

NOTES ON THE MAMMALS OF THE
NDUMU GAME RESERVE

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INTRODUCTION

Although perhaps disappointing in that the majority of the larger game mammals occur neither within its confines nor in the near vicinity, the Ndumu Game Reserve nevertheless contains much of natural history interest.

The notes which form the basis for this paper were collected and compiled during the two periods May, 1959 to June, 1960 and May, 1963 to January, 1964, when the author was stationed as a Ranger in the reserve. Exploratory trapping as well as random collecting of small mammals and their parasites was undertaken throughout most of the game reserve during the two periods mentioned. Much, however, remains to be done and our knowledge of the area, especially in regard to the smaller terrestrial types as well as most of the Chiroptera still leaves a great deal to be desired. The names of mammals used in this paper are in the main those listed by Ellerman *et al.* (1963) but Davis (1965) has been followed for the small rodents.

The Ndumu Game Reserve was proclaimed, primarily as a sanctuary for the hippopotamus in Natal, in April, 1924. It occupies 25,000 acres in north-western Zululand. With the arrival of the first resident European game ranger in 1951 the deterioration of the reserve due to extensive cultivation, illegal hunting, and over-grazing by native-owned domestic stock was brought under control.

The number of natives resident in the reserve has decreased greatly since 1951. All domestic mammals have been removed, cultivation is now limited to small areas and uncontrolled fires occur only rarely. The numbers of the larger mammals have increased steadily and there are indications that the inyala and impala populations need to be scientifically managed.

VERTEBRATE PREDATORS OF MAMMALS

Most, if not all, of the smaller terrestrial mammals are hunted by a wide range of predators. An examination of those species available as food to both the nocturnal and diurnal birds of prey, as well as to reptiles, shows that virtually all are taken by one or more species of predator.

Some predators have rather specialized feeding habits and one of the best examples at Ndumu is perhaps that of the bat hawk, *Machaerhamphus alcinus*. Crepuscular in habits, this bird has on a number of occasions been observed chasing bats on the wing in the vicinity of the rest camp. No kills have been recorded but as insectivorous bats of the family Molossidae are exceedingly plentiful in this area, it is probable that this raptor feeds extensively on them.

The small mammals available as food in the reserve and the avian and reptilian predators which are considered likely to prey on them are set out in Table 1. Records of predation are given in the subsequent text.

TABLE 1
Probable Small Mammal Predators.

Prey Species	Avian Predators	Reptilian Predators
<i>Petrodromus tetradactylus</i> <i>Crocidura, Suncus,</i> and <i>Amblysomus</i>	Diurnal—? Nocturnal — <i>Bubo africanus</i> , <i>Ciccaba woodfordii</i> and probably <i>Otus</i>	<i>Python sebae</i> and probably other snakes
Bush Hare — <i>Lepus saxatilis</i> Squirrel — <i>Paraxerus palliatus</i>	Eagles and hawks Eagle owl — <i>Bubo</i>	<i>Python sebae</i> , <i>Dendroaspis</i> and possibly other snakes
Small Carnivora — <i>Herpestes, Mungos,</i> <i>Helogale, etc.</i>	Goshawks — <i>Accipiter micronisus</i> Eagles — <i>Polemaetus</i> , <i>Stephanoaetus, Aquila</i> and perhaps <i>Lophaetus</i>	<i>Python sebae</i>
Bats	Diurnal — probably sparrow hawks — <i>Accipiter</i> and perhaps also Goshawks. Nocturnal — Bat hawk, <i>Machaerhamphus alcinus</i>	None
Rodents — <i>Aethomys</i> , <i>Praomys, Otomys,</i> <i>Tatera, Saccostomus,</i> <i>Lemnuscomys,</i> <i>Dasymys, Dendromus,</i> <i>Steatomys</i>	Sparrowhawks, Goshawks, and the Pied Crow — <i>Corvus albus</i> . Nocturnal — <i>Bubo</i> , <i>Otus, Ciccaba woodfordii</i>	<i>Python sebae</i> , <i>Varanus sp.</i> , various other snakes
Cane Rat— <i>Thryonomys swinderianus</i>	Diurnal — Goshawks and eagles. Nocturnal — <i>Bubo</i>	<i>Python sebae</i> , probably <i>Crocodylus</i> and <i>Dendroaspis</i>

former times, not uncommon within the game reserve. Whether it is resident here at the present time (1964) is still uncertain. Digging activity and spoor of this species was, however, noted from the Mahemaan bush in 1959.

Order: Proboscidea.
Family: ELEPHANTIDAE.
Loxodonta africana Blumenbach.
Elephant.

Does not occur within the Ndumu Game Reserve. A few elephants still live in the Sihangwane bush near Maputa whence they wander to and from Portuguese East Africa. A rogue bull shot during May, 1959 was found to harbour the tick *Amblyomma thaltoni*.

Order: Perissodactyla.
Family: RHINOCEROTIDAE.
Diceros bicornis Linnaeus.
Black Rhino.

Local population consists of two head, a bull and cow, the former introduced from Hluhluwe, the latter from the Mkuzi Game Reserve. One of their favourite food items at Ndumu is *Euphorbia tirucalli*. (Editor's note: At the time of going to press, December, 1965, there are seven black rhinos in the reserve, all of them introduced.)

Diceros (Ceratotherium) simus Burchell.
Square-lipped Rhino.

Introduced from the vicinity of the Umfolozi Game Reserve, the resident stock now numbers fifteen head (January, 1964). (Editor's note: At the time of going to press, December, 1965, there are 17 white rhinos in the reserve. Three of them are calves born there.)

Order: Artiodactyla.
Family: SUIDAE.
Potamochoerus porcus Linnaeus.
Bush-pig.

Plentiful throughout the well bushed areas of the game reserve. Feeds mainly on various tree barks, roots, tubers and fallen wild fruit. The examination of the stomach contents of an adult female killed by poachers revealed the following: fruit of *Gardenia* sp., *Acacia* sp. (seeds), also other unidentified vegetable matter, amongst which one millipede and part of a scorpion was found. Parasites collected off this host: Ticks, *Rhipicephalus simus*, *Rhipicephalus maculatus*; lice, *Haematopinus latus*.

Family: HIPPOPOTAMIDAE.
Hippopotamus amphibius Linnaeus.
Hippo.

By far the best known large mammal in the area with a good

population scattered throughout that section of the Usutu/Pongolo floodplain lying within the Ndumu Game Reserve. (Editor's note: At the time of going to press, December, 1965, the total number is estimated to be approximately 400.)

Family: BOVIDAE.
Cephalophus natalensis A. Smith.
Natal Red Duiker.

Numerous and often seen in the thick bush around both the Inyamiti and Banzi pans. Resident population would appear to be increasing and young animals seen frequently.

Observed feeding on fallen fruit of *Ficus* sp., *Gardenia* sp., as well as short grasses and sedges around the pans' edges.

Sylvicapra grimmia Linnaeus.
Grey Duiker.

Not uncommon throughout most of the reserve. One record of predation by the Python (*Python sebae*).

Raphicerus campestris Thunberg.
Steenbok.

Due almost entirely to extensive hunting and poaching, this species is no longer plentiful in the Ingwavuma district. It is not present in the Ndumu Game Reserve.

Nesotragus moschatus Von Dueben.
Suni.

Thomas described the Natal form as a subspecies *zuluensis*.

Favours the dry Mahemaan thickets where a fair population exists at the present time. This is a shy and retiring species, seldom seen by the local staff though signs (spoor and droppings) of its presence are to be seen in many sections of the reserve.

Redunca fulvorufula Afzelius.
Mountain Reedbuck.

Does not occur in the game reserve and is very scarce throughout the Ingwavuma district. It is reported to exist in small numbers in the vicinity of the Usutu River port in the Lebombo.

Redunca arundinum Boddaert.
Reedbuck.

Has been seen in most well-grassed areas within the reserve. Resident population increasing.

Kobus ellipsiprymnus Ogilby.
Waterbuck.

This attractive antelope was still present in 1959 (two head) but as the animals have not been seen for over four years, the species may be considered extinct in this part of Zululand.