

REPORT No. 8

ANNUAL REPORT

of the

DEPARTMENT OF WILD LIFE CONSERVATION

(DIVISION OF THE IRRIGATION AND LANDS)

for the year ended 31st December, 1960

Presented to the Legislative Assembly 1961



pp. i-iii, 1-32

Signed p. 17 A. D. Fraser,

Salisbury, Feb. 1961

C.S.R. 31-1961.]

[G.P. & S. 4173-803-10-8-61.



PICTURE STORY—

CAPTURE OF A RHINOCEROS

1. (Page 3.) The rhinoceros splashes through shallow water as it is chased towards a ranger waiting to shoot it with a "Capchur Gun".
(*Photograph: Rhodesia Herald.*)
2. (Page 6.) The rhinoceros, after being hit with a dart containing a knock-out drug, runs on for a while and then collapses.
(*Photograph: Rhodesia Herald.*)
3. (Page 8.) While the rhinoceros is being tied down, and while the raft and sledge are being brought to the spot, the animal is cartagged.
(*Photograph: Federal Information Department.*)
4. (Page 11.) In order to keep the animal cool, copious quantities of water are poured over it.
(*Photograph: Federal Information Department.*)
5. (Page 12.) As soon as the sledge reaches the spot, the rhinoceros is rolled on to it.
(*Photograph: Rhodesia Herald.*)
6. (Page 14.) The rhinoceros is tied firmly down to the sledge.
(*Photograph: Rhodesia Herald.*)
7. (Page 16.) The sledge is then dragged to the water's edge and on to the waiting raft.
(*Photograph: Rhodesia Herald.*)
8. (Page 21.) The journey to the mainland is accomplished as quickly as possible.
(*Photograph: Afrinews.*)
9. (Page 26.) Upon being untied, the rhinoceros struggles to regain its feet.
(*Photograph: Afrinews.*)
10. (Page 29.) The rhinoceros obtains its revenge for the indignity of its rescue by charging one of the rescue boats and making three holes in it.

Note.—All photographs, other than those by the Federal Information Department, are copyright and may not be reproduced without permission.

Cover Photograph

A rescue launch tows the raft bearing the rhinoceros through the half-submerged trees.
(*Photograph: Afrinews.*)



Arrangements have been made to hold a sale of ivory, rhinoceros horn, hippopotamus teeth and warhog tusks in 1961.

3 CORRESPONDENCE

There has once more been a marked increase in the volume of correspondence received and despatched, and, despite the increase in the numbers of clerical and administrative staff employed, delays in dealing with many different matters were inevitable.

The printed edition of the 1959 Annual Report was only available in October, 1960, hence the low figure under this section. Prices received in respect of sales of this report during 1961 will be reflected in the Annual Report for that year.

The above figure shows a reduction compared to that for 1959 (£24,698), but it should be borne in mind that no sale of ivory and rhinoceros horn was held in 1960. In 1959 such sales brought in revenue to the sum of £15,891.



Sampling point 4.

Lake Mellwaine, near the spillway, at 2 feet depth.

Sampling point 5.

Hunyani River, causeway crossing, Skyline Hotel, at 3 feet depth.

Sampling point 6.

Makabusi River, 1½ miles below Cleveland Dam, at a depth of 3 feet.

Sampling point 7.

Makabusi River, 2 miles below Southern Sewerage Works, at 3 feet depth.

Approximate Dissolved Salines

From the table it can be seen that in the Hunyani River the figure is low: 31 in July and 38 in November. The total dissolved salines at sampling point 6 are very high and at sampling point 1, approximately

half-way down the river, the figure is still high. Sampling point 3, Lake Mellwaine, 100 yards below the junction of the Hunyani and the Makabusi, gives a figure of 45 in February which is fairly low, but the figure increases in November to 170 soon after the first season rains have fallen. The figures from this sampling point are lower than those obtained at any point on the Makabusi on the same date, indicating dilution of the total dissolved salines entering the Lake due to the Hunyani water mixing with that of the Makabusi. The total dissolved salines in Lake Mellwaine close to the wall, 57 in June and 63 in November are fairly close to those obtained from open water at Kariba by R. Adams in January, the figure in this case being 51.

The sulphate radicle of 92 on 14th July and 335 on 21st November and the phosphate (PO_4) radicle of 18 and 113 on the same dates found in water taken from sampling point 6, 1½ miles below the Cleveland Dam, are high and are strong indicators of chemical pollution.



The remaining two roosts could be blasted with dynamite and fuel. Approximately 64,000 birds were killed at a cost of just over £100.

Animals

Research is normally expensive, unless it can be fitted in with other programmes of work already in progress. Such an opportunity was afforded by the formation of Lake Kariba. It appeared that the most satisfactory results would be obtained in describing and measuring the changes of habitat resulting from the development of the central Zambezi Valley. In so doing simple, quick techniques have been used to take advantage of lake development, which can be divided into three phases:

The removal of the indigenous human population from the lake area, the bush-clearing of future fishing grounds and the filling of the lake itself.

In parts of the valley, particularly on fertile alluvium, there had been a dense African population practising subsistence agriculture. Their removal meant that intensively farmed areas were left fallow for about two seasons before being flooded by the rising waters of the lake. Measurements of these changes have been made at Binga.

About 250,000 acres of the future lake floor were bush cleared to enable the early trawling of fish. Such clearing was a sudden drastic habitat change, which in any given area seldom took more than a few weeks and resulted in the near complete removal of the vegetation in large areas. The effects of these changes on birds and mammals were recorded near Binga and were supplemented by observations of the effects on game species in the Matusiadona area.

The impoundment of the Zambezi threatened many mammals the reactions of which have been recorded wherever possible, especially during the Department's game rescue operations.

Research is now being conducted into the relationships of the use of vegetation to the populations of game species and their condition and, where possible, its effect on breeding and other aspects of their behaviour.

Research in the Colony has therefore been confined to furthering the study of quelea movements, to which end marking stations, run by volunteers and equipped with traps, cages and rings, have been established at widely scattered points in the Colony.

As quelea activity has been very light during the year, few results have been obtained from these stations, and control work was of necessity sporadic. Only five roosting sites were reported or found and, of these, three could not be dealt with. One was situated in a built-up area, another in a reedbed bisected by a power cable and the third in an experimental plot of sugar-cane.

Much field data is on hand and it is hoped that this study will approach completion towards the end of 1961. Once preliminary assessment of material is complete it should be possible to define more closely the type of information to be sought during the 1961 animal rescue operations.

3 KARIBA

The development of techniques for the capture of animals in previous years, greatly facilitated in the rescuing of over 1,000 animals during 1960.

Full details of animals rescued, guided to safety, destroyed or found dead are given in Appendix 7 for the whole period of operations to date; the following list reflects the numbers of some of the larger mammals rescued during this season:

Bushbuck, 107	Kudu, 68
Duiker, 49	Sable, 39
Elephant, 1	Warthog, 119
Grysbok, 75	Waterbuck, 29
Impala, 522	Zebra, 41

Eight black rhinoceros were removed from islands caused by the filling of the lake during the year, and in the initial rescue operations the Department was indeed fortunate in having the assistance and advice of Drs. A. M. Harthoorn and J. A. Locke, of Makerere College, Uganda. Without their expert advice the rescue of these rhinoceros would have proved much more difficult.

By means of darts, consisting of projectile-type syringes and fired from a compressed-air gun or cross-bow, each animal was injected with a dose of gallamine triethiodide, mixed with atropine sulphate, in proportion to its estimated weight.

After succumbing to the immobilizing drug each animal was firmly roped round the feet, given a carefully calculated dose of neostigmine methylsulphate as an antidote, and then lashed to a sleigh. The sleigh was dragged to the water's edge by about 40 men and loaded onto a raft. The whole was then towed to the mainland where the sleigh was pulled ashore. Where necessary additional drugs were administered during the journey.

On reaching the mainland the animal was marked with tags of identification, and untied by a team of three men. When untying the final ropes binding the animal's legs great care was taken to see that the animal would not realize that it had been freed before all ropes had been removed. This proved successful and it was necessary to douse them with water. Apart from one animal, thought to have been given an overdose of tranquillizer drug, the remainder of the rhino rose and charged some item of equipment used during their rescue!

One young female calf (weight, 378 lb.) died as a result of receiving a dose of gallamine solution, designed for its mother; it ran into the direct path of the released dart.

The method of capture described above, while proving successful on islands where movements are restricted, will require much more accurate calculation of dosages or the evolution of a technique of remaining in contact with the darted animal where its movements are not so restricted, as on the mainland.

4 BREACHES OF THE GAME LAWS

In the year under review there was yet a further increase in the numbers of poachers brought to justice. A total of 1,651 cases were reported involving 1,847 persons, of whom 216 were Europeans, 1,628 Africans and three Coloureds.

A full analysis of the contraventions, together with summarized figures for 1958 and 1959, are given in Appendix 2.

Grateful acknowledgement is due to the work of the British South Africa Police in bringing offenders to courts, especially in view of the often scanty information available on this type of offence.

5 LEGISLATION

The following legislation was promulgated under the Game and Fish Preservation Act (*Chapter 187*): Proclamation defining the Kyle Dam Game Reserve. (Southern Rhodesia Government Notice No. 204 of 1960).

(c) Mashuma Game Observation Camp.—A camp in the tree-tops is planned so that tourists can watch animals, particularly elephant, rhinoceros and buffalo, watering and feeding during late afternoon and evening. Mashuma, the name of the site of the camp, is a deep basin in the Matusiadona Mountains. The Gubu and Nyakuyu rivers rise in the mountains surrounding the basin and feed pools that normally last late into the dry season. To supplement these pools, to ensure a permanent supply of water and to keep a resident population at Mashuma it is proposed to build a series of small dams on the upper Nyakuyu River. During the year a road was cut through the mountains to Mashuma and the preliminary survey of the dam site made. Twelve wooden discs, 15 feet in diameter, were obtained from the Federal Power Board and

towed across the lake to the reserve. These discs, the cheek-pieces of the giant drums used to bring the heavy insulated cable to Kariba, will be used as the platforms in the trees.

(ii) *Landing Stages*

These were investigated during the course of the year, to ensure that water approaches to the tourist camps will be possible.

In the west a site for the landing stage was found in the camp itself, the 1 in 10 gradient of the camp surrounds lending itself well to the job. In the east, however, it was not so easy as the grade around the camp was 1 in 17 and far too shallow for the type of landing stage dictated by available funds. A site about one mile north of the camp is being examined and it is hoped that this can be developed and connected to the camps by a road, not exceeding funds available.





(iii) *Roads*

Seventy miles of road were made during the year, connecting the two main camps, following the foot-hills of the Matusiadona range and giving access to Mashuma and the Bumi landing stage.

(iv) *Survey*

In conjunction with the Department of Lands, tourist camps, water approaches, lake flood level and road routes were surveyed; Much survey work still remains to be done during the next year.

(v) *Silviculture*

An attempt was made to grow several thousand young trees to plant around the ultimate shoreline of the lake. The waters of the lake have submerged all the riparian forests of the area and it is essential that these be replaced as soon as possible. It was planned to plant young mulberry trees but high temperatures and severe drought conditions in the latter part of the dry season destroyed all but a handful of plants.

The operation will be repeated in 1961.

(vi) *Concrete Blocks*

A total of 40,000 concrete blocks were made during the year. Many problems were experienced in this operation. Sand, suitable for making the blocks, was far from water and had to be carted

to the brickfields. The site of the brickfields was dictated by the water availability as it was necessary to have many thousands of gallons per day to cure the blocks. Cement dries very rapidly at the temperatures prevailing there and unless the blocks are kept wet they dry too quickly and crumble.

(vii) *Extensions to Maronga Camp* (Headquarters of Officer in Charge)

A storeroom, workshop, office and guest-room were added to the Maronga camp. The workshop was built of cement blocks and roofed with iron. Other buildings were of blocks under thatch.

Owing to preoccupation with the development of the reserve, much attention could not be given to normal game control. Eight elephants were shot.

There is a very good population of game animals in the reserve, particularly in the area north of the Matusiadona Mountains. Elephant, buffalo, eland, rable, zebra, impala and wart-hog are very numerous. Rhinoceros, kudu, roan, waterbuck, duiker and steenbuck are common and frequently seen. Only bushbuck are scarce.

Lion and leopard, though fairly common are not often seen. There are, however, indications that these animals are present in some numbers but are very shy.

Many parts of the reserve have been visited and patrolled during the year though it cannot be claimed that anything like the whole area has been covered. Patrols have been carried out on foot, by truck, canoe or motor-boat or combinations of the various methods. Assistance was given to the police to locate an isolated grave on the Sapi River. No one was caught in the act of hunting in the reserve. Judging from reports received from previous visitors to the area the fact that there are members of the Department stationed in the area has put a stop to a lot of misconduct. From evidence seen and collected the main source of illegal hunting in the reserve and the adjacent controlled hunting area is from areas north of the Zambezi River. Africans cross the Zambezi by canoe and hunt in the eastern part of the reserve and in the controlled hunting area. It is thought that prevention will be better than cure in that area and a Game Scout's post will be established as

soon as possible near the Rekomitje River. African fishing parties continue to operate on the Zambezi River.

This is the first year for which complete records are available of parties entering the reserve. A check of the register maintained at the gate reveals that 293 parties, both official and unofficial, entered the main gates.

Not all the official parties entered the reserve, many of them went to Rekomitje Research Station. However, when it is considered that many of the visitors' parties contained more than one vehicle and all of them contained two or more persons, it is estimated that the total bona fide visitors exceeded 600. Visitors generally were well behaved though there is still a tendency to throw beer cans about. Many visitors came to the reserve for the fishing. The best noted catches for the year are vundu, 76 lb.; tiger, 12½ lb. and nkupe, 4 lb. Bream fishing and fishing generally in Mana Pools has not been good.



SECTION THREE

CONTROLLED HUNTING

Section 11 of the Wild Life Conservation Act, 1960, makes provision for the declaration of "Controlled Hunting Areas," and after the commencement of the 1960-61 financial year, active steps were taken to start work on two such areas in the Wankie and Urungwe Native Districts.

Preliminary surveys of the areas were made with a view to making an assessment of the animal populations, seeking satisfactory camp sites and discouraging poaching, which has been rife there

for many years because shortage of staff has precluded more frequent patrolling.

It is anticipated that the details of work carried out under this section will grow in importance with the passage of years. Not only will it contribute appreciably to the country's revenue, both directly and indirectly, but also give an important stimulus to tourism and encourage residents to spend at least their shorter vacations in the Colony.



APPENDIX FOUR

PERMITS ISSUED, 1960

I EXPORT OF GAME PRODUCTS

(i)	Ivory	<i>Number Issued</i>	<i>Number of Tusks</i>	<i>Weight lb.</i>	<i>Importing Country</i>
		5	39	1,532	United Kingdom
		2	6	180	United States of America
		5	77	1,825	Zanzibar
		4	20	543	Union of South Africa
		3	37	465	Hong Kong
		1	9	494	Holland
		1	4	32	Canada
		<u>21</u>	<u>192</u>	<u>5,071</u>	
(ii)	Rhinoceros Horn	<i>Number Issued</i>	<i>Number of Tusks</i>	<i>Weight lb.</i>	<i>Importing Country</i>
		1	2	10	United Kingdom
		1	25	77	Zanzibar
		1	5	13	Union of South Africa
		<u>3</u>	<u>32</u>	<u>100</u>	



2 CAPTURE OF WILD ANIMALS. Etc.

<i>Number Issued</i>	<i>To whom Issued</i>	<i>Number and Species</i>
9	Chief Game Warden Wankie National Park	{ 40 wildebeeste 10 zebra 15 impala 5 tsessebe
	J. R. Bristow	50 eland
	C. Hensman	— francolin eggs
	C Bristow	{ 2 zebra 2 wildebeeste 2 eland 6 impala
	J. S. Erasmus	1 elephant
	Rhodesian Strathmore Investments	{ 6 sable 2 tsessebe
	P. J. van der Merwe	50 eland
	G. J. C. Nel	7 impala

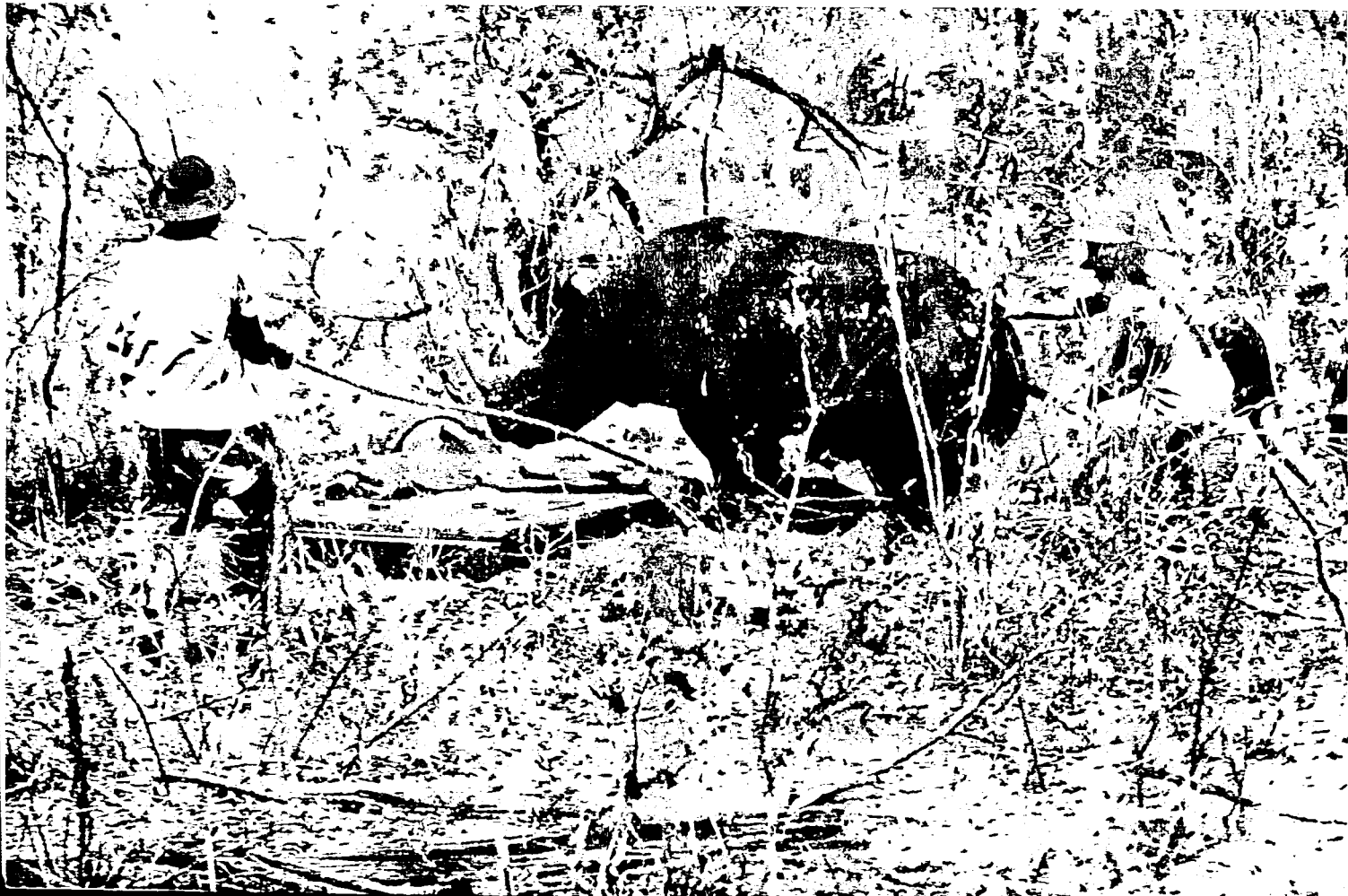
3 SALE OF GAME PRODUCTS

(i)	Ivory	<i>Number Issued</i>	<i>No. of Tusks</i>	<i>Weight, lb.</i>
		19	126	3,741
(ii)	Rhinoceros Horn		<i>No. of Horns</i>	<i>Weight, lb.</i>
		1	1	10
(iii)	Hides and Skins		<i>Quantity and Species</i>	
		28	Leopard, zebra, wildebeeste, impala, sable and others	
(iv)	Game Meat		<i>To whom Issued</i>	<i>Quantity and Species</i>
		1	Nuanetsi Ranch Ltd.	Impala, kudu and buffalo meat and game birds
(v)	Biltong		<i>Weight of Biltong</i>	<i>Source</i>
		68	111,862 lb. 350 lb. 13,484 lb. 1,000 lb. 1,524 lb. 50 lb.	Liebigs Ranch Sentinel Ranch G. M. Schoeman W. R. Wixley Hendersons & Sons (Pvt.) Ltd. H. de M. Alexandre
			TOTAL	<u>128,270 lb.</u>

APPENDIX FIVE

Vermin Destroyed

Species	1956	1957	1958	1959	1960
Baboon	12,082	10,320	8,223	8,220	12,020
Hyena	177	153	194	144	145
Wild dog	394	410	386	386	248
Wild dog lairs	4	1	1	2	3
Jackals	17	20	48	93	264
Reward paid (approximate)	£2,504	£2,278	£2,022	£2,000	£2,290



Analysis of Animals Destroyed in Tsetse-fly Control Areas up to 1960

Species	Total up to 1956	1957	1958	1959	1960	Total
Elephant	466	93	54	37	29	679
Rhinoceros	374	—	—	—	—	374
Buffalo	6,183	118	141	119	36	6,597
Hippopotamus	6	—	—	—	—	6
Giraffe	3	—	—	—	—	3
Zebra	8,855	133	75	192	29	9,284
Eland	10,061	82	54	48	29	10,274
Kudu	83,685	1,816	1,641	1,265	681	89,088
Roan	5,301	55	60	62	37	5,525
Sable	36,429	430	320	276	202	37,657
Waterbuck	13,843	81	63	68	30	14,085
Hartebeest	1,129	7	—	2	—	1,138
Wildebeeste	54	1	1	—	—	56
Tsessebe	2,779	4	7	20	9	2,819
Gemsbok	1	—	—	—	—	1
Impala	34,813	440	539	670	262	36,724
Reedbuck	18,445	164	114	190	230	19,143
Bushbuck	36,393	1,172	1,047	1,104	804	40,520
Duiker	173,646	6,310	5,180	7,609	8,524	201,269
Sharpe's Grysbok	33,144	2	4	506	1,243	34,898
Klipspringer	14,264	1	—	37	161	14,464
Oribi	2,975	42	71	65	24	3,177
Livingstone Suni	147	—	—	11	9	167
Warthog	66,525	3,091	2,712	2,276	1,583	76,187
Baboon	47,195	2,619	2,071	2,238	1,921	56,044
Bushpig	18,282	1,288	683	1,194	1,286	22,733
Lion	125	—	1	—	1	127
Leopard	466	11	7	7	5	496
Cheetah	40	1	—	—	—	41
Hyena	293	25	18	34	14	384
Wild dog	505	16	30	21	26	598
Wild cat	1,567	—	—	4	—	1,571
Jackal	805	—	—	3	—	808
Lynx	19	—	—	—	—	19
Monkey	2,272	—	—	3	—	2,275
Ant-bear	31	—	—	4	2	37
Steenbok	4,937	1	4	416	729	6,087
Nyala	7	—	14	65	48	134
Badger	—	—	—	1	—	1
Porcupine	—	—	—	4	1	5
Rabbit	—	—	—	4	—	4
Dassie	—	—	—	6	—	6
Genet	—	—	—	11	2	13
Civet	—	—	—	4	4	8
Polecat	—	—	—	2	—	2
Meercat	—	—	—	5	—	5
Unclassified	615	—	—	—	—	615
TOTAL	626,690	18,003	14,911	18,583	17,961	696,148

Statement of Animals Saved, Died, Found Dead and Destroyed at Kariba

Species	Animals captured	Animals guided or driven to safety	Sub-Total	Animals died during or after capture	Total saved
Buffalo	—	—	—	—	—
Bushbuck	237	27	264	27	237
Duiker	148	2	150	4	146
Elephant	1	2	3	—	3
Grysbok	251	11	262	4	258
Hippopotamus	—	—	—	—	—
Hyena	2	—	2	—	2
Impala	932	—	932	95	837
Klipspringer	19	—	19	—	19
Kudu	96	30	126	6	120
Rhinoceros	8	—	8	1	7
Sable	30	26	56	4	52
Warthog	321	11	332	23	309
Waterbuck	25	46	71	3	68
Zebra	31	10	41	6	35
SUB-TOTAL	2,101	165	2,266	173	2,093
Night apes	10	—	10	1	9
Bush babies	1	—	1	—	1
Ant-bears	35	—	35	2	33
Scaly ant-eaters	5	—	5	1	4
SUB-TOTAL	2,152	165	2,317	177	2,140
Baboons	95	120	215	2	213
Badgers	1	—	1	—	1
Bush-pigs	42	—	42	4	38
Civets	2	—	2	—	2
Dassies	71	—	71	—	71
Genets	38	—	38	—	38
Hares	28	—	28	—	28
Mongoose	13	—	13	—	13
Monkeys	172	—	172	6	166
Porcupines	29	—	29	—	29
Squirrels	5	—	5	—	5
Black-footed cat	1	—	1	—	1
TOTAL	2,649	285	2,934	189	2,745

KARIBA OPERATIONS

during the Period 3rd December, 1958 to 31st December, 1960

Species	Animals destroyed for self-defence or other reasons	Animals found dead by drowning starvation and natural causes	Animals died during or after capture	Total wastage	Dead or destroyed animals kept as specimens
Buffalo	1	3	—	4	—
Bushbuck	2	15	27	44	13
Duiker	5	9	4	18	1
Elephant	—	1	—	1	—
Grysbok	—	11	4	15	5
Hippopotamus	—	1	—	1	—
Hyena	—	—	—	—	—
Impala	3	52	95	150	8
Klipspringer	1	1	—	2	—
Kudu	2	24	6	32	6
Rhinoceros	—	3	1	4	1
Sable	—	7	4	11	4
Warthog	2	22	23	47	11
Waterbuck	—	2	3	5	—
Zebra	—	10	6	16	—
SUB-TOTAL	16	161	173	350	49
Night apes	—	1	1	2	—
Bush babies	—	—	—	—	—
Ant-bears	—	9	2	11	4
Scaly ant-eaters	—	3	1	4	1
SUB-TOTAL	16	174	177	367	54
Baboons	206	36	2	244	2
Badgers	—	—	—	—	3
Bushpigs	—	5	4	9	—
Civets	—	—	—	—	—
Dassies	2	1	—	3	—
Genets	5	4	—	9	6
Hares	3	—	—	3	—
Mongoose	3	1	—	4	4
Monkeys	99	15	6	120	3
Porcupines	—	2	—	2	—
Squirrels	—	2	—	2	—
Black-footed cat	—	—	—	—	—
TOTAL	334	240	189	763	72