



TANGANYIKA

MINISTRY OF LANDS, FORESTS AND WILDLIFE

Annual Report
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Game Division
1961



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A long-standing dispute over the boundaries was finally settled when the aggrieved parties accepted £500 as compensation for land incorporated within this Reserve.

Controlled Areas

Apart from a few minor boundary alterations, there were no changes in the areas.

Controlled hunting on permit continued in most of them—as did poaching. In *Loliondo Controlled Area* one of the worst poachers was eliminated by appointing him as a game scout. Routine boundary clearing and sign-board posting were carried out, but the latter operation was often frustrated by local vandals who delighted in tearing down the notices almost as soon as they had been put up.

A successful intervention was made to prevent the beautiful Kitete Forest (lying below the Rift Wall north of Lake Manyara) from being cut down to provide land for cultivation. This is a small patch of rain forest lying within the *Mto-wa-Mbu Controlled Area* and is the main shelter and watering place for game throughout this part of the Rift Valley.

An experiment was made in the translocation of game from the Ngorongoro Conservation Area to the *Kongwa Controlled Area*. A small number of zebra and Thomson's gazelle were immobilized, taken by lorry to Kongwa and after being kept for a few months in captivity, were released.

Many areas suffered from poaching and other human activities e.g., the spread of cultivation, and over-grazing by too many cattle. A tribal hunt in the *Moyowosi Controlled Area*, for instance, accounted for over 80 head of game.

The crocodile population in the *Lake Rukwa Controlled Area* has been very considerably reduced by both legal and illegal hunting. Whilst many people will rejoice at this news, it should not be forgotten that the crocodile skin industry is worth some £60,000 per annum to Tanganyika.

Once again, being comparatively near Dar es Salaam and well connected by road, the *Doma-Mikumi Controlled Area* was popular with tourists.

GAME ANIMALS

Although it is impossible to compile an accurate casualty list of animals drowned in the floods, observations from the Lake Range, reported by the staff, recorded the following bodies seen floating or found drowned in the Mara River:—159 zebra, six wildebeest, one elephant and—surprisingly enough—two hippo. As compared with the number of animals slaughtered annually by poachers, these deaths are but a drop in the flood waters.

To turn to a happier story, several Wardens reported increases in the number of sable, greater and lesser kudu, eland, elephant, lion, oryx, and even rhino.

The Kaleidoscope of life in the Ngorongoro Crater is illustrated by some of the incidents witnessed by the Assistant Conservator (Game) viz:—a hyaena killed by an angry rhino, a pride of lion swimming across a deep water course, lion mating, elephant mating, lion killing a wildebeest, wildebeest giving birth. Another observation over the year leads one to believe that many of the Crater's inhabitants are permanent residents and do not join the annual migration.

A young Patas monkey was found abandoned near Ikoma and is now being cared for by the Warden at Mwanza. In the Rukwa photographs were taken of an albino giraffe and a spotted zebra.

Near the Serengeti a small herd of wildebeest took refuge in a game scout's camp when being chased by a pack of wild dogs.

A pair of rhino abandoned their usual thick bush habitat in Shinyanga District and wandered into cultivated areas. They were chased back by the Warden in a Land Rover but the same night the male was killed by a train when crossing the main line.

On the Wembere in Tabora District a broad-billed sand-piper was seen. This is the first ever observation recorded in East Africa of this species.

LICENSED HUNTING

The number of bookings for the 23 Controlled Areas in which hunting is permitted reached the figure of 158 in 1961, an increase of over 20 per cent on the previous year.

Towards the end of the year—normally the most popular time for hunting—unprecedented rain made many areas inaccessible thereby causing a number of cancellations. The issuing of permits at Dar es Salaam did not appear to cause serious dissatisfaction; the extra expense of ringing up Dar es Salaam instead of Arusha, was the main objection, although of course the lack of personal contact was to be regretted since most hunting parties still operate in the Northern, East Lake and Western Regions.

At the end of the year approval was given for 75 per cent of all controlled area booking fees collected from all areas to be paid to the Native Authority Treasuries concerned. Previously this had only applied to the Western Region. It is hoped that this will encourage local people to preserve game in their home areas.

Few exceptional trophies were reported. Elephant hunters who shoot for financial gain no longer need to search for big tuskers in order to "fill" their licences; with the permissible ceiling fixed at 300 pounds of ivory, they can shoot 30 pounders instead of searching for the big ones, and lose comparatively little over the difference in price between "big" and "little" ivory.

A puku with horns of 19" and 20" was obtained in South Rukwa.

Details of all licences issued are given in Appendices V, VI, VII.

ILLEGAL HUNTING AND TRAFFIC IN TROPHIES

Every year the melancholy story of unabated poaching has to be unfolded. Neither Ministerial manifestos nor enhanced court sentences appear to deter the thieves from stealing this part of the country's wealth. So long as there is a good market for trophies such as rhino horn, ivory and leopard skins, or for meat in areas where cattle are either absent or expensive, so long will illegal hunting continue. A particularly serious aspect is the increase in mechanized operations against which the foot slogging scouts' patrols are practically powerless.

The country adjoining the western borders of the Serengeti is still one of the worst affected areas requiring constant vigilance. Immigrant tribes from Kenya, arriving too late to plant and harvest crops, had to live on something and chose game meat as being the cheapest and most easily obtainable food. This area has been selected for a pilot game cropping and marketing scheme which could reduce the poaching incentive, but although the market is huge it remains to be seen whether or not the people will be willing to pay for the meat.

The introduction of a reward for information in rhino horn cases certainly led to a large number of convictions (19 in the Ngorongoro Conservation Area, for instance). Although the price of rhino horn on the open market has dropped from Shs. 90/- to Shs. 60/- in the last year, the demand is definitely there, witness a case in which no less than 114 rhino horns were found in a parcel of "personal effects" exported from Tanganyika.

IV.—GAME BIOLOGIST'S REPORT ON RESEARCH WORK
CARRIED OUT IN 1961

INTRODUCTION

The fourth and final year of the programme of research on the ecology of the Tarangire Game Reserve and the adjacent Acacia Savanna of the Masai Steppe was completed in 1961. As has been stated in previous annual reports, the object of the research has been to obtain data which will facilitate the introduction and running of scientific game management, and which will help to make good the lack of information on the game populations of the territory. The Tarangire research programme can be regarded as a part of a series of investigations being undertaken in East Africa with the object of assessing the potential productivity of wild animals as a natural resource. (See list of publications in para. 9 1. *Population Study*.)

The continuous sample census carried out in the Tarangire Game Reserve was completed at the end of 1961 after an unbroken period of four years. The methods adopted were described in previous reports and will be more fully described in a complete account of the work which is now being prepared. The results obtained are shown in simplified and summarized form in Table 1, together with results for the previous three years for comparison.

TABLE 1

	Per sq. mile	1958		1959		1960		1961		4 Years Combined Average
		Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	
All ungulate species	Numbers	140 (Sept.)	96	251 (Sept.)	117	331 (Sept.)	132	213 (Sept.)	125	117
	Biomass in lb.	83,400 (Sept.)	37,400	211,100 (Sept.)	70,300	210,900 (Sept.)	73,700	242,000 (Sept.)	99,000	70,100
Impala	Numbers	83 (Feb.)	55	69 (Mar.)	42	68 (Mar.)	50	75 (May)	54	50
	Biomass in lb.	11,640 (Feb.)	7,730	9,737 (Mar.)	6,000	9,537 (Mar.)	7,100	10,470 (May)	7,560	7,100
Zebra	Numbers	44 (Sept.)	14	61 (Aug.)	21	138 (Nov.)	39	79 (June)	22	24
	Biomass in lb.	24,414 (Sept.)	8,090	34,000 (Aug.)	11,600	75,900 (Nov.)	21,600	43,576 (June)	12,100	13,300
Buffalo	Numbers	21 (Oct.)	5	87 (Sept.)	21	84 (Nov.)	19	53 (July)	12	14
	Biomass in lb.	23,030 (Oct.)	6,070	96,227 (Sept.)	23,600	92,500 (Nov.)	21,300	58,223 (July)	13,200	16,042
Wildebeest	Numbers	6 (Sept.)	1	36 (Sept.)	6	11 (Nov.)	3	30 (Aug.)	9	4
	Biomass in lb.	3,122	810	18,070	3,170	5,600	1,400	14,330	4,500	2,470
Worthing	Numbers	5 (Dec.)	3	5 (Jan.)	2	5 (Feb.)	3	6 (March)	3.5	2.8
	Biomass in lb.	711	340	650	285	646	330	780	455	352

TABLE 1--(contd.)

	Per sq. mile	1958		1959		1960		1961		4 Years Combined Average
		Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	
Rhino	Numbers	0.70 (Feb.)	0.30	0.50 (Nov.)	0.20	1.0 (Nov.)	0.3	0.20 (Sept.)	0.8	0.40
	Biomass in lb.	1,580 (Feb.)	700	1,098 (Nov.)	440	2,204 (Nov.)	71	34,738 (Sept.)	1,760	742
Eland	Numbers	4	1	2.5	0.7	4	1	1.2	0.4	0.7
	Biomass in lb.	4,690 (Oct.)	1,320	2,994 (Oct.)	850	5,412 (Nov.)	1,540	1,476 (Aug.)	480	1,047
Waterbuck	Numbers	11 (Dec.)	4	11 (Dec.)	5	7 (Dec.)	6	7 (Nov.)	4	4
	Biomass in lb.	5,110 (Dec.)	1,890	5,140 (Dec.)	2,320	3,323 (Dec.)	2,700	3,252 (Nov.)	1,880	2,197
Giraffe	Numbers	6 (Jan.)	2	6 (Feb.)	3	4 (Jan.)	3	6 (Oct.)	3	2
	Biomass in lb.	10,070 (Jan.)	3,900	10,500 (Feb.)	6,160	7,106 (Jan.)	5,000	9,622 (Oct.)	5,100	5,040
Elephant	Numbers	3 (Sept.)	0.6	10 (Nov.)	1.8	13 (Nov.)	3	23 (Sept.)	6	2.8
	Biomass in lb.	25,300 (Sept.)	5,970	87,700 (Nov.)	16,000	114,700 (Nov.)	26,800	164,900 (Sept.)	54,000	25,692
Lion	Numbers	2 (Oct.)	0.5	1.6 (Sept.)	0.4	1.7 (Nov.)	0.4	1.0 (Aug.)	0.4	0.4

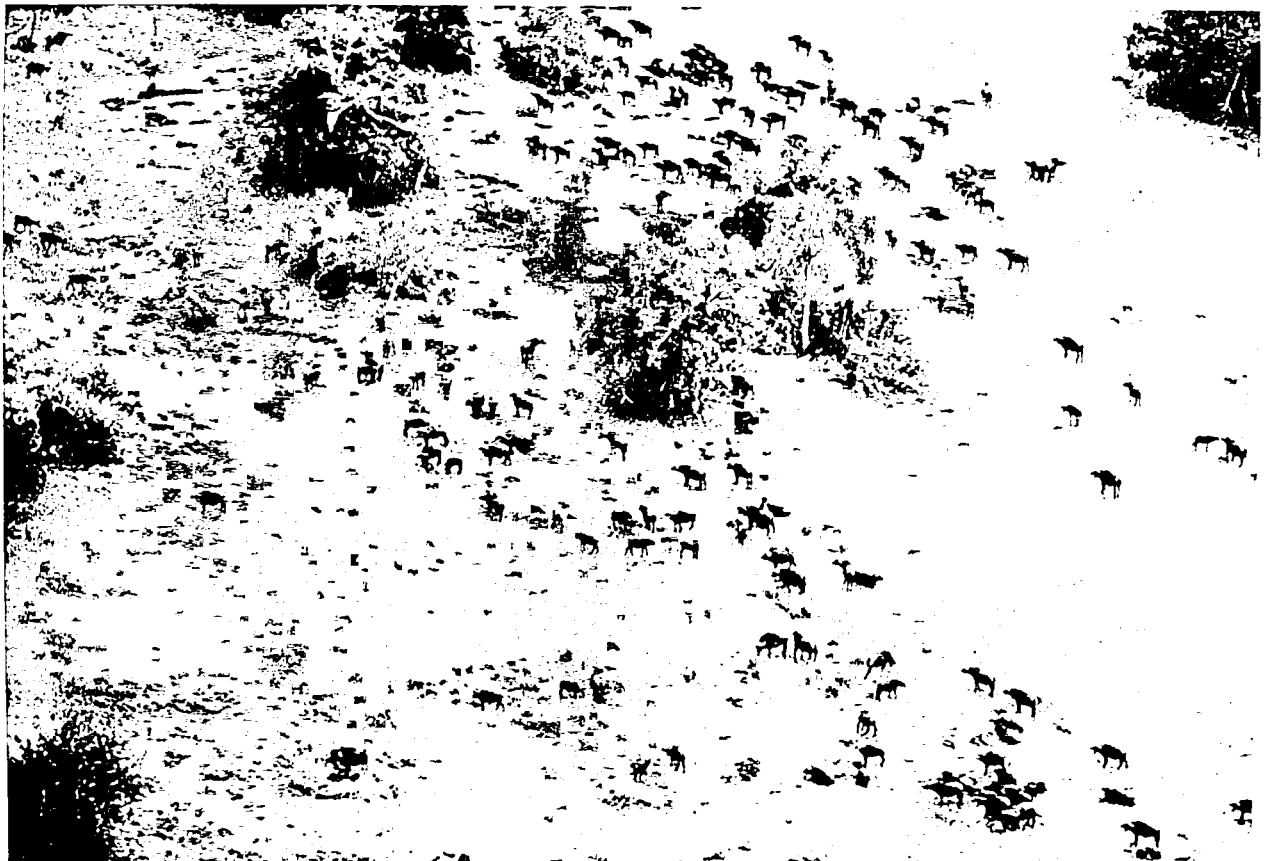


PLATE I

The value of light aircraft for assessing the numbers, composition and movements of game herds is clearly demonstrated by this fine aerial photograph of a herd of buffalo - quite undisturbed by the aircraft.

The second transect grid was put into use for the second year during the month of September to serve as a check on the main transect results. September is chosen because in previous years the density of animals has been at its highest during this month. Table 2 shows the summarized results obtained on the check transect and figures obtained in 1960 are included for comparison.

TABLE 2

Species	1960		1961	
	Animals per sq. mile	Biomass lb. per sq. mile	Animals per sq. mile	Biomass lb. per sq. mile
All Ungulate Species	429	469,400	460	305,228
Zebra	226	124,500	144	79,200
Impala	38	5,260	47	6,580
Buffalo	111	122,600	29	31,900
Wildebeest	5	2,400	92	46,000
Giraffe	4	7,000	6	10,200
Bohor Reedbuck	0.7	73	1.2	120
Waterbuck	0	—	1.6	750
Warthog	4	500	6.6	858
Rhino	0.75	1,600	1.1	2,420
Eland	6	7,700	16	19,200
Elephant	22	195,300	12	108,000
Lion	0.2	—	0.6	—

The serious drought experienced at the end of 1960 and the beginning of 1961 strongly effected the game population of the Tarangire Reserve. All the water except that in the river pools dried up and the pools themselves nearly dried out by August. In previous years the river pools at the field station have contained sufficient water for all the animals that normally moved into the southern part of the Reserve. In 1961, however, the great shortage of water caused many of them to move to the larger water holes in the river at Matete, 12 miles north of the field station. This is shown clearly by the transect results. Nevertheless the broad pattern of the annual fluctuations of animal numbers was repeated during 1961, and the annual average density of and biomass figures remained relatively constant. We can therefore say that over a period of four years the average density in the sampling area was 117 animals per square mile with an average weight of 590 lb. each, and the average biomass on the area was 70,000 lb. weight per square mile. These figures can be taken to represent a working carrying capacity for Acacia woodland having a rainfall of approximately 24 inches annually with a virtually rainless period of five months per year. It is of interest to note for comparison that the animal density of the Ngorongoro Crater is nearly constant at approximately 120 animals per square mile.

Checks of the transect results were made by aerial counting and by occasional total counts made by an unbroken line of men moving across country counting what they saw. The latter method can only be used very sparingly because of the disturbance it causes. The results of the total counting agreed very closely with the sampling results for the same time of year.

Plans to open up game reserves and to make them more attractive for tourists are in hand.

VI.—TROUT

Under normal conditions rainbow trout thrive in many of the Tanganyika rivers. 1961 was not a good year. The drought facilitated poaching by means of wholesale poisoning of the waters, particularly in Tukuyu District. Later the floods washed out fish from some rivers and in particular the Mgeta (near Morogoro) which may have to be completely re-stocked.

Rivers on the Elton Plateau in Njombe District, stocked in 1958, showed great promise. A trout guard caught a 4½ pound fish when carrying out an experimental survey of these waters. This shows an annual growth rate of 1½ lb.

The Forest Officer in the Ukaguru Mountains introduced 300 fingerlings into the Milindo River. They appear to be doing well so far.

Given sufficient funds, there is no reason why trout fishing should not become an important secondary tourist attraction, as well as a possible minor source of both recreation and protein to the local inhabitants who, at least in Njombe District, are showing considerable interest in the methods of Isaac Walton.

VII.—CROCODILE INDUSTRY

Although some of the best crocodile hunting areas are controlled by permit, it has been almost impossible to enforce the law, and poaching has been rife. Over the years this has had a serious effect on the industry. The Game Warden at Mwanza reports that the industry is virtually dead in his area since crocodiles are now a rarity so far as Lake Victoria is concerned. Almost as gloomy reports came from the Western and Southern Highlands Regions. Although it may be a case of "closing the stable door", new regulations are being prepared and will come into force on 1st July, 1962. These impose an export tax of Shs. 20/- on every skin, and do away with other largely unenforceable restrictions. It is hoped that this will both render the killing of immature crocodiles uneconomic and produce revenue which was previously lost through evasion of crocodile hunting permit fees.

VIII.—ADMINISTRATION

STAFF DISPOSITIONS

Establishment

1960	1961	
1	1	Chief Game Warden.
1	1	Assistant Chief Game Warden.
1	1	Biologist.
15	20	Senior Game Wardens and Game Wardens.
3	3	Game Wardens (Elephant Control).
1	1	Office Supervisor.
3	12	Game Assistants.
32	58	Head and Senior Game Scouts.
17	21	Clerks.
409	509	Game Scouts.

The considerable increase in staff, made possible by funds allotted under the Three-Year Development Plan, is reflected in the above figures.

Major B. G. Kinloch, M.C., the Chief Game Warden, visited Canada and the U.S.A. on an U.N. Fellowship study tour, one of the main objects of which was to ascertain which of the Universities and other educational institutions were best suited for the higher training of would-be African Game Wardens. Already the first student Mr. J. N. Kundacli, has left for a 2½ to 4-year course at the University of Colorado.

Game Assistant Mr. H. S. Mahinda, whose excellent propaganda work was recognized by the award of the B.E.M., will also be going to the U.S.A. in 1962, and it is hoped that at least a further five African trainees will follow suit before the end of the year.

The name of the Ministry was changed to include "Wildlife" in addition to "Lands and Forests" a happy indication of the importance now attached to the value to Tanganyika of its wildlife.

During the year the Southern Region was subdivided into two ranges with headquarters at Kilwa and at Nachingwea.

CASUALTIES

Game Scout Rashidi Abdullah, proceeding on transfer to Mbeya, was killed when the bus in which he was travelling overturned. Game Scout Benedicto Ngalima was mauled by a leopard in Nachingwea District. Two scouts were injured in Mahenge District, one Nguvumali Sikauki, by an elephant and the other, Isa Mhenga, by a gang of poachers.

Two Honorary Game Wardens were killed, namely Jack Carlyon, who died in a road accident near Longido, and Luigi Nuti who was gored by a buffalo on his estate at Bukoba.

REVENUE AND EXPENDITURE

Revenue from all Game sources showing the financial year 1960/61 amounted to £152,675, a decrease of £12,848 over the previous year.

This was due to the following reasons:—

- Fluctuations in the ivory market resulting in a considerable quantity of ivory and rhino horn being withdrawn from the auctions as it failed to reach the reserve price.
- Fewer game licences were sold as fewer tourists visited the country as a result of troubled conditions in the Congo and elsewhere in Africa.
- The new type of elephant licence has not proved popular. Moreover in practice the new system, whereby royalties on ivory charged to compensate for a cheaper licence, caused a loss in revenue.

Expenditure during the same period totalled £117,506, including Special Expenditure of £2,906, and a contribution of £35,131 from Development Funds.

Detailed figures are given in Appendix I.

IX.—CONCLUSION

The last twelve months have not only been a period of expansion but also of considerable advance in Africanisation and training. Furthermore, with the successful conclusion of the Arusha Conference, there are clear indications that a turning point has been reached in the fortunes of wildlife conservation in Africa in general and East Africa in particular. There are now solid grounds for believing that wildlife may well become one of East Africa's most important economic assets in fact as well as in theory, and Tanganyika is blessed with the lion's share of this valuable resource.

This has been a period of rapid changes, and much credit is due to the Game Wardens and their staff for refusing to let themselves be diverted or distracted from their normal course of duty by the birth-pangs of new and major developments in nearly every field.

Credit and thanks are also due to the many Honorary Game Wardens, and other Departments and Divisions of Government who have done much to assist the still limited staff of the Game Division.

Dar es Salaam,
27th August, 1962

B. G. KINLOCH,
Chief Game Warden

REVENUE AND EXPENDITURE, 1957-1961

Source of Revenue	1956-1957	1957-1958	1958-1959	1959-1960	1960-1961	Average 1956-1961 per year
	£	£	£	£	£	£
Sale of Government Trophies:—						
Ivory	72,738	69,810	70,468	81,578	69,125	72,744
Rhinoceros Horn	2,776	2,039	2,237	2,718	1,352	2,224
Hippopotamus Teeth	1,698	683	1,048	1,181	584	1,039
Leopard Skins	3,302	4,387	3,113	5,584	5,269	4,331
Other Game Trophies	270	210	274	296	4,252	1,060
Fees paid in respect of:—						
Capture of Wild Animals	3,590	9,562	4,042	1,898	5,227*	4,864
Game Licences	61,202	63,109	69,356	68,945	63,309	65,181
Trophy Dealer's Licences	—	—	752	1,000	720	324
Trout Licences	24	35	31	33	16	27
Governor's Licences	—	—	29	—	5	7
Controlled Area Fees	—	—	2,570	2,290	2,816	2,559
Total Revenue	145,600	150,345	153,920	165,523	152,675	154,863
Expenditure:—						
Departmental	82,323	88,703	93,072	92,894	117,506	94,820
C.D. & W.	—	43	3,383	1,085	—	3,503
Total Expenditure	82,323	88,346	96,455	99,979	117,506	98,323

*1-1-61 to 31-12-61

Appendix II

The following legislation affecting the Fauna Conservation Ordinance was passed during 1961:—

Deletion of the Lake Manyara Game Reserve on its becoming a National Park. (Government Notice No. 18 dated 13.1.61).

Amendment to the boundaries of the Mto-wa-Mbu Controlled Area. (Government Notice No. 19 dated 13.1.61).

Addition of one elephant to the Third Schedule, with effect from 1.10.61. (Government Notice No. 300 dated 25.8.61).

In addition the Mining Ordinance was amended (Government Notice No. 262 dated 21.7.61) which closed to prospecting a portion of the Mkomazi Game Reserve.

Appendix III

DANGEROUS GAME KILLED BY THE GAME DIVISION, 1957-1961

Species	1957	1958	1959	1960	1961
Elephant	2,040	2,599	2,594	2,497	3,171
Rhinoceros	33	21	20	13	18
Buffalo	189	203	237	232	263
Hippopotamus	433	425	394	391	383
Leopard	28	23	35	16	17
Lion	24	28	44	36	31

CONVICTIONS OBTAINED IN DISTRICT COURTS FOR OFFENCES AGAINST THE FAUNA CONSERVATION ORDINANCE DURING THE PERIOD 1957-1961

Offence	Section	Number of Convictions				
		1957	1958	1959	1960	1961
Hunting in a Game Reserve	5	7	34	57	73	50
Entering a Game Reserve without a Permit	6	20	63	67	91	84
Carrying a Weapon in a Game Reserve	7	4	—	15	10	33
Causing a Fire or Felling Trees in a Game Reserve	8	—	—	3	13	10
Hunting in a Controlled Area without a Permit	11	38	62	58	59	40
Hunting professionally without Professional Hunters' Licence	15	—	—	—	—	1
Hunting Game Animals without a Licence	12	195	252	270	360	291
Transferring a Game Licence	13(4)	—	45	6	2	3
Hunting Unscheduled Animals without a Permit	18	5	2	1	2	6
Capturing without Permit	19(2)	—	—	2	—	—
Failure to Report Disqualification	21	—	3	—	1	8
Obtaining Licence while not in lawful possession of Weapon	22	—	1	11	5	9
Failure to carry a Licence while Hunting	23	5	4	4	2	12
Hunting Royal Game without a Licence	24	16	29	16	30	48
Failure to Report Intention to hunt Dangerous Animals	26	10	2	—	11	1
Cruelty	29	—	2	—	—	—
Failure to Report Wounding a Dangerous Animal	30	2	—	3	1	—
Unlawful Loan of a Weapon	31	17	12	41	35	—
Hunting on Private Land without Permission	32	—	1	—	—	4
Hunting Young Animals	33	1	2	2	—	2
Using Unlawful Methods of Hunting	34	111	135	98	174	59
Hunting Protected Species without Permit	35(4)	—	—	—	—	1
Selling Game Meat without Permission	36	33	8	35	41	16
Dealing in Trophies without a Licence	37	3	2	—	1	—
Illegally importing or transferring a Trophy	40	—	3	—	4	—
Unlawful Possession of Proscribed Skins	41	1	—	1	2	6
Unlawful Transfer of Ivory	45	—	1	—	—	—
Failure to Produce a Government Trophy	48	4	32	12	4	11
Unlawful Possession of Government Trophy	49	159	157	145	304	293
Failure to Produce Licence, Obstructing of Officers, etc.	51	1	5	1	7	8
Failure to stop at Barrier when ordered to do so	52	1	2	—	—	—
Contravention of any Provision of the Ordinance	53(1)	—	—	5	—	1
Total		632	859	853	1,232	997

Appendix V

SUMMARY OF GAME LICENCES ISSUED, 1957-1961

Type	1957	1958	1959	1960	1961
Trophy Dealers	78	69	63	98	72
Professional Hunters	63	71	58	54	59
General Game, Residents	982	979	788	830	772
General Game, Visitors	219	228	239	237	154
Minor Game	—	—	486	1,469	1,766
Bird	3,467	3,456	3,534	3,404	3,344
Supplementary Game	2,266	1,853	2,287	744	508*
Elephant, Residents	—	—	—	—	212
Elephant, Visitors	—	—	—	—	35

*Figures up to mid 1960 include old-type elephant licences.

Appendix VI

SUMMARY OF GAME LICENCES ISSUED IN RESPECT OF ANIMALS AVAILABLE
ONLY ON SUPPLEMENTARY GAME LICENCES, 1959-1961

Species	1959		1960		1961	
	Residents	Visitors	Residents	Visitors	Residents	Visitors
Buffalo	159	211	303	280	326	211
Caracal	1	-	-	2	-	2
Abbott's Duiker	1	6	-	1	-	-
Elephant	369	127	204	58	-	-
Gerenuk	1	37	2	29	2	25
Giant Forest Hog	-	2	1	4	-	-
Greater Kudu	12	166	16	127	29	117
Lesser Kudu	92	7	7	70	5	54
Klipspringer	1	51	6	62	4	42
Leopard	28	193	15	159	20	116
Lion	3	125	12	137	13	87
Black and White Colobus	2	4	1	2	2	-
Blue Monkey	-	2	-	1	-	-
Oryx	12	103	19	74	17	49
Ostrich	-	20	10	28	1	6
Mountain Reedbuck	2	2	1	2	-	-
Rhinoceros	8	9	-	-	-	-
Rock Rabbit	-	6	-	4	2	4
Sable Antelope	13	124	14	96	15	83
Serval Cat	2	10	3	12	4	4
Sharpe's Grysbok	-	1	-	-	-	-
Sitatunga	-	17	-	6	-	9
Tree Hyrax	-	-	-	2	-	-

*See new elephant licences listed in Appendix III.

Appendix VII

SUMMARY OF SUPPLEMENTARY LICENCES ISSUED FOR ANIMALS AVAILABLE
IN ADDITION TO THOSE COVERED BY GENERAL GAME LICENCES, 1959-1961

Species	1959		1960		1961	
	Residents	Visitors	Residents	Visitors	Residents	Visitors
Bushbuck	1	3	3	-	1	-
Dikdik	1	7	3	-	-	-
Duiker (all species)	-	6	4	-	-	-
Eland	5	13	3	5	3	4
Gazelle, Grant's	-	26	12	22	3	26
Gazelle, Thomson's	-	9	14	10	4	4
Hartebeest	3	18	8	30	6	3
Hippopotamus	4	-	1	-	2	-
Impala	16	38	19	53	18	42
Oribi	-	7	-	8	1	5
Puku	-	1	1	-	1	1
Reedbuck (all species)	1	5	3	4	3	6
Roan antelope	1	15	4	21	5	2
Steinbuck	-	7	1	1	-	2
Topi	8	9	2	9	6	-
Warthog	1	22	3	16	9	7
Waterbuck	-	9	1	3	-	-
Wildebeest	5	26	21	24	1	7
Zebra	6	54	24	61	8	37
Other	-	1	1	1	-	-