This represents an annual growth rate of 4.45% per annum. However, some of this 'growth' is due to much improved population estimation in Africa's biggest black rhino population, and as a result the actual underlying growth in numbers is likely to be a little below the minimum target of 5% per annum.

Changes in numbers of AfRSG-rated *Key* and *Important* populations

The continued increase in overall numbers of both black and white rhinos is reflected in increases in the number of AfRSG-rated rhino populations (table 2). There are now 112 populations in Africa rated *Key* and *Important*, up from only 60 in 1995.

By the end of 2005 the 6 white and 6 black *Key1*-rated populations conserved 9273 (63.79%) of Africa's white rhinos and 1768 (47.45%) of the black. The 14 *Key2* and *Key3* white rhino populations conserved an additional 936 (6.48%) rhinos, with the 9 *Key2* and *Key3* black rhino populations conserving 563 (15.11%) more. Thus the AfRSG-rated *Key*-rated populations conserved 70.27% of white rhinos and 62.56% of black.

The number of *Important* white rhino populations has more than doubled in 10 years, from 22 in 1995 to 51 in 2005 with the number of *Important* black rhino populations also increasing over the last 10 years, from 16 in 1995 to 26 in 2005. *Important* white and black rhino populations in 2005 conserved a further 1593 (10.96%) white and 868 (23.3%) black rhinos.

The remaining unrated 352 white and 74 black rhino populations conserved 18.77% of wild white and 14.14% of wild black rhinos in 2005.

Rhinos under the various ownership models

The estimated number of African rhinos and the number of rhino populations as at the end of 2005 are given in table 3, broken down according to species, subspecies and management or ownership models. White rhinos in the Kruger National Park area of Greater Kruger National Park are listed under 'state', while those resident in the adjoining three private nature reserves are listed as privately owned.

Numbers of populations by model

In 2005, of the 423 known discrete white rhino populations in Africa, 349 (82.5%) were on private land (either privately owned or managed under custodianship for the state), and 51 occurred in state-run protected areas. While more numerous, many of these

Table 2. Total number of *Key* and *Important* African rhinoceros populations by country at 31 December 2005

Rating	Black rhino			White rhino			Total Key and Important
	Key1	Key2 + (Key3)	Important	Key1	Key2 + (Key3)	Important	
Botswana	0	0	0	0	0	2	2
DR Congo				1	0	0	1
Kenya	0	4	7	0	1(1)	2	15
Malawi	0	0	0				0
Mozambique	0	0	0	0	0	0	0
Namibia	2	0	2	0	2	2	8
South Africa	3	1(1)	7	5	8(1)	37	63
Swaziland	0	0	0	0	0	2	2
Tanzania	0	0	3				3
Uganda				0	0	0	0
Zambia	0	0	0	0	0	0	0
Zimbabwe	1	3	7	0	1	6	18
Total 2005	6	8(1)	26	6	12(2)	51	112
Total 2003	5	7(2)	22	6	11	45	98
Total 2001	5	11	19	5	9	44	93
Total 1999	5	6	18	5	6	36	76
Total 1997	5	7	15	5	6	33	71
Total 1995	5	6	16	6	6	21	60

privately owned white rhino populations are small with an average size of only 11 rhinos, compared with an average of 203 in state-run parks.

Of the 115 discrete black rhino populations in 2005, 45 occur on state-protected areas with an average size of 55 rhinos. Of populations that are privately managed, 37 (roughly a third) were managed on a custodianship basis (average size = 22). The number of privately owned populations continues to increase, numbering 23 in 2005, although with the odd exception these are generally very small (averaging only 11 rhinos each).

State-run national parks and game reserves

Table 3 shows that just over two-thirds (70.32%) of African rhinos are still conserved in state-run protected areas, with 23.18% privately owned and a further 4.36% managed by the private sector on a custodianship basis for the state. Rhinos on communal land account for a further 1.09% with only 1.04% of the continent's rhinos under other models.

Private ownership

In 2005 an estimated 3989 (27.43%) of Africa's southern white rhino were privately owned. Five out of the 20 AfRSG-rated *Key* white rhino populations in the world and a further 29 of the 51 AfRSG-rated *Important* white populations (that is, more than half) occurred on private land. One of the 6 *Key1* populations was a national park linked to adjacent private game reserves.

The number of privately owned black rhinos continues to increase, reaching 245 in 2005, up from only 76 in 1999. In 2005 there were 6 privately owned *Important* black rhino populations.

Private custodianship

In contrast to the pattern with white rhinos, there are many black rhinos on private land in Kenya, Namibia, Swaziland and Zimbabwe that are managed on a custodianship basis for the state (as opposed to being privately owned). The bulk of privately managed black rhinos are under custodianship on behalf of the state (21.39% of all black rhinos) with only 6.58% of

Table 3. Numbers of African rhinos under the various management systems in Africa, 31 December 2005

Species and subspecies	White rhinos		Black rhinos			Total black and white rhinos	
	<i>C.s. cottoni</i> (northern)	<i>C.s. simum</i> (southern)	Total	<i>D.b. bicornis</i> (south-western)	<i>D.b. michaeli</i> (eastern)		<i>D.b. minor</i> (south-central)
<i>Rhino populations (no.)</i>							
Communal		39 (3)	39 (3)	148 (1)	1 (1)	1 (1)	150 (3)
Communal with state mgmt		10 (1)	10 (1)			1 (1)	11 (2)
Other defence force/zoo NRs		48 (9)	48 (9)			0 (0)	48 (9)
Municipal/county council		39 (7)	39 (7)		34 (2)		73 (9)
Privately owned		3,989 (349)	3,989 (349)	22 (1)	41 (1)	182 (21)	4,234 (372)
Private custodianship		0 (0)	0 (0)	172 (22)	221 (6)	404 (9)	797 (37)
State		10,355 (51)	10,355 (51)	879 (9)	334 (10)	1276 (26)	12,844 (96)
Biosphere (state and private)		28 (1)	28 (1)			0 (0)	28 (1)
State owned with joint state and contractual management	4 (1)	28 (1)	32 (2)		8 (1)	2 (1)	42 (4)
TOTAL	4 (1)	14,536 (422)	14,540 (423)	1221 (33)	639 (21)	1,866 (55)	3,726 (115) 18,266 (539)
<i>Percentage of rhinos</i>							
Communal		0.27	0.27	12.12	0.16	0.05	4.03
Communal with state mgmt		0.07	0.07			0.05	0.06
Other defence force/zoo NRs		0.33	0.33				0.26
Municipal/county council		0.27	0.27		5.32		0.40
Privately owned		27.44	27.43	1.80	6.42	9.75	23.18
Private custodianship		0.00	0.00	14.09	34.59	21.65	4.36
State		71.24	71.22	71.99	52.27	68.38	70.32
Biosphere (state and private)		0.19	0.19				0.15
State owned with joint state and contractual management	100.00	0.19	0.22		1.25	0.11	0.27

Table excludes speculative guesstimates. Rhinos within Kruger National Park listed under state, those in adjoining three private reserves listed under privately owned.

black rhinos being privately owned. In 2005, the 15 AfRSG-rated *Key* populations of black rhinos included 4 Zimbabwean and 1 Kenyan custodianship population; with a further 8 *Important* custodianship populations. From 1997 to 2005 the number of black rhinos managed by the private sector on a custodianship basis has doubled—from 394 to 797.

Communal land

More black rhinos than white rhinos occur on communal land (150 vs 39), accounting for 4.03% of all black rhinos.

Municipal, county council, area authority reserves

In South Africa and Kenya there are a limited number of reserves and conservation areas run by local area or municipal authorities. The Masai Mara National Reserve in Kenya is run by the local Narok and Trans

Mara county councils. South Africa also has seven small municipally owned and run parks that have a few white rhinos.

Global status of rhinos in captivity (intensive management)

The latest estimates, presented by Evan Blumer at the 2006 AfRSG meeting, indicate that there are an additional 240 black rhinos (171 eastern, 69 southern, 0 south-western) and 760 white rhinos (10 northern and 750 southern) under intensive management worldwide. One of the northern whites has since died.

Postscript

Just before going to press the existence of one population of 7 southern white rhino was confirmed in Mozambique (as of 31/12/2006). Other reports of rhinos in the country still require confirmation.

Black Rhino Range Expansion Project

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Thirteen black rhinos were recently released onto the Pongola Game Reserve in northern KwaZulu-Natal, South Africa. The animals form the third founder population of the Black Rhino Range Expansion Project, a partnership between WWF and the provincial conservation organization Ezemvelo KZN Wildlife. To create the Pongola Game Reserve, six neighbouring landowners brought together 13,000 hectares of land under single management for the benefit of black rhinos.

Through the Black Rhino Range Expansion Project more than 80,000 hectares of land in KwaZulu-Natal have been brought under more rational conservation use over the last three years.



A translocated rhino is released on to Pongola Game Reserve.

Ezemvelo-KZN Wildlife