



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
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The Mammals of Botswana

by

Reay Henry Noble Smithers

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Food

Too few observations are available to point to the food preferences of this species or their relationship in this respect to *P. capensis* when occupying the same kopjes. At Matjemleejie they were seen feeding on *Ficus pretoria* which was growing in cracks in the rock where the branches were lying across them and on the leaves of *Croton* sp. shrubs. The stomach contents were too well masticated to allow of identification of the food items, which appeared to consist entirely of browse, no grass being identified in them. The food preferences of the two species *P. capensis* and *H. brucei* would be an interesting study under Botswana conditions.

Breeding

Only one gravid female was taken, BP 921, on the 22nd April at Mabate, which had two foetuses implanted 1R 1L. These were very well developed, near full-term, at 225 g and 218 g respectively. During this month many juveniles were observed at Mabate, Madinare and Matjemleejie and several collected at

weights as low as 161 g-200 g. Female BP 866 taken at Madinare in the same month had a swollen muscular uterus; was lactating and was taken in company with a juvenile BP 855 at 245.5 g, which was thought to be her young.

So far April is the only month from which there are records of gravid females or young but the sample is small and further information is required.

Sizes and Weights

MALES

Hf s/u \bar{X} = 69; N = 8; Obs. range 64-72
 Weight \bar{X} = 5 lb.; N = 8; „ „ 4 lb. 4 oz.-
 6 lb. 2 oz.

FEMALES

Hf s/u \bar{X} = 72; N = 9; Obs. range 69-75
 Weight \bar{X} = 6 lb. 6 oz.; N = 6; „ „ 4 lb. 12 oz.-
 6 lb. 10 oz.

Although not differing to any great extent in average hindfoot length as compared with the rock dassie, *P. capensis*, this species is, in bodily weight, by far the lighter of the two.

Order PERISSODACTYLA

Key after Ellerman *et al.* (1953).

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| <p>1. Heavily built; heavy limbs, with three digits; the orbit not ringed with bone; cheek-teeth relatively simple; body not striped; with two horns on the nose Fam. Rhinocerotidae</p> | <p>2. Lightly built; slender limbs, with one digit; the orbit ringed with bone; cheek-teeth complex; body neck and limbs striped; no horns on nose Fam. Equidae</p> |
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Family RHINOCEROTIDAE

1. Upper lip squared; nuchal hump prominent when head is raised *Ceratotherium*
 2. Upper lip narrow, the tip prehensile; no such nuchal hump *Diceros*

Genus CERATOTHERIUM Gray, 1867

Ceratotherium simum

C. s. simum (Burchell, 1817)

Squarelipped Rhinoceros

The squarelipped, or white rhinoceros, became extinct in Botswana somewhere between 1880 and 1890. Bryden (1893) states that in Ngamiland and the north Kalahari region, 'where formerly it was

plentiful, it has been, as I ascertained while hunting in that direction in 1890, finished for some years past'. Selous (1890) states that in 1874 they were 'fairly plentiful' to the south of Linyanti and on the Chobe

River, and in that year shot a specimen at Thamma Setsi (Tamuseche Pan), on the Rhodesian border (Dollman, 1921). Although he spent several months, in 1877, in the same area, he only saw the spoor of two and, during his eight months hunting in the Botletle, Mababe, Sunta and upper Chobe River area in 1879, he 'never saw even spoor' and states that the Bushman say they are 'finished'. In his address to the Zoological Society of London in June 1881, he states that while 20 years previously it seemed to be still plentiful in the western half of southern Africa, now 'unless it is still to be found between the Okavango and Cunene rivers it must be almost extinct'.

With the introduction of the species to the Wankie National Park, Rhodesia, individuals have wandered westwards over the border into Botswana. Two died near Odiakwe in 1968, when a pan, in the vicinity of

which they had settled, dried up (not 1966 as stated in Smithers, 1968). Two adults and a calf were seen in June 1968 on the Nata River (1926C4; A. Challis, *in litt.*).

The Botswana Department of Wildlife and National Parks reintroduced four to the Chobe National Park in mid-1967 from Zululand, Republic of South Africa. At the time of writing these are still paddocked near Serondela.

The historical record shows that at one time they occurred in the eastern sector as Cumming (1850) mentions their presence near the Notwani River as well as on the Limpopo River (*c.* 23° S.) and Bryden (1899) says they were plentiful to the north and west of the Limpopo River between 'Secheles country and Lake Ngami'.

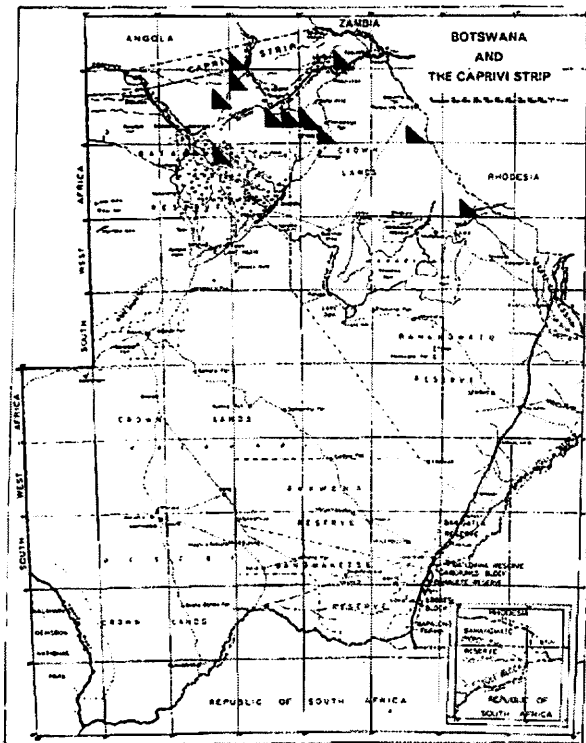
Genus DICEROS Gray, 1821

Diceros bicornis

D. b. bicornis (Linnaeus, 1758)

Distribution

Apparently only a few individuals remain in the territory, their distribution confined to the vicinity of the Kwando River where it crosses the southern border



Tshukudu Black Rhinoceros

of the Caprivi; the Selinda spillway; Savuti swamp; Tsotsoroga Pan and immediately east of this (18 24D2 and 4); between Ngoma and Muchenje on the Chobe River, *c.* 25 miles west of Kasane, and possibly they may still be present on Chiefs Island in the Okavango delta. The numbers present have not to date been accurately assessed and it is impossible to determine whether some of the sightings or the spoor do not indeed refer to the same individual.

Smithers (1968) records that, according to information then available, their numbers were generally estimated to be 'less than 20', which is now thought to be an over-estimation.

Assiduous cross-questioning of responsible persons since the publication of Smithers (1968) has only added a few sightings. Child (1968) reports a single individual seen on the north-eastern edge of the Savuti swamp in January 1967; the sighting of three from the air on Chiefs Island, Okavango delta, by the late Mr. Bobby Wilmot and a W.N.L.A. air crew about 1962 and the sighting of two in the mopane between Joverega and Tsotsoroga in 1963 or 1964 by Mr. Wilmot.

Smith (*pers. comm.*) reports the sighting of two solitary individuals in March 1970, the first in the vicinity of the Kwando River, where it crosses the southern Caprivi boundary (18 23 A1), and the second nine miles west of Gatgara, the Sand Ridge Gap (18 23D4).

In March 1970 two individuals were known to be living in the Caprivi near the Kwando River (17 23C3) and the sighting by Smith near the Kwando River in Botswana may refer to one of these wandering over the border.

The remaining visual records are mapped on the basis of spoor or droppings, the most recent being that of Liversedge (*pers. comm.*) who reported spoor near the Kwando River in February 1970 (18 23A1).

The visual records from Nunga and the Nata River are probably individuals which have wandered into Botswana from the Wankie National Park where 46 have been reintroduced since 1961.

Child (*in litt.*) states that black rhinoceros were shot in what is now the Moremi Game Reserve 'within living memory'.

The distributional range of the species has shrunk tremendously within historical times. In Botswana and adjacent territories Harris (1838) records them from near the present south-eastern border of Botswana in the western Transvaal; Cumming (1850) from the vicinity of the Notwani River. Andersson (1856) writing of the 'immense quantity of game in the Tunobis area (north-west of Mamuno)' himself shot eight rhinoceros in the space of five hours, his party killing 'upwards of thirty rhinoceros', observing

meanwhile that 'he never took a delight in useless slaughter'. At Ghanze (Ghanzi) Andersson (1856) reports that they were 'very numerous' several being shot. Unfortunately Andersson does not state in every case whether they were black rhinoceros ('Borele' or 'Keitloa') or white ('Monooohoo' or 'Kobaaba'), both of which he records as being present but from Ghanzi onwards, in his journey to Lake Ngami, he shot black rhinoceros near Kobis (Mabeleapudi) and north of Lake Ngami he records that they were 'constantly seen' in his journey up the Teoghe (Taoghe) River from the lake.

Selous (Dollman, 1921) shot this species in 1874 on the south bank of the Chobe River and at Thamma Setsi (Tamuseche Pan) on the Rhodesian border.

By 1890, Bryden (1893) states that 'the black rhinoceros (in Botswana) is now seldom heard of. A few linger in the swamps of the Chobe River—round Lake Ngami they have completely disappeared.'

'Matabele' Wilson (1914) states that during his visit to the Okavango (Shaleshanto) in 1913, the indigenous people told him that rhino still existed 'some miles to the west' of his camp.

It is doubtful if they ever occurred in the dry central and south-western Kalahari.

Family EQUIDAE

Genus EQUUS Linnaeus, 1758

Equus burchelli

E. b. antiquorum (H. Smith, 1841)

Pitse yanaga Pitse etilotsana Burchell's Zebra

Taxonomic Notes

The nominate *E. b. burchelli* (Gray, 1824), which is recorded (Ellerman *et al.*, 1953) as having occurred in southern Botswana, is now extinct, the nearest areas where zebra are now found are the southern parts of the Tati Concession, eastwards to the Tuli Circle and northern Tuli Block farms.

In the northern parts of the territory two subspecies might occur, *E. b. chapmani* Layard, 1865 (*E. b. selousi* Pocock, 1897), which occurs in Rhodesia, and *E. b. antiquorum* (H. Smith, 1841), described from Angola.

Ellerman *et al.* (1953) distinguished these as follows:

Legs never wholly striped . . . *E. b. antiquorum*
 Legs wholly striped to the hoofs . . . *E. b. chapmani*

Populations in the north-eastern sector, in common with those in western Rhodesia, are, as far as the character of leg striping is concerned, very mixed, some being wholly striped to the hoofs (BP 254 from Tamafupi), others with weakly marked stripes below the knee joints, in some cases with practically no sign of marking below the knee. The populations appear intermediate between *E. b. chapmani* and *E. b. antiquorum*.

From visual observations of herds in the Okavango delta, the Savuti and Mababe and the Tuli Circle, these appear less distinctly marked below the knee than any seen in the Tamafupi area although some individuals are more marked than others. Hill (1942) in dealing with the material collected by the Vernay Lang Expedition of 1930 referred the Kwaai River and Mababe material to *E. b. antiquorum*.