

## STATUS OF THE BLACK RHINO IN THE WILD AND IN CAPTIVITY

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### FAMILY HISTORY

The family tree of the rhinoceroses can be traced into the dim past of about 60 million years. A small quadruped, Hyrachys, excavated in Eocene deposits in Wyoming is perhaps most closely related to the earliest ancestors of the rhinoceroses. Hyrachys resembled a miniature horse and was, in fact, closely related to Hyracotherium, the oldest known ancestor of the horse, more popularly known as Eohippus the dawn horse.

During the Oligocene epoch rhino species were plentiful and varied in Europe, North America and Asia. Since that epoch, 30 genera consisting of 170 species have been recorded.

Baluchitherium was the largest land mammal ever to live. Towering 18 feet at the shoulder, 27 feet in length and with a skull length of 4½ feet, it fed by browsing the tops of trees in giraffe-like fashion. However, the prize for success and longevity must go to Dicerorhinus which made its first appearance in the mid-Oligocene epoch some 20 million years ago and still exists in the Sumatran rhino. Dicerorhinus, thus, is one of the oldest genera of mammals in existence, perhaps only exceeded by one or two genera of bats.

The hey day of these beasts is over, most species being replaced by the more successful Artiodactyls.

### PRESENT STATUS

The five remaining rhino species are all endangered--their only enemy being man. Rhinos have been hunted ruthlessly for centuries both for their hide and for the alleged medicinal properties of their horns. Exorbitant black market prices for its horn are now exceeding \$6,000 a pound in some areas of the world.

World Rhino populations are approximately 10% of what they were 100 years ago. During the past 12 years, their numbers have fallen by 50%.

The black rhinoceros, Diceros bicornis, is still the most abundant of the five species, numbering 15,000 to 24,000. There are at present seven recognized subspecies. The nominate form, the Cape rhino, Diceros bicornis bicornis, is extinct. The last specimen was killed in 1853.

The status of this species in the wild is precarious since it is decreasing at a rapid rate throughout most of its range.

## WORLD WILDLIFE FUND ESTIMATED BLACK RHINO POPULATIONS

The following African countries having populations:

<u>Under 20</u>	<u>20/50</u>	<u>100/500</u>	<u>500/1,500</u>	<u>1,000/5,000</u>	<u>4,000/9,000</u>
Botswana (-)	Malawi (*)+	Angola (-)	Kenya (-)	Central African Republic (-)	Tanzania (-)
Chad (-)	Namibia (-)	Cameroon (-)	S. Africa (+)		
Ethiopia (-)	Rwanda (+)	Mozambique (-)	Zimbabwe (*) -	Zambia (-)	
Uganda (-)		Somalia (?)			
		Sudan (-)			

### TRENDS:

- (-) Decreasing
- (+) Increasing
- (\*) Stable
- (?) Unknown

The captive population presently is not self sustaining--latest stud-book figures register a captive world population of 180 with a marked shift to females. That certainly is a minimal number for managing a slow reproducing species. The U.S. and Canadian population is a mere 25 males and 28 females.

Most of the U.S. specimens are probably of East African origin, Diceros bicornis michaeli or Diceros bicornis minor.

### HUSBANDRY

Breeding in zoos has improved slightly in recent years. Statistically, however, females are averaging one calf every nine years when they should be producing a calf every four years.

Making use of all available data and assuming a cow reaches the end of her reproduction phase at the age of 30 to 35 years, Schenkel (1969) obtained the following timetable for the female black rhino: independence at  $2\frac{1}{2}$  to  $3\frac{1}{4}$  years; sexual maturity at  $3\frac{1}{2}$  to 4 years; first parturition 4-3/4 to  $5\frac{1}{4}$  years; interval between parturition,  $2\frac{1}{2}$  to  $3\frac{1}{4}$  years. The total number of offspring of a healthy cow would be at least seven and at most 12. Females normally mate again when their previous calf is about one half to two thirds grown, that is, between one and two years old. Mating does not interrupt the mother-child bond, but when the new baby is born, the former offspring, by then  $2\frac{1}{2}$  to 4 years old, has become independent.

Klös/Freese (1978) give intervals between births of the multiparous females of 36 months with a gestation of approximately 15 months. Females will again mate between 18-24 months after parturition. Zoo born young are generally translocated between two to three years of age. Most deaths have

been occurring before they reach sexual maturity which may correspond to trauma in translocating specimen, but more data is needed to confirm this.

Frese finds noteworthy that 15 females with 45 recorded births, with the exception of two females, two young of similar sex were born in succession.

Breeding age:

18.6% females bred 4-5 years

44.2% males bred 7-8 years

23 % (overall) - 9-10 years

23 % male, 22.9 female bred over 10 years

## FUTURE

One of the main objectives of our SSP Black Rhino group is to attempt to import more specimens to bolster the new world population. Along that line, we have been working cooperatively with the Foundation to Save African Endangered Wildlife and the National Parks and Wildlife management at Zimbabwe to import from the wild one pair of young black rhinos. The monies Zimbabwe would realize from the transaction would go back into conservation and park management.

Last week I spoke to Ingrid Schroeder of SAVE and she informed me one pair of young black rhino were captured and are in a compound in Manapool, Zimbabwe. Los Angeles will be the recipients of this pair in the very near future.

Recently I also have discovered two surplus males overseas, and as soon as I receive more information, plans will be made by our committee to place these animals where they are most needed. As species coordinator I want to make a plea to all of you housing this species for your patience and cooperation as we begin to develop our strategies for captive management.

We have seen the loss of a number of unique forms from U.S. collections through improper management, to cite a few, the Anoa, warthog, Babirussa. And until we fully establish our SSP program we will probably lose a few more.

With the black rhinoceros the situation is critical. We are presently dealing with a relatively small captive population of a slow breeding species. A continuing decline in wild population will make importation more difficult and costly as time goes on.

It is only with a strong commitment by AAZPA members to a long-term breeding strategy for survival that we will not allow this magnificent species to follow its ancestors into oblivion.