

RHINOCEROS

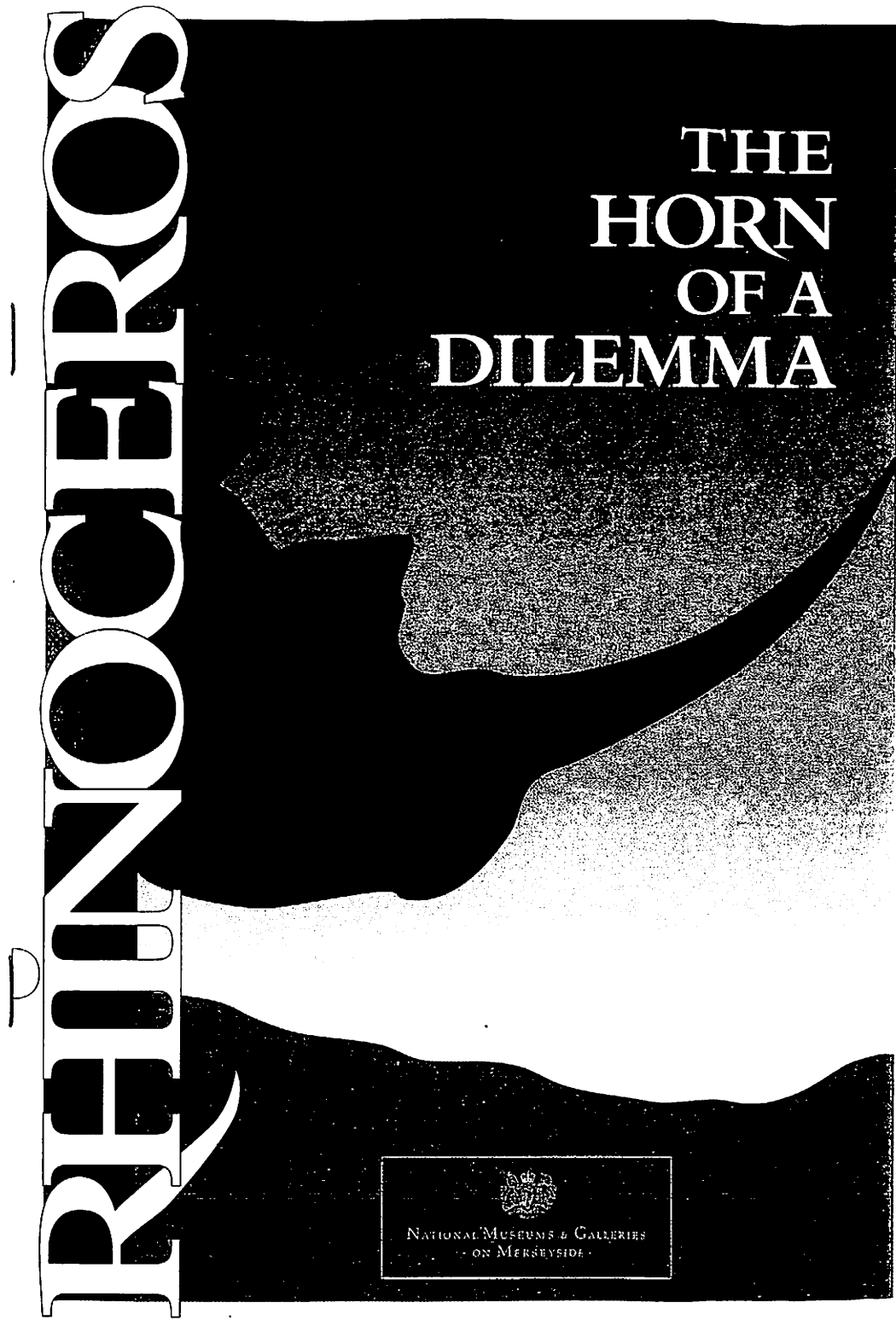
The Horn of a Dilemma

This book discusses why Rhinoceroses are the world's most threatened group of large land animal and a solution to that problem.

There are pictures of all 5 living species, together with information about where they live, what they eat, and about their ancestors.

Up-to-date conservation statistics are supplied

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NATIONAL MUSEUMS & GALLERIES
ON MERSEYSIDE

INTRODUCTION

The five species of Rhinoceros are amongst the world's most endangered mammals. They have been brought to the brink of extinction by destruction of their natural habitats and because of the very large amounts of money which people are prepared to pay for Rhinoceros products.

Cave paintings, drawings and carvings made by stone age people from Spain to Siberia bear witness to the relationship which has existed between Man and Rhinoceros since the dawn of human history. Cups carved from Rhinoceros horn were treasured because it was believed that they would identify a poisoned drink by causing it to foam. Until recent times, the hide and horn of both species of African Rhinoceros were fashioned into shields for use in battle or tribal ceremonies.

There still remains a lucrative market for Rhinoceros products in far eastern countries, where hide, horn, hoof, teeth, various organs, blood, and urine are all used in traditional medicine.

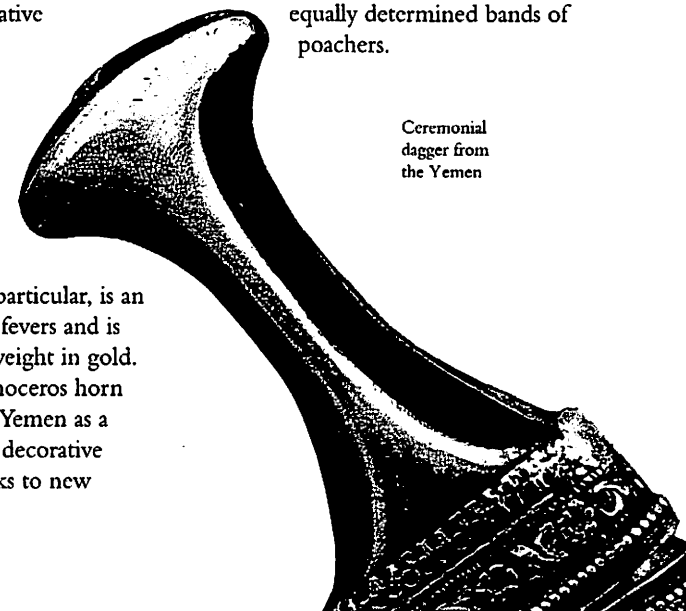
The powdered horn, in particular, is an effective natural cure for fevers and is worth up to 3 times its weight in gold. Until very recently, Rhinoceros horn was highly prized in the Yemen as a material for carving into decorative dagger handles but, thanks to new

government controls, natural or synthetic alternatives are now used.

As the number of Rhinoceroses declines world-wide, the market values of their products naturally increases, so that nowadays horns are often hoarded as a good investment for the future. Under such circumstances, it is hardly surprising that Rhinoceroses are hunted wherever they live.

Successful efforts have been made to find natural alternatives for reducing fevers, and it is hoped that these will prove acceptable to the traditional consumers. Meanwhile, strict international laws are intended to prevent trade in Rhinoceros products and punish those profiteers who deal in them. In many of the countries where Rhinoceroses live, heavily-armed patrols of game-wardens battle with equally determined bands of poachers.

Ceremonial dagger from the Yemen



1952

INDIAN OR GREATER ONE-HORNED RHINOCEROS

Rhinoceros unicornis Linnaeus 1758



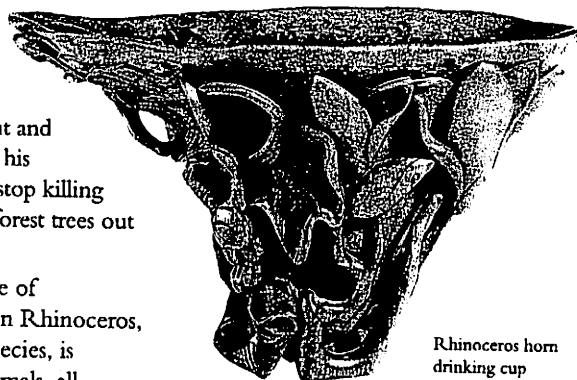
Rhinoceros horn for sale in an apothecary's shop in Bangkok in 1988

concentrated in just two places, where they could be destroyed at any time by a natural disaster or human error. In Africa, meanwhile, the decimation of the Hook-lipped Rhinoceros continues with horrifying speed. In Kenya alone, their numbers have fallen from about 19,000 in 1970 to just over 400 individuals at the present time.

However, such decline is not irreversible, and there are several reasons for optimism. For example, the number of Square-lipped Rhinoceros has increased significantly, from a critically low level at the beginning of the century, thanks to strict protection in South African reservations.

Such measures may help to delay the extinction of Rhinoceroses, but certainly cannot guarantee their long-term survival. This will be achieved only if national governments, the people who share their land with Rhinoceroses, and the people in far distant lands who use their products, can all be convinced of the necessity for wildlife conservation and the benefits which this can bring. A man in a third-world country, faced with poverty, unemployment and famine for himself and his family, is not going to stop killing rare animals or felling forest trees out of pure idealism.

Time is not on the side of conservation. The Javan Rhinoceros, the rarest of the five species, is reduced to only 70 animals, all



Rhinoceros horn drinking cup

The Indian Rhinoceros has a shoulder height of 160-186 cm, body length of 210-420cm and a weight of around 1,800 kg. Its skin is divided by folds into several large plates. In contrast to the African Rhinoceroses, it has only a single horn; this tapers quickly from the base and is no more than 50cm long. The colour of different parts of the body varies between grey-brown and pink. The upper lip is developed as a distinct finger-like extension which is used to grasp its food.

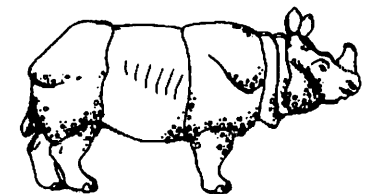
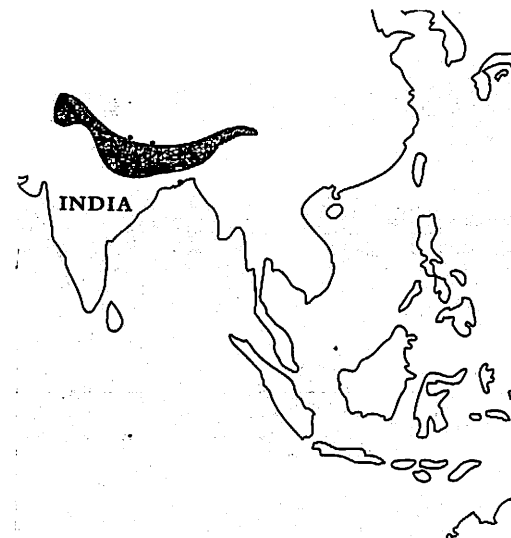
The Indian Rhinoceros eats grass, but also twigs from bushes and bamboo shoots. Unripe maize is a particular delicacy which unfortunately brings them into conflict with farmers around their reserves. Indian Rhinoceroses prefer to live in grassy valleys near to rivers.

The tiny remnants of the once very large Indian Rhinoceros population are found in India (1550) and Nepal (400). Over 1000 of them live in the national



park in the marshy flats of Brahmaputra and in the bordering woods. The reason for the decline in numbers is the loss of habitat due to agriculture, and the activities of poachers who kill the animals for their horns. At the moment, Indian Rhinoceros horn is sold for up to £60,000 per kilogram.

The detailed biology of the Indian Rhinoceros was largely unknown until the 1960's and 1970's when it successfully bred in Basle Zoo. The gestation period is about 16 months (474-486 days) and the calves weigh 60-79kg at birth. The mother produces 25 litres of milk a day and the calves daily gain in weight is 2 to 2.5kg. Up to now, 20 Indian Rhinoceroses have been born in Basle Zoo and there are now 40 males and 26 females living there.



DISTRIBUTION NOW 
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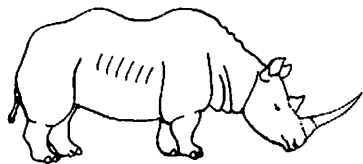
SQUARE-LIPPED OR WHITE RHINOCEROS

Ceratotherium simum (Burchell 1817)



After the elephants, the Square-lipped Rhinoceros is the largest land mammal, with a shoulder height of 171-185cm, length of 335-375cm, and weight of around 2,500 kg. There are two horns, of which the front one can, exceptionally, be up to 150cm long. Behind the massive head is a distinct hump in the neck. The mouth is wide and has smooth lips, which are adapted for feeding on grass in open country where the animals live.

The skin is dark grey and the name 'White' derives not from the colour of the animal, but from a corruption of the Boer word *widje* which refers to the broad shape of the mouth.

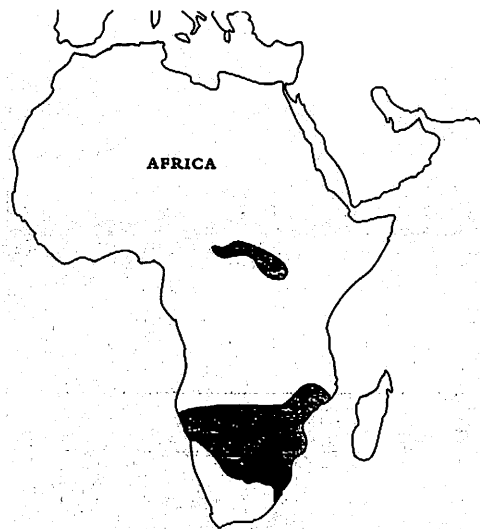


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The Square-lipped Rhinoceros nearly became extinct in South Africa, but a few animals were found in Zululand at the end of the last century. Thanks to careful protection, about 4,800 Square-lipped Rhinoceros exist today and it occurs in most South African national parks.

There are still about 28 specimens of a different race of Square-lipped Rhinoceros in the north of Zaire, which are being strongly guarded in order to protect them from poachers. This is being successful and their numbers are increasing from a low point of 15.

Females are sociable and are often seen in parties of 5-15 individuals; males are more solitary. In zoos Square-lipped Rhinoceroses breed successfully only if they are kept in large groups.



JAVAN, OR LESSER ONE HORNED RHINOCEROS

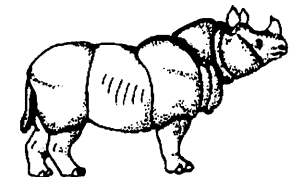
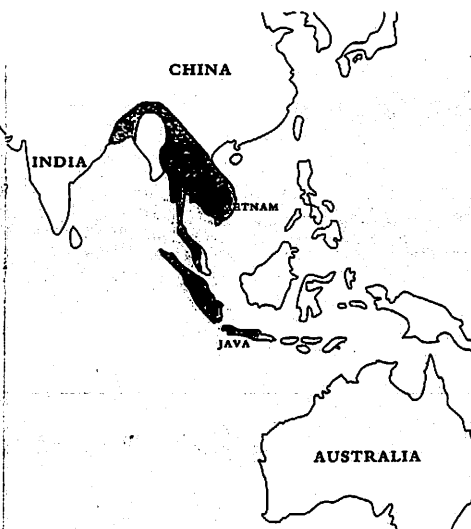
Rhinoceros sondaicus Desmarest 1822



The Javan Rhinoceros is the rarest of today's surviving species. The average adult has a shoulder height of 135cm, a body length of 350cm, and a weight of around 1,600 kg. In appearance it is very similar to the Indian Rhinoceros, but the surface of the skin is scaly and there is an extra fold of skin across the back of the neck. There is only one horn, up to 35cm long, quickly tapering from the base. The horn in the female is particularly small and may even be absent. The skin colour is grey to grey-brown. The upper lip, with its distinct finger-like process, is used for the gripping and stripping of branches.

There are 45-55 animals live on the Udjong Kulon peninsula of south-west Java. Their forest habitats range from marshy coastal areas up to 2,000 metres on mountains. Like all Rhinoceroses, they are permanently threatened by poachers. Recently a group of about 15 was also found living along the Dong Nai River in Vietnam.

In the late 1960's, following observations and counts by a biologist from Basle, guards were provided for the animals in the Udjong Kulon Park. Since then, the population has not significantly increased, perhaps because the habitat will not support any more Rhinoceroses, so a plan has been formulated to remove some for captive breeding with a view to setting up another population elsewhere in Indonesia. At the moment there are no Javan Rhinoceroses in any zoo anywhere in the world.



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HOOK-LIPPED OR BLACK RHINOCEROS

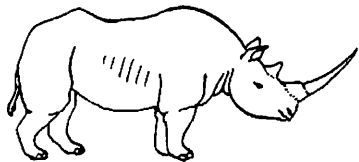
Diceros bicornis (Linnaeus 1758)



The Hook-lipped Rhinoceros has two horns, of which the front one can grow to over 100cm in length. The shoulder height is 150-160cm, body length 300-375cm and weight around 1,400 kg. The skin is dark grey-brown, and the mobile upper lip is extended for gripping and stripping leaves, twigs and thorns from trees and bushes. The animals usually avoid open grasslands, and prefer the edges of small woods and thickets.

Numbers of the Hook-lipped Rhinoceros have fallen dramatically. There were hundreds of thousands last century, but only about 65,000 in 1960 and no more than 3,400 exist today. The decline over the past 30 years is due almost entirely to poachers.

The reputation that Rhinoceroses have acquired as being dangerous animals derives principally from this species. The males in particular, are unsociable and usually drive off other animals, including

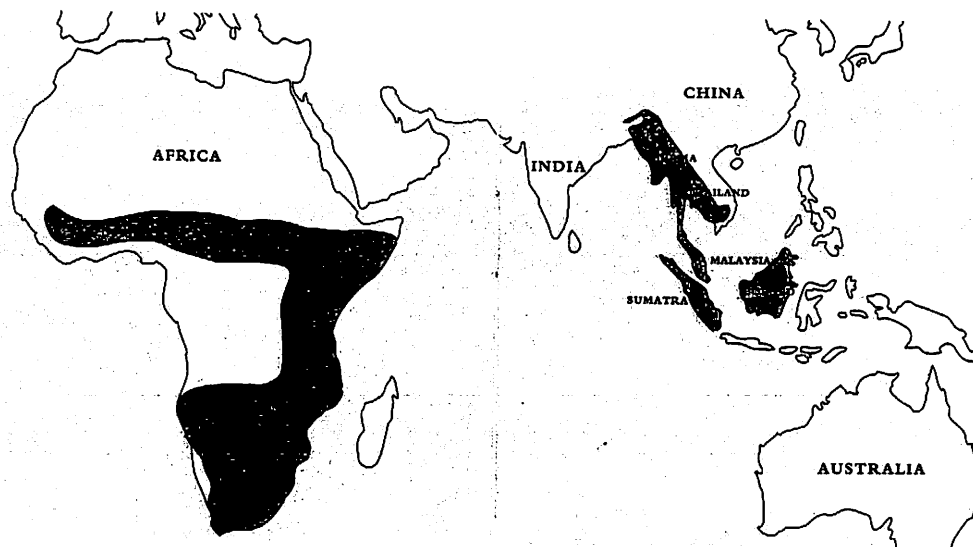


■ DISTRIBUTION NOW
 ■ DISTRIBUTION THEN

members of their own species. Occasional attacks on humans and vehicles are probably because Rhinoceroses have poor eyesight.

Twenty years ago, one of the best places to observe Hook-lipped Rhinoceroses was in the Amboseli National Park in Kenya, where the life history of each individual animal was known; all of those animals later became victims of poachers. Most of the remaining Hook-lipped Rhinoceroses (about 2,000) are in Zimbabwe while Kenya, Tanzania, Namibia and South Africa each have several hundred. Great efforts are being made by conservation organisations to protect these few surviving animals.

Hook-lipped Rhinoceroses have been kept commonly in zoos in America and Europe since 1941, but still rarely breed. At the moment, around 90 male and 115 female Hook-lipped Rhinoceroses are living in human care. Several were born in captivity; in 1991, a female calf was born at Chester Zoo.



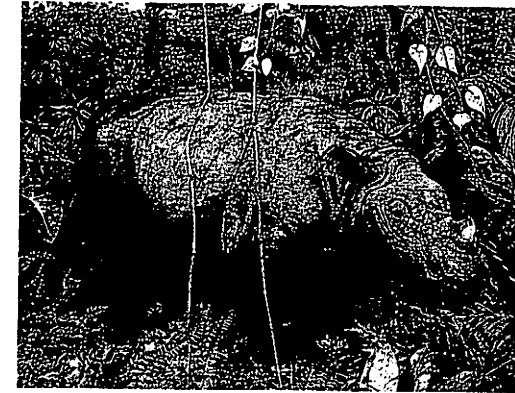
SUMATRAN RHINOCEROS

Dicerorhinus sumatrensis (Fischer 1814)

The Sumatran Rhinoceros is the smallest of all living species with a shoulder height of 120 to 145cm. Unlike all other living Rhinoceros species, the whole body is covered in red-brown hair, especially in young animals. It has two horns, the second - often hardly visible - roughly between the eyes.

The animals feed chiefly on leaves and twigs from bushes and trees. They live in dense forest in hilly and mountainous areas and are quite agile.

The populations of this secretive forest animal are difficult to assess, and little is known about their biology in the wild. There are thought to be between 500 and 900, mainly in Sumatra. The Gunung Leuser National Park in Sumatra has a population of over 100. Sumatran Rhinoceroses are also scattered throughout Borneo and Malaysia with extremely small numbers in Thailand and Burma. This is a severely threatened species, difficult to



protect, suffering an estimated loss of 10% of the population each year due to hunting. However, it is threatened most by conversion of forest to agricultural land in order to support new settlements being established in Indonesia.

There are Sumatran Rhinoceroses in zoos in Malacca, Djakarta, New York, San Diego, Cincinnati and Port Lympe in England. In Sumatra, they are catching animals to establish a captive breeding programme.



■ DISTRIBUTION NOW
 ■ DISTRIBUTION THEN

PALAEOCENE
100,000,000 years

EOCENE
55,000,000 years

OLIGOCENE
38,000,000 years

MIOCENE
25,000,000 years

PLIOCENE
100,000,000 years

PLEISTOCENE
1,800,000 years

HOLOCENE
10,000 years

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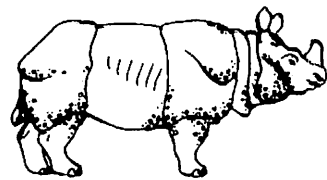
HYRACHYUS

BALUCHITHERIUM

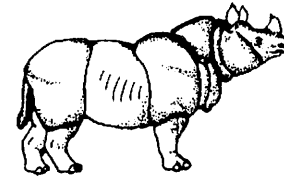
ELASMOTHERIUM

ACERATHERIUM

COELODONTA
(WOOLLY RHINOCEROS)



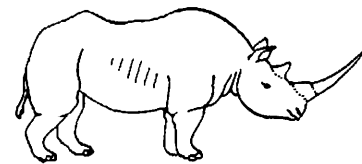
INDIAN RHINOCEROS



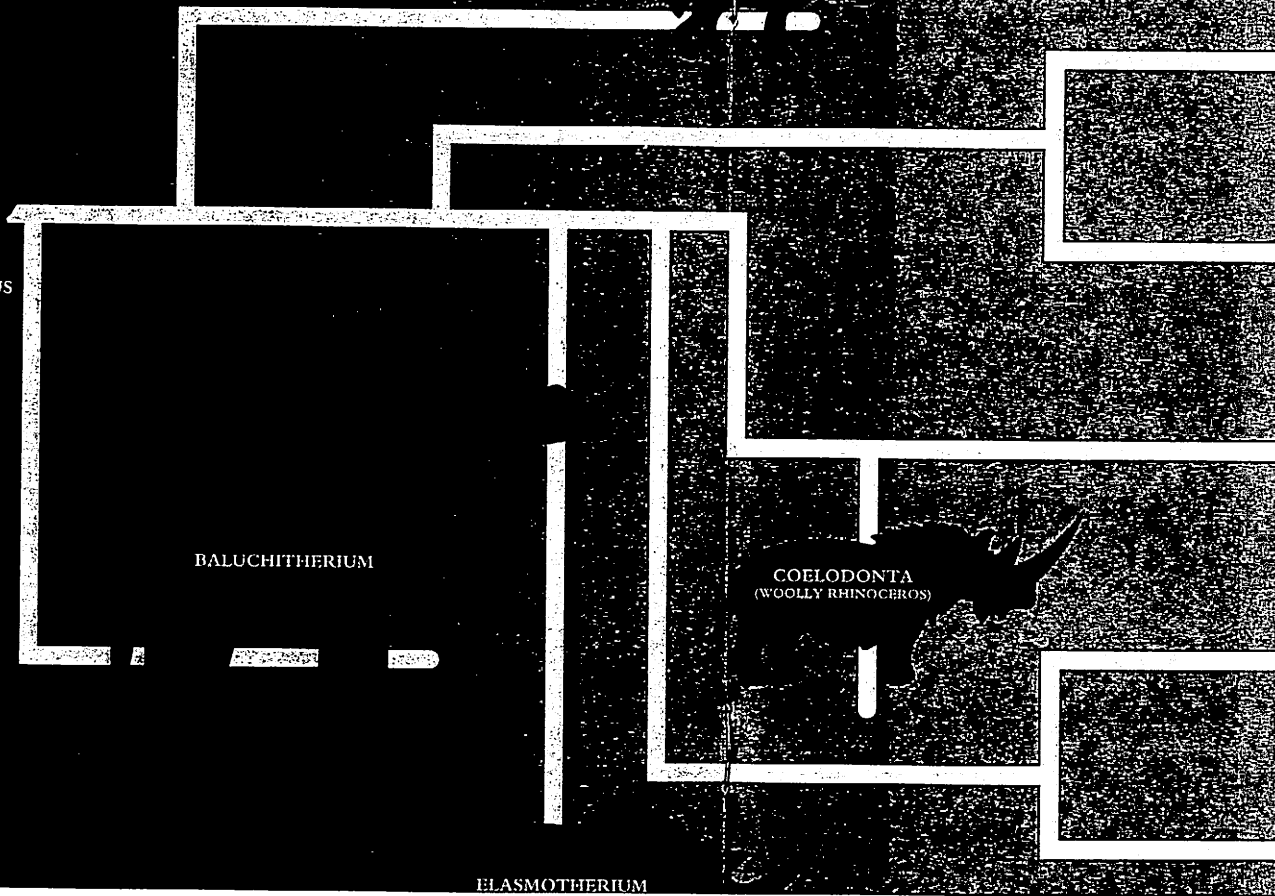
JAVAN RHINOCEROS



SUMATRAN RHINOCEROS



HOOK-LIPPED RHINOCEROS



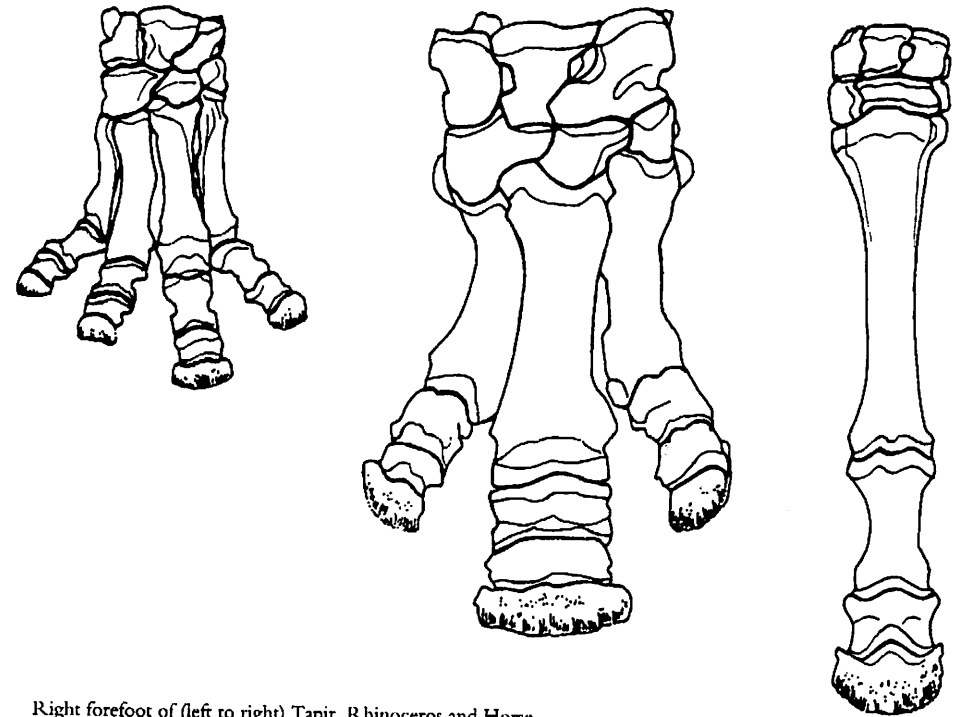
A BRIEF HISTORY OF RHINOCEROSSES

Rhinoceroses, Tapirs and Horses represent the three surviving families of the odd-toed group of hoofed mammals. The group was given this name because there is an odd number of toes (3 toes or 1 toe) on the fore or hind feet; the other hoofed mammals, such as hippopotamuses, pigs, cattle, deer and antelopes have 4 or 2 toes on all feet. The odd-toed group first appeared in North America about 60 million years ago. At its peak, the group included many hundreds of species, distributed throughout North America, Europe, Asia and Africa, of which at least 100 were Rhinoceroses. Today, there are just 15 living species (6 Horses, 4 Tapirs and 5 Rhinoceroses).

Few of the earliest Rhinoceroses had horns but some, as we know from their fossil remains, were very impressive in other respects. *Baluchitherium*, 8m in length and 5.5m high, was the biggest land mammal of all time. This huge but horn-less Rhinoceros, with a long neck and enormous pillar-like limbs, lived on the grassy plains of Asia about 35 million years ago. It probably fed on leaves and branches, rather like modern Giraffes.

The most primitive of the five living species is the Sumatran Rhinoceros. The group of Rhinoceroses to which it belongs is known to have lived in Asia about 25 million years ago, but later spread into Europe and Africa. The Woolly Rhinoceros was one of this group and, along with the mammoths, was a very conspicuous member of the European fauna during the last ice-age. Cave paintings suggest the appearance of this grass-eating Rhinoceros, which

Reproductions of Woolly Rhinoceroses depicted in Cave Paintings at Rouffignac and Lascaux, in central France. Painted around 15,000 years ago.



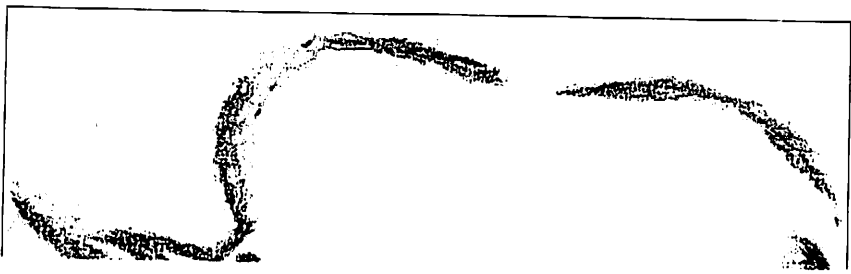
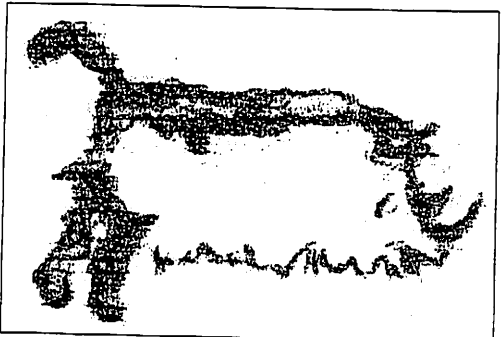
Right forefoot of (left to right) Tapir, Rhinoceros and Horse

had a thick coat and two powerful horns. An even larger Rhinoceros that spread from Asia into south-eastern Europe during the ice-age was *Elasmotherium*, which became extinct about 200,000 years ago. It had a cone-shaped horn, up to 2m long, which was carried on the forehead; not on the snout as in modern Rhinoceroses.

The Indian and Javan Rhinoceroses, now confined to SE Asia, once inhabited a much larger area. Numerous fossil remains show that the group to

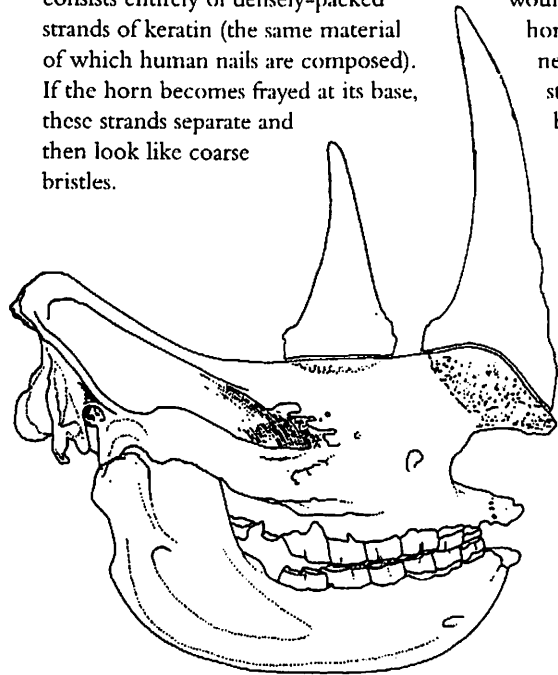
appearing in North Africa, from where fossils about 5 million years old have been recovered. This group also expanded its range, into Europe and Asia, before becoming once again restricted to the African continent.

All members of the odd-toed group of hoofed mammals (whose scientific name is the Perissodactyla) have lost front and hind toes during the course of their evolution. The first front toe (equivalent to the thumb) and first hind toe are always missing and the third digit on



RHINOCEROS HORNS

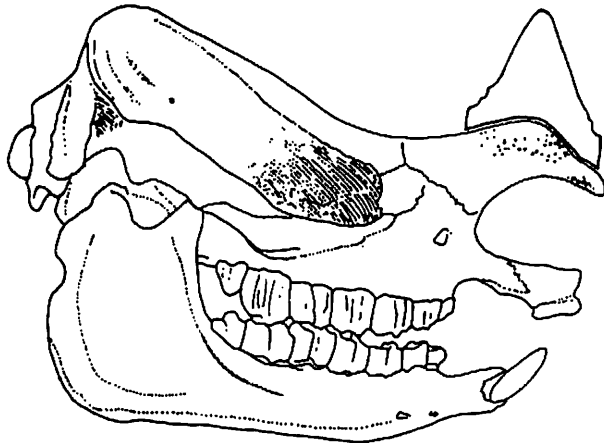
The horn is not made of bone, but consists entirely of densely-packed strands of keratin (the same material of which human nails are composed). If the horn becomes frayed at its base, these strands separate and then look like coarse bristles.



A horn broken off by accident leaves a wound, but this soon heals and a new horn grows. In young animals, the new horn may become just as strong as the one which was lost but in older animals the replacement horn is much smaller.

Skull of Hook-lipped Rhinoceros

The African Rhinoceroses have no incisor teeth and their main defensive weapons are the horns, which are much larger than those of their Asian relatives. One is situated on the snout and there is a second, shorter horn on the forehead.



Skull of Javan Rhinoceros

Javan and Indian Rhinoceroses have just one, relatively small horn, placed above a bony hump on the snout. Two sharp, forwardly-directed incisor teeth are present in the lower jaw. The teeth, rather than the horns, are used for defence and, occasionally, to intimidate rival Rhinoceroses.

CONSERVATION OF RHINOCEROSSES

All five species of Rhinoceros are endangered. About 3,400 Hook-lipped and 4,800 Square-lipped Rhinoceroses survive in Africa, 1,950 Indian Rhinoceroses in India and Nepal, while about 700 Sumatran Rhinoceroses and just 70 Javan Rhinoceroses still exist in SE Asia. These animals have been brought to the verge of extinction by the destructive activities of the 6,000,000,000 humans with whom they share this planet.

For thousands of years, the rain forests of SE Asia provided a secure environment for Rhinoceroses and many other animals which are found nowhere else in the world. Today, huge areas are being cleared to provide timber for export or new farmland to help feed the ever-growing human population. Consequent loss of shelter and food supply, as well as disturbance from bulldozers, chain-saws and lorries, forces most forest creatures to seek refuge in the scattered remnants of their former habitat; remnants which become progressively smaller year by year.

Wherever they live, Rhinoceroses are at risk from illegal hunting and both the poachers and their prey are ruthlessly exploited by dealers, who make huge profits from equally illegal international trade in Rhinoceros products.



The horn being particularly prized, beyond the value of gold, for its fever reducing properties. The African Rhinoceroses, which live mostly in open grassland and are not immediately threatened by destruction of habitat, have suffered greatly from poaching in recent years. Stopping the trade in Rhinoceros products, and habitat protection are the present two imperatives in Rhinoceros conservation.

In almost all countries of the world, it is now strictly against the law to harm Rhinoceroses or trade in their products and sanctuaries have been set aside for their protection. Unfortunately, such legislation is all too often little more than a token gesture, because enforcement may be very difficult to achieve. It requires money, skilled manpower and political

determination which governments, especially in third-world countries, are frequently unable or unwilling to provide. Sometimes foreign aid, from developed countries or

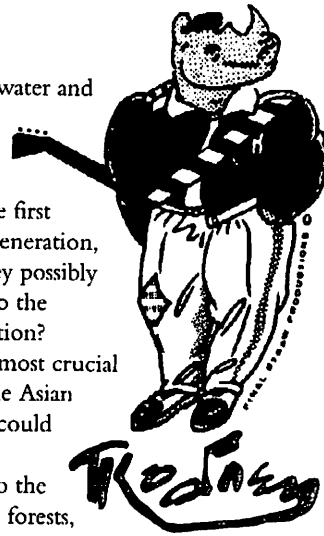


conservation agencies, may provide an answer, but it is not unusual for such funds to be unwisely allocated or dishonestly misappropriated.

Difficulties of this sort have led some authorities to conclude that the best policy is to establish small groups of Rhinoceroses and other endangered animals in zoos. The hope is that they can be encouraged to breed and perhaps, one day, be re-introduced into the wild. Rhinoceroses have, so far, proved rather difficult to breed in captivity. When breeding from small numbers of captive animals, it is difficult to preserve the full range of genetic variability which is essential in a population that must survive in the wild. How would a young animal, born in a zoo, learn how to behave in its natural habitat in order to find

shelter, food, water and a mate? If such skills were not retained by the first captive-bred generation, how could they possibly be passed on to the second generation? However, the most crucial point is that the Asian Rhinoceroses could never be re-introduced into the wild if the rain forests, which continue to be inadequately protected, became so damaged that their natural habitat was irretrievably lost

Zoos only claim to provide a vital 'life-boat' to tide a species over a natural disaster or period of intense pressure. Preservation in the wild is the only long-term conservation solution and it can work. The recovery of the Square-lipped Rhinoceros, when given strict protection in South Africa, is not an isolated example. At the beginning of the century, Indian Rhinoceroses in the state of Assam had been reduced by hunting to less than 30 animals. Conservation authorities, with full government backing, then took control of the situation. A suitable sanctuary was established, further hunting was prohibited and poachers were forced out of the area. Over 1,000 Rhinoceroses now live in this sanctuary and, because of the high population density, they have

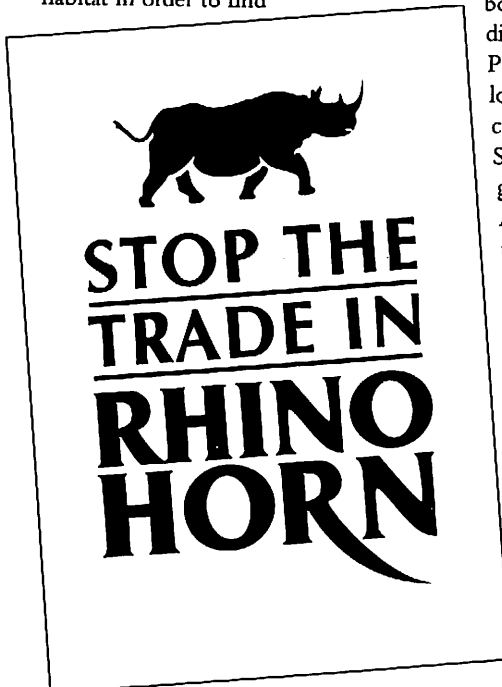


Emma, a baby hook-lipped rhinoceros and her keeper, born in June 1991 at Chester Zoo

even begun to spread out into the surrounding countryside. (Regrettably, current political unrest in the area is assisting the poachers.)

The ultimate solution to ensure the long-term survival of Rhinoceroses and all other endangered wildlife is very

easy to identify, although much more difficult to achieve. Quite simply, their fate will be determined by public opinion. If enough people, world-wide, are sufficiently convinced that these animals must survive, then their future will be secure. It has been estimated that 44 million dollars, a very small amount in, for example, military terms, would secure the future for all five species. Rigorous political action is essential if most of the world's conservation problems are to be overcome. The responses of all politicians and governments, whether democratically elected or dictatorships, are ultimately determined by the will of the people, but time is not on the side of conservation.



ACKNOWLEDGEMENTS

The National Museums & Galleries on Merseyside are most grateful to Basle Museum for permission to reproduce the illustrations and information from the publication entitled "*Nashorner*", published in 1989 to accompany the Swiss exhibition on Rhinoceroses.

Population figures and conservation details have been updated from literature supplied by the World-wide Fund for Nature "*Rhinoceros Campaign, 1991*", and "*Time to save rhinoceroses*" by Colin Tudge, published in the New Scientist, Autumn 1991.

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Ceremonial dagger from Yemen *World Wide Fund For Nature*

Hook-lipped rhinoceros, Emma
Photograph courtesy of Chester Zoo

RHINOCEROS

The Horn of a Dilemma

This booklet is based upon "*Nashorner*" published by Basle Museum in 1989 to accompany the Swiss exhibition on Rhinoceroses. We are most grateful to Basle Museum for permission to reproduce the illustrations and information from that publication.

Much of the exhibition that is illustrated in this booklet is the result of collaboration between the Natural History Museums of Berne and Basle in Switzerland. This has been supplemented by material brought together by the National Museums & Galleries on Merseyside. The National Museums and Galleries on Merseyside are pleased to highlight, through the exhibition at the Liverpool Museum (19 December 1991 - 20 September 1992) and this booklet, not only the plight of rhinoceroses world-wide, but also their intrinsic interest.

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8 ?? Rhinoceros Quiz ??



Try this quiz after you have seen the exhibition.

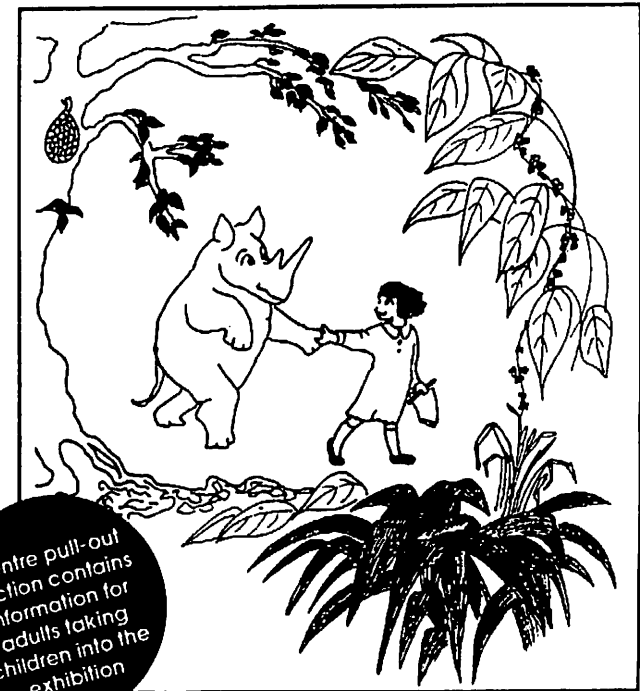
- 1 How many species of rhinoceros are left in the world today?
- 2 What colour are both the black and the white rhinoceroses?
- 3 Do all rhinoceroses live in forests?
- 4 Are rhinoceroses plant or meat eaters?
- 5 When did the Woolly Rhinoceros live in England?
- 6 Is it true that in some countries people use rhinoceros horn as a medicine?
- 7 Is anything being done to stop the rhinoceros becoming extinct?



A full colour souvenir guide to the exhibition is on sale at the entrance to the exhibition.

RHINOCEROS RAMBLE

A trail through the exhibition for adults and children



Centre pull-out section contains information for adults taking children into the exhibition



Did you know?

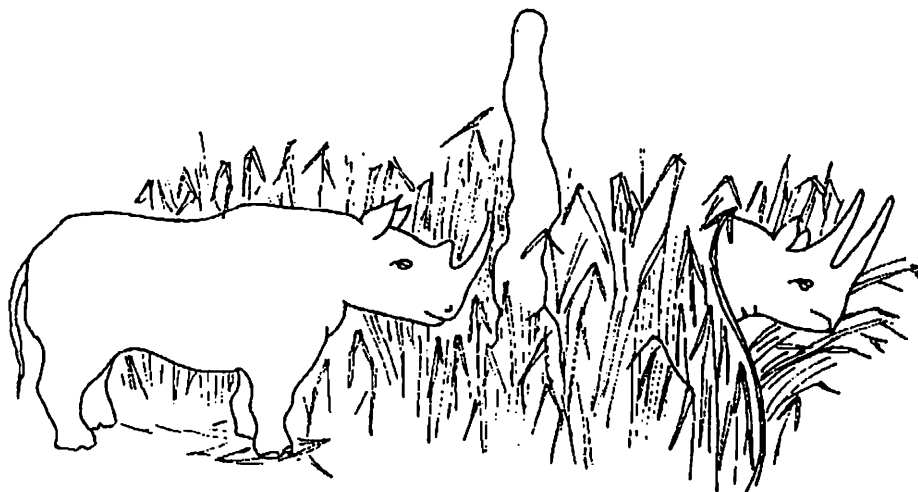
The word rhinoceros comes from the Greek words; *rhin* meaning nose and *keras* meaning horn.

2

African Rhinoceroses



Look for the large rhinoceros covered in mud and one coming out of tall grass.



Both these rhinoceroses live in Africa. Sometimes they are called **black** or **white** rhinoceroses which is confusing as they are both really grey.

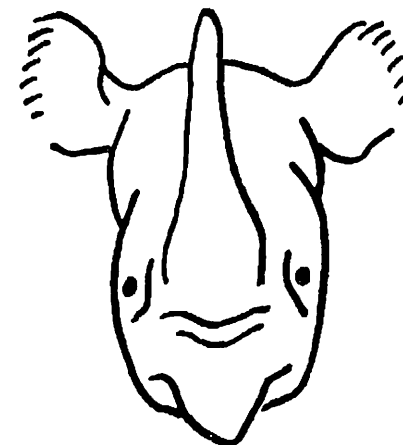
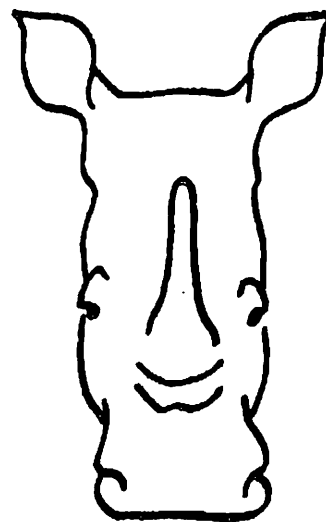
3



Look at the shape of their mouths



Are they the same?



By looking at their lips you can tell the two African rhinoceroses apart.

The mouth shape also tells you something about their food.

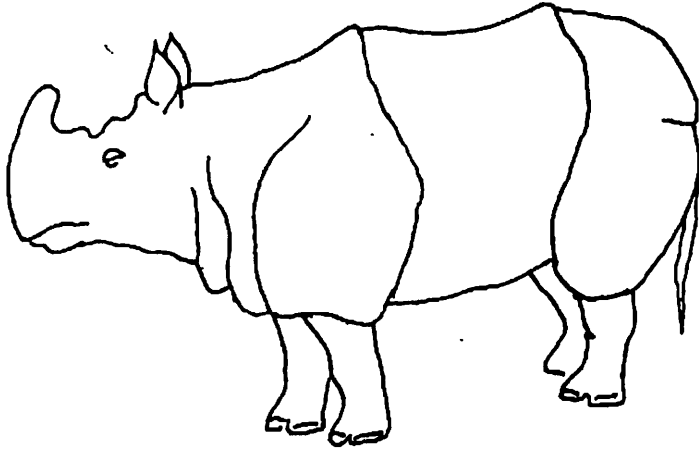
The **Square-lipped** or white rhinoceros grazes on grass, like a cow.

The **Hook-lipped** or black rhinoceros eats leaves and twigs.

4



Look at the **Indian Rhinoceros** next to the two African ones.



?

Do all three have the same number of horns?



The Indian Rhinoceros has one horn.

Rhinoceros horn is not bone it is made from a substance called **keratin**.

?

Can you touch something on your body made from keratin?



RHINOCEROSSES NEED HELP!

The following organisations are raising money or running projects to conserve and protect the world's Rhinoceroses. Write to them for details of their work and how you can help.

1. WORLD WIDE FUND FOR NATURE

The largest non-governmental nature conservation organisation in the world. W.W.F. is currently running a major campaign aimed at eliminating the trade in Rhinoceros horn. Further information about W.W.F. and the Rhinoceros Campaign from:- World Wide Fund for Nature, Panda House, Weyside Park, Catteshall Lane, Godalming, SURREY. GU7 1XR



2. I.U.C.N. - THE WORLD CONSERVATION UNION

The World Conservation Union is a membership organisation comprising governments, non-governmental organisations, research institutions and conservation agencies and involves several thousand scientists and experts from all continents. I.U.C.N. Publications Services, 181a Huntingdon Road, CAMBRIDGE. CB3 0DJ.



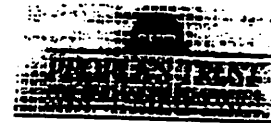
3. TRAFFIC INTERNATIONAL

TRAFFIC, which stands for Trade Records Analysis of Flora and Fauna in Commerce, is now the world's largest wildlife trade monitoring programme and was initiated in 1976. Monitoring trade in Rhinoceros Horn is a current major project. TRAFFIC International, 219c Huntingdon Road, CAMBRIDGE. CB3 0DL



4. PEOPLE'S TRUST FOR ENDANGERED SPECIES

The People's Trust for Endangered Species was established to help ensure a future for many declining species of animal world-wide. As well as being able to rapidly provide financial support to help save a population from danger, they are particularly concerned with supporting the scientific side of conservation. The People's Trust for Endangered Species, Hamble House, Meadow, Godalming, SURREY. GU7 3JX.



Ask the children to look and listen carefully as
Tropical Rain Forest - page 6

Look at the five skulls on display. Four are real, one is a model, use the teeth to find out which is the model. Explain that the skulls are made from bone and that they do not have horns as the horn is, as mentioned above: made from keratin, not bone. Look for the display on the back wall of the exhibition area, showing the evolution of the rhinoceros. Explain that there have been at least 100 species of rhinoceros in the past. Point out the largest land mammal ever, *Baluchitherium*. Compare it to the model of a human next to it. In addition point out that it did not have a horn but it was an early rhinoceros. Point out the Woolly Rhinoceros remains. Ask the children to find the skull of a Woolly Rhinoceros. Explain that Woolly Rhinoceroses lived in Britain, including the local area, during the Ice Age.

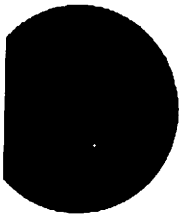
Rhinoceros Quiz - page 8

Answers:-

1 There are 5 species of

Explain that people have hunted rhinoceroses for hundreds of years. The horn in particular being highly prized. Look at the items carved from horn. Point out the skill of the craftsmen who shaped them. Find the spear trap and explain what it was used for. Find the glass case containing the mutilated head, this is only a model but it is there to show what is still being done by some people who can sell the horn and other parts of the rhinoceros. The powdered horn is an effective natural cure for fevers and is worth up to 3 times its weight in gold. Look at the rest of the exhibition if you have not already done so. Try to find out what is being done to stop rhinoceroses becoming extinct. The quiz on the back page of the children's booklet is designed to be used back at school or at home.

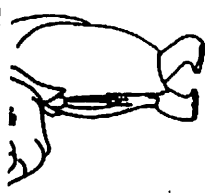




The forest is based on an unpopulated tropical rain forest.
 The two rhinoceroses are models but the other animals are real. The two rhinoceroses are easy to identify as the Sumatran Rhinoceros has a thin coat of hair while the Javan Rhinoceros does not.

Ask the children to try to find the 9 animals listed in their booklet. Some are more obvious than others.
 The two rhinoceroses and the tiger are obvious. The Indian monitor lizard and the pangolin are on the ground between the two rhinoceroses. The gibbon is above the Sumatran Rhinoceros.

You may wish to go through the forest more than once.
 If you are unsure about any of the animals in the forest there is an explanation panel with photographs near the exhibition entrance.



5. RHINO RESCUE TRUST

The Rhino Rescue Trust supports Rhinoceros Conservation by providing materials and management to set up and run specific Rhinoceros conservation projects.
 Rhino Rescue Trust, P.O. Box 1, Sarrumtham, Suffolk, IP17 3JT

1. Rhinoceros live in the world today.
2. Both the black and the white rhinoceroses are grey.
3. The Square-lipped Rhinoceros lives in open grassland.

The Hook-lipped Rhinoceros prefers to live on the edges of small woods and thickets.

The other three species of rhinoceros prefer to live in forests.

4. Rhinoceroses eat plants.

5. The Woolly Rhinoceros lived in England up to the end of the Ice Age, when it became extinct, 15,000-10,000 years ago.

6. Rhinoceros horn is used in some Far Eastern countries as a medicine.

7. Many countries have now passed laws to stop the illegal killing of rhinoceroses and the trade in rhinoceros products.

The goal being to make rhinoceros horn worthless so that the rhinoceros is no longer hunted.

6. THE DAVID SHEPHERD CONSERVATION FOUNDATION

The David Shepherd Conservation Foundation is a young conservation charity which bears the name of the renowned wildlife artist and conservationist, the David Shepherd Conservation Foundation, 70 Box 125, Godalming, Surrey, GU9 4SS.

7. THE FAITH FOUNDATION

Set up by the actor and former 'pop' singer Adam Faith to provide money and organisation for Rhinoceros Conservation in Africa.
 The Faith Foundation, The Lyric House, 149 Hammersmith Road, London, W14 0GL

8. RHINO ROCK WILDLIFE TRUST

Rhino Rock Wildlife Trust was established in 1991 for the conservation of the Rhinoceros and other 'keystone' species such as the Elephant, Primates and Parrots. Public awareness and funds are raised by high-profile events such as films, concerts and musical wildlife documentaries for children.
 Rhino Rock Wildlife Trust, 2 Scarsdale Studios, Stratford Road, LONDON, W8 6RE.

9. CARE FOR THE WILD - CARE FOR THE RHINO SECTION

This new charity is organising a series of fun activities to raise money for Rhinoceros Conservation.
 Care for the Rhino, C/O Universal Safari Tours, 29-31 Oxford Street, LONDON, W1R 1RA.

10. SUZUKI RHINO CLUB SAVE OUR RHINOS PROJECT

Suzuki Cars use the Rhinoceros symbol for their sport wheel base 4 wheel drive vehicles. They have an owners group called the 'Rhino Club' which, among other activities, raises money for specific Rhinoceros Conservation Projects.
 Marketing Department, Suzuki GB Cars, 46-62 Gatwick Road, Crowley, West Sussex, RH10 2XF



Human hair and finger nails are made from keratin



Find the five rhinoceros skulls on display



The skulls, like your skull, are made from bone. Note that none of them have a horn.

In the past there were at least 100 different species of rhinoceros. We know about them from their **fossil** remains.



Look for the display of fossils in a glass case. Some are from England.



Can you find the skull of a **Woolly Rhinoceros**?



Woolly Rhinoceroses may have walked around the area we now know as Liverpool, during the Ice Age.



Tropical Rain Forest



Read this page before you go into the dark forest.



There are two rhinoceroses in the display. The easiest way to tell them apart is to look at their skin. The **Sumatran Rhinoceros** has hair on its body, the **Javan Rhinoceros** does not.



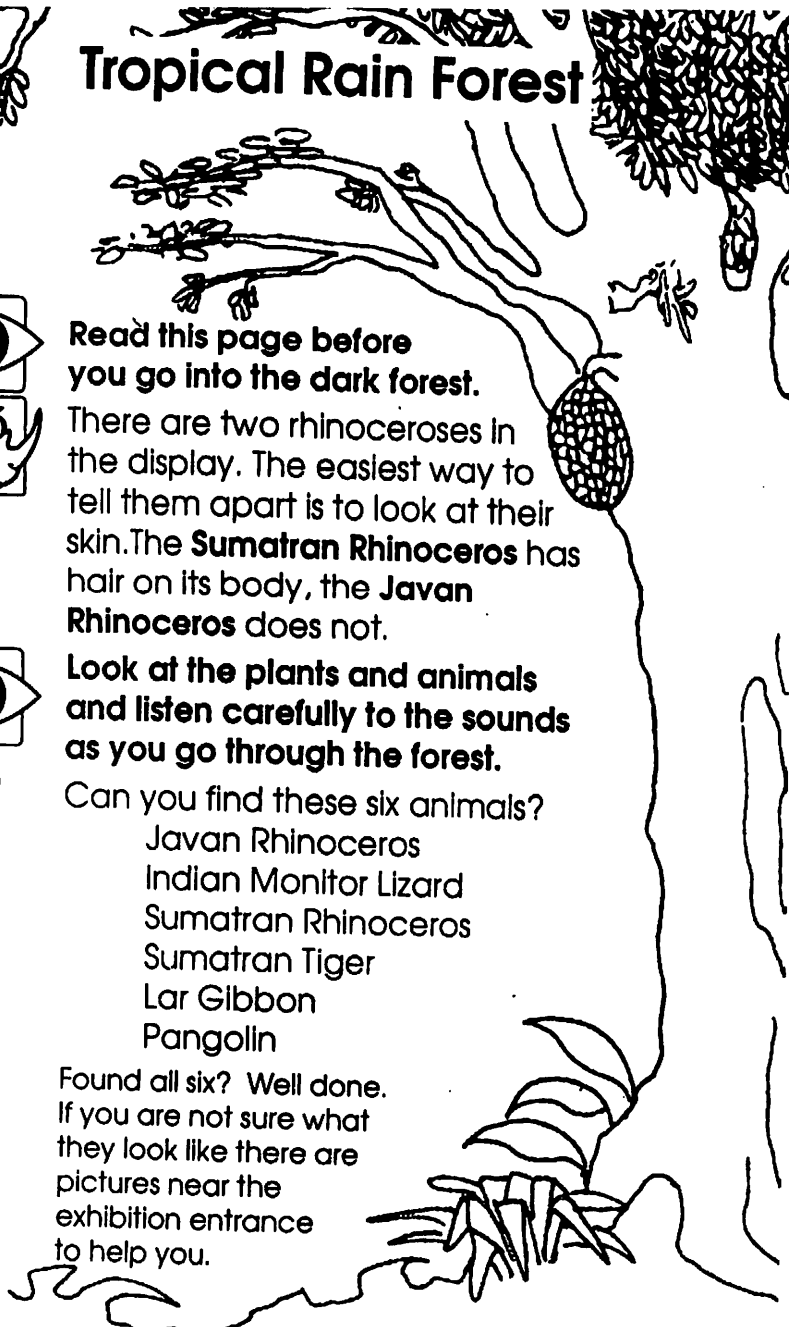
Look at the plants and animals and listen carefully to the sounds as you go through the forest.



Can you find these six animals?

- Javan Rhinoceros
- Indian Monitor Lizard
- Sumatran Rhinoceros
- Sumatran Tiger
- Lar Gibbon
- Pangolin

Found all six? Well done. If you are not sure what they look like there are pictures near the exhibition entrance to help you.



Conservation

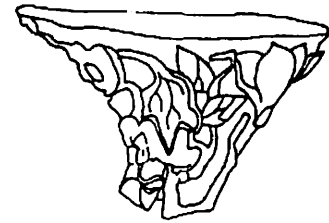


Rhinoceroses are endangered animals.

This means they are very close to extinction. For hundreds of years people have treasured the rhinoceros, in particular its horn.



Look at the carved pieces of horn on display.



In some Far Eastern countries the horn is used as a medicine.

Poachers, people who kill animals, can become rich from selling rhinoceros horn.



Look at the spear trap.



Do you think the people who use these traps are kind to animals?



Look at the rest of the exhibition and try to find out how people are helping the rhinoceros today.

THE
HORN
OF A
DILEMMA

THE HORN OF A DILEMMA

18 DECEMBER 1991
20 SEPTEMBER 1992



LIVERPOOL MUSEUM
William Brown Street, Liverpool



NATIONAL MUSEUMS & GALLERIES
ON MERSEYSIDE

RHINOCEROS THE HORN OF A DILEMMA

18 December 1991
20 September 1992

Explore the world of the Rhinoceros in this new temporary exhibition.

Although Rhinoceroses are some of the worlds largest mammals, all are under threat from poaching and the destruction of their habitats. This exhibition reinforces the need for Rhinoceros conservation.

On display are specimens and full size replicas which demonstrate the awesomeness of these amazing creatures. There are fossils, some from Britain which had wild Rhinoceroses 15,000 years ago and an intriguing collection of over 250 miniature figures from the cuddly to the crafted.

A lively programme of activities and events is planned throughout the exhibition. Please telephone: 051 207 0001 ext.211/296 for further information.

The Museum Restaurant is open daily serving light meals and refreshments.

The Museum Shop has a wide range of souvenirs and gifts.

LIVERPOOL
MUSEUM
William Brown Street,
Liverpool

OPENING TIMES

MONDAY-SATURDAY	10AM-5PM
SUNDAY	12 NOON-5PM

