WWF FACTSHEET
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WHITE RHINOCEROS, Ceratotherium simum

I. Species Facts

Natural History and Distribution

The white rhinoceros (Ceratotherium simum) probably got its common name from a mistaken translation of the Boer word ‘wijdt’ (wide), referring to its broad square lips. Slate grey in colour, the white rhino is hairless except for ear fringes and tail bristles. This rhino has two horns, the front horn averaging 60cm long but occasionally reaching 150cm. The white rhino is distinguished from the black rhino (Diceros bicornis) by its larger size, a squared (not pointed) upper lip, a longer skull and less sharply defined forehead, and a more pronounced shoulder hump. White rhinos appear to require thick bush cover, relatively flat terrain, water for drinking and wallowing, and short grass for grazing. They primarily inhabit grassy savanna and woodlands interspersed with grassy clearings.

White rhinos have possibly the most complex social structure of any rhino species. Temporary associations of up to 14 individuals have been observed and smaller associations, particularly of several females and calves, are common. Adult males occupy territories of 1-3km², which they mark with vigorously scraped dung piles, whilst adult females have home ranges of 6-20km² or even larger, depending on habitat quality and population density. Subordinate males and females may wander freely through a dominant male's territory; however he will try to prevent oestrus females from leaving. Breeding pairs may stay together for up to 20 days. Mating occurs throughout the year although peaks have been observed from October to December in South Africa and from February to June in East Africa. Females reach sexual maturity between 4 and 5 years of age but do not reproduce until they reach 6 to 7 years. In contrast, males tend not to mate until they are between 10 and 12 years old. The gestation period is approximately 16 months with a period of two to three years between calves.

Two subspecies or ecotypes of white rhino are recognised: the northern white rhino and the southern white rhino. Recent studies on mitochondrial DNA confirm that the two subspecies are genetically distinct. The northern subspecies is listed separately by IUCN as Critically Endangered, although the southern subspecies has now reached sufficient numbers to qualify for Near Threatened.
Northern and southern white rhino occupy two widely separate ranges. In the 19th century, the northern white rhino occurred in what is now southern Chad, eastern Central African Republic, south-western Sudan, northern Democratic Republic of the Congo (DRC), and north-western Uganda (Sidney 1965). Northern white rhinos are now found only in Garamba National Park in north-eastern DRC, although there are unconfirmed but persistent reports of a few survivors in southern Sudan. The southern white rhino was formerly found throughout south-eastern Angola, central and southern Mozambique, Zimbabwe, Botswana, eastern Namibia and northern and eastern South Africa. Although this subspecies is now mainly confined to protected areas and private game ranches in southern Africa, there have been introductions of founder populations to other countries which did not have this subspecies before.

**Range States:** South Africa; DRC; Kenya (introduced); Cote d'Ivoire (introduced); Botswana (re-introduced); Namibia (re-introduced); Swaziland (re-introduced); Zambia (introduced); Zimbabwe (re-introduced).

**POPULATION**

In the late 19th century the southern white rhino was considered extinct, but in 1895 a small population, possibly as low as 20 and certainly less than 100 individuals, was discovered in the Hluhluwe-Umfolozi region in Kwazulu-Natal, South Africa. After more than a century of protection, southern white rhinos in the wild now number about 11,000, confined to protected areas and private ranches. The recovery of southern white rhinos from the brink of extinction must be one of the greatest conservation success stories. Today South Africa remains the stronghold for southern white rhinos, with smaller populations having been re-introduced to Botswana, Namibia, Swaziland, and Zimbabwe. The southern white rhino has also been introduced to Kenya, Zambia and Cote d’Ivoire.

A hundred years ago, northern white rhinos outnumbered the southern subspecies. As late as 1960, there were more than 2,000 northern white rhinos remaining. However widespread poaching decimated the population and in 1984 only about 15 individuals survived. Under a strict regime of protection in Garamba National Park, DRC, this subspecies increased to 32 individuals by 1993. The Garamba population has continued to be under extreme threat due to civil wars in DRC and neighbouring Sudan, and incursions by poachers. The most recent survey in Garamba estimated the population at 22 individuals as reported to the African Rhino Specialist Group (AfRSG) in June 2004.

**CAPTIVE BREEDING**

Northern white rhinos. For the most part, have not bred well in captivity. In 1999 there were nine individuals in two zoos, Dvur Kralova in the Czech Republic and San Diego, USA. In early 2000 the Dvur Kralova zoo reported the birth of a calf, the first since 1989. In 1998 there were 704 southern white rhinos in captivity. They occasionally breed well in captivity when they are kept in large enclosures including more than one male. However breeding success is well below that of free-ranging wild populations. The studbook is maintained by the Zoologischer Garten Berlin, Hardenbergplatz 8, D-1000 Berlin 30, Germany.
THREATS

Uncontrolled hunting in the colonial era, and poaching, are historically the major factors in the decline of African rhinos, with loss of habitat to agriculture and human settlement of secondary importance. Demand in Yemen for rhino horn dagger handles, worn as status symbols, grew in the 1970s and a 20-fold rise in the price of rhino horn had a devastating effect on rhino populations. In the 1970s approximately 3,000kg, almost 40 per cent of the rhino horn on the world market, were annually imported into Northern Yemen. The oil price collapse in the mid 1980s, combined with changes in cultural priorities, a government system for licensing dagger craftsmen, and the introduction of high penalties for the use of rhino horn, resulted in a decline in the trade in North Yemen, but it is thought to still occur.

Anti-poaching efforts and improved biological management for higher productivity are continuing, but effective protection for rhinos requires high levels of expense and expertise. Important factors in achieving success in rhino conservation include involvement of local communities in conservation efforts, the size of the conservation area, and the distance of rhino reserves from international borders.

II. White Rhinoceros and CITES

Current status within CITES

LEGAL STATUS

African rhinos were listed on Appendix I of CITES in 1977, prohibiting international commercial trade in rhinos and their products. Domestic legislation controlling trade in rhino horn was tightened in consumer countries in the 1990s, and several key countries involved in trade such as South Korea and Yemen acceded to CITES. These represented a major step forward in reinforcing the international trade ban. However, although all countries now protect rhinos under national legislation, levels of enforcement vary and poaching remains a potential problem.

III. WWF White Rhinoceros projects

Financing rhino conservation projects

Between 1962 and 2001, WWF spent a total of CHF 46,963,923 on the conservation and management of African rhinos. While most of this funding went into supporting the conservation and management of the more endangered black rhino, a significant proportion has gone and continues to go into white rhino conservation in South Africa (private and state) and Zimbabwe. In order to provide technical and financial support in a strategic manner as well as have a programmatic focus on rhino conservation, WWF launched its African Rhino Programme in 1997. This programme, which operates in partnerships with key African rhino range states, has been spending an average of CHF 1,500,000 per year on the conservation and management of both black and white rhinos in Africa.
Examples of projects

Zimbabwe:
WWF is supporting wildlife conservancies (created when commercial ranchers entered into cooperative management agreements and remove the fences between their properties). The two largest conservancies are Save (3,200km²) and Bubiana (1,200km²). Save harbours white as well as black rhinos. The white rhinos have been re-introduced with funding and technical support from WWF as 'seed capital' to allow the local community "equity holding" in the conservancy. Using this innovative approach, calves born from this initial investment on behalf of the local community will be sold to the conservancy. The money then goes to support community owned and operated projects around the conservancy. In return, the community adjoining the conservancy provides a "security screen" against rhino poaching thus reducing the amount of money the conservancy will have to spend on rhino protection. Such an arrangement not only involves the local community in rhino conservation but it also creates a win-win situation for all parties involved in the programme.

The local community finds it is in its best interest not to allow poachers passing through its "information and security screen". If they do and poaching occurs, the community rhino investment income decreases proportionately for every rhino that gets poached. There is a real and positive incentive for the local community to collaborate with the conservancy management in ensuring that the rhinos are well protected.

Recognising that more and more white rhinos continue to move onto private properties especially in the Republic of South Africa, WWF set up a project in South Africa through which it works with the African Rhino Owners Association (AROA). This is a group of private game ranch owners that have significant white rhinos on their property. This project works to advance having more rhinos in Africa and within their historic range by improving their security and biological management. Through this project, WWF also supports comprehensive surveys of white rhinos in private game sanctuaries as well as the provision of technical expertise to improve rhino management. The latest survey supported by this project, conducted in 2001, shows that there are at least 2534 white and 118 black rhinos on private property in South Africa. This constitutes 23% and 10% of the white and black rhino populations in the country. Data obtained from the surveys assist landowners and conservation bodies in formulating and implementing more effective management strategies. These surveys, conducted by WWF every two years, have remained the main source of reliable data for the Government of South Africa for its bi-annual compilation of the population status of both black and white rhinos on private property in the country. WWF is also helping the private white rhino owners develop a national management strategy that maximises white rhino population growth throughout their range by not only improving biological and security monitoring using modern techniques and tools, but also employing an appropriate meta-population management strategy for better population performance.