

# REVIEWS



Desert stalwart. Watch *Kalahari—Wilderness Without Water*, in the Channel 4 *Fragile Earth* series on Sundays at 7.15pm.

## BBC1

**Monkey Business:** Wednesdays at 7.40pm (series starts 6th). Frivolous natural history quiz series with celebrity panels.

**QED—The 300 Million Years War:** Wednesday 20th at 9.25pm. How plants fight back.

### BBC1 East

**The Dying Swan:** Sunday 3rd at 4.30pm. Lead shot poisoning, and the work of the Swan Rescue Service.

### BBC1 North East

**North Country:** Sundays at 4.05pm (series ends 3rd). Tom Kilgour meets the wildlife enthusiasts of the area.

### BBC1 South West

**Beyond the Foaming Horse** (rep): Tuesday 5th at 11.25pm. The marine life off the coast of Devon.

## BBC2

**Plants in Action** (rep): Mondays at 12.40pm (series ends 18th). The biology of commercial plant management.

**You Can't See The Wood** (rep): Fridays at 12.55pm (series ends 15th). Tree-talk with David Bellamy.

**Nature:** Fridays at 8.05pm (series ends 29th). Wildlife news including the use of radar in biological research; the tamarin reintroduction programme in Brazil; primates in British research laboratories; the plight of Japan's latest tv star—the frilled lizard; illegal trade in

birds of prey; and a special report from Africa (see p148).

**The Changing Countryside:** Saturdays at 1.05pm (series starts 16th). Open University series examining recent changes in British landscapes. 16th, *Scenic Setting: Snowdonia*. 23rd, *The Face of the Fells: the Lake District*. 30th, *Cropping the Countryside: Lincolnshire*.

**Flower of the Month:** Monday 4th at 7.25pm. Geoffrey Smith ponders on primulas.

**Horizon—The Careful Predator** (rep): Sunday 3rd. Utilising wild animals in Zimbabwe.

**World About Us Special Report—Sacred Rites:** Wednesday 13th at 8.10pm. The lifestyle and culture of Aborigines.

**Just Another Day:** Friday 15th at 9pm. A day in the life of the Natural History Museum.

## ITV

*Survival* wildlife programmes will be shown in many regions throughout the month. Check with *TV Times*.

**Action Line:** Television South is launching two competitions on 10th March for schools and community groups, which involve planning the tidying-up of a local eyesore.

**Eco:** Central Television's monthly environmental series. This month, Species Protection, on 28th at 10.30pm.

## Channel 4

**The Amateur Naturalist** (rep): Thursdays at 5pm. Gerald and

### IMPORTANT

Please remember that programme schedules are subject to last minute changes, so check dates and times with *Radio Times* and *TV Times*. The wildlife section of *CEEFAX*, starting on page 262, also has a list of BBC wildlife programmes, as well as news and a country diary.

Lee Durrell reveal the fascination of nature study. (No programme on 3rd.)

**Fragile Earth** (rep): Sundays at 7.15pm. Award-winning series. 3rd, *Korup—An African Rainforest*. 10th, *Selva Verde—Central American Rainforest*. 24th, *Alyeshka—Arctic Wilderness*. 31st, *Kalahari—Wilderness Without Water*.

**The Fragile Earth Retrospective:** Friday 29th at 10.30pm. Conservationists discuss issues raised by the *Fragile Earth* series.

## Radio 4

**Living World:** Sundays at 4.30pm; repeated Thursdays at 9.30am.

**Wildlife:** Tuesdays at 11.33am; repeated Saturdays at 5pm.

**Natural Selection:** Fridays at 11.48am.

**What's in a Name:** Wednesdays at 11.48am (series starts 13th). Denis Owen gives the origins of some of those strange plant and animal names.

**The Fisher King:** Wednesday 6th at 7.45pm. The human and natural history of the Somerset Levels.

**Gorilla** (rep): Saturday 16th at 3.30pm. Gorilla gossip with David Attenborough, Dian Fossey and Ian Redmond.

**Have you ever seen an Otter?** (rep): Tuesday 19th at 3.02pm.

## Radio 2

**Give us a Conch:** Tuesdays at 10.30pm (series ends 5th). Light-hearted natural history quiz.

## World Service Radio

**Nature Notebook:** Tuesdays at 6.30pm; Wednesdays at 12.15pm; Thursdays at 6.30am.

## Schools programmes

### Radio 4 VHF

**Nature** (for 8- to 10-year-olds): Wednesdays at 2.45pm. 6th, *Warblers*. 13th, *The Salmon's Journey*. 20th, *Nature Quiz*.

## Events

**Discovering Mammals.** Special exhibition for the blind and partially sighted. 1-31 March at the Natural History Museum, Cromwell Road, London SW7.

**Open Day at London Zoo.** For schools, organised by the British Association for the Advancement of Science. Includes film shows and a demonstration of BBC Natural History Unit equipment. 16 March. Contact: The Education Officer, London Zoo, Regent's Park, London NW1 4RY.

**Torridon: Its Mountains and Wildlife.** Illustrated talk by Lea McNally, organised by the National Trust for Scotland's London group. 21 March at 7.15pm. Venue: St Columba's Church (Lower Hall), Pont Street, London SW1. Fee: 50p.

**Landscapes for People and Wildlife.** Brecknock Naturalists' Trust Annual Public Lecture, by Chris Baines. 26 March at Brecon High School, Penlan. Fee: adults £1; children and OAPs 50p. Contact: Mr E Bartlett, Brecknock Naturalists' Trust, Chapel House, Llechfaen, Brecon, Wales.

**Use of the Urban Environment as an Introduction to the Countryside.** Weekend training course for teachers, youth leaders etc, organised by Country Wings, with Brathay Hall Trust and the Sports Council. 29-31 March in Birmingham. Fee: £39.50. Contact: Country Wings, 15 Wilkin Street, London NW5 3NG.

**Royal Entomological Society Exhibition.** Features the society's work, and previews this year's expedition to Indonesia. Venue: Natural History Museum, Cromwell Road, London SW7. Closes 30 April.

**Environmental courses for school children.** Organised by the Young Peoples' Trust for Endangered Species. Week-long courses during April, May and June. Contact: Mrs Diane Littlewood, YPTES, 19 Quarry Street, Guildford, Surrey.

**Wildlife in the Camargue.** Tour organised by the universities of Kent, Durham and Leeds. 4-18 May. Fee: £495. Contact: The Executive Officer, School of Continuing Education, University of Kent, Canterbury.

A report from Drs Esmond and Chryssee Bradley Martin on the spiralling decline of the world's second largest land mammal.



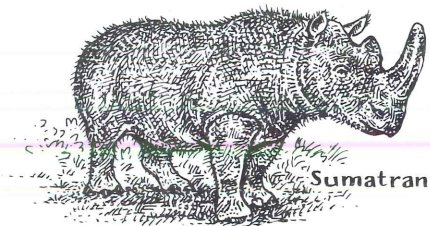
# HORNS of a dilemma

“The past 15 years have not been auspicious for the rhinoceros. Of the five different species in Asia and Africa, only the southern race of the white or wide-lipped rhino has escaped threats to its survival. The northern white rhino, which zoologists ▷

White rhinos—the safest and the most endangered. Because of good protection the southern subspecies has actually increased in the past 15 years. The northern subspecies has nearly disappeared.

Egret and oxpecker in residence on black rhino. Its population has dropped by 85 per cent since 1970.





Sumatran

believe may have been separate for two million years, is vanishing so rapidly now that it may become extinct in front of our eyes.

The black rhinoceros, once widespread in tropical Africa, has decreased by an estimated 85 per cent between 1970 and 1984, and it has been almost totally eliminated from half a dozen countries. In Asia, the Indian, Javan and Sumatran rhino species are all endangered. Although its numbers went up in the 1970s, the Indian rhino now exists in only a few wildlife reserves in Nepal, Assam and West Bengal.

The Javan is confined to just one small reserve on the western tip of the island of Java. As for the Sumatran, also known as the hairy rhino, the most primitive and elusive of the species, it has virtually disappeared from Burma, Thailand and Indochina. Some individuals have been found in Malaysia and Indonesia, but their future looks bleak.

Worldwide, there may have been more than 70,000 rhinos in the wild in 1970; today, it would be optimistic to hope that there are as many as 16,000 left. So sharp and dramatic a decline of the second largest

**ESTIMATED\* NUMBERS OF BLACK RHINOS**

COUNTRY	1980	1984
Tanzania	3,795	3,130
Zimbabwe	1,400	1,680
Zambia	2,750	1,650
South Africa	630	640
Kenya	1,500	550
Namibia	300	400
Central African Republic	3,000	170
Mozambique	250	130
Cameroon	110	110
Sudan	300	100
Somalia	300	90
Angola	300	90
Malawi	40	20
Rwanda	30	15
Botswana	30	10
Ethiopia	20	10
Chad	25	5
Uganda	5	0
<b>Total</b>	<b>14,785</b>	<b>8,800</b>

\*Source: Kes Hillman, David Western and Lucy Vigne, *African Elephant and Rhino Group Newsletter*. N.B. These figures are based on the most reliable data available but are only estimates.

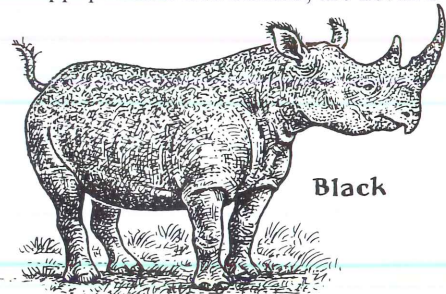
land animal is hard to accept in this age of conservation and wildlife awareness.

Compare the status of the rhino to that of the elephant, which many people believe is facing prospects of extinction. In India, Sri Lanka, Burma and Thailand, the Asian elephant is seldom poached; its main threat is loss of habitat due to the need for more agricultural land and the demand for wood to earn hard currency as an export and as a main source of fuel. However, it remains relatively safe.

In Africa the total number of elephants is certainly less than it was in 1970, but instead of estimating thousands as in the case of rhinos, one has to count hundreds of thousands. There were no accurate statistics for the elephant populations of Africa in the 1970s, nor are there today. We have only sample surveys from many of the countries where they live. However, trade statistics on tusks leaving Africa have remained on average about the same every year since 1973, and the amount of raw ivory available is very considerable, indicating that there are probably more than 700,000 African elephants still in the wild.

Neither the Asian nor the African elephant can actually be considered endangered. In Zimbabwe and South Africa, elephants are regularly culled because there are too many of them for the vegetation to support in the areas they have been allocated. Furthermore, elephants may be legally shot by sportsmen in several African countries, including Cameroon, Sudan, and Tanzania as well as Zimbabwe. Killing black rhinos, however, is prohibited in every African country, and less than 25 white rhinos, mainly old non-breeding males, are allowed to be shot annually in southern Africa.

Other large African mammals, such as the hippopotamus and buffalo, are not in a



Black

critical situation, either. In Asia, there are some big mammals which are definitely in danger of extinction, most notably the kouprey, but this type of wild cattle has been in small numbers for at least 40 years, and its future prospects are perhaps no worse than they were in 1970. The rhino, however, is facing a much more sudden crisis, and threats to its survival have been greater during the past 15 years than those to any other large land animal in Africa or Asia.

The elephant enjoys a colourful role in mythology, children's stories, zoos, circuses

and as a helpmate to man, still today hauling timber out of its own habitat. The rhino, on the other hand, is usually treated as a creature of stupidity in western folktales and is rarely used for any significant work by man. That a rhino was trained to carry laundry baskets attached to its sides by an enterprising dhobi man in Gauhati a hundred years ago is so surprising that little credence is given to the story. Yet the rhino does serve a very important purpose in traditional oriental medicine, and that, unfortunately, is why it is in dire straits today.

Westerners are entrenched in their belief that the only thing of use about a rhino is its horn, and that it is an aphrodisiac. We have

**ESTIMATED\* WORLD POPULATION OF RHINOS**

RHINO SPECIES	1970	1984
Black	65,000	8,800
White	3,500	4,000
Indian	900	1,700
Sumatran	1,500	660
Javan	35	55

\*Source: Esmond Bradley Martin, David Western, Andrew Laurie, Nico van Strien and Rudolf Schenkel.

written several books and articles about rhinos, trying to convince people that trade in rhino products should be brought to an immediate halt, deploring the poaching of these animals in Asia and Africa, and explaining over and over that rhino horn has never been considered a love potion by people who consume it. But, just before Christmas, when we were in London, looking for old prints of rhinos, practically every shopkeeper we approached giggled when we made inquiries—"Rhino pictures, eh? What you really want is the horn for fun!"

It is not "for fun" that rhino horn is used, but rhinos are being relentlessly poached for their horns in game reserves, parks and in one zoo a tame old male even had its horn recently hacked off for sale to a Chinese

**MAJOR RHINO HORN IMPORTERS, 1972-82**

COUNTRY	Approximate minimum (kg)
North Yemen	26,000
China	15,000
Taiwan	7,000
Japan	6,700
South Korea	2,500
Others (including Singapore, Macao and Malaysia)	9,500

\*Source: Esmond and Chryssee Bradley Martin. The overall total of 66,700 kilos in this period represents the deaths of at least 22,000 rhinos.

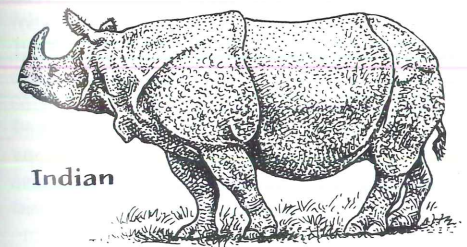
pharmacy. The horn is valuable, and for thousands of years it has been sliced into tiny slivers and steamed as a medicine—primarily as a cure for high fever. Since the early 1970s it has also been in very great demand for carving into dagger handles.

However, there are other parts of the rhino's anatomy that are also used in traditional oriental medicine; its hide, bones, meat, blood, intestines, penis and even urine and dung are considered to have medicinal properties. The rhino seems to be a mobile pharmacy to many people in South-east Asia. To our knowledge, there is no other wild animal which has quite so much of its anatomy used as ingredients in tonics, tablets and powders to cure a multitude of human ailments.

Asians consume about 98 per cent of the total rhino products on the world market. In the 1970s the demand for rhino horn increased, mainly because Yemenis entered the market, having become migrant workers in Saudi Arabia, where they earned enough capital to indulge in purchases of daggers with rhino horn handles as status symbols, but also partly because of the response to a renewed interest in traditional kinds of medicine throughout South-east Asia.

Prices for rhino horn soared, encouraging more and more poaching. Unlike Europe and America, where inflation in the 1970s began to take its toll on the economies, per capita incomes continued their rapid growth in Japan, Taiwan, Singapore, Hong Kong, Macao and Malaysia, where rhino products were most valuable and the people were willing to pay more for them. By 1979, rhino horn was over 15 times as expensive as it had been in 1970.

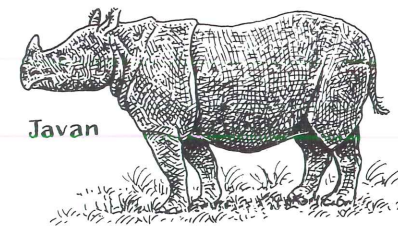
Not surprisingly, some elephant poachers in Africa switched to hunting rhinos as a more lucrative enterprise. Their work was made easier by the readily available modern rifles which had come into several countries at the outbreak of civil wars and revolutions. In East and Central Africa, poachers killed thousands of rhinos between 1975 and 1979. Whole populations were wiped out in Chad, Uganda, northern Tanzania, Sudan, Angola, Ethiopia, Somalia, Mozambique and even Kenya, where the political situation re-



Indian

mained stable. By the early 1980s the Central African Republic, Zaire and Zambia were also experiencing massive losses. Since the mid-1970s, millions of pounds

sterling have been spent trying to save remaining rhino populations, but the illegal killings have not stopped. The extra equipment and manpower financed by international conservation and aid agencies for government departments of wildlife parks and reserves have been ineffective.



Javan

In Africa, the only success stories of rhino protection are in places where efficient and incorruptible management exists. Even before poaching became a serious problem in Kenya, some private ranchers initiated schemes on their own land to conserve wildlife. Back in the late 1960s, both black and white rhinos were introduced to Solio Ranch, where 18,000 acres have been enclosed by a three-metre fence reinforced with electric wires to keep animals inside and trespassers out. Day and night the boundaries are patrolled. No rhino has been poached, nor has anybody ever been seen attempting to kill one. Moreover, proper management has also led to optimum breeding conditions.

Well aware of the security provided at Solio, Kenya's government Department of Wildlife Conservation translocated several more rhinos for safe-keeping there in the mid-1970s, avowing the aim to restock parks and reserves with their offspring. Now there is a surplus of rhinos at Solio, and the department wants to move as many as possible back into areas of parks best suited for them. Senior officers are advocating the building of enclosures therein to ensure continued breeding, which is an excellent idea, but will they be able to safeguard the rhinos from poachers?

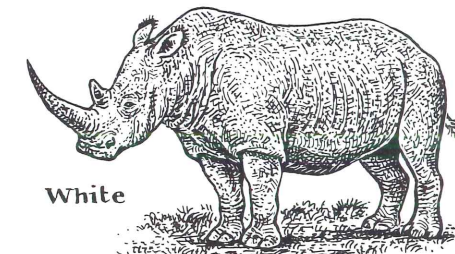
If there were not such a great demand for rhino products, it would be much easier to protect these animals. This is why emphasis must be placed on the need to encourage the use of substitutes for them. In traditional oriental medicine, saiga antelope horn, commercially harvested in the Soviet Union, is considered only slightly less effective than rhino horn for lowering fever, and water buffalo hide can be used instead of rhino skin. However, it is much more difficult to persuade the Yemenis to make their best dagger handles out of anything other than rhino horn, and efforts to stop imports to North Yemen have failed. Even though it is illegal for anyone to bring rhino horn into the country, the craftsmen there are now consuming about half of all the rhino horn annually marketed.

In Asia, South Koreans and Taiwanese may still legally import rhinoceros products. And, in several countries where

exports and imports are prohibited in accordance with the regulations of the Convention on International Trade in Endangered Species (CITES), internal trade in rhino horn and skin remains legitimate. The absence of legislation against sales of rhino products hinders attempts to protect live rhinos, but when there are laws which are not enforced, rhinos are left in an equally precarious predicament.

Some scientists believe that it is now too late to try to save the Sumatran rhino in its natural habitat. They advocate capturing pairs for breeding in safer countries. Since 1981, demands for this same action have been heard on behalf of the northern white rhinos in Zaire's Garamba National Park, but to date none of those rhinos have been moved, and their plight is worsening. While the 50 or 60 remaining Javan rhinos may be reasonably safe from poachers at present, in 1981 a disease broke out in their only reserve and 10 per cent of the population succumbed to it in just two months.

Every three years the International Union for Conservation of Nature and Natural Resources (IUCN) holds a general assembly meeting. At the last one, in Madrid in November 1984, the Head of the African Elephant and Rhino Group, Dr David Western, gave a speech on the extremely drastic decline of the northern white and the



White

black rhinos. Afterwards, Gren Lucas, chairman of the IUCN's Species Survival Commission, commented that he was tired of listening to conservationists document such facts. What, he asked, were they going to do to protect the remaining rhinos? There are practical solutions, but the horns of this dilemma may preclude positive action.

**TV LINK**

A *Natural World* programme on rhinos is due to be shown on BBC2 later this year.

For the past eight years, Drs Esmond and Chryssee Bradley Martin, who live in Kenya, have been studying the international trade in rhino products. They were the first to document the North Yemen rhino-horn connection, and are the authors of *Run, Rhino, Run*, published by Chatto & Windus in 1982. Dr Esmond Bradley Martin is vice-chairman of the IUCN African Elephant and Rhino Group.