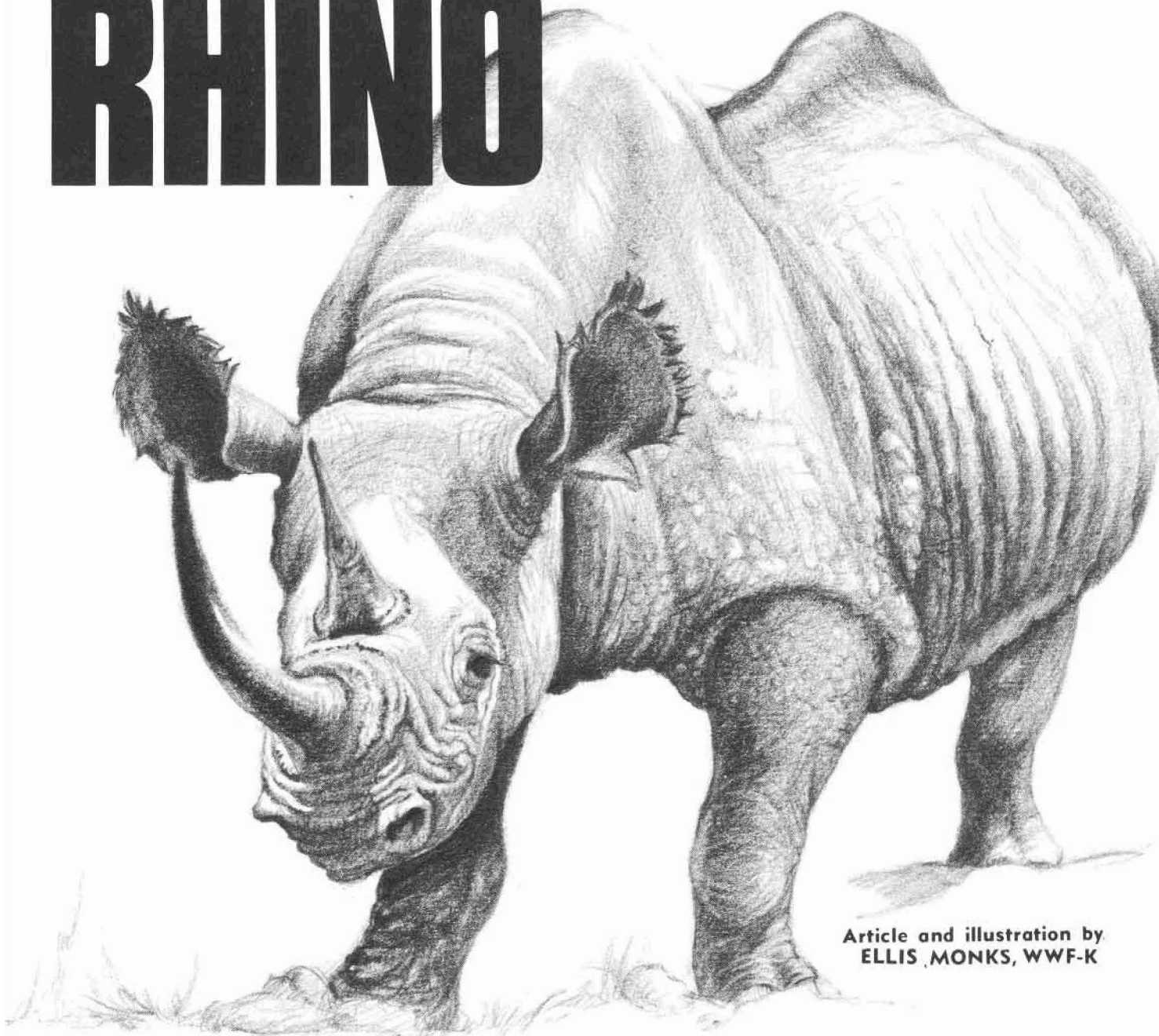


RHINO



Article and illustration by
ELLIS MONKS, WWF-K

A survivor for sixty million years - but probably not for much longer

FOR over sixty million years the rhinoceros family has roamed the earth from the Arctic to the islands of Malay and Southern Africa. Today only five species remain, all of which are in danger of extinction, not as evolutionary failures but because of man's greed — and preoccupation with sex!

Until 1898, there was a great deal of confusion over the ancestry of the rhino, but an American paleontologist, Henry F. Osborne, sifted the fossil evidence and began to clarify the history.

It seems it started with the 60-million-year old *Acerotheres*, which were slim, slightly-built animals without a horn — not unlike the present-day tapir. A relative at the time was the *Baluchitherium*, huge by comparison with its cousin since it stood 18 ft. high at the shoulder and

measured 34 ft. long. But, as with so many to have reached a stage of over-development and slipped into extinction about thirty million years ago.

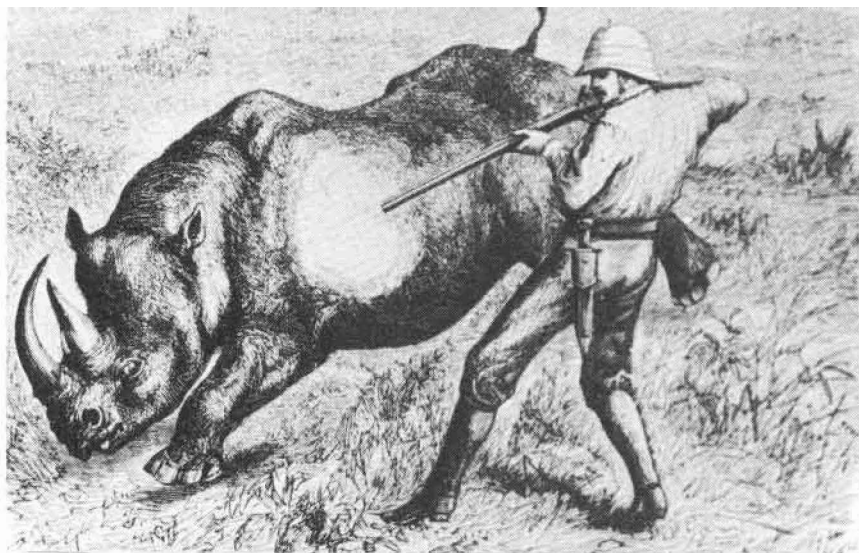
The first of the two-horned rhinos was the *Dicerotheres*, whose horns were set in the snout side by side. Evidently it migrated across the land bridge then existing between America and Eurasia and gradually faded out. But a smaller relative survived, the *Dicerorhinus tagicus*, whose horns were set in tandem; and it is from this creature that the present rhino species probably developed.

However, there was first a modification during the ice-age when the primeval rhino grew itself a thick coat of hair as protection against the harsh conditions. This was the woolly rhino, *Coelodonta antiquitatis*, which lived at the same time

and close to the woolly mammoth. Specimens found in Siberia, in excellent condition, indicate that *Coelodonta* had a shoulder height of just over six feet, a body covered with thick matted brown hair, a distinct mane and a heavy anterior horn about three feet long. Its teeth were similar to the present-day African white rhino and this, together with other indications, suggests the direct line of descent to both African rhinos — the white, a grazer, and the black, a browser.

The Asian rhinos — Indian, Sumatran and Javan — are also probably from the same *Dicerorhinus Coelodonta* stock.

An early historical mention of the animal is the appearance of an Indian rhino on show at Lisbon, Portugal, in 1513. Albrecht Durer made his famous wood-cut from a study of this heavily



"I was more successful in finishing a sleeping rhinoceros. I crept up to it with customary precautions. . . when within a few yards I took swift and silent aim. As the report echoed with a startling roar, I dropped to the ground like a hare. The great black mass instantly became animated. Jumping up, it stared wildly round, and then with blood spouting out of its nostrils like water from fountain it ran a short distance to topple over dead. It had been shot through the lungs. . . On the way I shot at one spot no less than four rhinos. It was glorious fun. . . ." — Extract from "Through Masailand" by Joseph Thomson.

Jan 1st to Oct 31st 1946 610 Rhinos
26 Elephants }
24 Buffaloes }

not included in Grand Totals
(Horns of 35 Rhinos on hand Nov 12th 1946
Trunks of 4 Elephants on hand Nov 12th 1946)

Grand Totals 996 Rhinos
81 Elephants

29 Buffaloes and 5 damaged.

Dec 2nd / 1946.

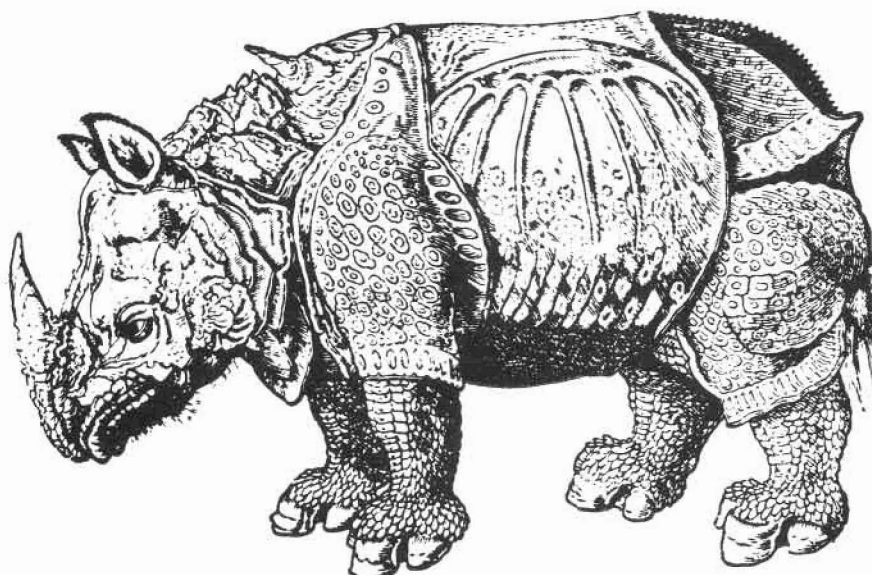
8 Elephants Trunks 3 Buff Hides

Dec 2nd / 1946.

1 Bundle 6 small Rhino Horns

Dec 17. 1946

8 trunks 3 Buff Hides 7 antlers.
36 Rhinos Horns Gov. Warrant No 2393



From J. A. Hunter's account of game-cropping — and Durer's wood-cut of rhino.

from page 23

armoured specimen which was then thought to be representations of a single species on earth.

Otherwise the animal was known only in legend, with Marco Polo among other talking of numerous "unicorns" to be found in "Java the less" (Sumatra). 'Tis a passing ugly beast to look upon "he wrote," and is not in the least like that which our stories tell us as being caught in the lap of a virgin". He was referring to the report by a Frenchman, Philip de Thaun of the method employed to capture unicorns. "It is said that Unicorns above all other creatures do reverence Virgins and young Maides, and that many times at the sight of them they grow tame, and come and sleepe beside them". Using this strategem the Indian hunters "take a goodly, strong and beautifull young man, whom they dresse in the Apparell of a woman, besetting him with divers odoriferous flowers and spices . . . the Unicorn deceived with the outward shape of a woman, and sweete smells, cometh to the young man without feare, and so suffereth his head to be covered and wrapped within his large sleeves, never stirring . . . Then, when the hunters, by the signe of the young man, perceave him fast and secure, they come upon him — by force cut off his horne".

In the original version, de Thaun made no mention of a young man but tells of how the virgin is led to the place where the unicorn resorts and is left alone, with breast exposed. The unicorn arrives and kisses the breast before settling off to sleep. As the Sumatran rhino is a true unicorn there could be a connection. However, there is no doubt that the horn of an exotic animal was credited with the power of discerning the presence of poison in liquor and as few potentates could feast without fear, "unicorn" horn was in great demand and highly priced. It was soon credited with a range of medicinal properties including immunity from sickness.

At the head of an inventory taken in the reign of Queen Elizabeth I is: "Imprimis, a piece of unicorn's horn" which is subsequently referred to as "the horn of Windsor of an unicorn very likely." It was claimed to be "eight spans in length, valued at about £10,000".

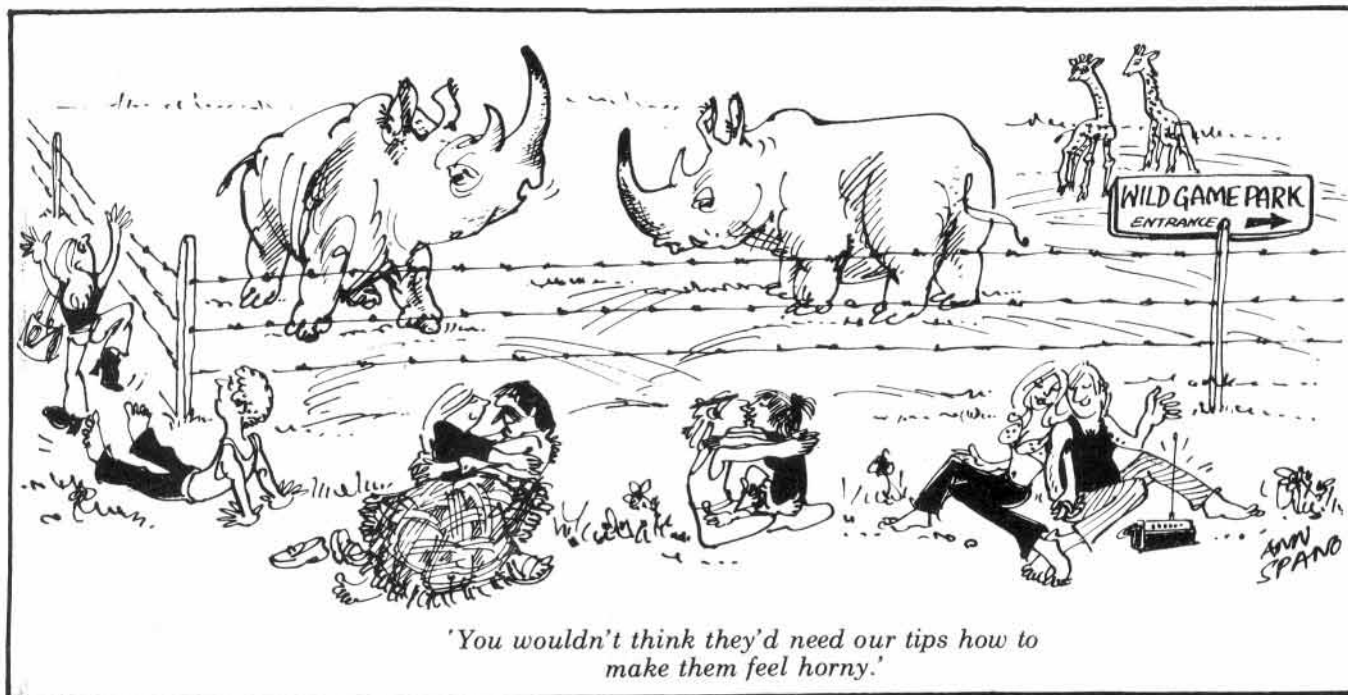
In 1641, the Marshal of France saw in the Tower of London an Unicorn's horn covered with plates of silver and estimated at £40,000. In terms of money today that would be over two million pounds.

As the unicorn as such did not exist, rhinoceros horn was substituted and the superstition fostered by Arab traders making immense fortunes on the credulity of their clients. And in such legend was the fate of the rhinoceros sealed.

In the 19th century the Javanese rhino was hunted almost out of existence. Great sums were offered for the horn on account of its legendary therapeutic powers and today only about 100 individual animals are left. The Sumatran and the Indian rhino followed, with not more than 300 and 1200 specimen (respectively) left alive.

Thus an animal which has existed for 15 million years has been reduced to the edge of extinction in 200 years by man's efforts.

There has not been quite the same pressure on the two species of African rhinoceros. This has only built up in Eastern and Central Africa over the last 70 years with the coming of the European. In Southern Africa, with its longer history of white settlement, the rhino's elimination has been proceeding over a longer period of time.



Cartoon from "It's Our World Too," (Collins;) available from WWF-Kenya at Sh. 17/- plus postage

Up to 1812 it was thought that there was only the one species in Africa, the black rhinoceros — *Dicero's bicornis*. Then his travels in the Cape, William Burchell, naturalist, traveller and hunter, recognised the square lipped rhinoceros as a completely different species and gave it the name *Rhinoceros simus*, or flat nosed rhinoceros, subsequently changed to *Ceratotherium simum*.

Further exploration revealed that the range of the square-lipped rhino extended across Africa roughly from a Northern limit bounded by the Zambesi River to the Orange River in the south. But by 1900 it had been almost completely shot out and W. C. Oswald regrettably remarked: "Considering the numbers there used to be, I hoped he would have lasted longer."

There were, however, a few relict populations between the Black and White Umfolozi Rivers and this area was declared a Reserve in 1897. But the question was, had protection come too late? In 1922 figures published gave a population of 20, though it is since believed that there may well have been more. But from this humble beginning the numbers increased rapidly and it has been possible to translocate over 15,000 to stock others parks and still leave a similar number in Hluhluwe and Umfolozi National Parks.

In the North, in the region of the Upper Nile, rhino were large numbers of white discovered, but the slaughter was on and by the 1920's numbers were dwindling rapidly. The populations within Chad

Territory disappeared and those in northern Uganda followed, so that today a mere handful remain there.

The Black rhino is completely different in temperament to its docile white cousin, but it is equally endangered.

In the middle of the last century it was present in large numbers over a wide area, extending from Chad across into Ethiopia, lower Sudan and down to southern Africa into Natal. It had already been eliminated in Cape Province where it used to roam over the Cape Flats and lower slopes of Table Mountain. Early explorers were beset with rhino problems encountering 13 or more at a time. Hunters shot them for meat for their porters and records of the number shot by individuals is staggering. The often quoted case concerns J. Hunter who, under the direction of the Game Dept. in the fifties, killed a thousand of them to make way for agricultural settlement which, in the event, was failure.

As early as 1906 disquiet was felt at the reduced number of rhino. A. Radclyffe Dugmore, one of the earliest wildlife photographers, prophesied in 1908: "The rhinoceros will probably be the first to go."

It is difficult to assess just how many there were at this time because most wildlife census figures have turned out to be fairly exotic "guesstimates". Even in recent years, counting procedures and results have been at least open to debate.

However, the first study in Kenya,

carried out by Goddard in 1967-68, concluded that in the Tsavo ecosystem alone there were between 6,000 and 9,000 black rhino. Dr. Goddard put forward a tentative estimate of 11,000 for the whole of Kenya. But since then the number has clearly declined dramatically and in a census last February, the Kenya Rangeland Monitoring Unit (KREMU) estimated a total of 1,800 rhino for Kenya, excluding two or three hundred in the heavily forested areas.

The KREMU figures are also questionable, and it is hoped that perhaps a more reliable count will result from a Kenya Government/World Bank "large herbivore study" now being organised. However, a relic population of 1,800 rhino in Kenya does tie up with official statistics for the export of rhino horn over the past few years. In the period 1969 to 1976, a legal export of 24,237 kg. of horn was recorded by the Customs and Excise authorities. This amounts to an export of about 11,000 horns, based on the late David Sheldrick's figure of 2.1 kg. average weight recored in his Tsavo anti-poaching operations. As the posterior horn is often discarded, the declared export from Kenya would represent a die-off of between 6,000 and 9,000 rhino. In addition, there was certainly a degree illegal export which is obviously impossible, to gauge.

An interesting detail of the official figures, incidentally, is that Kenya had a steady export of about 3,000 kg. of horn a year, then suddenly showed nil export for the first ten months of 1977. Another detail in the world market figures was that South Yemen of all places recorded an import of nearly two thousand kilos of horn in 1976.

From these world figures generally, it was fairly clear that the rhino was in serious decline in most of Africa, except in the south and in Zambia where the species is reported to be "common to abundant" in the Laungwa Valley. Tanzania still has the largest populations, a total of between 5,000 and 9,000; but according to recent reports, poaching is on the increase. Elsewhere, commercial interest and various wars in places like Angola, Chad and Zaire has brought the

WWF Black Rhonoceros Estimates World-Wide

Country	Upper figure	Lower figure
S. Africa	450	450
S.W. Africa/Namibia	100	100
Rhodesia	1,000	1,000
Zambia	12,000	4,000
Tanzania	9,000	5,000
Kenya	1,800	?
Central Africa	1,000	?
Uganda	? (in hundreds)	?

Sudan, Zaire, Ethiopia ... verge of extinction Mozambique and other African countries ... rare (in tens.)

Estimated total: 10,000 to 30,000.

continued: page 36

Turkana kill pelicans in a sea of dead fish

Sir—Few people will have heard of Lake Logipi let alone know where it is. This alkaline lake is in fact in the Suguta Valley, less than fifteen miles South of Lake Turkana (Rudolf) and separated from it by a volcanic mass which includes Teliki's and Andrew's volcanoes, and the Kakdrinya volcano more massive but less spectacular.

Logipi is over 400 feet lower in altitude than Lake Turkana. It is not a permanent lake and only fills up when there is rain on the hills that cause the "dry" rivers to run or when the Suguta river is flooded. The name Suguta means spring and presumably the river gets its name from the spectacular hot springs and waterfalls at Karpedo.

These springs were believed by Gregory, the early explorer, to be the outlet from Baringo, hence the fresh water in that Lake. In the river gorge below the Karpedo hot falls can be seen numerous Tilapia darting into the hot water to feed and then scurrying back into the cooler waters, but in the dry weather this water evaporates or seeps away into the mud flats of the Suguta, which must surely be one of the most inhospitable places in Kenya, hot, desolate, and only after seeing such "luggas" as the Baragoi flowing after a heavy rainstorm can one imagine the evaporation that must take place on these flats.

The heavy rains in South Turkana and the Suguta Valley area during the latter part of 1977 and early this year has

caused the water level of Lake Logipi to rise, diluting the natural salts in the lake and as a result Tilapia presumably washed down from the Suguta River multiplied at an unbelievable rate, and occupied the whole lake where as before they confined themselves to the fresh waters of the Suguta river.

The lake at this stage covered the mud flats and an area many times larger than its normal wet weather size. This abundance of fish attracted thousands of Pelicans which made their nests of small closely packed twigs reinforced with mud. Here they laid their pale blue eggs (usually only one or two) which turned white during the month-long incubation. The feeding of the young was made easy by the numerous fish that now occupied the lake.

The young grey pelicans were soon able to swim out into the water and fend for themselves. Then suddenly disaster struck, with the end of the rains the lake level started to drop causing the soda content to rise once again with drastic effects on the Tilapia. Dead fish in almost unimaginable quantities cover the lake edge and surrounding area.

The pelicans are also now having a rough deal, the lake now being only a few feet deep is easily accessible to the local Turkana tribesmen. A dozen or so who go out into the lake taking their families with them to help drive the young pelicans (which are as yet unable to fly) into groups where the men with long sticks chase the young chicks and beat them to death. These Turkana can be seen a mile or so out into the lake dragging their "bag" for the day behind them on a long piece of old cow hide, meanwhile the parent pelicans circle helplessly above. The birds are eaten by the Turkana who have a make-shift camp under a patch of Doum by the side of the lake.

The smell of putrid fish and rotting pelicans prevent the weak stomach visitor from staying any longer than is absolutely necessary although one is compelled to stay to observe such a fantastic act of nature. The fact that a lake that is normally no more than a seasonal soda lake should suddenly become a mass of living creatures seems quite incredible.

It would be interesting to know if pelicans usually breed in this area in a normal year and whether the Turkana normally eat young pelicans during the breeding time or is this an exception to the rule? When questioned the Turkana at the lake replied that it was normal to eat pelicans but it is not certain that they fully understood the question as their Swahili was rather limited to say the least. One possible consolation is that the pelicans may well die from lack of food with the mass death of fish, even if the Turkana don't kill them before they are old enough to fly to new feeding grounds.

L.A.G. Wedd,
P.O. Box 71,
KERICHO

RHINO from page 25

species to the point of local extinction.

For this reason, it would seem necessary to persuade governments which profess some interest in their wildlife resource to take positive action to preserve the rhino.

In Kenya, the ban on the curio trade has certainly helped, but a priority should now be to move as many rhino as possible into the national parks and reserves where they can be given a degree of protection. They would still be vulnerable to poachers in the sanctuaries, but obviously less so than outside them.

Translocation is of course expensive, but it does work as Ian Player has demonstrated so positively with white rhino in Umfolozi. In Kenya capture techniques were developed by Nick Carter of the Game Dept in 1963 and later by Dr. John King and others, so there is plenty of evidence that the rhino can be translocated successfully and that — given adequate protection — the species will regenerate.

WWF—
from page 25

scimitar-horned oryx is without the black markings which characterise the other species of oryx and, as its name implies, has large back-swept scimitar shaped horns instead of the long straight horns of the other species. These sweep back until they almost touch the rump and in defence are formidable weapons. The Arabs call it *Abu harab* — "the father of spears!"

RARE GULL

AUDOUIN's Gull — (*Larus audouinii*) seems always to have been confined to the Mediterranean, nesting usually on remote islets. Unlike most gulls it is shy, wary and frequents deep water and rocky coasts. Larger than the common gull (*Larus canus*) which it resembles (except that it has a red bill) it is now threatened through egg collection, including by fishermen for food.

Following a WWF survey of nesting colonies by Dr. Joan Mayol Serra it is proposed that legal protection and a series of sanctuaries should be afforded the gull covering the Balearic, Chirinas and Columbretes Islands by the establishment of National Parks of strict Nature Reserves! It is thought that numbers are rather in excess of 1,000 pairs.

MAURITIUS KESTREL

BY 1973 the Mauritius Kestrel (*Falco punctatus*) was reduced to only five or six survivors, mainly due to predation of its eggs by monkeys which had been introduced by man to the island. In an attempt to save the species, the World Wildlife Fund supported a breeding project in captivity for the kestrels. This was unsuccessful.

Meanwhile, one of the only surviving two pairs chose to nest in 1975 on a cliff face where the monkeys could not interfere. As a result they successfully raised three young, the first to survive to maturity for at least two years.

During the most recent nesting season three pairs nested on the cliff face and raised seven young, bringing the world population to 20.

There is now considerable interest in observing if the new chicks will learn and develop a preference for the cliff nest sites in which case the kestrel's chances for survival will be vastly improved.

TREE-KILLING from page 5.

are deserted. Why? because it is here that the felling is going on, right across into the Makadara Nature Reserve, a reserve within a reserve as it were.

If you loved this place as I do, you would find it absolutely heart-breaking to be a witness to this destruction, knowing that somewhere in our country there must be someone who can stop the killing of the trees which in the end, can only mean the extermination all wildlife in this unique Park.

We had a decree to protect "Ahmed" the big elephant at Marsabit, may I now appeal for a decree to protect the Shimba Hills. It could, and must be done.

— John Arkle,
Box 84782,
Mombasa.

PS: The final blow! On the day I wrote this, I tried to obtain (from the Public Maps Office) a less muddy and rain-stained copy of the Shimba Hills map than I had — and was told that they can no longer be sold to the public for "security reasons". This applies to all large scale maps, but in this case it is a shame as it is, at present, the only good map of the area. Campers, climbers and walkers, let alone our caving club, will regret this seemingly meaningless edict.