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CLARENDON PRESS · OXFORD

1987

# Chapter 13 · Odd-toed Ungulates

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## Order Perissodactyla

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The Perissodactyla are called the 'odd-toed' ungulates because the weight of the body rests on either one digit (the third) as in zebras, horses and asses, or on three digits (the second, third, and fourth) as in the rhinoceroses. In this respect, they are completely different to the other main order of large terrestrial herbivores, the Artiodactyla (Chapter 14), in which the weight of the body rests on two digits (the third and fourth) or four digits (second to fifth). The Perissodactyla also differ in having upper incisor teeth and a simple stomach without rumination of the food. There are two African families in this order. The family Equidae includes the zebras, horses, and asses, none of which are indigenous to Nigeria, although there are domestic donkeys and horses including the interesting Sura horses of the Jos plateau. The family Rhinocerotidae is represented in Nigeria only by the Black Rhinoceros, *Diceros bicornis*.

This order contains some fascinating mammals, but is of far less importance, in terms of numbers of species and individuals and their effects on the ecosystem, than the order Artiodactyla. However, the fossil record shows that the Perissodactyla were more numerous and successful early in their evolution than they are at present.

### Genus *Diceros*

Only one species has been recorded from Nigeria.

**Black Rhinoceros** (Key p. 21)  
*Diceros bicornis*

*Distribution*: localized in Guinea and Sudan savanna zones of north-eastern Nigeria (see Status).

*Localities*: Dumgo (= ? Dumga) (BM).

*Status*: uncertain; very rare or perhaps extinct in Nigeria. The geographical range and status of Black Rhinoceroses in Nigeria prior to 1900 is unknown. There are a few reports of their occurrence, but only one definite locality record dating from 1911. Black Rhinos were present in northern Ivory Coast and Niger 'until just after the arrival of the European' (Blancou

1960), and as they also occurred in northern Cameroun, it is possible that they may have extended right across northern Nigeria. In 1932, Shorthose recorded that Rhinos were 'very local and rare' occurring 'not far from Yola' on the 'Song plateau' (Shorthose 1932a), and in 1939, Rosevear wrote that they were confined to the Lake Chad region (Rosevear 1939c). On a map, Rosevear (1953) indicated their occurrence in three areas between Yola, Maiduguri and Gombe. Similarly, Hayward (1932) recorded that Rhinos were present at the junction of 'Bornu, Adamawa and Bauchi Provinces' and that it was 'unlikely more than 50 survive'. Collier (1940) confirmed that a 'few' Rhinos lived near the Gongola river; and that once they were found 'north of Ogoja', which is much further south and west than other records. These old records show that Black Rhinos were widespread but local and uncommon throughout north-east Nigeria in the early years of this century, but now it is most unlikely that any Rhinos permanently reside in Nigeria (Sidney 1965; Petrides 1965; Hall 1976; I. R. Colquhoun, pers. comm.).

There has been a dramatic decline in Black Rhino populations throughout Africa. They are now extinct in Ivory Coast and Niger, and the most westerly extent of their range is Cameroun; but here, too, they are now rare (Sidney 1965; Happold 1973b). In 1960, Blancou estimated a total population of about 400 Rhinos in Cameroun; now there are only 30-40 individuals in the Parc National de Bouba Ndjida, and the occasional individual or tracks are seen in the Park National de la Benoué and in the Reserve de Faro (Bosch 1976). Some Rhinos may enter Nigeria temporarily from Cameroun, but there is no hope of permanent settlement without extremely efficient protection and conservation of suitable habitat. Unfortunately, it might have been more appropriate to place Black Rhinos on the list of mammals no longer present in Nigeria (Appendix 4).

*Identification*: typical measurements HB 360 cm, T 60-70 cm, E nd, SH 146 cm, TLS 54 cm, WT 900-1300 kg (Dekeyser 1955; Groves 1967; Haltenorth and Diller 1980). Enormous heavily-built mammals with barrel-shaped bodies. Skin grey, naked, often

encrusted with mud. Head massive and heavy; eyes small; ears trumpet-shaped and erect; large round nostrils and rounded fleshy lips. Two horns composed of hardened hair curve upwards and forwards from snout, anterior to the eyes; anterior horn long, thick and square at base, tapering to point; posterior horn similar but shorter. Limbs thickset with flat, almost circular, feet; three broad nails on each foot. Limbs of West African subspecies (*longipes*) longer and thinner than in other subspecies. Tail short and thin (Fig. 13.1).

*Ecology*: Black Rhinoceroses are inhabitants of dry wooded savannas which have good cover and many shrubs. In northern Cameroun, they prefer rocky hilly savanna country with *Terminalia laxiflora* and *Combretum* trees, and *Anogeissus* riverine forests (Bosch 1976; Stark and Witt 1977).

Black Rhinos are rather solitary animals. They are usually seen singly or in pairs, and it is rare to see more than five individuals together. Males only associate with females for mating, and most pairs or groups are mothers with young. Rhinos have extremely poor sight, and they rely mainly on smell and hearing; the well-known accounts of unpredictable charges by Rhinos

are, more often than not, a fright reaction to something they cannot see, rather than a premeditated attack. For their size and bulk, Rhinos can run extremely quickly, but their usual gait is a sedate walk as they browse among the shrubs.

Black Rhinos are mostly nocturnal, but they also feed and drink during the day except during the hottest hours when they rest in the shade of trees, or wallow in mud to keep cool. Their activity patterns vary depending on the air temperature, season and locality.

Black Rhinos are entirely herbivorous. They browse on leaves, twigs, and shoots of trees and bushes, plucking the vegetation with their large upper lips. They do not graze on grasses and therefore do not compete for food resources with the majority of the large herbivores. Although they require a large daily volume of food, the home ranges of Black Rhinos are relatively small; in East Africa, home ranges of 15–36 km<sup>2</sup> have been recorded, although they may walk up to 24 km to a waterhole or a river to drink. Home ranges of Rhinos overlap, so that each solitary individual meets other familiar Rhinos quite frequently. When an unknown Rhino enters the home range of a resident, there is often chasing, charging, and fighting until the intruder leaves. All these observations in East Africa (Moss 1976) indicate that Black Rhinos, when undisturbed, lead a placid sedentary way of life.

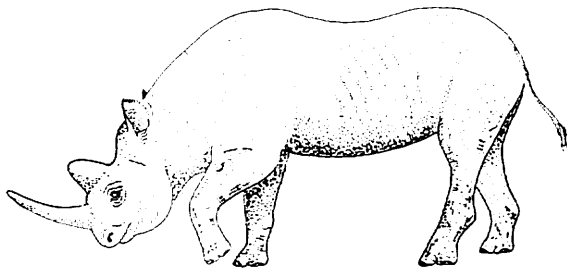


Fig. 13.1. Black Rhinoceros (*Diceros bicornis*). The subspecies in Nigeria, *longipes*, is smaller and has relatively longer legs in comparison with Black Rhinoceroses in other parts of Africa (drawn from photographs in Zukowsky 1964).

*Reproduction*: a single young is born after a gestation of 17–18 months. Weaning occurs at about 2 years, but young Rhinos remain with their mother for several years even after the birth of subsequent young. Maturity is attained at 5–7 years, and females may produce young every 3–4 years. The long period between births may be a self-regulation process to prevent overpopulation, but it also means that if the population is reduced (as in West Africa), it takes many years to increase again.

*Taxonomic note*: the West African subspecies is *longipes*, distinguished by its smaller size and longer limbs from the Black Rhinos of other parts of Africa (Zukowsky 1964; Groves 1967; Ansell 1974).

- Blancan, 1960. *African Wildlife*, 14: 101–108
- ✓ Shorthorn, 1932a. *Nigerian Field*, 1: 3–9
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