

### Update on African Rhino Status and Trends from IUCN SSC African Rhino Specialist Group (AfRSG)

### **Richard H Emslie & Michael H Knight**

### **Rhino numbers**

IUCN SSC AfRSG held its ninth meeting at Mokala National Park, South Africa in March 2011. At this meeting continental numbers and trends of African rhino were updated to produce provisional revised continental estimates as of 31 December 2010. These numbers have now been finalised and updated slightly in light of additional revised 2010 population estimates received since the AfRSG meeting.

Despite increased levels of poaching since the 2008 AfRSG meeting, numbers of white (*Ceratotherium simum*) and black rhino (*Diceros bicornis*) have increased at a continental level reaching an estimated 20,160 (496 populations) and 4,880 (134 populations) respectively by the end of 2010 as shown in Figure 1.



**Figure 1. White Rhino and Black Rhino population trends 1991-2010** *Changes in estimated numbers of white and black rhino in Africa since 1991 with fitted second-order polynomial trendline (IUCN SSC AfRSG data).* 

Since 1991 white rhino numbers in Africa have increased by an average net 6.8% per annum. South Africa remains the major white rhino range State conserving 93.2% of this species with numbers increasing to 18,800 by the end of 2010. Numbers of southern white rhino in other range States have also increased from an estimated 831 in 1997 to 1,365 by the end of 2010 (up from 1,225 in 2007) with over 300 in each of Namibia and Kenya. However, due to poaching, white rhino numbers in Zimbabwe have dropped below 300 (although indications are numbers are starting to slightly increase again). Numbers in Botswana, Swaziland and Uganda continue to grow and more white rhino have been introduced to a Zambian Park. The last four potentially breeding northern white rhino have been translocated from Dvur Kralove Zoo in the Czech Republic to a reserve in Kenya in the hope this will stimulate breeding.

Since black rhino numbers bottomed out at 2,410 in 1995, numbers have doubled increasing to 4,880 in the wild during the last 15 years (an average annual increase of 4.8%). Updated subspecies totals (and strongholds) as of the end of 2010 were 2,200 *D.b.minor* (South Africa and to a lesser extent Zimbabwe), 1,920 *D.b.bicornis* (Namibia) and 740 *D.b.michaeli* (Kenya). Black rhino also occur in Tanzania, Malawi, Zambia, Swaziland, Angola and Mozambique.

98.3% of Africa's (black and white) rhinos continue to be conserved by four range States: South Africa, Namibia, Kenya and Zimbabwe. Botswana, Tanzania and Swaziland each conserve over 100 rhinos with smaller numbers in Zambia, Malawi, Uganda, Mozambique and Angola.

### Poaching

The rise in poaching in certain range States continues to be of concern. Point 26 of the Secretariat's report (SC61 Doc 45.1) on the implementation of Res Conf 9.14 (rev CoP15) indicated it was likely that the total number of rhinos (both species) poached in South Africa in 2011 is likely to exceed 2010's 333 animals. This year (as of the 3<sup>rd</sup> August 2011) 239 rhino have been poached in South Africa. Extrapolating (assuming a similar rate of poaching for the rest of the year), gives an estimated possible 2011 poaching total of 406 animals.



**Figure 2**: Rhino poaching/day (both species) in South Africa showing 1) the escalation in reported poaching from 2008 to date, and 2) the slight decline in poaching in 2011 (up to 3<sup>rd</sup> August) compared to peak recorded poaching in the last four months of 2010. While the current 2011 poaching level is 21.6% higher than average 2010 levels, the poaching rate in the first seven months of 2011 is 8.4% lower than the peak rate recorded in the last 4 months of 2010.

The slight decline in poaching in 2011 since peak levels at the end of 2010 (Figure 2) suggest that in South Africa the increased law enforcement effort, formation of the National Wildlife Crime Reaction Unit, elevation of rhino crimes to top priority crimes, appointment of advocates to prosecute cases, increasing use of DNA evidence, use of the army in Kruger National Park, a number of well publicized arrests, some convictions and other initiatives might be starting to have an effect.

The Secretariat's document (SC61 Doc 45.1), notes that despite the fact that South Africa has numerous and healthy rhino populations, according to some conservationists the country cannot sustain such a level of offtake. While current levels of offtake are serious and of concern this view is not supported by the data. Current poaching levels in South Africa in 2011 (extrapolated for the full year) represents 1.96% of the current number of rhinos in the country and as this is well below the maximum potential population growth rate for rhinos with a stable age structure (of around 8-9%), and below actual underlying metapopulation growth rates (which tend to be less than this level). Current levels of poaching are therefore sustainable and numbers are continuing to increase in South Africa. Reported poaching levels in Kenya in 2010 were similar at 2.29% and these poaching levels, although of concern, are also sustainable. **What would not be sustainable would be for the rate of poaching to** 

continue to escalate at the rate it did in South Africa from 2007 to the end of 2010 or as it did in Zimbabwe from 2006 to 2008 (with the latter causing rhino numbers in that country to decline). For example, the loss of 333 rhino in South Africa in 2010 represented a poaching level 2.73 times greater than 2009. If that trend were to continue for just two years, the annual number of rhino poached in South Africa would increase to 12.0% of total numbers of rhino in South Africa (at the end of 2010) which would be unsustainable, and numbers would start to decline.

# While numbers continue to increase at a continental level, there is absolutely no room for complacency. The escalation of poaching in recent years is a crisis needing a major effort to bring it under control before it threatens to reverse the successes achieved.

	Reported	Reported	Reported	Reported
	number	number	number	number
	poached 2006-	poached 2006-	poached 2010	poached in 2010
	2011 to date	2011 to date as		as % of 2010
		% of 2010 rhino		rhino numbers
		numbers		
Kenya	62	6.47%	22	2.29%
Namibia	4	0.18%	2	0.09%
South Africa	826	3.99%	333	1.61%
Zimbabwe	321	44.52%	45	6.24%

**Table 1** : Reported poaching in the four main African rhino range States for the period 2006-2011 (to date) and these values expressed as a % of rhino numbers in each country in 2010.These figures represent minimums as additional rhino may have been poached and beenundetected. (Based on AfRSG and TRAFFIC data)

Table 1 shows that in recent years, in terms of absolute numbers, rhino poaching has been highest in South Africa and Zimbabwe. Poaching (as a proportion of rhino numbers) has been most severe in Zimbabwe with current rhino numbers in Zimbabwe now lower than they were in 2007 as a result. The recorded numbers of rhinos poached in Zimbabwe have declined since peak levels in 2008, and there are signs that rhino numbers are starting to slowly increase again. However, the level of poaching in Zimbabwe in 2010 as a percentage of current rhino numbers remains very high. Poaching would not need to increase much more to once again cause numbers to decline. Although a cause for concern, current poaching levels in Kenya and South Africa will not lead to population decline. Poaching remains low in Namibia.

Pseudo-hunting<sup>1</sup>appears to have increased again in a couple of South African provinces. There has been a recent well publicised arrest and investigations are also underway into this issue. The South African government is currently investigating the best ways to deal with this issue. Plans are also being made to revise the country's white rhino conservation strategy. The AfRSG and TRAFFIC can report back on progress in dealing with this issue in their joint report to CITES CoP16.

Countries that have not traditionally sport hunted rhino but whose nationals have in recent years increasingly been applying for permits to hunt rhino (especially Vietnam and Thailand) can assist by verifying credentials and the identity of people applying for permits before issuing CITES import permits, and also increasing controls, registration and monitoring of trophies imported by their citizens.

<sup>&</sup>lt;sup>1</sup> Pseudo-hunting refers to the suspicious hunting of a rhino by someone who doesn't appear to be a normal or proficient hunter and who comes from countries not previously known to have a culture of big game hunting and who is prepared to pay high prices to hunt rhino and seems primarily interested in getting the horns rather than undertaking the hunt.

### Proposed EU conditions governing the export and re-export of rhino horns

The trend of increased theft of horns from museums and stockpiles continues in both Europe and in Range States. As the graph in the EU rhino document (SC61 Doc 45.2) shows, rhino horn export applications have risen in line with increased poaching. The high prices being paid for horns have raised concerns that purchased horns are ultimately intended to feed the illegal horn trade. Measures to control or prohibit the internal sale of horns are to be encouraged, as are measures to tighten up the conditions under which rhino horns can be exported as proposed in the EU rhino document. It is however not explicitly stated in the EU proposal how *bona fide* hunting trophies will be treated. Do these qualify to be re-exported "*if they have not been sold, and are part of an heirloom moving as part of a family relocation*"?. This raises the issue of being able to determine whether or not a given pair of horns could indeed be legitimate non-commercial hunting trophies that have never been sold or instead could be other stolen or purchased horns being passed off as if they were trophies. In future, the DNA analysis of horn samples taken from trophy bases and marking of trophies using transponders could be used to clearly identify bona fide non-commercial hunting trophies.

#### **Appropriate Penalties for Rhino Crimes**

Res 9.14 (revCoP15) calls upon range States "to be vigilant in their law enforcement efforts including ... the application of appropriate penalties to act as effective deterrent". In the case of Kenya, penalties are currently in the process of being reviewed and revised. As was highlighted in the joint IUCN/TRAFFIC report on rhinos to CoP14 (CoP14 Doc 54), legislated penalties in Mozambique are inadequate to act as an effective deterrent. This issue has increased in importance given that intelligence and investigations have revealed that many of the poached horns from South Africa are being couried via Mozambique, with many of the poachers (especially in Eastern Kruger National Park) also coming from there.

## Call for support to enable IUCN Specialist Groups and TRAFFIC to carry out requested CITES work

IUCN SSC's African and Asian Rhino Specialist Groups and TRAFFIC have been mandated by Parties to produce reports summarising trends in rhino numbers and trade and measures being taken by implicated states in advance of CITES CoP's. The EU rhino document (SC61 Doc 45.2) also proposes that IUCN SSC Rhino Specialist Groups and TRAFFIC participate in a working group to identify measures that can be taken by CITES Parties to reduce the impact of illegal trade on conservation of rhinos and enhance existing controls on trade in rhino horn products. Despite the fact that Resolution 9.14 (Rev CoP 15) called on donors to help support IUCN and TRAFFIC in the compilation of information from the range States and the reporting mentioned above, only partial funding was forthcoming for the preparation of their reports to CoP's 14 and 15. The ability of these groups' ability to provide mandated support to CITES is contingent upon their ability to fund their work and Parties are once again encouraged to provide support to help these groups fulfil their mandate to assist CITES.

### Acknowledgements

The authors would like to thank Dena Cator, Thomasina Oldfield, Simon Stuart and Sabri Zain for commenting on a draft of this report. The AfRSG would also like to acknowledge the cooperation and provision of information by range States on which much of this information document is based. The AfRSG also would like to acknowledge sponsorship of the Mokala AfRSG meeting and the core support being provided to the Scientific Officer by WWF's African Rhino Programme, Save the Rhino International, US Fish & Wildlife Service's Rhino & Tiger Conservation Fund and the International Rhino Foundation. Endangered Wildlife Trust is thanked for administrative support.