

## 6. Rhino Habitat Assessment Survey

Finally to report is the visit last year to Swaziland by Keryn Adcock, ARSG rhino consultant to survey rhino habitats and produce an assessment only. Keryn's visit was commissioned by SADC's Rhino Range States programme which is very generously funded by the Italian Government. She visited Hlane Royal National Park and Mkhaya Game Reserve. Her findings are going to be very useful in guiding us in our Rhino Conservation Programme and in the expansion of Swaziland's rhino range.

We record our sincerest appreciation to all members of the SADC Rhino Range States' group for their support for this exercise and to the Italian Government for making the survey possible. Big Game Park looks forward to implementing the recommendations which have emerged from Keryn Adcock's report.

### 2.2.3 South Africa (Mike Knight)

#### 1. Rhino population sizes & trends

Table 1. Rhinoceros populations in South Africa for 1999, 2000 and 2001

Species/ecotype	1999			2000			2001		
	State	Pvt	Tot	State	Pvt	Tot	State	Pvt	Tot
<i>D. b. minor</i>	946	54	1000	NA	NA	NA	1017	77	1094
<i>D. b. bicornis</i>	32	10	42	32	10	42	37	13	50
<i>D. b. michaeli</i>	20	12	32	13	20	33	6	29	35
Total (black rhinos)	998	76	1074	....	....	....	1060	118	1179
<i>C. s. simum</i>	7743	2011	9751	.....	.....	.....	8432	2556	10988

By 2001 the South African black rhino population had increased to 1179 animals, a marginal increase of 4.7 % since the 1999 estimate of 1074. This increase is marginally up from the 4.0% reported in the previous reporting period. Over the longer period since 1991 the total South African population has increased at about 4.3% per annum, with *D.b.bicornis*, *D. b. minor* and *D. b. michaeli* performing differently with 12.8, 4.1 and 6.1% increases respectively. Since 1997 *D.b.bicornis*, *D. b. minor* and *D. b. michaeli* populations have increased by 8.6, 3.5 and 6.5 %, respectively. The positive response in the *D. b. michaeli* population growth rate during this period results from the establishment and settling down of the Thabatholo population. The SA population of this subspecies now stands at 35 (with one still in captivity), equivalent to its 1996 population size. The *D. b. minor* has shown a slight positive increase in its rate from the 2.8% to 3.4% between the last two reporting periods. This may be a positive response to the reductions in Hluhluwe-Umfolozi Park (HUP) and Ithala Game Reserve populations since 1997. The debate on the removal strategy from the important Kwazulu-Natal populations was to be debated in 2002.

Some other populations such as in Pilanesberg NP may have similarly reached or over shot the MPECC. The population of 52 animals has lost 5 subadults through fighting over the last two years, which has prompted authorities to put six animals up for sale in 2002 as a means of reducing the population size but it still falls short of the recommended MPECC of 36 animals. The Great Fish River Reserve with its introduction of 20 animals in 2000 has increased this population to a 75 animals, the fourth largest population after Umkhuzi GR. None-the-less the population was increasing at a healthy 7%, excluding the introduced animals, as is destined to be an important SA population. Monitoring of the KNP population remains a problem, as no survey was undertaken in the subsample area in 2001 owing to staff problems.

The issue of where to place the extra animals that may emerge from the protected areas (PA's) and private land owners remains a problem given the conflict between financial and conservation needs. The large Kruger NP offers the best prospects for absorbing these excess animals, while other parks (Vembe-Dongola NP) with the potential to carry an important population should come on line soon. If increasing the rate of increase and attaining the goals of the RMG remain a priority, action will need to be undertaken. During the reporting period two more state reserves (Tussen die Riviere & Ophathe) received two males and seven animals, respectively while a single new private population was established. The new private reserve is situated in Subtropical Thicket and offers ideal habitat similar to Addo Elephant NP and the Great Fish Reserve. The number of private properties total 15, an increase on the 11 noted in

1999. However, two of these have single animals and considered captive. The creation of bull reserves for surplus males has had mixed results with the introduction into a Kwazulu-Natal resulting in the death of a number of individuals, while the five bulls introduced in the separate 3600 ha section of Thabatholo and two animals into Tussen die Riviere has proved successful with no deaths, nor aggressive encounters. The later was used as an experiment to test habitat quality.

A total of 118 black rhinos were located on 15 private properties in 2001, up from 88 on 11 properties in 1999. The 118 animals consists mainly of 81 *D. b. minor*, (13 properties), 23 *D. b. michaeli* (one property), and 13 *D. b. bicornis* (one property). Only one important population exists. Excluding the 27 animals sold to the private sector from PA agencies (KwaZulu-Natal 17; SANP 10) during the reporting period, the population increased by a low 2.8% to 93 animals in 2001. It none the less indicates a relatively poor return on the 99 black rhino made available to the private sector and indicates a possible lack of comprehension for the complexities associated with black rhino conservation. By 2002 the population increased to 148 animals, with the number of properties totalling 19, with adults still favourably skewed in favour of females. Average property sizes were about 19 000 ha, comparable to the 6300 ha for white rhinos. A total of about 37 horns are held by private land owners, all apparently registered.

The South African white rhino population has increased at about 3.6% to the 2001 estimate of 10988 from the 1999 population estimate. The reduction from the 10% reported in 1999, relates to the variation on the Kruger NP population estimate. None-the-less from the 1997 estimate of 7913 animals, the population has increased almost at its maximum rate of about 8.6%. A minimum of 2566 (23%) animal were located on private properties in 2001 (2779 in 2002 – 9.7% increase with 48 animals sold from the state populations), an increase of 5.2% per annum from the 2073 in 1999. The actual number of private landowners has increased from 180 (inclusive of 19 properties with rhinos but not surveyed in 1999) in 1999 to a total of 242 in 2001, and 270 in 2002, an increase of 108 properties. This equates to an average increase of 35 (or 19%) properties per year, greater than the loss of only 10 properties over the two year period again. Limpopo Province still has the largest proportion of the private population (55%). The number of key and important properties has also increased from 1 Key 1, 2 Key 2 and 14 Important populations in 1999 to a further 2 Key 2 and 8 Important populations in 2001, a striking 58% increase. The sex ratio on private land still remains in favour of females, with the 2001 survey result of 1:1.78 showing a marginal increase from the 1:1.5 in 1999. The 2001 survey appears to indicate a slightly lower adult to subadult ratio from the 1997 survey, indicative a slightly younger population. The number of state reserves with white rhino has increased from 39 to 44 since 1999, 13 of which are either Key 1 or 2 populations. The Kruger NP population was estimated to average 5665 (95% confidence estimate: 3972-6018) animals in 2001, still 52% of the total South African population.

In 2002, although 129 white rhinos were traded on private land, only 25 were shot. Sale prices for white rhinos continue to increase at about 11% per annum, although may have dropped slightly in 2001 to R171 014/head (US \$17 101/head). Average black rhinos sale prices increased from R375 000 to R550 000 between 2000 and 2001, a 46% increase, and may be a reflection of the ideal adult sex ratios heavily in favour of females. In 2002 prices per animal increased by an average R55 000/animal to R467 000/animal for the 11 animals traded.

## 2. National rhino initiatives & problems

- The Rhino Management Group (RMG) which consists of nine provincial conservation organisations, South African National Parks (SANP), private land owners (AROA), a number of rhino experts, representation from Namibia and Swaziland met once in 2000 in the Kruger NP.
- Annual population status reports are still being submitted. The analysis of these is proving invaluable in the management of the different rhino populations. Next report due in 2003.
- To meet the population objectives at current rates of increase, its estimated that *D.b.bicornis* (200), *D. b. minor* (2000) and *D. b. michaeli* (75) populations will reach their goals in 13 – 20 years.
- A telephonic survey of black and white private rhino owners was undertaken in 2001, with a report submitted. A further survey was undertaken in 2002.
- Further SA representatives have been involved in the regional programme initiatives: AfRSG meeting in Zimbabwe in 2002, a workshop on biological management of black rhinos held in Giants Castle in July 2001, and a strategic management planning rhinos planning workshop for SANP populations in

2002.

- As a result of the biological management meeting, KwaZulu-Natal Wildlife agreed to implement the fixed percentage population removal as a means of sustaining population growth.
- The private rhino land-owners association (AROA) continues to be relatively inactive, as expressed in the private land owners survey. It will need to be revitalised to attend to important issues associated with registering private rhino horn etc if South Africa is to make progress towards developing a proposal around the sustainable use of rhino horn.
- Pilanesberg NP and the Hluhluwe-Umfolozi Park (HUP) introduced adult elephant bulls to reduce the losses of white rhinos to delinquent elephant bulls. It appears to have so far worked in Pilanesberg NP.
- The removal of the *D. b. michaeli* from peripheral areas in Addo has continued and is destined for completion in 2003. The park has now been expanded to 1400 km<sup>2</sup>. The Karoo NP has been increased to 700 km<sup>2</sup> and now carries surplus *D. b. michaeli* from AENP until 2003 when the last remaining animals will be removed to the same private reserve.
- A private reserve has safely experimented with the introduction of five black rhino bulls on a single 5000 ha property thus exploring options of what to do with respect to surplus bulls.
- The Double Drift - Sam Knott Nature Reserve received a further 20 black rhinos in 2000.
- Marakele NP has been expanded and consolidated to a total of 650 km<sup>2</sup>, 190 km<sup>2</sup> of that on a contractual basis. Furthermore, plans are to include the adjacent 300 km<sup>2</sup> Welgewonden NR in 2003 making the total area about 900 km<sup>2</sup>
- A further 4 *D. b. michaeli* (2.2) were transferred to Mkomazi GR in 2001, raising that population to eight animals.
- Plans are afoot to transfer 5 *D.b.minor* to North Luangwa NP in 2003.
- Funds generated through the sale of white rhino from KNP were placed into a dedicated Project Development Fund (PDF) and is used almost exclusively for acquisition of other areas of biodiversity importance, not operation expenses.
- White rhino are being transferred from South Africa to Botswana in a swap transaction for roan antelope. Destined for completion in 2003.
- South Africa's very progressive Minister of DEAT is of great help in many conservation arenas, which are indirectly helping rhino conservation.
- Private –State partnerships are proving more fruitful that will also benefit rhino conservation eg. Marakele & Addo Elephant NPs. KwaZulu-Natal are initiating a state-communal-private development in which conservation area for black rhino will be expanded under different model, in which rhino conservation features prominently.

### 3. Illegal Trade Activities

The number of rhino poached in South Africa since 1999 has remained relatively constant with a minimum of 21 white rhinos and no black rhinos. In comparison, 22 animals were poached in the 1998-9 period. Of the 21, 10 were poached in KwaZulu-Natal reserves, seven from SANP (KNP), and 11 from four private properties (inclusive of 7 animals reportedly lost in 1999). There is also speculation that up to four of the white rhinos on Andover GR have also been poached. One black rhinos has been lost in the last two years up till 2002. However the KNP lost 9 rhinos (1 black and 8 whites) in 2002, with reports of one rhino in KwaZulu Natal reserves, and 8 whites on private land. Elephant poaching in the KNP is down with no losses reported. Intelligence reports from around the KNP indicate a fair degree of interest and illegally related rhino activity outside the park. Around the KwaZulu-Natal reserves 15 rhino related incidents have been recorded, with 19 arrests, 6 convictions and 13 cases pending. No rhino related issues reported from other sectors although poaching for other species continues in the Great Fish River Reserve, and appears financially driven as opposed to subsistence.

**Table 1. Total number of rhinos (black (bl) & white (wh)) known to have been poached in South African reserves since 1990.**

Year	No. rhino (bl, wh)
1990	8
1991	5
1992	15
1993	13
1994	26
1995	10
1996	6
1997	5 (5,0)
1998	11 (11,0)
1999	11 (11,1)
2000	12 (12,0)
2001	9 (9,0)
2002	18 (17,1)

Budget cuts to conservation organisations continue to plague the conservation activities of these organisations, notably Eastern Cape, and Limpopo Provinces. The later has seen an almost total collapse in any form of monitoring.

#### 4. Future challenges

- Survival of the conservation organisations in the face of decreasing operational budgets.
- Boost the growth rate of flagging *D. b. minor* populations through removals and meta-population approaches.
- Increase support for other conservation initiatives (nationally & regionally).
- Increase rhino introductions into suitably large areas such as KNP.
- Draft a strategic conservation plan for black & white rhinos in SANP during 2002.
- Review the SA black rhino strategic plan in 2003.

### 2.2.4 Zimbabwe (Florence Msipa)

#### CURRENT STATUS OF RHINOCEROS IN ZIMBABWE

##### 1. Black rhino population statistics as at December 31 2002

Area	Recent Census	Probable	Speculative
<b>State Land</b>			
Chipinge	20	1	
Matopo	17	3	
Matusadona	65	2	
Sinamatella	95	6	
Subtotal	200	12	
<b>Private Land</b>			
Bubiana	70	30	
Chipangali	6		
Chiredzi	23		
Gourlays Ranch	30	5	
Imire	5		
Iwaba	14		
Malilangwe	39	1	
Midlands Conservancy + Twin Rivers	54	3	
Save Valley	86	4	
Subtotal	327	43	
<b>TOTAL</b>	<b>527</b>	<b>55</b>	