

South African Mammal CAMP 2002/3

Ceratotherium simum

Least Concern

White Rhinoceros

This is a National Assessment

Taxonomy

1. Scientific Name / Ambiguities Authority (Date)

Ceratotherium simum (Burchell, 1817)

Ceratotherium simum simum Burchell, 1817

LEVEL: Subspecies
 FAMILY: Rhinocerotidae
 ORDER: Perissodactyla
 CLASS: Mammalia

Common Names

Language

Tshukudue Tshewu	Setswana
Southern White Rhinoceros	English
Square-lipped Rhinoceros	English
White Rhinoceros	English
Wit Renoster	Afrikaans

There is a distinction between the southern white rhinoceros and those in central Africa. This assessment is for the subspecies from the southern savannas. All remaining stock are ultimately derived from Umfolozi stock.

2. Area of Assessment: South Africa

- Provinces:** Eastern Cape
 Free State
 Gauteng
 KwaZulu-Natal
 Limpopo Province
 Mpumalanga
 North West Province
 Northern Cape
 Western Cape

Historical and Current Extent

HISTORICAL DISTRIBUTION: Widespread throughout Southern African subregion, south of the Zambezi, confined to savanna habitats in SA.

CURRENT DISTRIBUTION: South Africa, Namibia, Zimbabwe, Swaziland, Botswana, Zambia (extra limital).

CURRENT GEOGRAPHIC EXTENT: Occurs in all provinces but has been introduced into areas in the Western and Eastern Cape.

MIGRATION REGIONS: Non-migratory.

HABITAT: 2.1.-All Latitudes, 4.4.-Temperate grasslands. - **NICHE:** Short grass areas within savanna and bushveld. Some woody cover, water. Territorial. Bulk grazer.

3.-4. Occurrence and Occupancy

EXTENT OF OCCURRENCE: > 20,000 sq km. - **OCCURRENCE**

NOTES: The White Rhinoceros has been relocated widely within South Africa on private land and now occurs throughout the country in isolated areas. The species has also been relocated to areas in South Africa that are beyond its historical distribution.

OCCUPANCY AREA: > 2,001 sq km. - **OCCUPANCY NOTES:** Many of the areas where white rhinoceros have been relocated are relatively small and under private ownership with an average size of only 63 km². However, the minimum total area where white rhino are currently held on private land is ±14 500 km² (Hall-Martin & Castley 2001). In 1999 it was estimated that the populations of white rhinoceros in South Africa covered at least 35431 km² (AfRSG).

5. Subpopulations

- **NUMBER OF SUBPOPULATIONS:** 1. - **NOTES ON FRAGMENTATION:** White rhinoceros are derived from Umfolozi stock and have been widely dispersed within SA. KNP has a significant population as do some of the reserves in KwaZulu-Natal. 293 populations based on 1999 estimates for number of state, municipal, zoo, nature reserves and defence force reserve and latest figures for 2001. Many populations on private reserves are small.

- A continuing decline in subpopulations? No
- Extreme fluctuations in Number of subpopulations? No

5b. Description of Subpopulations

Greater Kruger National Park		Area	km ²
GIS Latitude	Longitude		
Population	5665	Low	High:
Habitat:			
Comments: Estimates based on sample aerial survey counts. Previous estimates in the range of 1641-3962 with an estimate of 2550 from 1998. I. Whyte, (pers. comm.) estimates about 3500-4000).			

KwaZulu-Natal Protected Areas		Area	1350 km ²
GIS Latitude	Longitude		
Population	1745	Low	High:
Habitat:			
Comments: Hluhluwe-Umfolozi Park and Mkuze reserves.			

Throughout South Africa		Area	14500 km ²
GIS Latitude	Longitude		
Population	2534	Low	High:
Habitat:			
Comments: Numerous smaller private reserves across the country where individual populations do not often exceed 50 individuals. Estimates from recent survey on private land (Hall-Martin & Castley 2001).			

Pilanesburg National Park		Area	468 km ²
GIS Latitude	Longitude		
Population	166	Low	High:
Habitat:			
Comments:			

6. Habitat status:

STATE OF HABITAT: Fragmented.

CHANGES IN QUALITY: Increase in quality.

NOTES ON QUALITY: Quality varies from park to park and within private areas but is not currently a threat to the species

HABITAT NOTES: Generally white rhinoceros prefer palatable grasses (Panicums under canopy) on flat or gently undulating topography. Shade is also important as is a permanent water supply. Bulls territorial and area requirements can range from 100-300 ha / rhino. Rhino often create grazing lawns

7. Threats:

Threat	now	future	under	rever-	have	rank
	stood	sible	ceased			

Direct Loss/Exploitation

2.2. Trade

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Illegal: Commodities Y Y N N N 1
 Poaching and lack of security in areas can lead to future declines. Currently poaching levels are limited and sustainable but declining conservation budgets may lead to reduction in policing in the future.

Number of locations for serious threat: 0

Notes: The white rhinoceros is relatively safe from future threats given the wide distribution throughout the country and high number of individual populations. Stochastic events are unlikely to have any major influence on the survival of the species. Small populations may still be at risk from other factors such as poaching, conflict with elephant and other rhinoceros etc. Biggest threat remains demand for rhino horn which is still present. Future lack of conservation budgets and capacity could lead to increased poaching in the future.

8. Trade:

Trade described as: local; domestic; commercial; international

Parts in Trade: Horn
 Live animal
 Taxidermy models
 Trophy

Effects: Well developed trade in live animals in SA. There is undoubtedly illegal trade in rhinoceros horn and some small amount in local traditional use. Trade in live animals is very beneficial to the population and supports a dynamic commercial market. Some concern over repeated 'green' hunts which are being offered. Rhinoceros also valuable for local tourism market.

9-10. Population: numbers and trends

9A. Length of generation: 16 years - breeding pairs:

	<u>Total Pop.</u>	<u>Mature</u>
9B. Total Population:	> 10,000	< 10,000
10A. Recent past trends:	Increasing	Increasing
10B. Will population decline?	No	No
Rate of decline (past)	For	years
Predicted Rate (future)	For	years

In 1999 the total population for the region was estimated to be 9 754 and the global population was estimated to be 10 405. In 2001, the regional population was estimated to have grown to 10 988. These populations are increasing and there is no predicted decline.

11. Data Source

DATA SOURCE: Census Monitoring; Field Study; Literature; DATA QUALIFIER: Observed; NOTES: The data are based on recent figures from private land (2001) and earlier estimates from protected areas (1998/99). Much of the information has previously been captured in the AfRSG reports. Some areas data are well known while limited information available from others.

12. Recent Field Studies

Schrader, A. UN and Wits - HUP
 Rachlow, J. Work in Zimbabwe
 Owen Smith - Umfolozi
 Pienaar, D. MSc KNP
 AfRSG reports and contracts - see Hall-Martin & Castley 2001.

13. Status (Red List)

Assigned status Red List version Ver 3.1

Global: Criteria:
 National: Least Concern Criteria:

- NOTES ON STATUS: R. Emslie noted that the current workshop was not the forum to set status for the species as this was done by the African rhinoceros red list authority. This assessment classified the southern white rhino as NT. However, current figures and criteria do not indicate any reason to list the species in this category and the workshop felt that the species should be listed as Least Concern.

Previous status

Global: Near threatened	Date/ver. 2000
National: Not listed	Date/ver. 1986

CITES: Appendix II - NATL RED DATA BOOK: Not listed (1986).
 OTHER LEGISLATION: Provincial ordinances and veterinary regulations.

PROTECTED AREA: Numerous state and private protected areas.
 PROTECTED PLAN: South African White Rhino strategy, AfRSG plan (Emslie & Brookes 1999).

Regional Assessment Data:

Regional population is % of global population	
Is the regional population isolated?	Yes
Migration between regional & neighbouring populations?	No
Barrier between regional and neighbouring populations?	Yes
Regional population enhanced by in-migrations?	No
Regional population stabilised by in-migration?	No
Is Regional population a sink?	No

Notes: There is limited potential for natural movement between populations as well as within the current population. Requires translocations.

14. Research Recommended

Survey Studies; limiting factor research; epidemiology; trade;
 OTHER RESEARCH: Research into the resource economics of the trade as well as incidence of TB in white rhino. Limiting factor research in small isolated populations in particular.

15. Management Recommendations

Wild population management; monitoring; sustainable utilisation; public awareness; See SA white rhino strategy and AfRSG recommendations in the continental action plan. SA needs better control of horn stocks on private land. Better attention should be paid to implementation of the action plan.

16. Captive Breeding / Cultivation Recommendations

17. Facilities: Numerous zoos and wildlife facilities around the world.
 Lichtenburg: 2 male, 6 females, 1 unsexed
 National Zoo: 1 male, 1 female
 Johannesburg Zoo: 1 male, 1 female
 Emerald Animal World: 1 male, 1 female
 Bloemfontein Zoo: 1 male
 Hoedspruit: 2 males, 2 females
 Wildcare: 7 males, 2 females

Population	Males:	Females:	Unsexed:	Total:
In captivity	15	13	1	29

18. Level of Ex Situ Management Recommended

No ex situ programme is recommended

19. Techniques to Propagate the Taxon

Techniques known for this taxon or similar taxon.

20. General Comments

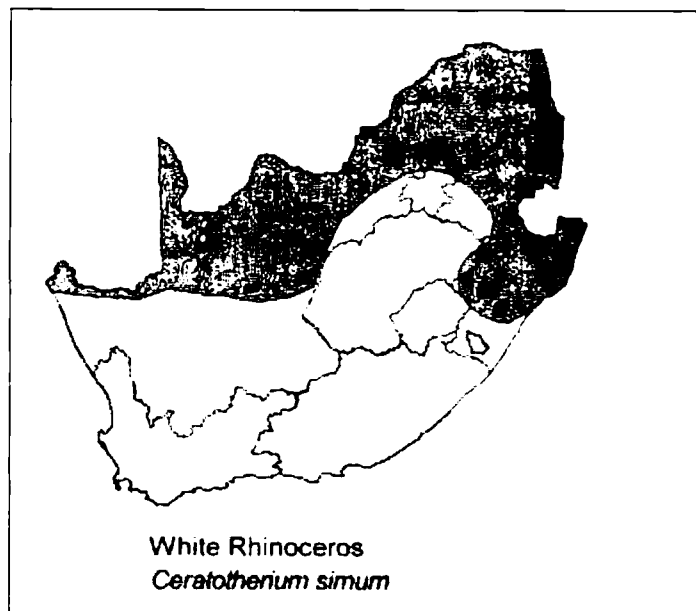
The saving from extinction of the southern white rhinoceros is one of the greatest success stories.

21. Sources

- Emslie, R.H. & Brooks, P.M. 1999.
- African Rhino Specialist Group, IUCN / SSC
- Castley, J.G. & Hall-Martin A.J. 2003.
- KwaZulu-Natal wildlife - internet sources. www.rhino.org.za
- Whyte, I. KNP ongoing monitoring data.
- Schoeman, F. & De Beer, C. 2002.

22. Compilers

S. Henley, I. Whyte, G. Castley and R. Emslie



- Museum Records and Personal Observations
- Extent of Occurrence