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REPORT No 9



SOUTHERN RHODESIA

Annual Report of the Dept. of Wild Life Conservation

(Division of Irrigation and Lands)

for the year
ended 31st December 1961



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PRESENTED TO THE LEGISLATIVE ASSEMBLY 1962

signed by *A. D. Frater, Salisbury, July 1962*

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4. REVENUE

Revenue from game sources for the year 1961 amounted to £33,299 6s. 5d., which was derived as follows:

	£	s.	d.
Sale of Game Licences	13,620	0	0
Sale of Annual Reports	118	0	0
Sale of Game Meat	72	14	0
Sale of Skins	268	0	4
Rental of Hunting Camps	1,799	0	0
Rental of Hunting Rights	112	10	0
Fishing Permits: Lake Mc- Ilwaine	51	0	0
Sale of Ivory and Rhino- ceros Horn	17,253	2	1
Permits to carry firearms	5	0	0
TOTAL	£33,299	6	5

This is by far the largest sum collected for revenue in any one year since the establishment of the 'Game Office' in 1952. As was forecast in the department's annual report for 1959, revenue from game licences has shown a substantial increase as a result of the introduction of the new legislation and it is expected that the increase will be maintained.

The ivory, rhinoceros horn, wart-hog tusks and hippo teeth stockpiled by the department over a period of two years were sold by tender early in the year.

The price paid for ivory was 13s. 10½d. per pound, an increase of one shilling over the price paid in 1959. Wart-hog tusks and hippo teeth fetched 12s. 9d. and 4s. per pound respectively. Offers for rhinoceros horn were disappointing and it was decided not to sell this commodity at the prices tendered.

Large fish mortalities were reported on two occasions in the Que Que River during the year, and the subsequent analyses of the water taken from the area where the fish had died showed a fairly high Phenol and Cresol content plus much free ammonia, all of which are substances that are extremely lethal to fish.

The Hunyani River has shown no indications of being polluted. In waters unpolluted by organic matter, oxygen absorbed from $KMnO_4$ (4 hours at $27^\circ C.$) ranges between 1 and 5 ppm. Of three samples taken during 1960 and 1961 the figures have been 3.0, 2.4 and 3.1 ppm. The dissolved salines in ppm. were 45, 38 and 28—all reasonably low figures. When the figure passes 200 ppm. chemical or organic pollution is certain to be taking place.

The pH. values normally found in Southern Rhodesia rivers and dams vary from 7.1 to 8.0. Acid water is harmful to fish and most forms of aquatic life.

Full realization of the importance of maintaining our rivers, streams and dams in a condition where optimum conditions prevail for fish life (excluding *Clarias* spp.) is most important.

3. ANIMALS

The transfer of Mr. G. F. T. Child to the National Museum, Bulawayo, on the 1st July 1961, resulted in the services of only one professional officer being available for half the year. This reduction in professional staff was unfortunate, occurring, as it did, at a time when a tremendous amount of research work is required to be done.

(a) *Kariba*. Work continued on the study of changing ecological trends and conditions on a number of islands, and the effect of prevailing conditions on marooned game animals. A paper is being prepared on the findings from this study, which it is hoped will be completed by the end of 1962.

In addition to the above, a study dealing with the successful translocation of 13 of 16 black rhinoceros marooned on islands to the mainland was completed and a paper has been submitted for publication.

(b) *Kyle Dam Game Reserve*. This Reserve was subjected to a preliminary investigation and suggestions made for future management. Findings indicated that the vegetation largely consists of sour and mixed veld which has grown rank through under-utilization. The aim, through management, will be to maintain the open grassland with patches of cover, combat erosion and where possible encourage the gradual replacement of certain sour grasses with sweeter types. It is planned to achieve this by—

- (i) stocking with 1,000 or more game animals of various species of reed buck size or larger;
- (ii) controlled burning (pastures will be burnt when it is judged that they require this treatment to avoid deterioration of grasses or encroachment by shrubs);
- (iii) mowing, in preference to burning, of selected pastures;
- (iv) hand clearing in areas of limited bush encroachment;
- (v) arboricides, if hand clearing proves uneconomical;
- (vi) erecting stone and bush walls to combat gully erosion.

(c) *Tuli Circle*. The Tuli Circle was examined in the course of three visits during the year. Close inspection revealed considerable game over-use of the range and planned management is needed to ensure continued production and to avoid deaths by starvation which have occurred in previous 'dry' years.

(d) *Urungwe Non-Hunting Reserve*. From observations made during three visits, it is concluded that the range has been declining over a long period and that the decline is now proceeding rather more rapidly. Apart from damage by over-populations, uncontrolled burning has had a profound effect and has materially contributed to the decline throughout the area. Most of the vegetation damage is in the vicinity of water, as the bulk of the game causing damage are species requiring water at regular intervals.

Termites were found to be destroying vast quantities of vegetation and appear to be increasing in all areas where damage done was severe. They

are possibly an effect, not a cause, and perhaps are best combated by improving range conditions.

An estimate was made of the numbers of various species present in the Reserve, as follows:

<i>Species</i>	<i>Estimated Number</i>	<i>Species</i>	<i>Estimated Number</i>
Buffalo	11,300	Rhino	430
Elephant	2,000	Bushbuck	820
Impala	18,100	Wart-hog	2,100
Water-buck	2,900	Zebra	3,600
Eland	700	Sable	200
Kudu	2,600	Roan	—

The above figures, thought to be conservative, provide a basis on which to work in the future. From the evidence available there is no doubt that certain species, particularly buffalo, elephant and impala will have to be subjected to severe culling in the immediate future and that special precautions must be taken to prevent uncontrolled burning,

failing which the downgrading of the habitat will continue with what may well be disastrous results.

There is a definite need for facilities, such as a laboratory, to aid research in the Urungwe Non-Hunting Reserve.

(e) *Private Land.* Work done on privately owned land was conducted on the basis that proper utilization is the surest method of achieving conservation. To this end assistance was given in assessing game populations, recommending harvest rates and in developing and demonstrating cropping techniques.

A number of calls were made on the Department for this service some of which could not be met in the time available. There is a considerable demand from private landowners seeking advice on methods to be applied to increase game-bird and waterfowl yields but the department, due to lack of experience in this field, found it impossible to offer specific advice.

Section four — CONTROLLED HUNTING

1. GENERAL

One of the most popular and generally accepted methods of conservation is to declare a piece of land a game reserve and afford the animal populations contained therein complete protection. Under certain circumstances, for example where the land so declared is sufficiently large as to allow for natural migrations of animals in their search for food and water, complete protection of the populations may achieve the objective. More often than not, however, the land allocated to wild life is of little or no use for agricultural purposes and generally poor both in vegetational cover and water distribution. It is on to such land today that big game animals are being forced by the activities of man, and while initially they may flourish and multiply sound management practices are necessary both to maintain numbers at the optimum figure and to guard against deterioration and eventual destruction of the habitat.

Hunting, well organized and controlled, is a recognized conservation measure directed primarily to the culling of surplus populations. As such, subject matter under this heading should perhaps have been dealt with in the preceding section, but as controlled hunting in one form or another will have to be applied in game areas, possibly on a large scale, it is considered of sufficient importance to justify its being dealt with in a separate section of this report.

The demand for hunting facilities in Southern Rhodesia by far exceeds the supply. In areas where conditions are such that culling of game populations is necessary, every effort will be made to permit of participation by the public who invariably are prepared to pay well for hunting. It should perhaps be mentioned, however, that circumstances may well arise where some other method will have to be used, such as intensive hunting of certain species over a short period, in which case, it is unlikely that hunting by the public will achieve the desired result.

2. CONTROLLED HUNTING AREAS

In terms of section 11 of the Wild Life Conservation Act, 1960, the Urungwe Controlled Hunting Area and the Chirundu Controlled Hunting Area were declared early in the year. The former was opened to the public under conditions prescribed by regulation, the latter, which covered a comparatively small area of land surrounding the Chirundu Sugar Estates, was leased to the Chirundu Hunters' Association and hunting was restricted to its members.

(a) *Urungwe Controlled Hunting Area.* Four hunting camps were constructed and advertised in March. Applications for the camps were so numerous that allocation was done by means of a draw 'out of the hat', conducted by the department under supervision by members of the public and representatives of the Hunters' Association.

Ninety eight persons, in 28 parties hunted in the area over the season, during which 548 animals were killed or wounded and 654 birds shot, details of which are given below:

<i>Species</i>	<i>No. killed or wounded</i>
Buffalo	100 (12)
Elephant	85 (8)
Rhinoceros	4 (2)
Sable	10 (2)
Waterbuck	11 (2)
Lion	1
Bushbuck	25
Impala	105 (1)
Kudu	83 (1)
Duiker	26
Grysbok	8
Wart-hog	90 (1)
TOTAL	548

Note.—Figures in parentheses indicate animals reported wounded and not recovered.

BIRDS	
<i>Species</i>	<i>No. Killed</i>
Guinea fowl	470
Francolin	102
Sand grouse	82
	<hr/>
	654
	<hr/>

Direct revenue earnings from this area amounted to £5,432, being £1,799 for rental of hunting camps and £3,633 in respect of game licences sold.

Indirect revenue earnings are incalculable, but must have been quite substantial in that 98 persons spent holidays in the Colony, purchased food and drink, petrol and oil, guns and ammunition, photographic materials, fishing tackle and various items of camping equipment, all from local sources.

(b) *Chirundu Controlled Hunting Area.* Nineteen members of the Chirundu Hunters' Association

purchased game licences. Direct revenue earnings amounted to £168 10s., calculated as follows:

	£	s.	d.
Licences	116	0	0
Rental	52	10	0
	<hr/>		
	£168	10	0
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Animals killed, excluding game birds, totalled 46, consisting of 5 bushbuck, 8 buffalo, 3 duiker, 9 impala, 1 grysbok and 12 wart-hog.

3. OTHER AREAS

Hunting rights on an area of Crown land in the Chipinga Native District were again leased to the Southern Rhodesia Hunter's and Game Conservation Association.

It was unfortunate that due to lack of funds plans to inaugurate the Wankie Hunting Safari/Game Culling Scheme had to be postponed.

(e) Game Biltong

<i>Number Issued</i>	<i>Weight lb.</i>	<i>Importing Country</i>
2	12	France
1	2	Italy
1	2	Holland
1	50	Northern Rhodesia
12	39	United Kingdom
<hr/>	<hr/>	
17	105	
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(f) Game Meat

<i>Number Issued</i>	<i>Weight lb.</i>	<i>Importing Country</i>	
2	120 Impala carcasses 2 Duiker carcasses 2 Steenbuck carcasses 1 Wildbeeste carcass	} Holland	
1	5 lb.		West Germany
<hr/>			
3			
<hr/>			

(g) Wild Animals, Reptiles, etc.

<i>Number Issued</i>	<i>To whom Issued</i>	<i>Quantity and Species</i>
20	T. Schultz	1 leopard
	Salisbury Snake Park	299 various snakes
	J. H. Venter	1 banded cobra
	R. O. Stockil	4 ostriches
	D. K. Blake	3 tortoises
	M. F. C. Wilson	3 lizards and 1 chameleon
	J. Weinmann	17 various snakes
	Queen Victoria Museum	95 various snakes, lizards and other reptiles

2. CAPTURE OF WILD ANIMALS, ETC.

<i>Number Issued</i>	<i>To whom Issued</i>	<i>Number and Species</i>
8	P. Wesson	1 eland
	C. Hensman	— francolin eggs
	Rhodesian Strathmore Investments Ltd.	} 6 sable 2 tssessebe
	P. W. Bosch	
	F. J. Smit	1 eland
	Mrs. G. Avery	1 sharpe's grysbok
	Dr. A. N. S. Abrey	— birds
	P. J. C. Botha	12 eland

3. SALE OF GAME PRODUCTS

(a) Ivory

Note.—As ivory now has to be registered in terms of section 72 of the Wild Life Conservation Act, it is no longer necessary to grant permits for the sale of this commodity.

(b) Rhinoceros Horn

Note.—The same remarks as for ivory apply.

STATEMENT OF ANIMALS RESCUED, RELEASED, DIED, ETC.

For period 3rd December, 1958 to 31st December, 1961

Species	Captured	Driven or Guided to Safety	Sub-Total	Died During Capture	Total Saved	Destroyed	Found Dead or Drowned	Died During Capture	Total Lost
Buffalo	14		14	1	13	3	3	1	7
Bushbuck	299	29	328	40	288	2	24	40	66
Duiker	187	3	190	4	186	6	9	4	19
Elephant	1	16	17		17	5	1		6
Grysbok	228	11	299	5	294		13	5	18
Hippopotamus	2		2				1		1
Hyena	1,407		1,407	137	2	5	57	137	199
Impala	20		20	1	20	1	1		2
Klipspringer	160	30	190	8	182	4	26	8	38
Leopard	1		1	1			1	1	2
Rhinoceros	24		24	5	19		4	5	9
Stable	82	27	109	8	101	1	7	8	16
Wari-hog	495	17	512	35	477	3	22	35	60
Waterbuck	45	51	96	3	93		3	3	6
Zebra	53	10	63	17	46	1	10	17	28
Sub-Total	3,078	194	3,272	264	3,008	31	182	264	477
Night-ape	11		11	1	10			1	2
Bush-baby	1		1		1				
Ant-bear	38		38	2	36			2	11
Scaly ant-eater	5		5	1	4			1	4
Sub-Total	3,133	194	3,327	268	3,059	31	195	268	494
Rahoon	99	120	219	2	217	206	36	2	244
Badger	1		1		1				
Bush-pig	48		48	4	44		5	4	9
Civet	3		3		3				
Dassie	71		71		71	2	1		3
Genet	39		39		39	5	4		9
Hare	29		29		29	3			3
Mongoose	13		13		13	3	1		4
Poccupine	32		32		32				2
Monkey	175		175	6	169	99	16	6	121
Squirrel	5		5		5		2		2
Black-footed cat	1		1		1				
TOTAL	3,649	314	3,963	280	3,683	349	262	280	891

BIRDS AND REPTILES.—A considerable number of birds and reptiles have also been captured and have subsequently been released, retained as specimens, or sent to Salisbury Snake Park.