

White rhinoceros



Name and species

- Common name: white rhino
- Synonym: Square-lipped rhino
- Scientific name: *Ceratotherium simum*: "cerato" meaning "horn" "therium", meaning "wild beast" and "simus" meaning "flat nosed" in Greek
- White rhinos feed on grasses and their broad upper lip is adjusted to this type of food (hence the synonym square-lipped) – the "white" component of the name may have resulted from a mistranslation of the Afrikaans word "weit" meaning "wide" (although see also Kees Rookmaaker's article, "The discovery of African rhinos")
- Two subspecies:
- Southern *Ceratotherium simum simum*
- Northern *Ceratotherium simum cottoni*

Physical characteristics

- The white rhino is the bigger one of the two African species
- Adult males weigh between 1,800 and 2,500 kg and females 1,800-2,000 kg.
Weight at birth: 40-60 kg
- Height at shoulder: 1.5 -1.8 m
- The colour of their skin is grey. There is no difference in the skin colour of both African species, nevertheless, after wallowing, the actual colour of the animal inevitably matches the colour of the local soil
- Their outline is characterised by a pronounced hump. The head hangs down; they look up only when alarmed
- White rhinos are surprisingly agile and can run very fast, up to 40 km/h for short periods
- Hair only on ears and tail tips, eyelashes
- They have poor eyesight, but acute senses of hearing and smell
- In zoological nomenclature, white rhinos belong to the Order Perissodactyla – the "odd-toed" or "odd-hoofed" mammals, family Rhinocerotidae (Rhinoceroses). Front and back feet each have three toes, surrounding a soft and elastic sole, which helps to balance the heavy weight of the body
- Horns are used as weapons against predators and for dominance and threat displays in contact with other rhinos. White rhinos have two horns: the larger front (anterior) horn measures up to around 100 cm (the record length being 158 cm); while the smaller rear (posterior) horn reaches up to around 50 cm.



- As with all rhino species, the horns grow from the skin and consist of compressed strands of keratin. They are not attached to the skull, but rest on bone pedicels at its dorsal part. The horns are continuously growing and if broken away, will subsequently grow back
- Longevity: up to 50 years
- Sexual maturity: males 10-12 years, females 6-7 years
- Habitat: African long- and short-grass savannah
- Food: grasses
- Adaptation to food intake: square mouth with wide prehensile lips, enabling efficient grazing as a “mowing machine”

Social behaviour and breeding

- White rhinos are sedentary, semi-social and territorial.
- Adult bulls are basically solitary and associate only with females in oestrus
- Bulls' territories are relatively small, averaging between 1-3 km². The size depends on many factors, including the quality and availability of food and water. Each territory is held by a mature male, often with between one and three resident satellite bulls. The territory owner ignores these satellite bulls, as long as they behave submissively. Territorial bulls treat foreign intruders far more aggressively than the resident satellite bulls
- Adult females and sub-adults are rarely solitary. They associate typically in pairs, usually a female with her latest calf. A juvenile stays with the mother for around three years. When the mother calves again, it seeks another companion, preferably of similar age and the same sex
- Stable herds of up to six animals can be commonly observed, while larger groups are the result of temporary aggregations, purpose-made because of availability of favourable food, watering, or resting conditions. Females' home ranges vary between 6-20 km², and usually overlap several males' territories
- As with the other rhino species, white rhino home ranges are scent-posted with dung heaps used by both sexes. The collective dung heaps, or middens, are usually located at territory boundaries and serve as communication and marking points. All animals add their deposits there, but only territorial males scatter the dung with ritualised kicks and spray urine
- Marking by urine spraying is mostly displayed along territorial boundaries
- White rhinos also communicate vocally, using a wide range of sounds from calf squeaking to snarling or wailing of adults
- When the urine test reveals a cow approaching oestrus, the territorial bull will join the female for several days. He at first accompanies the female at a distance, until she comes into full oestrus and allows him to approach. The foreplay lasts up to a day, characterised by the male resting his chin on the female's rump and attempted mounting. Finally, the cow will stand still, with tail curled, and allow copulation. Mating is remarkably prolonged, lasting from 20 minutes to one hour.
- White rhino have a gestation period of approximately 16 months. Records of captive breeding in zoos vary between 480 and 548 days' gestation.

- Females give birth for the first time at the age of 6.5-7 years. The interval between calving is 3-4 years
- Pregnant females leave their groups shortly before the parturition and stay apart for several days afterwards. Calves stand up within one hour, immediately attempting to suckle. Mother and calf become inseparable; the calf usually moves in front of its mother and immediately responds to the mother's behaviour.
- The calf begins grazing at two months, weaning occurs at around one year of age. The calf stays with mother for around three years.

Location and habitat

- White rhinos prefer short-grassed savannah with access to thick bush cover for shade and water holes for drinking as well as wallowing. The optimal habitat is a combination of grassland and open woodland
- White rhinoceroses feed and rest alternately during day and night. In hot, dry weather they routinely rest during the hottest part of the day. Much of their resting time is spent wallowing to keep cool and to get rid of skin parasites. They need water for drinking every 2-4 days. If there is no wallowing place available, they will roll in dust

Under threat: Southern white rhinos

Almost all Southern white rhinos (*Ceratotherium simum simum*) live in a single country: South Africa (10,300 individuals). The others (800) can be found in Botswana, Namibia, Swaziland, Zambia and Zimbabwe, and some were translocated to Kenya.

Today, the Southern white rhino is the most abundant rhino in the world, but it was different in the past. It was one of the first rhino species to be at the brink of extinction, and thought extinct at the end of the 19th century. Both farmers and hunters had decimated the animals. Nevertheless, a few individuals (50-100) survived in the iMfolozi River valley in Natal and became subject of intense conservation efforts at the beginning of the 20th century. Thanks to the co-operation of conservationists, researchers and general public (particularly in South African National Parks and sanctuaries) Southern white rhinos have recovered to over 11,000 individuals today. However, poaching pressure still exists.

Zoological gardens worldwide keep 760 Southern white rhinoceroses.

Under threat: Northern white rhinos

The Northern white rhino (*Ceratotherium simum cottoni*) used to be relatively widespread in central and East Africa (mainly in Uganda, Sudan, Zaire-Congo and the Central African Republic) with more than 2,000 individuals reported in the 1960s. Then came a dramatic decline in numbers due to over-hunting: in 1970 the population fell to 700; 10 years later, only 100 animals survived.

In 1984, the 13 last individuals were identified in Garamba National Park in Zaire – today's Democratic Republic of Congo. Thanks to the intensive international efforts, conducted primarily by the Zoological Society of Frankfurt and the International Rhino Foundation, these animals reproduced successfully and after 10 years; intensive work, they numbered over 30.

These animals survived relatively well even throughout the series of civil war outbreaks in the late 1990s and at the turn of the Millennium. Unfortunately, all the tremendous efforts for survival of this subspecies were defeated when, in April 2004, poachers invaded Garamba from Sudan and started exterminating rhinos. The situation deteriorated so dramatically that all conservative efforts had to be terminated in March 2005 and since then, Garamba National Park cannot be protected any more. (See also the section on "Political conflict" later in this Section.)

There are 10 Northern white rhinos in captivity (possibly the only survivors of their subspecies): seven at Dvur Kralove Zoo in the Czech Republic, and three at the San Diego Wild Animal Park in California, USA.

For more information on the work of the white rhino EEP, please refer to the CD-ROM, or visit the members' area of the EAZA website (www.eaza.net).

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