

carcass of the dead cow was still lying in the riverbed, apparently uneaten because the vultures could not manage to tear away the thick skin. Permission was gained to collect the skull for scientific purposes.

The task of reaching the body turned out to be far more difficult than expected, entailing as it did a long drive through dense bush. When the remains were reached, the skin was found to be almost intact, and was so hard and dry as to be like sheet iron. The intestines, however, had been eaten by maggots,



Skull and horns of female white rhinoceros.

and innumerable beetle larvae (*Dermestes*) were eating the dried remains.

An axe was used for cutting off the head—a difficult task made worse by the nauseating stench. In fact the smell was so overpowering, and the skull so heavy, that eventually it had to be dragged away by means of ropes attached to the transport vehicle. The party succeeded in getting their trophy to Masimba, where they had things very much to themselves, the smell being too much for the local inhabitants.

An even more difficult and unenviable task was that of chipping away the remnants of skin without damaging any of the bones. This took a full day, using a hatchet and two chisels.

From investigation of the teeth, which were not fully developed, it was assumed that Dengesi was the first calf to be born to the dead cow.

Shortly after completion of work on the skull it was learnt that a white rhinoceros bull, with skull attached to the corpse, had remained for six months at a spot not far removed. A second journey was made, and it was found that the big bull had a bullet hole in the forehead. At first it was thought to be the work of poachers, but it was reported that the beast had suffered a broken leg and had been put out of its misery by the authorities.

This second skull was added to that of the previously obtained cow skull, making a useful comparative study.

Nature Notes (I)

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Nature Notes made during two trips in the Southern Sudan; February, 1937, in Wau and Tonj districts, and March and April, 1951, in Yei, Yirol and Amadi districts.

Introductory

From the naturalist's point of view, the Southern Sudan is a wonderful area. Not only are large herds of many species of big game to be seen, but the bird life near the rivers is magnificent.

Several of the most interesting species of antelope are found in the area, and two species, i.e. the Nile lechwe (*Onotragus megaceros*) and the white-eared kob (*Adenota kob leucotis*) are confined entirely to the Southern Sudan so far as is known.

The Northern White Rhinoceros

(*Ceratotherium simum cottoni*)

Description. This species is considerably larger than the black rhinoceros (*Diceros bicornis*) from which it differs in several ways, though little, if at all, in colour. The head is

very long and always seems to be carried low. The upper lip is square, not prehensile as is that of the black rhino. The horns are compressed from front to rear rather than laterally.

Measurements of an adult male collected at Kajo Kaji, Yei District, on 16/3/51: From the front of the base of the anterior horn to the upper lip 10 inches; from the back of the base of the posterior horn to between the ears 17 inches; from between the ears to the top of the withers 14½ inches; from between the ears to the root of the tail 101 inches; half the girth of the neck behind the head 35 inches; half the girth of the neck in front of the shoulder 46½ inches; half the girth of the body behind the shoulder 56 inches; half the girth of the body in the middle 69 inches; half the girth of the body in front of the hind legs 56½ inches. Breadth across the shoulders 28½ inches; breadth across the hips 35 inches; breadth of the neck behind the head 17 inches; breadth of the neck in front of the shoulders 20½ inches; height at the withers about 6 ft.

Habits: These animals graze, and, as far as I know, do not browse. They go in family parties and parties of four, consisting of adult male, adult female, well grown calf, and newly born calf may be seen. A female with a newly born calf may leave the latter temporarily while she goes off feeding and return to it from time to time. They probably water daily. A family party consisting of an adult male, an adult female and a small calf were seen in company with a youngish bull buffalo (*Syncerus caffer* subsp.).

White rhino are said to be very tame, but I found them more alert than I had expected in this area, and, when they saw me, the subjected me to a long scrutiny with head carried very low, and then made off at a rapid trot. This fact together with the fact that horns are frequently handed in to the Government as "found" suggests to me that they are hunted by the Natives a certain amount in spite of strict laws forbidding this.

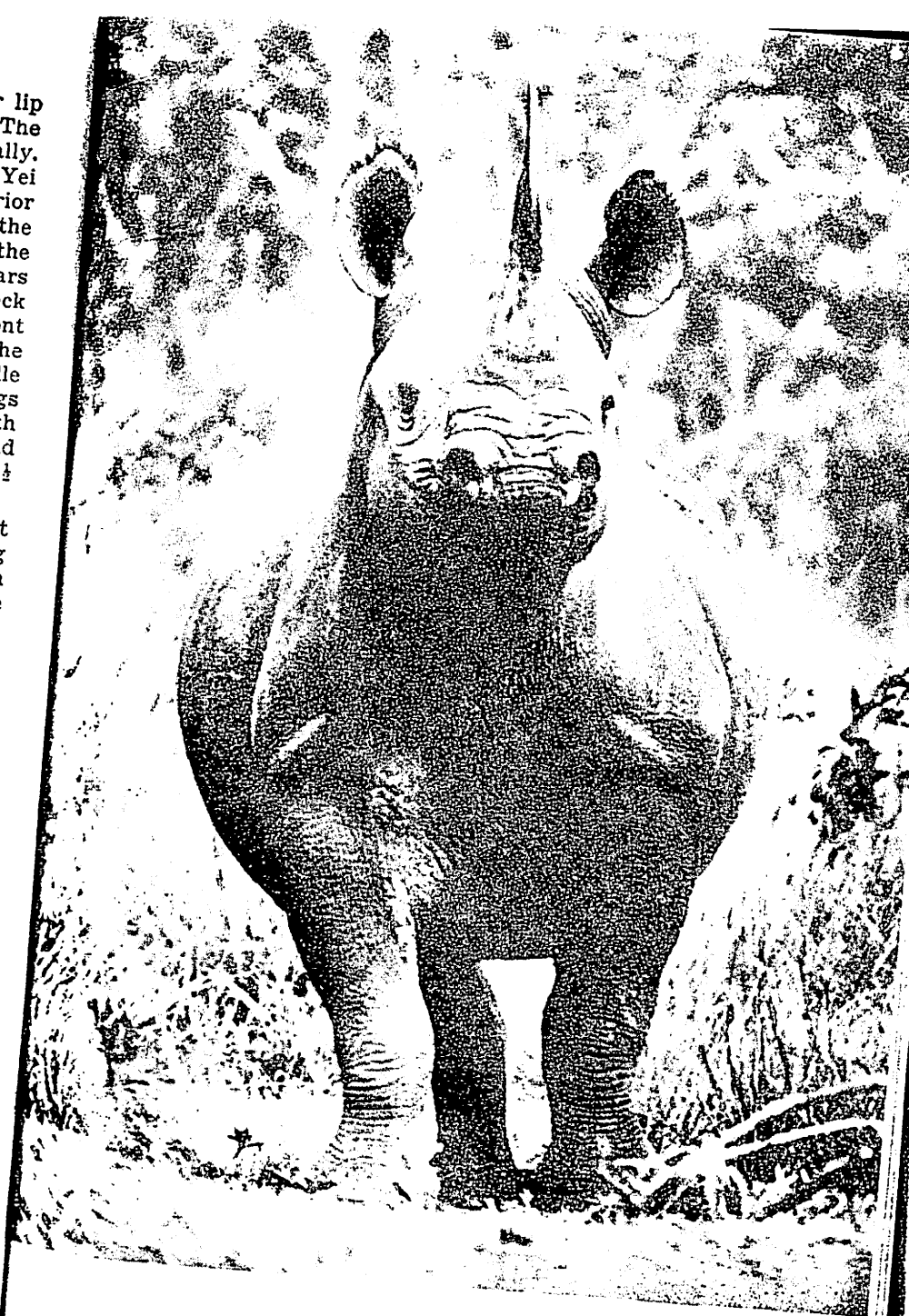
Though normally inoffensive, a woman going to water was killed by one of these animals shortly before my arrival.

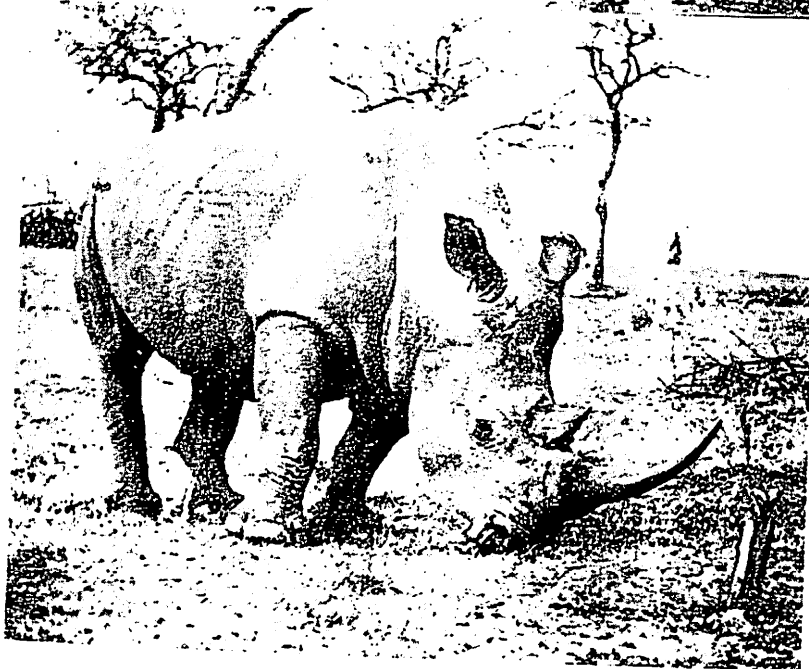
Red-billed oxpeckers (*Buphaga erythrorhynchus*) were seen on some specimens.

Although white rhino sometimes travel a great distance between where they water and where they lie up, they seem to be fairly local in habit and are probably not in the habit of making big migrations.

FACING: Black rhinoceros, Zululand. Note the fringed ears. The following quotation from *The Bonds of Africa*, by Owen Lletcher, seems to fit in with the bulk and stance of this animal: "Poor old rhinoceros! I always think there is something pathetic about you as well as something hideous and fearsome! It is as though the onward march of time had left you far, far behind—a struggling survivor of another world, a lone, solitary old animal."

(Photo: W. F. Schack.)





Habitats of Black and White Rhinoceros

Above, left: Range of black rhino (after F. Sommer, *Man and Beast in Africa*).



Below, right: White Rhino habitats (map by the Editor). The most extensive habitat is in the Southern Sudan, west bank of the Nile, between the Bahr el Arab in the north and Nimule Reserve in the south. Elsewhere the species occurs only in small "pockets," as in Uganda where there are two white rhinoceros sanctuaries and in the Garamba National Park, Belgian Congo. In the south there are two isolated habitats in Zululand.

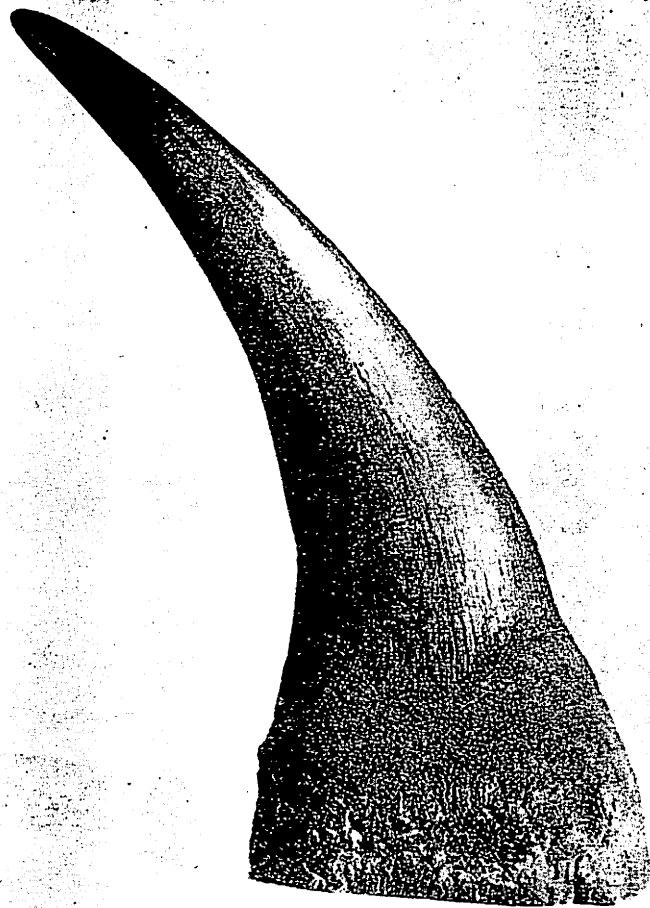
Fresh reports keep coming in from the Southern Sudan, where the full range of both species is not as yet known. Recently a white rhinoceros cow was seen in the Nimule Reserve with an exceptional front horn, estimated to be at least 30 inches in length. According to the *Sudan Monthly Record*, No. 262: "This animal is the only specimen noted in recent years with the typically long, thin, needle-sharp horn depicted among the trophies of the early European hunters . . ."

In Uganda it is stated that there can be no doubt that the white rhino is steadily increasing in numbers, and that there may now be more than 300 in the Protectorate.

The range of the black species in Uganda is north of the Victoria Nile and east of the Albert Nile—nowhere numerous. The greatest concentrations are found in south-west Acholi and north Karamoja.

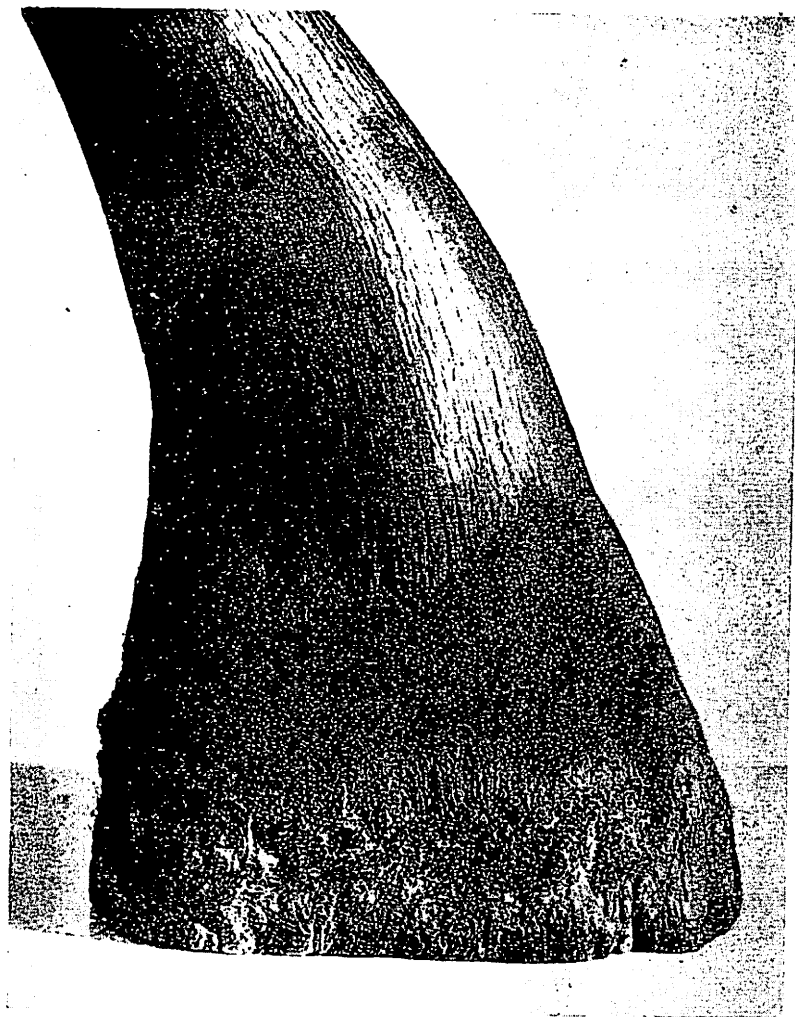
Periodically the white rhinoceros has been reported from Angola and the Kaokoveld, South-West Africa, but these are mere rumours which can almost certainly be discredited.

FACING: Two views of white, or square-lipped rhinoceros, Zululand.
(Photos: Dr. Schmidt Schaumburg.)



Complete horn of white rhinoceros.

At one time, to meet the commercial demand for rhino horn, a number of professional elephant hunters turned their attentions to the rhino, which met with terrible slaughter for ten years or so. Mostly the horns went to the Far East from Zanzibar, Dar-es-Salaam and Mombasa. An illicit trade is still carried on.



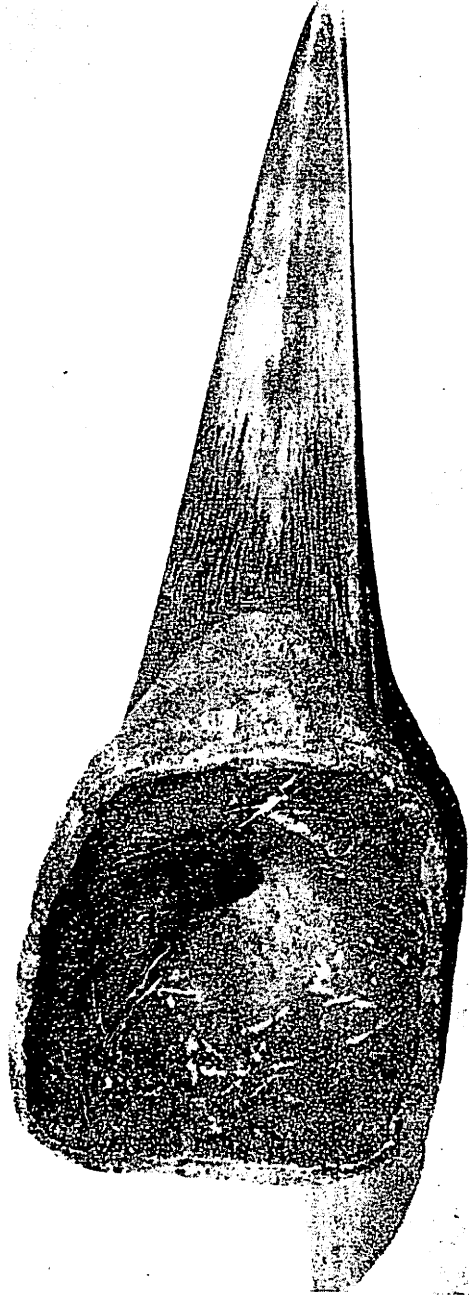
Close-up of rhinoceros horn.

Rhinoceros horn differs from true horn in consisting of a fused mass of fibrous substance and in the absence of a bony core, always present in true horn. (See also photograph on p. 135.)

(Photograph on this and facing page: Dick Wolff.)



Above: Early morning photograph of white rhinos, Hluhluwe Reserve, August, 1952. This reproduction, an enlargement from a photograph taken with the simplest of camera equipment—a small "bellows" type with only two shutter speeds (1/25 and 1/50) and four aperture positions—shows that wild life photography need not



necessarily demand expensive and intricate cameras and expert knowledge.

(Photo: K. M. McPherson.)

Below: View of same horn as shown on pp. 132—3.
Note absence of bony core.

(Photo: Dick Wolff.)