



Government of Northern Rhodesia.

A REPORT

ON A

FAUNAL SURVEY OF NORTHERN RHODESIA

WITH ESPECIAL REFERENCE TO

GAME, ELEPHANT CONTROL AND NATIONAL PARKS.

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There are records from Fort Rosebery; and an alleged four-tusked is reported to have its habitat in parts of the Luangwa Valley in the Petanke, Serenje and Mkushi Districts, wandering occasionally on to the Muchingas.

Sportsmen hunting in the Luangwa Valley have frequently commented on the abundance of tuskless elephants, all of which are apt to be unpleasantly aggressive. A few years ago a herd was reported in the valley which consisted entirely of tuskless examples.

At present, ivory is down to rock bottom prices—about *8s. per lb. in London for the best bull (soft)—and one wonders how much lower it can drop as the tendency to fall continues.

The Northern Rhodesia elephants are much addicted to bark-chewing and I have seen comparatively large trees almost completely denuded of bark as a result of their attentions.

A characteristic which I have not come across elsewhere, but on which all local elephant hunters of experience are unanimous is the presence of a number of largish pebbles in the stomachs of the Luangwa Valley elephants.

In the Mkushi District, there used to be report of a dwarf race.

The weight of a really massive bull may be as much as six tons.

Maturity—when breeding commences—is attained in the case of the bulls between 25—30 years, and in the cows 20—25 years.

The period of gestation—and I have been told in all solemnity that it is as long as *nine* years—is 22 months, and as a cow is served shortly after calving it can be taken, once breeding commences, that calves are produced at the rate of one in every two and a half years, extending probably over a period of three decades.

There is a general opinion shared by the local natives that the herds in the Luangwa Valley were increased during the late years of the War by arrivals from the south end of Tanganyika Province where the troops were operating and where the elephants were much disturbed.

White, Burchell's, or the Square-lipped Rhinoceros.

There is no evidence that this magnificent species ever occurred north of the Zambezi in this part of Africa, at least within historical times.

Black Rhinoceros.

This is one of the species which is in urgent need of especial protection as its numbers are rapidly dwindling, and I am of opinion that considerably less than two thousand remain in the whole Territory.

Its somewhat fixed habits render it simple of location, and once found it is easy to approach, and even with crude weapons not difficult to kill outright or injure sufficiently seriously to make certain of its downfall.

There are two contributory factors to this unfortunate state of affairs:—one is the quantity of meat the carcass provides, and the other the extremely high price which its horn has at times commanded. Also, the efficient poisoning of certain portions of its habitat is a matter of considerable difficulty.

It is still most plentiful in parts of the Luangwa Valley on the right bank of the river in the Serenje, Mpika and Chinsali Districts; is of wide though sparing distribution on the other side of the Luangwa River; not uncommon in the Middle Zambezi Lower Luangwa region—though I understand that here it is rapidly being exterminated; and a few remain on the high plateau in the Chinsali District (and adjacent portion of the Mpika District) and also immediately west of the Lavushi hills in the Mpika District.

*See footnote—Elephant Control—Part A, page 61—C.R.S.F.

This species used to occur sparingly throughout the greater part of the high plateau regions of North-Eastern Rhodesia as far west as Chiengi and the Luapula River, and still further west into the Belgian Congo. With the exception of the two localities previously mentioned, as far as it is known, there are no longer any examples of the black rhinoceros left above the Muchingas—the last being shot about 20 years ago (in the Mporoko-o District); though it is suspected that periodically migrants from the Belgian Congo visit the thick "matoshi" bush in the north-west corner of the Mporoko-o District, and fresh spoor was actually seen there as recently as 1930.

Save in the Zambezi Valley, and in the Luangwa and its adjacent rifts, and the top of the escarpment in their immediate vicinity, this prehistoric species is either extremely scarce or absent in most of North-Western Rhodesia. There is also a small colony in the centre of the Mumbwa District; and a few in the Namwala District on either side of the Kafue River and on the Barotse border as detailed elsewhere. There are a very few in the Kasempa District, and one or two only perhaps in the Nanzila River area (Namwala District).

In these latter areas of North-Western Rhodesia, the black rhinoceros appears to be doomed—it has already gone for ever from certain localities—with the exception of the few examples whose habitat is included in the game reserve (and to ensure their perpetuation efficient warding is necessary) and probably the Mumbwa colony which it should be possible—located as it is at the very threshold of district headquarters—to protect completely.

Little is known of the weights attained by this clumsy, ponderous creature, but authentic figures I have come across exceed the ton, and I imagine all average specimens are in excess of this weight.

Various suggestions are offered, in the section dealing with "Legislation," to afford the black rhinoceros efficient protection and to check the illegal traffic in horn.

There is possibly a fairly well-defined calving season, and the only evidence I have come across indicates June or thereabouts.

The shoulder height of large specimens may be as much as 6 feet, though 5 feet or 5 feet 6 inches is more usual.

The local representative is apparently referable to the typical race.

Horns, both in length and weight, average small; there are records of certain 30-inch horns, but these are exceptional. The present day average is probably less than 20 inches, and I have seen few larger. There have been several authentic cases of three-horned examples, and as at least two specimens of the aberrant type were killed in the Chinsali District, in the neighbourhood of Lake Young, one is led to suspect that a pair, one of which exhibited this abnormality, were breeding true to type. Horn measurements of one of these freaks from front to rear are respectively 20, 10½ and 5½ inches.

This species is usually found solitary or in pairs. Its resort to fixed "middens" where it deposits, and then scatters, its ordure is probably well known. This curious habit is the subject of numerous entertaining native legends.

Although it is apt to wander considerably according to season, it is peculiarly dependent on water. It usually drinks once during the twenty-four hours, and invariably after dark in localities in which it is subject to molestation. Unlike the white rhinoceros which is essentially a grazer or cropper and square-mouthed, this species is a browser with a well-developed prehensile upper lip. In parts of Northern Rhodesia it has struck me that

the black rhinoceros is more of a grass feeder than is the case with those I have been previously acquainted with further north.
Zebra.

It is curious that in the case of a comparatively common species such as the zebra there should be practically no example in the National Collection.

Until a representative series of skins from all parts of the country can be made available for comparative study the exact status of the local forms of zebra will have perforce to remain obscure.

Example from the plateau areas of North-Western Rhodesia are referable to *Equus quagga zambesiensis*, but how far north and east this race extends is at present unknown. Also this is probably the Luangwa Valley race. The North Eastern Rhodesia zebra from the Bangweulu region northwards and westwards possibly belongs to another race.

From the hilly regions of the Mpika District there is recorded by a reliable observer a small zebra with a short tail, quite distinct from the ordinary large zebra with the long tail. This small type which is recognised by the natives is altogether different and delicately made. It is believed to be *Equus quagga crassus*, and its dissimilarity to the common, larger form may be responsible for the alleged occurrence of the *mountain zebra*, a creature which is unknown north of the Zambezi (to the east), and which accordingly should be deleted from the Schedules to the Game Ordinance.

The zebra is a widely distributed species, locally abundant, one of its great strongholds being the Kafue flats where it is safe from the attentions of muzzle-loading guns.

The advent of the muzzle-loader has been disastrous to the zebra in numerous localities, as where unmolested it is not normally shy, and heavy toll was taken of it before it realised the danger.

The foals are usually dropped between July and September.

A mare about to foal weighed 820 lbs.; the weight of the unborn foal was 130 lb.

Lone zebra stallions have a curious habit of attaching themselves to herds of other ungulates, some of the most curious associations being with buffaloes and impalas.

Buffalo

As the buffalo has been well written up elsewhere, there is little further to add. It is a long way the most abundant of the larger species, and is increasing with amazing rapidity. Some definite means of effecting a marked reduction, and maintaining an efficient check on increase, both of which are easier said than done, will soon be, if not already, imperative.

The areas of greatest concentration are in the Mweru Marsh; on the southern shores of Lake Tanganyika and in the Infubu (or Lovu) River valley in the Mporokoso District; the Bangweulu region; the Chamboshi flats; the Luangwa Valley; parts of the Zambezi Valley; the Busango swamp; the Kafue Game Preserve; and the Kafue Flood and the Kafue flats.

Ifinderpest revisits the Territory, and quite soon the ever increasing buffalo herds will need an efficient safety valve, the ubiquitous herds will accelerate distribution of the disease throughout the length and breadth of the country.

Exceptionally fine heads exceeding 50 inches in total spread are not as rare as one would expect, and trophies well above the average are common.

A big buffalo bull is nearly as large as a rhinoceros and must weigh a good deal in excess of a ton.

The Mushukulumbwe, in the vicinity of the Kafue flats, annually indulge in a great buffalo hunt, when a herd is driven into a selected swamp and dealt with mainly with primitive weapons. It is a man's game and no mistake, and this year (1932) I understand about 30 buffalo were killed and seven of the hunters. A certain quota of fatalities amongst the hunters is regarded as inevitable.

In the Mweru Marsh region, and as far east as Luwingu, one is apt to come across very pronounced brown or reddish examples amongst the cows.

Those are found commonly all along the eastern border of the great equatorial forest and adjacent regions from which the forest has now disappeared. It is impossible to separate them specifically from the ordinary black Cape buffalo, and they are regarded as a possible transitional stage between black Cape and real Congo (forest) buffalo, the result of previous interbreeding of the two varieties. These reddish-brown types are found amongst ordinary herds.

Unexplained buffalo "tracks" sometimes occur. One such is recorded from the Kasempa District in 1926, the direction being northwards.

Lichtenstein's Hartbeest

This is one of the commonest antelopes which is widely and generally distributed—and locally abundant. The young are normally dropped between July and September. Adult females usually weigh a little over 300 lbs., and adult males nearer 400 lbs. In spite of claims to the contrary, it is unlikely that specialised varieties of this hartbeest occur. As a trophy the horns are insignificant, those exceeding 20 inches being good. Herds normally vary from about 7 to 15 animals, the latter being unusually large.

Taesaebe

Frequent reference is made elsewhere to this interesting species. Its wonderful increase in recent years from hundreds to a matter of thousands is most gratifying. In Barotsi, there is no satisfactory reason to account for its prevalence on the right bank and its complete absence from the left bank of the Zambezi. Its existing isolated habit at in the eastern Bangweulu region must have in a remote past been linked with the herds on the Upper Zambezi. The young are evidently born between July and September. A female, carrying a foetus about the size of a rabbit, weighed 310 lbs. Trophies are picturesque, but horns are not long, and 18 inches is considered good.

Even in the dry season when the herds are inclined to congregate there are no big aggregations and the largest mob is unlikely to exceed 120 animals, nearer 20 to 50 being the average, though a total of as many as 2,000 may be in sight at the same time.

Blue Wild-beest or Brindled Gnu

Locally extremely abundant. This is another species with a curiously abrupt termination of range, and I have no suggestion to offer for its absence from the left bank of the Kafue River when it is found abundantly on the opposite side.

It is recorded that in October 1928, in the vicinity of the Busango swamp, in the Kasempa District, north of the Kafue flood, a mixed herd of zebra and blue wild-beest were observed slowly trekking across the treeless flats. The head of the procession was out of sight beyond the horizon to the north, while countless numbers continued to come into sight from the south. It was no doubt an uncommon sight, and the herd may have come

Preparation with a simple preservative such as salt or arsenic soap, well rubbed in or pasted on is an advantage.

Ivory.

This is a commodity of considerable commercial value though its acquisition can scarcely be termed an economic industry—in fact the very last thing one desires to do, in the interests of the elephant, is to regard ivory from the point of view of an economic asset.

Undoubtedly the greatest threat to the welfare of this huge creature is the fact that its ivory has an appreciable market value which fortunately for the elephant has of recent years progressively decreased so that now the highest value likely to be obtained (in London) by the best bull (soft) ivory is about 8s.* per lb., whereas not so many years ago it was 24s. and even higher.

There is no doubt, in all elephant countries, that much of the complaint of damage caused by elephants is inspired by either the hope of reward often fixed on an ivory basis for destroying the raiders or, in an elephant-eating community, of obtaining an enormous supply of meat: equally does the lure of gain inspire poaching and the production of ivory purporting to emanate from "found dead" and "garden-raiding" elephants. It is only human nature after all.

As all ivory other than legally possessed is the property of Government, as is also any which may result from control operations, it is undeniable that from it annually Government derives a no inconsiderable income, and elsewhere I have described how the revenue obtained from control operations can be utilised to cover the cost of control.

Government, also, until recently was assured of a certain amount of revenue from the export duty of 2s. 6d. imposed on all other than its own ivory, but as the value of the commodity can no longer bear so high a rate (as explained in another section) this source of income has virtually ceased.

The record of ivory—kindly furnished by the Controller of Customs—exported by the Northern Rhodesia Government between 1924 and 1931 is included as an appendix, as is also a detail of other ivory exported and the value of the duty collected.

Rhinoceros Horn.

As a little revenue annually has been derived from the infinitesimal export duty of 2d. per lb. on rhinoceros horn a few remarks in regard to this commodity are necessary. An increasing demand in the Far East for rhinoceros horn—supposed to possess extraordinary virtues—for medicinal purposes has resulted in an amazing inflation in its value, and within recent years it has commanded as high a price as 40s. per lb., with a consequent undue persecution of this rapidly disappearing species.

I have elsewhere commented on the subject of this export duty in connection with illegal killing and more efficient protection, and I consider that no efforts should be spared to put a complete stop to all traffic in rhino horn.

Details of exports in recent years are included as an appendix.

Buffalo Hides.

It is well-known that one of the surest methods of reducing a species to the verge of extinction is to convert it into an article of commerce, but the buffalo—unfortunately it so happens—is one of the exceptions which proves the rule. Its overwhelming and ever increasing numbers cry out

*At the close of 1933 the London price was as low as 4s. per lb. but by end of April, 1934, had risen to 10s.—C.R.S.P.