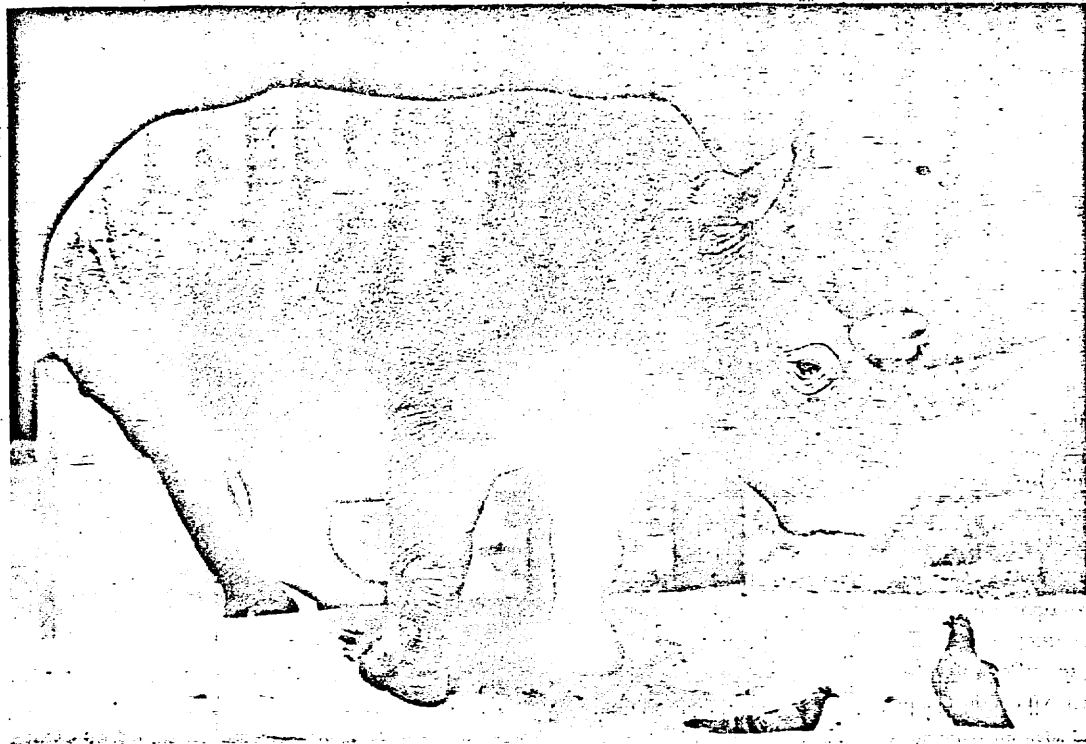


RHINOCEROSES

ANIMAL LEAFLET No. 9

by MICHAEL BOORER



W. G. Vanderson, Fox Photos

White Rhinos, never kept in captivity twenty years ago, are now to be seen at both London Zoo and Whipsnade Park.

RHINOCEROSES are odd-toed ungulates, having three toes on each foot, and are therefore related to the tapirs and to the horses and asses. The odd-toed ungulates are an older group than the more numerous even-toed ungulates, and were decreasing in numbers long before man arrived to speed up the process. Once there was a great variety of rhinoceroses including long-legged, running types, and *Baluchitherium* which stood 18 feet tall (twice as high as an elephant) and was the largest of all land mammals. Today there remain only five species of rhino, and of these four are rare and the other is declining.

Rhinos are heavily built animals and need thick, short legs in order to support their weight. Actual weights of individual animals seem hardly ever to have been recorded, but it is possible that the two largest species, the White and Indian Rhinoceroses may sometimes reach three tons. These animals are certainly among the largest living land mammals, only the two species of elephants being heavier. The compact shape of a rhino's body enables it to crash through the bush in which

these animals are often found, while the skin forms an admirable protection against thorns. In some ways this skin may be compared to armour plating, as it is up to an inch thick, and as tough as thick leather. All the surviving rhinos come from the tropics, and as large bodies hold heat much better than small ones they have little need of hair. Accordingly, they are usually covered only with sparse bristles.

ONE AND TWO HORNS

Perhaps the best known of all the rhino's features are the horns. These are made from the same material as hair or human fingernails and unlike the horns of cattle or the antlers of deer are not joined to their owner's skull, but grow from the skin. Indian and Javan Rhinoceroses each have only a single horn, but other species have two, the front horn usually being the longer. The horn grows throughout the rhino's life, but is usually prevented from becoming too long by wear as its



W. G. Vanderson, Fox photos

Whipsnade shares with Basle Zoo a distinction on having bred the rare Indian Rhinoceros.

of these rarely measures more than a foot. The skin has few folds, and bears more hair than in any other rhino, although the colour and quantity of this hair seems to vary with age, and with the area from which the animals come. Sumatran Rhinoceroses once had a range similar to Javan Rhinos, except that the

smaller species was not found in Java. Where the range of these two species overlapped the Sumatran Rhino was found on higher ground, preferring the thickets on steep hillsides.

case of zoo animals, against the bars of the cage. The longest horn ever recorded belonged a female Black Rhinoceros and was over 4 feet 6 inches long. This exceptional horn was too long for the normal stresses and strains of rhino life, and its owner, who lived at a National Park at Amboseli in Kenya, later broke off the first tip and then the whole horn. The horns are used by some species in the ponderous scuffles that accompany courtship but are also used, more peacefully, to dig drinking holes in dry river beds, to dig for the salt which rhinos love, and in the case of the White Rhinoceros, to steer the young one as it runs in front of its mother.

Fully grown rhinos have few enemies other than man, who over the last few hundred years has hunted them with ever-increasing efficiency, using spears, poisoned arrows, pitfalls, wire snares, and, most recently, guns. Rhinos are occasionally hunted for meat, more often for sport, and most of all in order to obtain products, of which the horn is most highly prized, which are thought to have medicinal value in the Far East. As rhinos breed only slowly this incessant hunting has reduced them greatly in numbers. Today it is realised that all rhinos are in danger of extinction, and steps are being taken to conserve those that remain. Some reserves within which rhinos can live peacefully have already been set up, and some of the most exciting work in animal conservation at the present time is going on in Africa, where rhinos are being moved from unprotected areas into the safety of game reserves. However, a great deal of poaching is still going on, and even the reserves are not entirely safe when hungry local people covet them as farmland. Rhinos will only survive as a result of much more human effort, and still more human restraint.

THE INDIAN RHINOCEROS

The Indian Rhinoceros (*Rhinoceros unicornis*) is found today only in Assam, where the Kaziranga Sanctuary is a notable example of a successful rhino reserve, in Bengal, and in Nepal. Fully grown specimens measure 5½ feet tall at the shoulder, this being one of the two largest species of rhino. Indian Rhinoceroses have only a single horn, and seem to make little use of this weapon when they fight, preferring to slash at the flanks of their adversary with their sharp, tusk-like canine teeth. Usually they live on their own, collecting into groups only during courtship battles, or when there is an abundance of fresh new vegetation within a small area.

folded at the neck, behind the shoulder, and on the legs, and these folds enable the animal to move freely despite the thickness of the skin, which is covered with characteristic low bumps. Ticks are removed by a bird, the Jungle Babbler, which settles on the rhino's back in order to perform this service. It is remarkable that of other species have evolved the same relationship with the African rhinoceros.

The first rhino ever to be exhibited at the London Zoo, in May 1834, belonged to an Indian species, and since that time there has almost always been at least one rhino in the Zoological Society's collection. In 1947 a male was purchased from Nepal, and in 1952 he was joined in his large paddock at Whipsnade Park by a female from the same source. Up to that time the Indian Rhinoceros had never bred in captivity, but in 1957 a female calf was born to the Whipsnade pair. At about the same time a male was born in Basle Zoo, and later these two animals were sent to an American zoo as another potential breeding pair. Modestly, we are anxious to play their part in animal conservation by breeding rare animals wherever possible. At the present time the Whipsnade female Indian Rhino can still be seen in her paddock, now accompanied by her youngster, still only the fourth of his kind to be born in a zoo.

THE JAVAN RHINOCEROS

The Javan Rhinoceros (*Rhinoceros sondaicum*) also has only one horn, and looks like a smaller version of the Indian species, with smoother skin, but with an additional hornlet over the top of the shoulder. At one time it had the widest range of all the Asiatic rhinos, being found from Eastern India to Sumatra and Java, usually in thick, lowland forests, which were often honeycombed with paths regularly used by these animals for wallowing-places at regular intervals.

Today these paths are overgrown, and the Javan Rhinoceros has become one of the world's rarest large mammals. A few individuals survive in the Ujung Kulon Game reserve on Java, but on the mainland only a few individuals may survive in the most remote parts of Malaya, Burma, Siam and Vietnam.

THE SUMATRAN RHINOCEROS

The Sumatran Rhinoceros (*Dicerorhinus sumatrensis*) is the smallest living rhino, measuring little more than four feet tall at the shoulder. There are two horns, but they



According to recent reports only about 150 Sumatran Rhinos still survive, and these are scattered from Sumatra, through Malaya to Northern Burma. These animals are great wanderers, and this makes it exceedingly difficult to set up successful sanctuaries for them. The last member of this species to live in London Zoo, one of the Hairy-eared variety, died in 1910, and it seems unlikely that there will ever be another.

THE BLACK RHINOCEROS

The Black Rhinoceros (*Diceros bicornis*) is grey-brown in colour, as is the other African species, which is known, most confusingly as the White Rhinoceros. The origin of this colour mix-up is not at all clear; possibly the specimens described had been wallowing in dark and light-coloured mud respectively. At all events the two species are most easily distinguished by their lips, size, and shape. The Black Rhino, being a browser, has a pointed upper lip, and is a little smaller, while the White Rhino grazes and therefore has square lips, is larger, and has rather a peculiar hump on its shoulder when seen from the side.

Black Rhinos are found over a wide range in Africa, usually in bush country. Like the Asiatic species, they are usually solitary, but they are sometimes seen in small groups, often accompanied by the tick birds which not only remove parasites from the rhinos' skins, but also give warning of possible danger with their cries of alarm. Black Rhinos are more numerous than any of their relatives, especi-

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Some thousands of Black Rhinos still survive, this species is declining under human pressure.

ally in East Africa, where several thousand still exist.

THE WHITE RHINOCEROS

Not until after the last war was a specimen of the White Rhinoceros (*Diceros simus*) in any zoo in the world. Since then a number of pairs have been distributed to zoos all over the world, but with little hope, as yet unrealised, that they will survive. At the present time one pair of White Rhinos are to be seen at London Zoo, which have lived since 1955, while another pair, have been on show at Whipsnade since 1962.

Two slightly different types of White Rhinos exist. One population, formerly widespread south of the Zambesi River, is now represented by some hundreds of animals in and near the Umfolozi Reserve in Natal, South Africa. Recently animals from this reserve have been introduced into other areas in the hope that they will thrive there. Another population is found to the north in Uganda west of the Nile, Eastern Congo, and Southern Rhodesia. Animals of this type too have been moved to areas of greater safety in some cases.

White Rhinos are even-tempered, and are often found living in small groups together with other species of rhino. They prefer country in which grass is interspersed with mud (from wallowing) and thicker cover to give protection from excessive heat or cold.