ANNUAL REPORT
OF THE
GAME AND FISHERIES
DEPARTMENT

For the year ended 31st December, 1951
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THE GAME AND ANNUAL REPORT

For the year ending...

INTRODUCTION

Last year a very full report of the second quarter century of the permanent record as detailed in nature, of the general game and the beginning of the new period, to be as full, and to avoid unnecessary, in conjunction with the

1. The Department started... and for many years the major control of shamba raiding animal, with, of course, the collection of both scientific and topical, protected by legislation in the received from such department, Police.

3. In recent years the change. The increase of population projects and a tremendous increase... have all resulted in a frightening which little game is left but which were built up under adequate supervision the proposed for national parks, the interests of game and agricultural... compromise.

4. Nowadays, however, the suppression or at least drastic... guarding of the interests of game licence fees they pay, required "preservation" side as opposed

5. The control of such wild to be an ever present and in they do to crops can be very destruction of these pests has varying, but usually limited, is locally applied control measures.
THE GAME AND FISHERIES DEPARTMENT

ANNUAL REPORT

For the year ended 31st December, 1951

INTRODUCTION

Last year a very full report was written to mark the beginning of the second quarter century of the life of this Department, and to place on permanent record as detailed an account as is possible in a report of this nature, of the general game and fisheries situation in the Protectorate at the beginning of the new period. It is not intended that this report shall be as full, and to avoid unnecessary repetition, it should be read, where necessary, in conjunction with the 1950 Annual Report.

2. The Department started as a small elephant control organisation and for many years the major part of its efforts was concentrated on the control of shamba raiding animals such as elephant and buffalo, coupled with, of course, the collection of much valuable information and material of both scientific and topical interest. Game in general was adequately protected by legislation in the enforcing of which much assistance was received from such departments as the Provincial Administration and the Police.

3. In recent years the situation has undergone a rapid and drastic change. The increase of population, the spread of cultivation, development projects and a tremendous increase in the number of legal and illegal arms have all resulted in a frightening decrease in the game population. There are still many areas which hold a fair stock of game but could hold more without clashing with other interests. Similarly there are other areas in which little game is left but where a reasonable game population could be built up under adequate supervision. Such areas, quite apart from any proposed for national parks, could become an asset for it is only the interests of game and agriculture that clash with no hope of any possible compromise.

4. Nowadays, however, the enforcement of the game laws, the suppression or at least drastic reduction of illegal hunting, and the safeguarding of the interests of genuine sportsmen of all races in return for the licence fees they pay, require adequate staff to concentrate on the "preservation" side as opposed to the purely "control" side of game work.

5. The control of such vermin as baboon and bush-pig also continues to be an ever present and in some areas a serious problem as the damage they do to crops can be very extensive. To date the responsibility for the destruction of these pests has devolved on African Local Governments with varying, but usually limited, success, and properly organised and scientifically applied control measures by fully trained staff are now required.
6. In view of the general situation outlined above every effort has been made this year to make the urgent necessity for practical game preservation measures more generally realised.

SECTION I.—ADMINISTRATION

HEADQUARTERS

7. The substantive post of Game Warden remained vacant throughout the year and the Assistant Game Warden (Acting Game Warden) proceeded on vacation leave in May. A Game Ranger was brought in to Headquarters to act in his absence and a General Service Officer was also posted to Headquarters by the Secretariat to enable the Department to carry on.

8. The steadily increasing number of game problems and rapid expansion on the fisheries side where the problems of development and control are daily becoming more complex and technical have placed a heavy burden on the Headquarters organisation. (See also para. 2 1950 Annual Report).

NEW OFFICERS

9. A fourth (Supernumerary) Game Ranger joined the Department in January and was posted to Bunyoro to relieve the Game Ranger who was required at Headquarters to act as Assistant Game Warden. A fourth Fisheries Officer arrived from the United Kingdom in February in time to relieve the Fisheries Officer, Lake Albert, who was due to proceed on vacation leave. (See also Section V. (A) (1), and paras. 3 and 405 1950 Annual Report).

GAME RANGERS

10. For the greater part of the year the Department had three Game Rangers operating in the field, but this number proved inadequate to deal with the many problems involved in the very large areas that each Game Ranger is expected to cover. It must be stressed that the present establishment of Game Rangers is based mainly on elephant control requirements and does not allow for any leave reliefs.

FISHERIES OFFICERS

11. See Section V.—Fisheries.

GAME GUARDS

12. The work of the Game Guards has generally been satisfactory although in areas where they are not under the close supervision of a Game Ranger the activities of some of them have been open to suspicion. Many temptations are undoubtedly placed in their way and one Game Guard in Acholi was convicted for hunting elephant for a licence holder. Close supervision has the added advantage of encouraging them to remain in their work, particularly in regard to the Ordinance.

13. With the idea of providing better their position and their number, it was submitted that Game Guards with 5 years service, should be eligible to take the Local Civil Service as Game Guards shortly after the close of the year.

GAME GUARDS

14. The reasons for the necessity for Game Scout duties, and the many temptations, were set out in the Annual Report. In an attempt to improve the situation it was submitted that Game Scouts should be created and placed in the same category as other Employees Division of the Local Civil Service heretofore. This suggestion was not carried out during the year.

15. There are, at the present time, in the Protectorate this number of Game Guards, Game Scouts and Gun-bearers with the present extensive dislocation in the Headquarters organisation.

FISHERIES OFFICERS

17. See Section V.—Fisheries.

FISH GUARD

16. The life of a Game Guard is too hard and frequently unsteady, receber frequent dissatisfaction with their treatment, and there is generally a tendency for them to get dissatisfied with their work. With the purpose of encouraging them to remain in the service it was suggested that they should be raised from Grade A of the Local Civil Service. They are, however, Game Guards, Game Scouts and Gun-bearers.

HONOURS AND AWARDS

18. The following members of the Department received recognition of his work:

Game Guard Yozefu Kaper and who in the past took a mag
3

supervision has the added advantage of giving them confidence in their work, particularly in regard to bringing in offenders against the Game Ordinance.

13. With the idea of providing Game Guards with some incentive to better their position and accept greater responsibility, a proposal was submitted that Game Guards of outstanding merit, with not less than 5 years service, should be eligible for promotion to the General Division of the Local Civil Service as Game Assistants. This proposal was approved shortly after the close of the year.

GAME SCOUTS

14. The reasons for the difficulty of recruiting the right type of men for Game Scout duties, and the shortness of their useful life due to low pay and many temptations, were dealt with in paras. 9 and 10 of the 1950 Annual Report. In an attempt to deal with this problem proposals were submitted that Game Scouts' terms of service should be improved by placing them in the same category as Game Guards, i.e. in Grade V of the Employees Division of the Local Civil Service instead of Grade X as heretofore. This suggestion was also approved shortly after the close of the year.

15. There are, at the moment, 20 Game Scouts for the whole Protectorate and this number has again this year proved inadequate to deal with the present extensive disregard of the game laws.

GUN-BEARERS

16. The life of a Game Ranger may literally depend on the efficiency and steadfastness of his Gun-bearer, particularly when he is teaching raw, and frequently unsteady, Recruit Game Guards to hunt dangerous game. Gun-bearers need time and experience before they can be considered to be adequately trained, and it has been found that after a short time they often get dissatisfied with their terms of service and want to become Game Guards. With the purpose of improving their terms of service and thus encouraging them to remain in their job, it was suggested that Gun-bearers should be raised from Grade VI to Grade V of the Employees Division of the Local Civil Service. This was approved, thus placing all Game Guards, Game Scouts and Gun-bearers on the same salary scale.

FISH GUARDS

17. See Section V.—Fisheries.

HONOURS AND AWARDS

18. The following member of the Department has been honoured in recognition of his work:

Game Guard Yozefu Kapere, who has been a Game Guard since 1924 and who in the past took a major part in the large scale elephant control
operations which were then necessary, was awarded a “Certificate of Honour” in the King’s Birthday Honours on 7th June, 1951.

Deaths

19. The Acting Game Warden has, with deep regret, to announce the deaths of the following members and honorary member of the Department:

(a) Stefano Lugwana, Game Guard, 1st September, 1948, to 9th May, 1951, stationed in Masaka District, who died of natural causes on 9th May, 1951.

(b) Lorensio Eremendito, Fish Guard, 23rd June, 1951 to 15th July, 1951, who died of pneumonia on 15th July, 1951, whilst taking part in a trout survey on the mountains of the Ruwenzori.

(c) M. S. Tweedale, Honorary Game Ranger, 18th July, 1950, to 31st May, 1951, who was drowned on 31st May, 1951, as a result of an unfortunate encounter with a hippopotamus on the Semliki River.

Expenditure and Revenue

20. Figures are as follows:

<table>
<thead>
<tr>
<th></th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure</td>
<td>32,497</td>
</tr>
<tr>
<td>Revenue</td>
<td>29,759</td>
</tr>
</tbody>
</table>

Balance of expenditure over revenue £ 2,738

The Revenue was derived as follows:

(a) Sale of ivory, rhinoceros horns and hippo teeth £ 17,771
(b) Game Licences £ 11,988

Receipts from (a) show an increase of over 81% and from (b) an increase of nearly 30%; in the case of (a) £17,431 was derived from the sale of ivory.

21. At the two ivory auctions, held at Mombasa, the average price realised per lb. was Shs. 15/01 and Shs. 15/34 compared with Shs. 14/28 and Shs. 15/51 in 1950.

22. Game and Special Licences issued:

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident’s (Full)</td>
<td>516</td>
<td>436</td>
</tr>
<tr>
<td>Visitor’s (Full)</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Resident’s (Fourteen-day)</td>
<td>338</td>
<td>320</td>
</tr>
<tr>
<td>Visitor’s (Fourteen-day)</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>First Elephant</td>
<td>280</td>
<td>235</td>
</tr>
<tr>
<td>Second Elephant</td>
<td>200</td>
<td>144</td>
</tr>
<tr>
<td>Third Elephant</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>One Black Rhinoceros</td>
<td>2,016</td>
<td>1,375</td>
</tr>
<tr>
<td>Bird</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23. There has been an increase from the sale of licences, the number in 1950. This big increase was caused by a rush, towards the end of the year, for Second and Third Elephant, the number of elephant licences being 818 as compared with 642 in 1950.

24. The number of Resident’s licences and Special Elephant licences issued increased from 818 in 1950 to 818 in 1951.

25. The rapidly increasing number of Resident’s licences and Special Elephant licences and Bird licences, for Second and Third Elephant caused by a rush, towards the end of the year, of nearly 50% and nearly 17%.

26. The total weight of ivory sold at Mombasa auctions was as follows:

<table>
<thead>
<tr>
<th></th>
<th>May</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ivory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhino horns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hippo teeth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

27. The total of 22,944 more than in 1950, i.e. an increase of over 81%.

28. The price of rhinoceros horns reached an average price £ 100 but at the Mombasa auction it soared to Shs. 33/61 per lb. in November, 1927. The realised scope for the imagination!
23. There has been an increase of nearly 30% in the revenue derived from the sale of licences, the actual amount being £2,749 10s. more than in 1950. This big increase was a result of many more Resident's (Full) Game licences and Bird licences, and in particular many more Special licences for Elephant being taken out. The total number of elephant licences issued was 818 as compared with 699 for 1950, and is the highest number ever recorded in Uganda.

24. The number of Resident's (Full) Game licences issued showed an increase of over 18% and Bird licences over 46½%. Special licences for First Elephant, Second Elephant and Third Elephant showed increases of over 5½%, 19% and nearly 39% respectively and an overall increase of 17%.

25. The rapidly increasing demand for Resident's (Full) Game licences and Special Elephant licences, reported last year, has continued. This is again a direct result of the continued high price of ivory, and the record number of 818 elephant licences taken out this year was partly caused by a rush, towards the end of the year, to take out Special licences for Second and Third Elephant before the licence fees were raised and the number of elephant allowed per licence holder per year was reduced from three to two. (See also paras. 18 and 217 to 228, 1950 Annual Report).

26. The total weights of ivory, etc., sold and prices realised at Mombasa auctions were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Gross price realised</th>
<th>Approximate average price per lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb.</td>
<td>£.  s.  cts.</td>
<td>Shs.  cts.</td>
</tr>
<tr>
<td>May—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ivory</td>
<td>10,464</td>
<td>7,855 18 44</td>
<td>15 01</td>
</tr>
<tr>
<td>Rhino horns</td>
<td>522</td>
<td>104 13 14</td>
<td>40 25</td>
</tr>
<tr>
<td>Hippo teeth</td>
<td>57</td>
<td>6 16 86</td>
<td>2 40</td>
</tr>
<tr>
<td>November—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ivory</td>
<td>12,481</td>
<td>9,575 7 49</td>
<td>15 34</td>
</tr>
<tr>
<td>Rhino horns</td>
<td>974</td>
<td>227 7 86</td>
<td>46 88</td>
</tr>
<tr>
<td>Hippo teeth</td>
<td>44</td>
<td>1 0 98</td>
<td>4 42</td>
</tr>
</tbody>
</table>

27. The total of 22,949½ lb. of ivory sold is approximately half a ton more than in 1950, i.e. an increase of 5%.

28. The price of rhino horn rose yet again. At the May auction it reached an average price of Shs. 40/25 per lb. and at the November auction it soared to Shs. 46/88 per lb. This is the highest price ever recorded since the formation of the Department, previous highest prices being Shs. 33/61 per lb. in May, 1950, and Shs. 35/05 per lb. in November, 1927. The reasons for this sudden increase leave plenty of scope for the imagination!
29. Ivory, etc., statistics:

(a) Balance in store at Mombasa on 31st December, 1950:
   - Ivory: 4,232 lbs
   - Rhino horns: 41
   - Hippo teeth: 8

(b) Received at Mombasa between 1st January, 1951, and 31st December, 1951:
   - Ivory: 23,775 lbs
   - Rhino horns: 175
   - Hippo teeth: 53

(c) Balance in store at Mombasa on 31st December, 1951:
   - Ivory: 4,909
   - Rhino horns: 66
   - Hippo teeth: 2

IVORY FIGURES:

<table>
<thead>
<tr>
<th></th>
<th>Balance at Mombasa on 31st December, 1950</th>
<th>Received at Mombasa during 1951</th>
<th>Total 1951</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,232 lbs</td>
<td>23,775 lbs</td>
<td>28,007 lbs</td>
</tr>
<tr>
<td>Sold during 1951</td>
<td>22,949 lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destroyed being valueless</td>
<td>149 lbs</td>
<td></td>
<td>23,098 lbs</td>
</tr>
<tr>
<td>Balance at Mombasa on 31st December, 1951</td>
<td>4,909</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Illegal Killing of Game and Breaches of Game Laws

GENERAL

30. There has been the usual crop of offences against the Game Ordinance. The Protectorate Police received reports of 115 cases of which 85 were brought to court and 73 resulted in convictions by the British Court. Four Europeans, 2 Asians and 108 Africans were convicted in British Courts of offences against the Ordinance. A considerable number of minor and some major offences against the Game Ordinance were known to have occurred, in regard to which no action could be taken owing to lack of evidence. Lack of staff is a great handicap when such cases have to be investigated.

31. A particularly blatant offence came to the notice of the Assistant Game Warden one Sunday evening during February. He was driving through the Lake George Game Reserve near Katwe at about 7 p.m. when he saw a large American saloon car parked about 100 yards off the road. When it came back on to the main road the occupants were asked what they had been doing. They informed the Assistant Game Warden, who was in civilian clothes, that they had just shot a lioness, which, they claimed, had been stalking buffalo. When asked where the remains of the lioness were, they informed him that the body was in the boot of the car! The Assistant Game Warden then revealed his identity! When further questioned at Katwe Police Station these intrepid hunters stated that they had stopped on the road to attend to the wants of nature and while so doing they had been attacked by the lioness and had had to shoot in self-defence. They found it difficult to prove this story when asked to show the spoor on the ground. All three male occupants of the car were later convicted.

32. A revolting case of excreta detection and successfully prosecuted. An African succeeded in trapping a large crocodile of Lake Victoria. The animal was about 20 feet long and had been found to be attached to a tree. The African removed its eyes with a spear and then killed it by means of the spear. The animal died some 3 hours later. The offender was convicted of the Game Ordinance and sentenced to 2 years imprisonment.

IVORY OFFENCES

33. There has been a marked decrease in ivory; it is hoped that this is a result of which the Department undertook. General placency however as it is known that there are ivory reserves and the ivory smugglers are still active.

34. The Game Ranger, when trying to track down some ivory, gave the following account of the game.

"Early in the year a Game Guard found a tusk of ivory that was illegally procured and at the appointed time when the Askaris arrived to find there, had not yet arrived. Unfortunately they had not received a report from me and, when I went past, the men did not hear me and had already thrown spears at my car. No spoor was found on the ground."

35. In July a storekeeper was found to have 6 tusks from a Game Guard for which he was duly convicted.

36. In the Bwamba Forest, the Batwa pygmies, are known to be ivory hunters in this area is fairly big. A bull with 70 to 80 lb. tusks of ivory have been stolen. Saddle had already ordered a radiogram to recover the ivory which is believed to have been taken over the border.
32. A revolting case of exceptional cruelty to a wild animal was detected and successfully prosecuted by the Police in Busoga District. An African succeeded in trapping a hippopotamus in a wire snare on the shore of Lake Victoria. The animal was caught by one leg in the snare which was attached to a tree. The African when he found the animal first of all removed its eyes with his spear and then forced a piece of wood up its anus by means of the spear. The wood was then churned around until the animal died some 3 hours later. The man was convicted under Section 5 (1) of the Game Ordinance and sentenced to a fine of Shs. 200 or 3 months imprisonment.

IVORY OFFENCES

33. There has been a marked decrease in offences in connection with ivory; it is hoped that this is a result of the drive against this type of offence which the Department undertook last year. This is no time for complacency however as it is known that elephants are being poached in certain reserves and the ivory smuggled across the border into a neighbouring territory.

34. The Game Ranger, Gulu, had an embarrassing experience when trying to track down some ivory poachers in March. The incident, in his own words, was as follows:—

“Early in the year a Game Scout brought in information concerning ivory that was illegally possessed and secreted. Plans were made, and at the appointed time and place I arrived with some Police Askaris. Unfortunately the illegal ivory owners, whom I was hoping to find there, had not yet arrived. While I was slowly driving up and down in the darkness some other Africans hid themselves near the road and, when I went past, they jumped on to the side of the road and threw spears at my car. Not having expected rough play of this nature I had omitted to bring any firearm and so I had to withdraw. None of these offenders was traced.”

35. In July a storekeeper employed by a certain Department, accepted 6 tusks from a Game Guard for safe keeping. The following day one tusk was missing but was subsequently found in the storekeeper’s bed! Later he was duly convicted.

36. In the Bwamba Forest area of Toro the local people, principally the Batwa pygmies, are voracious eaters of elephant meat and small quantities of ivory are smuggled across the border. As a result illicit hunting in this area is fairly constant. A European licence holder shot a big bull with 70 to 80 lb. tusks in this region but had the misfortune to have the ivory stolen. Sadder still it was his first elephant and he had already ordered a radiogram on the strength of it! Game Scouts failed to recover the ivory which is believed to have been cut up and sold across the border.
SELLING OF GAME MEAT

37. Poaching game for the sale of its meat is on the increase everywhere and the number of organised "rackets" is becoming alarming. Some of the worst areas are Toro, Ankole, West Nile, Southern Busoga and Buganda. The "butchers" frequently employ hunters who are armed with legal or illegal weapons. From Buganda poachers with illegal weapons, having cleaned out most of the game in their own country, are now spreading into neighbouring districts. The latest menace is organised lorry-borne poaching parties who take their booty to the places where it will fetch the highest price, and are able to both reach the remoter areas where game is still (at the moment) fairly plentiful and carry large quantities of meat on their vehicles.

38. The Game Ranger, Toro, reports that he was quite openly offered a chunk of dried elephant meat in the Bwamba market. The piece, for which the vendor demanded Shs. 10, weighed about 5 lbs.

39. There is no doubt that the only way to combat this serious threat is an increase of Game Department staff on the ground in the game areas that are being menaced.

UNLICENSED .303 RIFLES

40. Poaching with these weapons continues but it is believed that their numbers are slowly being reduced as a result of the efforts of the Police and this Department.

LOCALLY-MADE SHOTGUNS

41. These illegal weapons are still used in a number of areas. It is reported that they are now better made than previously; prices too are cheap being as little as Shs. 60 to Shs. 70 for a folding model.

WHEEL-TRAPS, WIRE SNARES AND GAME PITS

42. The use of wheel-traps (illustrated at Plates II and III, 1950 Annual Report), appears to be becoming less common in most areas, their place being taken by wire snares which are more likely to kill, or at least hold, the trapped animal on the spot. Unfortunately this is far from always the case and a wire snare that has been laid for a small antelope may catch a large animal such as a buffalo, who will tear the snare from its mounting and go off with a wire noose taut round its neck, face or other part of its body. As a result it is not unusual to find buffalo, kob and other animals wandering about in an emaciated condition with wire snares constricting their necks. Plate XX shows a kob that was shot in this condition to end its suffering. Buffalo in this state, apart from the question of cruelty, are dangerous customers to meet.

43. This iniquitous practice of snaring will continue as long as wire and wire cable are readily available in dukas throughout the country, and until such time as a more serious view is taken of such offences and punishments greatly increased.

44. Game-pits are still used popular in Acholi is of a large size, wide and 8 feet deep. This is bad but usually they are left unless the bottom of the pit has been dug to death from starvation and thirst.

45. In Acholi the usual method is the choice of a suitable number between fifteen and forty and a circle or a straight line, some two moves through it is almost a certainty. Some pits have a strong covering put on to stand the weight of a man, and they are a likely place for a cross-country traveller.

46. If these pits were visited, the practice would be so bad but usually they are left until the bottom of the pit has been dug to death from starvation and thirst.

47. Nets and gins are also closer to cultivation. The excuse away, but this is seldom true and the use of which should be limited.

TRIBAL HUNTING

48. Whatever is to be said for paragraphs 45 and 46, when properly conducted, it must be strict or it will die a natural death in the extermination of game in the area.

49. The Game Ranger, Gh, calculates that at least one-tenth outside the Reserves, was killed out this is bad, but one of the worst proportion of female and immature animals. The Acholi are keen and if they are not hoped therefore that common sense by them to exercise strict control.
44. Game-pits are still used in many areas. The type which is most popular in Acholi is of a large size, being normally some 6 feet long, 4 feet wide and 8 feet deep. This is big enough to trap a young elephant, as often happens. Plate XXII shows a young elephant that was found dead in one of these pits, and Plate XXI shows a pit covered over and ready for its prey.

45. In Acholi the usual method of laying out these pits is as follows—a likely place is chosen some ten miles or so from cultivation and any number between fifteen and forty pits are dug; these are made in a semi-circle or a straight line, some twenty feet apart, thus when a herd of game moves through it is almost a certainty that something will get caught. The pits have a strong covering put over them, which in some cases will withstand the weight of a man, and this saves them from being spoiled by small animals. Single pits are placed on game trails and can be a menace to the unwary cross-country traveller.

46. If these pits were visited frequently their use would not be quite so bad but usually they are left for long periods and a trapped animal, unless the bottom of the pit has been staked, sometimes dies a lingering death from starvation and thirst.

47. Nets and gins are also extensively used but for the most part closer to cultivation. The excuse is protection of the latter, however far away, but this is seldom true and gins in particular are cruel instruments the use of which should be limited as far as is possible.

TRIBAL HUNTING

48. Whatever is to be said for or against tribal hunting (see also paragraphs 45 and 46, 1950 Annual Report), and there is no doubt that when properly conducted and organised it is fine, manly sport and good discipline training, it must be strictly controlled and restricted in the future or it will die a natural death in a very short time as a result of the virtual extermination of game in the areas in which such hunting is allowed.

49. The Game Ranger, Gulu, has stated that he considers that if the present rate of hunting, combined with poaching, continues the game in Acholi will be exterminated within, at the very outside, ten years. He calculates that at least one-tenth of the total game population in Acholi, outside the Reserves, was killed last year by various means. As he points out this is bad, but one of the worst aspects is that on these hunts a large proportion of female and immature animals get killed making it more difficult for the species to reassert themselves.

50. Both this Department and the Provincial Administration are concerned about this problem and the latter are taking steps to persuade the Acholi African Local Government to take action to restrict and strictly control all tribal hunting, and if possible the killing of female and immature animals. The Acholi are keen on hunting for hunting’s sake, and it is hoped therefore that commonsense will prevail and action will be taken by them to exercise strict control in the future.
INCREASE IN WEAPONS AND HUNTING WITHOUT LICENCE

51. In the last four years there has been a very big increase in the number of rifles and shotguns in the Protectorate. During this short period the number of rifles has increased by just on 100 per cent. and shotguns by over 55 per cent. The number of Game and Bird licences issued bears little relation to the number of arms and even after allowing for the fact that some people possess more than one weapon, and that they need not necessarily take out Game or Bird licences each year, one can only conclude that many of these weapons are used for poaching. This is known to be true although the most common illegal practice is for a shotgun owner to take out a Bird licence and use it as a cover to shoot all kinds of game using buckshot or home-made ball cartridges. Added to this there are the large number of home-made and unlicensed arms, either smuggled into the country or stolen.

52. In 1951 for every Resident’s Game licence issued there were over 3½ licensed rifles in the Protectorate, and for every Bird licence there were nearly 1½ shotguns. When one also realises that, apart from the pure poacher, a very large proportion of present day licence holders merely take out Game licences and Bird licences for the amount of meat they can get in return, either for their own use or for sale, and therefore shoot anything and everything without regard to the restrictions of the Game Ordinance, one can appreciate the grave danger to the remaining stocks of game in the Protectorate, and the fact that to save the situation very much stricter control and sufficient staff to enforce the Game Laws are vitally necessary.

53. The following comparative table is enlightening and shows at a glance what has been mentioned above:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Rifles</th>
<th>Shotguns</th>
<th>Combination Arms (Gun and Rifle)</th>
<th>Resident’s Game Licences issued</th>
<th>Bird Licences issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>883</td>
<td>1,779</td>
<td>10</td>
<td>274</td>
<td>932</td>
</tr>
<tr>
<td>1951</td>
<td>1,742</td>
<td>2,765</td>
<td>24</td>
<td>516</td>
<td>2,016</td>
</tr>
</tbody>
</table>

Legislation

54. Legislation affecting game was as follows:—

(a) Legal Notice No. 67, which varies the rate of duty levied on game hides under the Hides and Skins Export Duty Ordinance, 1948.
(b) Legal Notice No. 151, which adds Mbale District to those areas for which a closed season for guineafowl is proclaimed.
(c) Legal Notice No. 179, which proclaims Entebbe peninsula to be an Animal Sanctuary.
(d) Legal Notice No. 226, which redefines part of the northern boundary of the East Madi Sleeping Sickness Restricted Area and Elephant Sanctuary.

(e) Legal Notice No. 28, which in the areas in which the shooting of dangerous animals is prohibited, defines new and expanded areas.

(f) An Ordinance to Amend the Game Ordinance, 1938, in which “dangerous animal” is redefined, increases the minimum weight of meat obtained to 20 lbs.; governs the cost of Special Licences, the number of licences for one, three and five days; and finally, renders it obligatory on the part of licences holders to report to the Director of Game, in writing, that in which his licence has been used, in the case of dangerous animal in that district.

55. There was much poaching of elephant licences allowed per year. The licence for one, three to two, and the cost of three licences were fixed at Shs. 300 for a Resident and Shs. 400 for a Visitor. There was also much poaching of licence holders who failed to submit the number of elephant licences taken.

56. The reasons why this poaching continued are given in paragraphs 17, 18 and 217 of the Report for 1950. Unfortunately owing to the political situation of the time the report was not available to the public until after the war.

Game Reserve

BUNYORO AND GULU

57. Poaching has continued in the Bunyoro and Gulu Game Reserve, in spite of the fact that the Reserve is surrounded by a boundary fence. Frequent reports of elephant poachers were received, but although a number of poaching appliances were found near the reserve, they were not sufficient to apprehend the poachers. Whether they normally have to operate by day or night or restrict arrest.

58. Despite this poaching, the number of elephants in this Reserve was found to have increased.
(e) Legal Notice No. 289, which adds Busongora County, Toro, to the areas in which the shooting of buffalo is restricted.

(f) An Ordinance to Amend the Game Ordinance, No. 35 of 1951, in which “dangerous animal” is defined and “professional hunter” redefined, increases the minimum weight of tusk which may be legally obtained to 20 lbs.; governs the actions of professional hunters; raises the cost of Special Licences for elephant and reduces from three to two the number of licences for elephant which may be taken out annually, and finally, renders it obligatory upon a licence holder:—

(a) to report to the District Commissioner of a District other than that in which his licence was obtained, his intention to hunt any dangerous animal in that district; and

(b) to take action as laid down should he wound and fail to kill any dangerous animal.

55. There was much discussion before the number of Special Elephant licences allowed per licence holder per year was reduced from three to two, and the cost of First Elephant licences raised from Shs. 100 to Shs. 300 for a Resident and Shs. 600 for a Visitor, and Second Elephant licences from Shs. 200 to Shs. 600 for a Resident and Shs. 1,200 for a Visitor. There was also much adverse comment from many short-sighted licence holders who failed to appreciate the urgent necessity to reduce the number of elephant licences taken out annually.

56. The reasons why this step was necessary were explained in detail in paragraphs 17, 18 and 217 to 228 of this Department’s Annual Report for 1950. Unfortunately owing to printing difficulties this document was not available to the public until after the new legislation was passed.

Game Reserves and Sanctuaries

Bunyoro and Gulu

57. Poaching has continued to be bad in the Acholi portion of this Reserve, in spite of the fact that Game Scouts were posted at intervals along the boundary. Frequent reports of poaching-camps being seen from the air were received, but although a considerable number of illegal hunting appliances were found no convictions were obtained for poaching in this area. This is due to some extent to Game Scouts failing to undertake long safaris in the Reserve, but it is also due to their reluctance to attempt to apprehend large hunting parties. They feel that if they were to try their days would be numbered. Their nervousness can be appreciated since they normally have to operate singly or in pairs and the poachers are usually well armed, nor are they always reluctant to use their weapons to resist arrest.

58. Despite this poaching there is still a fair head of game and many elephant in this Reserve.
TORO (OR SEMLIKI)

59. This Reserve is a favourite hunting ground for the local people living along the escarpment and at Rwebisengo, and this poaching has continued in spite of regular patrols carried out by this Department and a number of arrests. Game Scouts usually return from these patrols with one or two poachers under arrest, but unless the Game Ranger sends, or himself accompanies, a large patrol it is very difficult to round up some of the large hunting parties often numbering as many as 30 poachers.

60. Lion continue to be numerous and make life difficult for the lesser animals. When camping in this area at night lion can be heard roaring in all directions and animals often stampede past one’s camp.

61. The Borassus Palms are an interesting feature of most parts of this Reserve. The elephant really enjoy a feed of the nuts of these trees and travel a long way to get them. After stuffing themselves with these nuts they appear to become a little drunk and sleepy. The Game Ranger, Toro, states that when he was recently tracking lion near the Reserve boundary his trackers always seemed to lose the spoor when approaching the young Borassus Palm trees. Everyone then crowded around and a race from tree to tree ensued. It was then that the Ranger found the “Kabuis” set to collect the wine (toddy). He states that after this discovery he insisted on keeping in the lead, occasionally giving the others a sip of toddy if there was any left over.

LAKE GEORGE

62. This Reserve continues to be a great attraction to both visitors and residents. The elephant at Katwe are still nearly always to be seen near the main road and numerous herds of elephant, buffalo, kob and waterbuck are usually along the road between Katunguru and Katwe. Fortunately there is comparatively little poaching in this area due to the fact that it can be fairly closely supervised by this Department and the local authorities.

63. In the northern part of the Reserve there is far more poaching and in recent raids in the area of the Mubuku River hippo spears, traps, nets and dried game meat were found.

64. Kob are increasing in numbers near Katunguru and below Muhokya as in these two areas they can be closely watched. In the latter area this is largely due to the past efforts of Mr. C. O. Lemon, Honorary Game Ranger, and the present efforts of Mr. Leslie Graham.

LAKE EDWARD

65. There is little new to report in regard to this Reserve in which, due to lack of staff and poor communications, control is difficult.

66. Numbers of illegal fish-smoking camps have continued to operate in this Reserve along the shore line of Lake Edward. Such camps are also responsible for game poaching.

67. Work on the new road through Edward has continued although it of the bridges over the Rusays and rains. The game seem to have recovered by the building of the may one day become as good a vis in Toro.

68. Reports indicate that in Reserve.

MASHA ANIMAL SANCTUARY, ANKOR

69. This Sanctuary, unfortunately its western boundary and a Saza IG extend a private hunting ground for Sanctuary. These people mainly by year reports indicate that a new area often from outside the district, have

70. Much help was received fr and Trypanosomiasis Research Orgi this area, but it is now obvious that urgently needed if the attractive gar the enjoyment of law abiding people.

ELEPHANT SANCTUARY, ACHOLI AND KIGERI

71. The Anaka-Pakwach road continues to be a delight to the mot of kob, hartebeest and oribi which are throughout the year so that they cou the banks of the Nile, on either side ground for elephant, and they may re. This has its drawbacks when the grass is very close. However, they are usually very reason very close.

72. Along the northern and the favourite poaching grounds, and the result. Game Guards and Game persistently but, although they are cases, they have not so far caught

WHITE RHINOCEROS SANCTUARY

73. Mt. Kei and Mt. Otai Cro Madi are not ideal white rhinoceros a matter of convenience. In fact these localities, Waka and other places near
hunting ground for the local people living
here, and this poaching has continued
out by this Department and a number
return from these patrols with one or
two of the Game Ranger sends, or himself.
It is difficult to round up some of the large
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efforts of Mr. C. O. Lemon, Honorary
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ring in regard to this Reserve in which,
incisions, control is difficult.
ing camps have continued to operate
of Lake Edward. Such camps are also

67. Work on the new road through the Reserve to Rwensama on Lake
Edward has continued although it was held up by the destruction by flood
of the bridges over the Rusaya and Nchwera Rivers during the heavy April
rains. The game seem to have recovered quickly from the disturbances
occasioned by the building of the road and there is every reason that it
may one day become as good a viewpoint for wild life as the Katwe road
in Toro.

68. Reports indicate that lion are increasing in numbers in this
Reserve.

MASHA ANIMAL SANCTUARY, ANKOLE

69. This Sanctuary, unfortunately, has the township of Mbarara on
its western boundary and a Saza (Gayaza) inside it; as a result it is to some
extent a private hunting ground for poachers who actually live within the
Sanctuary. These people mainly hunt with dogs, spears and nets but this
year reports indicate that a new menace of lorry-borne poaching parties,
often from outside the district, have started to invade the Sanctuary.

70. Much help was received from Officers of the East African Tsetse
and Trypanosomiasis Research Organisation who have been operating in
this area, but it is now obvious that a Game Ranger based on Mbarara is
urgently needed if the attractive game areas of Ankole are to be saved for
the enjoyment of law abiding people.

ELEPHANT SANCTUARY, ACHOLI AND EAST MADI

71. The Anaka-Pakwach road which runs through the Sanctuary
continues to be a delight to the motorist. At Lolim the large concentration
of kob, hartebeest and oribi which are resident there, kept the grass short
throughout the year so that they could easily be seen at any time. Along
the banks of the Nile, on either side of the road, is a favourite feeding
ground for elephant, and they may nearly always be seen in that vicinity.
This has its drawbacks when the grass is long because one or more of these
huge animals can quite easily be hidden within 3 or 4 yards of the road,
and may unexpectedly burst forth in front of the unwary traveller.
However, they are usually very reasonable and move away when one gets
very close.

72. Along the northern and eastern edges of the Sanctuary are
favourite poaching grounds, and the game in these areas is very wild as a
result. Game Guards and Game Scouts have patrolled this region
persistently but, although they are continually coming across illegal hunting
appliances, they have not so far caught any poachers this year.

WHITE RHINOCEROS SANCTUARY

73. Mt. Kei and Mt. Otzi Crown Forests in West Nile and West
Madi are not ideal white rhinoceros sanctuaries but were chosen originally
as a matter of convenience. In fact this animal is more numerous in other
localities, Waka and other places near the Nile being the best.
74. The white rhino have continued to increase satisfactorily and, although it is difficult to estimate properly, it is thought that their numbers may now exceed 300, while some optimistic observers consider that 500 is nearer the true total. Whatever the correct figure may be the white rhinoceros' future seems assured.

GORILLA SANCTUARY

75. A recent, and fairly reliable estimate of the gorilla on the Muhavura and Mgahinga volcanoes gives their number as 12, including two or three “totos”. There is no doubt that there is considerable movement backwards and forwards across the border.

ENTEBBE ANIMAL SANCTUARY

76. The hippopotamus which live in the waters around the Entebbe peninsula have always been a great attraction to both residents and visitors. Seldom molested they have become comparatively tame but this year a so-called “sportsman” shot some of these semi-tame animals close to Entebbe. As a result it was decided to make Entebbe peninsula into a full Animal Sanctuary and to include the waters around the peninsula up to a distance of half a mile from the shore. Previously the peninsula had been a Bird Sanctuary only. The new Sanctuary was proclaimed vide Legal Notice No. 179.

NATIONAL PARKS

77. The year was notable for the quickening of interest in the idea of establishing National Parks in Uganda.

78. Through the courtesy of the Trustees and Director of the Royal National Parks of Kenya, Mr. K. de P. Beaton, the Senior Park Warden, visited Uganda to advise Government on the areas considered suitable for Uganda's proposed National Parks and also on questions concerning legislation and finance.

79. He arrived in Uganda near the end of October and spent 3 weeks touring the game areas of Ankole, Toro, Bunyoro, Acholi, West Nile and Karamoja. Interviews and talks were held with a large number of individuals, official and unofficial, of all races and during this trip he was accompanied by either the Acting Game Warden or Game Rangers and Honorary Game Rangers.

80. On his return to Entebbe advice was given on the drafting of the proposed National Parks Ordinance, and later he produced a most valuable and detailed report.

81. By the end of the year it was expected that the National Parks Ordinance would become law during 1952 and that some, if not all, of the proposed areas would be gazetted as National Parks during that year. At the time of writing this report this had not yet happened. There have been certain other suggested areas, in particular the Semliki Forest. In view of this, and to enhance the appeal of Uganda as a tourist destination, the Government are considering the advisability of setting aside the Semliki Forest as a National Park. It would be well worth including the hot-springs in this area as they are a great attraction to tourists.

(a) Semliki National Park.—The boundaries of this Park have been proclaimed vide Legal Notice No. 179. Entebbe was recommended.

The grass is short and tracks can be followed from the hotels of Fort Portal and from the Semliki river and over the vast areas of plain. It is recommended, however, that the last stronghold of the Uganda kob and waterbuck, bushbuck, oribi, and puku be gazetted as a National Park.

(b) Bwamba Forest Park.—The boundaries of this Park have been gazetted vide Legal Notice No. 179. It is recommended, however, that the Bwamba Forest be gazetted as a National Park. The Semliki River is also recommended, however, for it is a great attraction to tourists. Visit to this Park should be made by crossing the Semliki River and exploring the Bwamba Forest. Bwamba is the home of the Bambuti pygmy and unique flora and fauna is found in this area.

In view of this strong recommendation of the Bwamba Forest, it is recommended that this area be included in the Semliki Forest. The grass is short and tracks can be followed from the hotels of Fort Portal and over the vast areas of plain. The Semliki River is also recommended, however, for it is a great attraction to tourists. Visit to this Park should be made by crossing the Semliki River and exploring the Bwamba Forest. Bwamba is the home of the Bambuti pygmy and unique flora and fauna is found in this area.
the time of writing this report this has come to pass and two major National Parks have been declared. There is likely to be some controversy over certain other suggested areas, in particular the Semliki and the Bwamba Forest. In view of this, and to enlighten the general public, Mr. Beaton's remarks in his report on the proposed Semliki and Bwamba Forest National Parks are repeated herewith. "The Report" to which he refers is the "Report of the Uganda National Parks Committee, 1950". The relevant extracts from Mr. Beaton's report are as follows:—

(a) **Semliki National Park.**—This area is situated largely in the Toro Game Reserve. It is not mentioned in "The Report". It is one of the last strongholds of the Uganda kob. It also holds elephant, buffalo, waterbuck, bushbuck, oribi, and probably more lions than any other area in Uganda.

The grass is short and tracks could easily be constructed. It is readily accessible from the hotels of Fort Portal and is approached over a very spectacular road through the Buranga Pass with magnificent views of the Semliki river and over the vast forests of the Congo. It is strongly recommended. Visitors to this Park would also visit the following park, which is also recommended, and which is in close proximity,

(b) **Bwamba Forest Park.**—This area is not mentioned in "The Report". The boundaries of this park will have to be considered by the Conservator of Forests, Uganda, as it is wholly within the Semliki Crown Forest. It is recommended, however, that an area of not less than 70 square miles, situated in the north-east of the Semliki Crown Forest and to include the hot-springs be proclaimed as a National Park.

Dr. A. J. Haddow of the Virus Research Institute, who probably knows this area better than any other European, describes it as follows:—

"The Semliki Crown Forest is the only part of the great Central African Rain Forest (or Ituri Forest) lying within Uganda. In it the eastern and western faunas blend, and it is thus of the greatest possible interest to the zoologist. The fauna is of exceptional biological importance, and well worthy of preservation. Many of the animals and birds of the Semliki forest occur nowhere else in East Africa, and it may prove that some are confined to this one forest. It also contains the only Bambuti pygmies to be found in Uganda."

In view of this strong recommendation, together with its charms of lovely forest, pygmies, and unique flora and fauna, its accessibility over a good road with magnificent scenery, all within easy reach of the Fort Portal hotels, and its proximity to the proposed Semliki National Park, it should prove a great attraction to tourists.
Game Trophies

82. Return of tusks from elephants shot by licence holders, and exported:

<table>
<thead>
<tr>
<th>District</th>
<th>Under 10 lb.</th>
<th>10 lb. and over</th>
<th>20 lb. and over</th>
<th>30 lb. and over</th>
<th>40 lb. and over</th>
<th>50 lb. and over</th>
<th>60 lb. and over</th>
<th>70 lb. and over</th>
<th>80 lb. and over</th>
<th>90 lb. and over</th>
<th>100 lb. and over</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mubende</td>
<td>4</td>
<td>40</td>
<td>115</td>
<td>89*</td>
<td>30</td>
<td>7</td>
<td>1*</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>286</td>
</tr>
<tr>
<td>Masaka</td>
<td>6</td>
<td>29</td>
<td>10*</td>
<td>9</td>
<td>3</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>57</td>
</tr>
<tr>
<td>Ankole</td>
<td>7</td>
<td>32</td>
<td>18</td>
<td>8*</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>71</td>
</tr>
<tr>
<td>Toro</td>
<td>4</td>
<td>41</td>
<td>50</td>
<td>31</td>
<td>20*</td>
<td>6</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>190</td>
</tr>
<tr>
<td>Kigeri</td>
<td>15</td>
<td>18</td>
<td>4</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>90</td>
</tr>
<tr>
<td>Buli</td>
<td>15</td>
<td>19</td>
<td>26</td>
<td>20*</td>
<td>21</td>
<td>6</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>165</td>
</tr>
<tr>
<td>West Nile</td>
<td>14</td>
<td>84</td>
<td>40*</td>
<td>14</td>
<td>6</td>
<td>4</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>166</td>
</tr>
<tr>
<td>Madi</td>
<td>8</td>
<td>11</td>
<td>13*</td>
<td>5</td>
<td>3</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>47</td>
</tr>
<tr>
<td>Acholi</td>
<td>4</td>
<td>41</td>
<td>32*</td>
<td>26</td>
<td>10</td>
<td>19</td>
<td>6*</td>
<td>4</td>
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</tr>
<tr>
<td>Mbalu</td>
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<td>3</td>
<td>...</td>
<td>...</td>
<td>3</td>
<td>...</td>
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<td>...</td>
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<td>...</td>
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<td>...</td>
<td>10</td>
</tr>
<tr>
<td>Lango</td>
<td>2</td>
<td>10</td>
<td>18</td>
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<td>...</td>
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<td>...</td>
<td>29</td>
</tr>
<tr>
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<td>2</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
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<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td>189</td>
<td>198</td>
<td>104</td>
<td>141</td>
<td>37</td>
<td>14</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>1,175</td>
<td></td>
</tr>
</tbody>
</table>

* 1 single tusker. † 2 single tuskers.

83. This represents 395 elephants, which is an increase of 11% on last year (536). Large tuskers shot on licence number even fewer than last year, 31 elephants with tusks of 60 lbs. and over being obtained in 1951 as against 36 in 1950. Nearly 77% of the tusks were under 40 lbs. in weight and nearly 51% under 30 lbs. In 1950 these percentages were 70 and 40 respectively. This amply bears out the assertion made in paragraph 88 of the 1950 Annual Report that “the present elephant population will not stand the shooting of the larger tuskers at the present rate,” and it is therefore gratifying to be able to state that action has now been taken to reduce the number of elephant permitted to be killed annually on licence (see paragraphs 54 (f), 55 and 56).

84. 100 leopard skins were exported, an increase of 34 over last year. The majority of the skins exported were of indifferent quality and it is thought to be improbable that the majority of first class skins obtained as a result of trapping are handed in to Government as required by law.

85. Other trophies exported were nine lion skins and nine colobus monkey skins.

86. No ivory curios and no game trophies entered Uganda in transit via the Customs Posts of Kisoro, Meraama Hill, Mpondwe and Vurra.

87. 1,646 tusks totalling 57,117 lbs. (254 tons approximately) valued at £36,666 entered in transit via Butiaba. This is a reduction in tusks of 461 and in weight of 8,794 lbs. (nearly 4 tons) although the value has increased by £94 indicating an increase in the percentage of soft ivory which is more valuable than the hard variety.

SECTION II.—ELEPHANT CONTROL

88. The estimated total elephant wastage for 1951 is approximately 1,400 which is 100 less than 1950. This figure allows for deaths from natural causes and wastage due to poaching.

89. The number of elephants killed while protecting crops and cultivation was 723 which is the lowest in any year since 1928, while the number of special elephant licences issued was a record for Uganda, 818 in all. This latter figure cannot be reduced by licence holders during the year, and therefore in the last quarter of the year, and the fruit of a shamba raid are worth.

90. The large numbers of elephants was received; on investigation it to be without foundation or to have been included. The desire for a large feed of food nowadays do not assist control. The raiding cultivation as these creatures by driving elephants from these regions.

91. While carrying out elephant Department has been that when a cultivation to shoot a number of elephants that “elephant never forget” does not go, as an experiment, and in an experiment instructions were given that as far as possible elephants from these regions.

92. The large numbers of p

93. The number of elephants in the course of cultivation protection is...
Trophies

Elephants shot by licence holders, and

<table>
<thead>
<tr>
<th></th>
<th>50 lb. and under</th>
<th>60 lb. and under</th>
<th>70 lb. and under</th>
<th>80 lb. and under</th>
<th>90 lb. and under</th>
<th>100 lb. and over</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>226</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1023</td>
</tr>
<tr>
<td>lb.</td>
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<td>6</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>76</td>
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<td></td>
<td>45</td>
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<td>1</td>
<td>6</td>
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<td>1</td>
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<td>80</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>723</td>
<td>461</td>
<td>262</td>
<td>1,415</td>
<td>31</td>
<td>19,464</td>
<td></td>
</tr>
</tbody>
</table>

* 2 tusks confiscated (illegal).
† 6 tusks confiscated (illegal).

This latter figure cannot be related to the number of elephants killed by licence holders during the year as many of the elephant licences taken out will not be filled until 1952. The chief reason for this excessive number is because the public became aware that the cost of elephant licences was to be increased and the number of elephants allowed per licence-holder reduced, and therefore in the last quarter of the year there was a rush to take out licences before the new legislation came into force.

90. The usual large number of complaints about damage caused by elephants was received; on investigation the great majority of these proved to be without foundation or to have been made on the slightest pretext. The desire for a large feed of free meat is the cause of most of the complaints.

91. While carrying out elephant control in the past the policy of the Department has been that when a herd of elephant has been found raiding cultivation to shoot a number of elephants and so working on the old adage that "elephant never forget" discourage the herd from returning. This year, as an experiment, and in an effort to reduce the killing of elephants, instructions were given that as far as possible only one elephant out of any herd found raiding cultivation was to be shot. It has so far been found that this is equally as effective as killing a number, as either elephants do "forget," or are too stupid to take a very plain hint, or sometimes consider the fruits of a shamba raid are worth the risk of a bullet!

92. The large numbers of persons who take out elephant licences nowadays do not assist control. They usually will not shoot elephants raiding cultivation as these creatures rarely carry warrantable ivory. The licence-holder generally goes off into the uninhabited areas to hunt for the large tuskers and as a result tends to negative the work of the Department by driving elephants from these areas into the inhabited and cultivated regions.

93. The number of elephants killed by the Departmental staff during the course of cultivation protection in 1951, is as under:

<table>
<thead>
<tr>
<th>District</th>
<th>No. of Elephants</th>
<th>Male</th>
<th>Females</th>
<th>Total Tuskers</th>
<th>Single Tuskers</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mengo</td>
<td>85</td>
<td>57</td>
<td>28</td>
<td>167</td>
<td>3</td>
<td>2,304</td>
</tr>
<tr>
<td>Mubende</td>
<td>35</td>
<td>33</td>
<td>2</td>
<td>68*</td>
<td>2</td>
<td>936</td>
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<td>Mankia</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>21</td>
<td>1</td>
<td>201</td>
</tr>
<tr>
<td>Ankole</td>
<td>5</td>
<td>17</td>
<td>8</td>
<td>40</td>
<td>4</td>
<td>909</td>
</tr>
<tr>
<td>Toro</td>
<td>133</td>
<td>102</td>
<td>31</td>
<td>259</td>
<td>7</td>
<td>3,322</td>
</tr>
<tr>
<td>Kigezi</td>
<td>21</td>
<td>15</td>
<td>6</td>
<td>41</td>
<td>1</td>
<td>836</td>
</tr>
<tr>
<td>Heima</td>
<td>24</td>
<td>24</td>
<td>47</td>
<td>1</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Maindi</td>
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<td>101</td>
<td>92</td>
<td>380</td>
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<td>5,906</td>
</tr>
<tr>
<td>West Nile</td>
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<td>6</td>
<td>2</td>
<td>16</td>
<td>1</td>
<td>237</td>
</tr>
<tr>
<td>Madi</td>
<td>46</td>
<td>19</td>
<td>27</td>
<td>90</td>
<td>2</td>
<td>247</td>
</tr>
<tr>
<td>Acholi</td>
<td>72</td>
<td>32</td>
<td>40</td>
<td>144†</td>
<td>1</td>
<td>1,656</td>
</tr>
<tr>
<td>Mbole</td>
<td>16</td>
<td>15</td>
<td>3</td>
<td>35</td>
<td>1</td>
<td>687</td>
</tr>
<tr>
<td>Lango</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Karamoja</td>
<td>45</td>
<td>32</td>
<td>13</td>
<td>87</td>
<td>3</td>
<td>966</td>
</tr>
<tr>
<td>Busoga</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>6</td>
<td>304</td>
</tr>
<tr>
<td>TOTAL</td>
<td>723</td>
<td>461</td>
<td>262</td>
<td>1,415</td>
<td>31</td>
<td>19,464</td>
</tr>
</tbody>
</table>

* 2 tusks confiscated (illegal).
† 6 tusks confiscated (illegal).
94. The average weight per tusk is 13.75 lbs. which is slightly higher than usual.

95. The following figures represent the number of tusks of below and over 10 lbs. weight obtained in the course of control operations:

<table>
<thead>
<tr>
<th>District</th>
<th>Under 10 lb.</th>
<th>10 lb. and over</th>
<th>20 lb. and over</th>
<th>30 lb. and over</th>
<th>40 lb. and over</th>
<th>50 lb. and over</th>
<th>70 lb. and over</th>
<th>TOTAL TUSKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mengo</td>
<td>5</td>
<td>14</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>167</td>
</tr>
<tr>
<td>Mubende</td>
<td>3</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>Masaka</td>
<td>13</td>
<td>15</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>106</td>
</tr>
<tr>
<td>Ankole</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>87</td>
</tr>
<tr>
<td>Toro</td>
<td>12</td>
<td>16</td>
<td>13</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>Kigezi</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Hoima</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Masindi</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>West Nile</td>
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<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Madi</td>
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<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Acholi</td>
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<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Mbale</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Lango</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Karamoja</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
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<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>620</strong></td>
<td><strong>494</strong></td>
<td><strong>177</strong></td>
<td><strong>72</strong></td>
<td><strong>33</strong></td>
<td><strong>17</strong></td>
<td><strong>2</strong></td>
<td><strong>1,415</strong></td>
</tr>
</tbody>
</table>

96. Only one elephant with tusks weighing over 70 lbs. was shot while protecting crops and cultivation. The elephant was a confirmed cultivation raider and was shot actually in a shamba by a Game Guard late in the evening. Of the elephants shot on control 91% had tusks of less than 30 lbs. apiece and 79% under 20 lbs. each.

97. Found ivory from control areas:

<table>
<thead>
<tr>
<th>District</th>
<th>Under 10 lb.</th>
<th>10 lb. and over</th>
<th>20 lb. and over</th>
<th>30 lb. and over</th>
<th>40 lb. and over</th>
<th>50 lb. and over</th>
<th>60 lb. and over</th>
<th>Total Tusks</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mengo</td>
<td>5</td>
<td>5</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>87</td>
</tr>
<tr>
<td>Mubende</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>73</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
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</tr>
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<td>2</td>
<td>1</td>
<td>1</td>
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<td>9</td>
<td>73</td>
</tr>
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<td>2</td>
<td>1</td>
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</tr>
<tr>
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<td>1</td>
<td>1</td>
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<td>1</td>
<td>9</td>
<td>73</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>73</td>
</tr>
<tr>
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<td>1</td>
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<td>1</td>
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</tr>
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<td>73</td>
</tr>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>73</td>
</tr>
<tr>
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<td>1</td>
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<td>73</td>
</tr>
<tr>
<td>Mbale</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>73</td>
</tr>
<tr>
<td>Lango</td>
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<td>1</td>
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</tr>
<tr>
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<td>1</td>
<td>1</td>
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<td>1</td>
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<td>73</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>71</strong></td>
<td><strong>76</strong></td>
<td><strong>23</strong></td>
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<td><strong>187</strong></td>
<td><strong>2,778</strong></td>
</tr>
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</table>

* 2 tusks weighing 19 lb. were confiscated.
† 9 tusks weighing 27/1 lbs. were confiscated.

98. Found ivory from uncontrolled areas:

(a) Karamoja ... 8 tusks weighing 207 lbs.
(b) Soroti ... 2 tusks weighing 55 lbs. (confiscated).

99. Mengo.—Two Game Guards were killed while protecting crops and cultivation. The elephant was a confirmed cultivation raider and was shot actually in a shamba by a Game Guard late in the evening. Of the elephants shot on control 91% had tusks of less than 30 lbs. and 79% under 20 lbs. each.

100. During control operations the whole year, one at Butemba in Bulemezi County. They were east complaints.

101. There appears to have been an elephant from north-east Toro into the middle of the year. The nur and Bulemezi Counties were at this time most of the elephants had tusks of below 10 lbs. weight obtained in the course of control operations.

102. The annual migration in Mengo District which used to take place to have ceased. This is probably due to the Game Reserve and increased elephant road which this migration used to follow.

103. Mubende.—Two Game Guards killed throughout the year and were able to protect crops and cultivation. The elephant was shot actually by a Game Guard late in the evening. Of the elephants shot on control 91% had tusks of less than 30 lbs. and 79% under 20 lbs. each.

104. During the year 35 elephants were killed on control operations; this is an increase of 12 cases over the last year.

105. An unusually large migration caused a considerable increase in the numbers of elephants seen being visitor elephants.

106. Peace has once again resumed development and as a feature of this lovely spot have returned. There are few resident elephants in the Karamoja figure. Towards the end of the year numbers of elephants that it was not possible to reduce killings will be reduced.

107. Masaka.—During the year 35 tusks weighing 20 lbs. were killed on control operations and 2 tusks weighing 27/1 lbs. were confiscated. There are few resident elephants in the Masaka area and the numbers of elephants seen being visitor elephants have returned.

Western Region

108. Bunyoro.—Despite every effort made to protect crops and cultivation, this district has lost many elephants killed while protecting crops. This is the first time in many years that 101 males and 92 females; this is a very significant decrease. Towards the end of the year 101 elephants were killed while protecting crops and cultivation. The elephant was a confirmed cultivation raider and was shot actually in a shamba by a Game Guard late in the evening. Of the elephants shot on control 91% had tusks of less than 30 lbs. and 79% under 20 lbs. each.

109. A multitude of complaints were received, mainly from Kibale.
The tusk is 13.75 lbs. which is slightly higher. If we represent the number of tusks of below and above the course of control operations:

<table>
<thead>
<tr>
<th>Lb.</th>
<th>30 lb. and over</th>
<th>40 lb. and over</th>
<th>50 lb. and over</th>
<th>70 lb. and over</th>
<th>Total Tusk</th>
<th>Total weight</th>
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<tr>
<td>1</td>
<td>7</td>
<td>1</td>
<td>2</td>
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<td>10</td>
<td>87</td>
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<td>4</td>
<td>135</td>
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<td>7</td>
<td>72</td>
<td>33</td>
<td>17</td>
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<td>1,415</td>
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With tusks weighing over 70 lbs. was shot while in control. The elephant was a confirmed cultivation in a shamba by a Game Guard late in the year. 1% had tusks of less than 20 lbs. each.

Potted areas:

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<tr>
<th>30 lb. and over</th>
<th>40 lb. and over</th>
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<th>70 lb. and over</th>
<th>Total Tusk</th>
<th>Total weight</th>
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<td>1,415</td>
<td>1,415</td>
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</table>

19 lbs. were confiscated.
271 lbs. were confiscated.

Potted areas:

1 tusks weighing 207 lbs.
2 tusks weighing 55 lbs. (confiscated).
County are particularly fond of elephant meat and when shots are heard will drop everything and move in large numbers to the scene of the shooting in the hopes of partaking of a glorious meat feast, it is not difficult to find the reason for the complaints.

110. Elephant movements in the district have been normal. The large annual elephant migration from the Bunyoro Game Reserve down to the Kafu River in Buruli County and on into Buganda has now apparently ceased, probably due to the smaller number of elephants within the Game Reserve and to the increased cultivation along, and in places actually on, the elephant road. A small herd of elephants, mainly cows, has taken up residence in Buruli County; these came from Buganda and it is believed occasionally visit their brethren across the Kafu River. They appear to be well able to look after themselves; during 1950 a bull from this herd gave a Game Guard a rough time, and this year the cows showed their resentment in no uncertain manner when a licence-holder bagged the herd bull.

111. The elephants at Mutunda have continued to be troublesome. They have now worked out to a fine degree the timings of their cultivation raiding; leaving the Game Reserve just after dark, having a jolly night at the expense of the local Africans, and returning to the Reserve before dawn. Night shooting by the Game Guards is not encouraged due to the large proportion of elephants which are lost wounded. Occasionally the herds have mistimed their return to the Reserve and have been caught outside at dawn when they have been duly punished.

112. Thunder-flashes in this area have not been entirely successful probably due to incorrect use, i.e. exploding them too far away from the elephants which it is desired to frighten. The Game Warden witnessed a good example of how the elephants have got used to these noises. A herd of cow elephants which had been raiding cultivation was followed into the Game Reserve; when getting close to the herd the wind changed and they became very vociferous and restless; a couple of shots over the herd put them to flight, but within a quarter of a mile they had settled down and started to graze again.

113. The Game Ranger, Bunyoro, reports an example of how elephants startled by noises other than rifle shots or thunder-flashes can recover their equanimity. On one occasion the spoon showed very clearly how a herd of approximately 50 elephants, feeding at dawn on new millet, were stampeded into headlong flight by the shouts of the irate cultivators and headed towards the sanctuary of the Reserve. Nevertheless, within one mile the herd had recovered sufficient composure to halt and feed in another isolated millet shamba before crossing the boundary in good order.

114. During the course of the year 133 elephants—102 males and 31 females—were shot while protecting cultivation in this district; this is 4 more elephants than in 1950.
meat and when shots are heard numbers to the scene of the shooting as meat feast, it is not difficult to find the district have been normal. The Buganda Game Reserve down to But compared to the scene of the shooting the numbers to the scene of the shooting number of elephants within the Game the Kafu River. They appear to have taken up main from Buganda and it is believed 1950 a bull from this herd and this year the cows showed their when a licence-holder bagged the herd Kafu River. They appear to have taken up main from Buganda and it is believed 1950 a bull from this herd and this year the cows showed their when a licence-holder bagged the herd

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Very little control was necessary in east Toro, approximately east of a line drawn north-south through mile 145 on the Kampala-Fort Portal road. The area is short grass and although the people live in very small communities scattered throughout the country, they are able to drive off any elephants who have designs on their cultivation more easily than people living in long grass areas.

Elephants are reported still to be very plentiful within this district, but few large tuskers remain outside the Game Reserves.

control operations accounted for 25 elephants—17 males and 8 females. There has been little serious damage to cultivation in this district; the raiding took place generally in the Bukwesu and Kitoma areas.

Control operations accounted for 21 elephants—15 males and 6 females; this is 7 less than in 1950. The abnormal rains towards the end of the year induced numbers of elephants to move out of the Parc National Albert and the Lake Edward Game Reserve into the banana shambas of Kinkizi County.

The herd in the Chuya Bamboo Forest did little damage and generally kept to the bamboos.

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Northern Province

During the year 72 elephants were shot on control, comprising 32 bulls and 40 cows, which is 56 elephants less than in 1950. This considerable decrease is due to the fact that it was possible for the Game Ranger in charge of the area to supervise the Game Guards much more closely. In the past it was the custom of the Guards to shoot whenever they were told by the Chiefs or wherever they felt like themselves, but with supervision their efforts have been directed to shooting only those elephants which raid cultivation and also to shoot a minimum number at any one time.

Most of the elephant raiding of crops and cultivation took place in the Atanga, Palabek, Koich and Atiak areas. There were, of course, the usual complaints from other regions but there was little real damage.

There was no damage to cultivation in the Kiten area which is somewhat surprising as there was a certain amount of damage done there last year. Other areas in which no damage was reported were Agora, Madi Opei, and the southern part of Acholi between Bbobi and Patonga.
124. The Sudan Game Department have started to shoot large numbers of elephant on control in the adjoining districts of the Sudan. As yet this control has not had any marked effect on the numbers of elephants in Acholi although it might account for the lack of damage at Kiten and Agora.

125. The Anaka and Lamogi areas produced most of the large tuskers killed by licence holders within the district. But the chances of bagging a large tusker are slim because of the number of African licence holders who spend weeks on end in these areas.

Langó

126. Control operations accounted for 18 elephants—15 bulls and 3 cows—during the year. This is one less than in 1950.

127. An additional Game Guard was posted to Langó in June to assist in control operations. He stayed in the district until the end of November.

128. On the whole control was satisfactory but only because of the hard work on the part of the Game Guards. The elephant in this area seem to be particularly persistent raiders and will not leave the area of cultivation until thoroughly punished.

129. The main difficulty experienced in the control was the singular lack of co-operation from the local population who, despite the facts that the Game Guards are there to help them and they enjoy elephant meat, rarely brought in information about elephant and that which was brought in generally proved to be false.

130. The Game Ranger in charge of the area reports an interesting example of the persistence or possibly stupidity of elephants. A herd of 11 bulls crossed the Minakulu-Atura road and moved down to the Koli River near Chegere. A Game Guard shot two out of the herd after they had raided some cultivation. They then moved north to Aboke where further damage to cultivation took place. The following morning the Game Ranger himself accompanied by another Game Ranger followed the herd out of the shambas and shot four. That same night the remaining five elephants moved south-east to Balá and again raided cultivation. As the herd persisted in remaining in close proximity to cultivation a Game Guard shot a further elephant. It was then and only then that the four remaining elephants realised that life in the Game Reserve would be far more healthy and pleasant, and they at last returned.

Mádi

131. During the year 46 elephants were killed while protecting crops and cultivation, comprising 19 males and 27 females. This is 5 less than in 1950.

132. Two Guards were operating in the district for the whole year, one in East Mádi and one in West Mádi; between them they were able to deal with all complaints of damage as well as doing other work.
Department have started to shoot large numbers of elephant in the adjoining districts of the Sudan. The marked effect on the numbers of elephant within the district is due to the lack of damage at the Game Reserve. Western Madi produced most of the large numbers in the district. But the chances of finding a big tusker are remote; the average weight of ivory obtained by licence holders being very light. But occasionally a large tusker does wander in from the Sudan or from the Elephant Sanctuary across the Nile.

133. A certain amount of damage was caused by elephant in East Madi, but as the boundary of the Elephant Sanctuary runs very close to cultivation it was difficult to punish the elephants outside the Sanctuary. In the latter half of the year the boundary of the Sanctuary was moved back in order to give more room in which to control these persistent cultivation raiders, but the effect has not been so marked as was hoped.

134. Some large herds of elephant still remain in West Madi particularly in the south in the Waka-Obongi-Balala area. These herds periodically are reinforced by elephants from Acholi and the Sudan. The chances of finding a big tusker are remote; the average weight of ivory obtained by licence holders being very light. But occasionally a large tusker does wander in from the Sudan or from the Elephant Sanctuary across the Nile.

135. It was only necessary to kill 8 elephants—6 bulls and 2 cows—on control operations in this district during the year. This is one less than in 1950, and is the lowest figure for any year since 1929.

136. Some large herds from the Sudan and the Congo visited the north of the district in September and October. They did little damage and did not remain within the district for long. There were some good tuskers with these herds which one or two lucky licence holders were able to bag.

137. It was only necessary to kill 2 elephants—both males—on control. This is one less than in 1950. Both elephants were shot by an Honorary Game Ranger as there is no Game Guard stationed in this district. Generally elephants have given little trouble.

Eastern Province

Bunyoro

138. A total of 45 elephants—32 bulls and 13 cows—was killed in the district during the year. This is eleven less than in 1950.

139. A certain amount of damage to cultivation occurred in southwest Bugabula and north-west Butembo-Bunya, but generally the Guards were able to deal with all calls for assistance with little difficulty.

Mbanda

140. During 1950 no elephants were killed in this district, but in 1951 it was necessary to kill 5, all cows. Four were shot by a Game Guard and one was speared.

141. The Elgon herd made their customary incursions into the high cultivated areas in Buwabwala and Bunbo sub-counties of South Bugishu but little damage was done. A certain amount of damage to crops occurred...
in Bukwa sub-county of Sebei. It was necessary to send a Game Guard from Busoga District to deal with these elephants and he shot four, while the fifth was speared by a shamba-owner.

TESO

142. No elephants were reported from this district during the year.

General

CASUALTIES FROM ELEPHANT

143. It is pleasing to be able to report that there were no casualties to the departmental staff caused by elephants.

144. An African woman was killed by an elephant at Parabongo, Acoli. She was working in her shamba when an elephant and calf accidentally came upon her. The elephant finding itself so close to a human being and fearing for its calf took fright, attacked and killed her. The woman's brother who was some distance away, then came up and tried (for some unknown reason) to spear the calf; throwing two spears neither of which hit the young elephant. The mother elephant then attacked him and as he turned to run he fell over. The elephant came up and started to savage him with her tusks, but due to a lucky misjudgment pushed her tusks underneath his body; she then lifted her head with the man balanced on her tusks and threw him forward. As she advanced, intent upon further savaging the unfortunate man, some more Africans came up and started shouting, whereupon she made off.

145. Some ten to fifteen miles from where the woman was killed the same cow elephant once more accidentally came upon a young boy who was cutting wood. She immediately attacked him, picked him up and threw him away, but by a miracle he did not sustain any serious injury. She then moved on and was later shot by a Game Guard close to some game pits into which her calf had fallen. So ended the lives of a brave if unwise mother and an unfortunate calf.

ELEPHANT WITH ANTHRAX?

146. A Field Officer of the Tsetse Control Department stationed in Karamoja District has forwarded the following interesting report. "On February 25th, while out elephant hunting on Longile Mountain, I was passing down a narrow valley near the upper end of the Lakine Basin on the mountain when I nearly walked into an elephant. As it made no attempt to move I climbed a nearby rock and examined it with the aid of a pair of field glasses. I discovered that there was a large septic wound at the back of the right fore foot. The animal was extremely thin and in very poor condition and also there was a discharge from the mouth. The wretched creature had been living for some time in a very small area and had been doing very little feeding. I saw no alternative but to put it out of its misery."

147. Unfortunately it was not possible to examine this animal or to find out the reason for the condition it was in. It appears to be a possibility.

SHOT ELEPHANTS FALLING ON OTHER ELEPHANTS

148. In February a licence holder hunting a herd. The animal collapsed with injuries in a few months old, was moving about, but the comb move one of the dead animal's legs and it was free. After surveying the hunters went in indignation it shambled off after the licence hunter.

149. A licence holder hunting on the border in March shot a bull among a herd of elephants, a few months old, was standing backside first, as often happens with a young elephant that was just behind the one that was shot.

150. In the Kyumbira area of the Uganda tribes tall grass shot a cow elephant which was in the herd. She was lying on her backside first, then moved on and was later shot by a Game Guard close to some game pits into which her calf had fallen. So ended the lives of a brave if unwise mother and an unfortunate calf.

CHARGED BY AN ELEPHANT CARRYING A WEAPON

151. A Game Guard working an interesting report: — "At about 11 a.m. in February a赫licence holder hunting on the border shot a bull among a herd of elephants, a few months old, was standing backside first, as often happens with a young elephant that was just behind the one that was shot.

GAME GUARD'S SUICIDAL TACTICS

152. A visitor from another section of the park, a young man, who hadLicences was extremely anxious to shoot an elephant. He had enjoyed consid}
was necessary to send a Game Guard to remove the elephants and he shot four, while the rest took flight. His report read:

A number of elephants were killed from this district during the year.

146. In January it was necessary to send a Game Guard to report that there were no casualties among the elephants.

An elephant killed by an elephant at Parabongo, when an elephant and calf found itself so close to a cow that it was forced to flee. The elephant attacked and killed her. Some distance away, then came up and spear the calf; throwing two spears into its body. The mother elephant then ran he fell over. The elephant came with her tusks, but due to a lucky misfortune, the hunter was able to remove one of the dead animal’s tusks and threw him forward. As she sawing the unfortunate man, some more tusks from where the woman was killed accidentally came upon a young boy who ely attacked him, picked him up and he did not sustain any serious injury. shot by a Game Guard close to some fallen. So ended the lives of a brave if all.

Tsetse Control Department stationed the following interesting report. “On hunting on Longile Mountain, I was the upper end of the Laki Basin on ed into an elephant. As it made no rock and examined it with the aid of a that there was a large septic wound. The animal was extremely thin and in a discharge from the mouth. The at some time in a very small area and I saw no alternative but to put it out.

147. Unfortunately it was not possible to carry out a post-mortem on this animal or to find out the reason for the sickness, though anthrax appears to be a possibility.

SHOT ELEPHANTS FALLING ON OTHERS

148. In February a licence holder in North Acholi shot a bull in a herd. The animal collapsed with its front legs half crossed and a young elephant, a few months old, was trapped between them. It set up a tremendous outcry, but the combined efforts of several men managed to move one of the dead animal’s legs slightly and the youngster pulled itself free. After surveying the hunters with a look of aggressive and righteous indignation it shambled off after the herd.

149. A licence holder hunting in the hills along the Acholi-Karamoja border in March shot a bull amongst a big herd. The animal collapsed backside first, as often happens with a brain shot, and squashed and killed a young elephant that was just behind it.

150. In the Kyumbira area of Bunyoro a Game Guard hunting in tall grass shot a cow elephant which squashed to death her tiny bull calf as she fell.

CHARGED BY AN ELEPHANT CARRYING A BRANCH OF A TREE

151. A Game Guard working in Buganda has made the following interesting report:—“At about 11 a.m. in the morning I came on a herd of about 50 elephants which had been raiding cultivation; they got my wind and started to go off in different directions. I saw 3 cows and decided to follow them. While following them one of the cows ambushed me and, when she saw me, charged. She was carrying a branch of a tree in her trunk. The grass was tall and I could not see her properly; when the elephant got close to me I fired 3 rounds; the first two hit her on the head but did not get the brain, the third hit the brain and killed the animal which was then so close to me that the branch she was carrying hit me and injured my leg. My porters who had run away then returned and removed the branch which was pinning me down. While we were going home we came upon another cow elephant who had also been damaging cultivation, and who also charged. I killed her with 3 shots.”

GAME GUARD’S SUICIDAL TACTICS

152. A visitor from another country, armed with a medium bore rifle fitted with telescopic sights, who had taken out Game and Elephant Licences was extremely anxious to shoot elephant in the Kiryandongo area of Bunyoro. He had enjoyed considerable shooting experience elsewhere, but none of elephant. Nevertheless he very politely scorned the Game Ranger’s suggestion that possibly a heavier rifle would be better suited to his immediate quarry under the existing hunting conditions. To cut a long story short, the intrepid hunter finished up in a tall tree firing whenever he glimpsed an elephant, and it became a task of the Game Guard detailed
to accompany him to follow up and destroy 3 wounded elephants. The visitor afterwards wrote, describing the everyday tactics of the Game Guard as follows:

"Your Game Guard, throughout, demonstrated his courage but it was the courage of Japanese infantry ... a little too suicidal for my taste!"

**Elephant Killing Goats**

153. The Game Guard working at Bugangari, Kigezi, reports that an elephant killed 7 goats in July. It appeared out of a patch of forest near the house of some Africans living within the Game Reserve. The men were all away but some women who were about all ran to their houses. The elephant came on the 7 goats tethered and killed the lot. The animal appeared to be sick either due to fighting or a bullet wound and remained close to the habitation for about a month, after which it went off. While in the vicinity of the habitation it did no further damage.

**Elephant Tripping Over an Anthill**

154. The Game Ranger, Gulu, reports that the elephant to the east of Madi Opei in Acholi are more gun-shy than is usual. After the Game Ranger had shot one elephant out of a herd in that region the remainder rushed off. They were in such haste to get away that one climbed over an anthill and fell down the other side, breaking a piece about a foot long off one of its tusks.

**Lions Treeed by Elephants**

155. A Fisheries Officer reports the following interesting incident which he observed while on patrol near Mahyoro in Toro District:—"I saw a most unusual sight in the bush behind Mahyoro. I had been following a herd of elephants and had succeeded in passing them when they got my wind and turned back. An outbreak of squeals caused me to follow them, and I found two lions well and truly treeed; one bull elephant and six cows with calves of assorted sizes were round the foot of the tree. The bull was reaching into the branches with his trunk and getting much vocal encouragement from the cows; the lions eventually got down behind the tree and chose a line of retreat that unfortunately coincided with my own, a fact they resented loudly which, of course, also caused the elephant to join in the party; all three actors were now much agitated!

The tree was 22 inches in diameter and quite smooth for 14 feet where it forked; the lion was sitting in the fork, and the lioness standing head downwards on the trunk which was not quite perpendicular. From the back spoor they had clearly been following the elephants for some time, possibly with designs on the calves."

**Elephants Drowned**

156. Towards the end of the year, due to excessively heavy and prolonged rain, the Kafu River on the Bunyoro-Buganda boundary was for a considerable time in heavy flood. During this flood two juvenile elephants were caught and drowned up against the new road bridge at. They were both between 5 and 12 years old.

**Unusual Tusks**

157. An Honorary Game Ranger having seen amongst a herd of cows about 3 feet high carrying a pair of tusks, reached the ground. The tusks are sticks. A black line which appeared of one tusk.

**Airborne Operations by Elephants**

158. The Game Ranger stated given an amusing account by a Madi. The Madi who told the story got into his shamba as the ground spoor frequently could not be the only way that the elephant could was to wait until they got to within they collected a lot of grass and left of the elephant to despatch the raider. When they reached the smell they came quite to the Game Reserve!

**Elephant Speared Singlehanded**

159. One brave Sebei cultivator July. The man lives near the forest District. On the morning of July 1 and discovered two elephants, a a male. The female chased him. He then elephant. The male and females finished their depredations they did to the Game Reserve!

**Four-Tusked Elephant**

160. In November a Game Guard Nile reported having observed in a carrying four tusks, one pair being larger tusks as weighing about 15 and 20 lbs. each. This Guard is to disbelieve the accuracy of this of 103, 1949 Annual Report).
destroy 3 wounded elephants. The everyday tactics of the Game
out, demonstrated his courage but it fantry... a little too suicidal for my

at Bugangari, Kigezi, reports that it appeared out of a patch of foresting within the Game Reserve. The 80 were all ran to their houses. bered and killed the lot. The animal being a bullet wound and remained lomh, after which it went off. While did no further damage.

reports that the elephant to the east in-shy than is usual. After the Game of a herd in that region the remainder ite to get away that one climbed over ike, breaking a piece about a foot long

the following interesting incident near Mahyoro in Toro District: "I behind Mahyoro. I had been followeed in passing them when they got threat of squeals caused me to follow 3 truly tried; one bull elephant and six were round the foot of the tree. The with his trunk and getting much vocal lions eventually got down behind the unfortunately coincided with my own, a urse, also caused the elephant to join in such agitated!
ter and quite smooth for 14 feet where e fork, and the lioness standing head s not quite perpendicular. From the following the elephants for some time,

157. An Honorary Game Ranger living in Busoga District reports having seen amongst a herd of cow elephants with calves one small calf about 3 feet high carrying a pair of very long slender tusks which nearly reached the ground. The tusks are described as appearing akin to walking sticks. A black line which appeared to be a crack ran for the whole length of one tusk.

AIRBORNE OPERATIONS BY ELEPHANTS

158. The Game Ranger stationed in the Northern Province was given an amusing account by a Madi as to how elephants raided his cultivation. The Madi who told the story was mystified as to how the elephants got into his shamba as the ground around the shamba was very hard and the spoor frequently could not be found. He said that he believed that the only way that the elephant could come in was by air. Their method was to wait until they got to within a short distance of the shamba when they collected a lot of grass and leaves which they made into a bung; this they inserted in the anal orifice. They then waited patiently for their stomachs to become so distended that they became airborne. As soon as they were in the air they propelled themselves forward by flapping their ears. When they reached the shamba they pulled out the bung allowing the air to escape and so came quietly down to earth. When they had finished their depredations they did the same thing again and so flew back to the Game Reserve!

ELEPHANT SPEARED SINGLEHANDED

159. One brave Sebei cultivator speared an elephant singlehanded in July. The man lives near the forest line in Bukwa sub-county of Mbale District. On the morning of July 12th he went out to weed his shamba and discovered two elephants, a male and a female, in the cultivation. The female chased him. He then climbed into a tree near his house and speared her. Apparently only one spear was thrown which was sufficient to despatch the raider.

FOUR-TUSKED ELEPHANT

160. In November a Game Guard engaged on buffalo control in West Nile reported having observed in a herd of elephants a large bull elephant carrying four tusks, one pair being large and one small. He estimated the larger tusks as weighing about 35 lbs. each and the smaller at between 15 and 20 lbs. each. This Guard is a reliable man and there is no reason to disbelieve the accuracy of this observation. (See also paragraphs 102 and 103, 1949 Annual Report).
NINE-TUSKED ELEPHANT

161. A Game Guard while on elephant control in West Madi shot an elephant with a normal tusk on one side and eight small tusks on the other side, which together weighed 8 lbs. The eight small tusks were in a cluster but each was separately formed. The tusks had been cut out of the skull before the report was received and it was therefore impossible to obtain the skull with the tusks intact.

BWAMBA FOREST ELEPHANT

162. The Bwamba Forest elephant of Toro are particularly vicious as the Batwa pygmies hunt them with poisoned arrows, and shamba owners throw red-hot spears at them when crops are being raided at night. The result is that these elephant lie up in the thickest part of the forest in the daytime and will charge at any attempted interference. They are of the smaller forest variety and have hard ivory; this is liable to mislead licence holders as the tusks are long but thin and 5 feet of ivory projecting from the head may only weigh some 30 lbs.

ELEPHANTS KILLED BY LIGHTNING

163. With reference to paragraph 93, 1949 Annual Report and paragraph 194, 1950 Annual Report, the Conservator of the adjacent Parc National Albert records four authenticated cases of elephants being killed by lightning on the Rwindi plain to the south-east of Lake Edward during the past six years.

ELEPHANT CAUGHT IN WIRE NOOSE

164. A Game Scout on patrol in Acholi in November came upon an elephant with its trunk caught in a wire noose. As he was unarmed he had to leave it but returned later with the local chief to put it out of its misery. On arrival at the place he found that the elephant had gone leaving some three feet of its trunk behind. He also found the men who were responsible for setting the snare and duly arrested them. The elephant was not seen again.

ELEPHANT HUNTING BY LICENCE HOLDERS

165. In last year's report, paragraphs 217 to 228, this subject was dealt with in detail and it was stated that the present elephant population will not stand the shooting of the large tuskers at the present rate. This is borne out by the fact that of the licence elephant shot during this year nearly 77 per cent had tusks of under 40 lbs. apiece as compared with 70 per cent. in 1950, and nearly 51 per cent were under 30 lbs. apiece as compared with 40 per cent. in 1950. These figures emphasise the need for urgent action to combat this excessive drain on the elephant population.

166. In November, Legislative Council passed an Ordinance to amend the Game Ordinance substantially increasing the cost of Special Elephant Licences (see also paragraphs 54 (f), 55, 56 and 170) and abolishing the Special Licence for Third Elephant, thus allowing only two elephant per person per year instead of three to be shot with Kenya and Tanganyika where some years, which number was as

167. There was an outcry from licence holders to see that this legislation was in operation, and indeed, the previous rate of killing bull elephants has in the last two years have become unobtainable. It soon brought to the notice of the general public that Third Elephant licences before the prices were as high as 90,000.

168. The new legislation also had the effect for there has been, since the 1950, increase in the average number of licences issued, due to the increased price of licences. This source has only been some 30 per cent.

ELEPHANT HUNTING BY LICENCE HOLDERS


<table>
<thead>
<tr>
<th></th>
<th>Bird Licences</th>
<th>Resident Game Licences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1951</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>1950</td>
<td>1</td>
<td>1</td>
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<tr>
<td>1951</td>
<td>2</td>
<td>4</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Percentage increase in numbers of licences, issued in 1951, over 1950:

(a) Over 65½ per cent. too old with over 73 per cent. in 1950.
(b) Over 54 per cent. took, with just under 54 per cent. in 1950.
(c) Over 38½ per cent. took, with 33 per cent. in 1950.
elephant control in West Madi shot
aside and eight small tusks on the
The eight small tusks were in a
The tusks had been cut out of
of Toro are particularly vicious
bisoned arrows, and shamba owners
are being raided at night. The
thickest part of the forest in the
interference. They are of the
pry; this is liable to mislead licence
Conservator of the adjacent Parc
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south-east of Lake Edward during
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found that the elephant had gone
He also found the men who
arrested them. The elephant
217 to 228, this subject was
the present elephant population
the present rate. This
tusked elephant shot during this year
40 lbs. apiece as compared with 70
cent were under 30 lbs. apiece as

These figures emphasise the need
live drain on the elephant population.
council passed an Ordinance to amend
reassuring the cost of Special Elephant
55, 56 and 170) and abolishing the
thus allowing only two elephant per

person per year instead of three as before. This brings Uganda into line
with Kenya and Tanganyika where the limit has been two elephants for
some years, which number was also the limit in Uganda prior to 1935.

167. There was an outcry from short-sighted hunters who were unable
to see that this legislation was in their own final interests since at the
previous rate of killing bull elephants on licence reasonable tuskers would
soon have become unobtainable. When the proposed legislation was
brought to the notice of the general public there was a rush to take out
elephant licences before the prices were raised and the Special Licence for
Third Elephant abolished; this resulted in a record number of 818 elephant
licences being issued, the previous highest total for Uganda being 699 in
1950.

168. The new legislation already appears to have had the desired
effect for there has been, since the new regulations came into force, a drop
of some 75 per cent. in the average number of elephant licences taken out.
Due to the increased price of licences, however, the drop in revenue from
this source has only been some 50 per cent.

169. Statistics of Game, Special Elephant and Bird Licences issued in
1950 and 1951.

<table>
<thead>
<tr>
<th>Table A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Bird Licences</th>
<th>Resident's (Full) Game Licences</th>
<th>Special Elephant Licences</th>
<th>Totals Elephant Licences only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europeans</td>
<td>114</td>
<td>81</td>
<td>48</td>
</tr>
<tr>
<td>Asians</td>
<td>62</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>Africans</td>
<td>260</td>
<td>204</td>
<td>154</td>
</tr>
<tr>
<td>Grand Totals</td>
<td>1,375</td>
<td>436</td>
<td>320</td>
</tr>
<tr>
<td>1951</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europeans</td>
<td>146</td>
<td>111</td>
<td>82</td>
</tr>
<tr>
<td>Asians</td>
<td>69</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>Africans</td>
<td>301</td>
<td>203</td>
<td>171</td>
</tr>
<tr>
<td>Grand Totals</td>
<td>2,016</td>
<td>516</td>
<td>338</td>
</tr>
<tr>
<td>Percentage increase in numbers of licences, issued in 1951</td>
<td>46%</td>
<td>18%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Of all Resident's (Full) Game Licence holders in 1951:

(a) Over 65% per cent. took out 1st Elephant licences as compared
with over 73 per cent. in 1950.

(b) Over 54 per cent. took out 2nd Elephant licences as compared
with just under 54 per cent. in 1950.

(c) Over 38% per cent. took out 3rd Elephant licences as compared
with 33 per cent. in 1950.
170. Costs of Licences under Uganda Game Laws.

<table>
<thead>
<tr>
<th>Year</th>
<th>Resident's (Full) Game Licence</th>
<th>Visitor's (Full) Game Licence</th>
<th>Resident's First Elephant</th>
<th>Visitor's First Elephant</th>
<th>Resident's Second Elephant</th>
<th>Visitor's Second Elephant</th>
<th>Resident's and Visitor's Third Elephant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948 (April 29th)</td>
<td>Shs. 100</td>
<td>Shs. 1,000</td>
<td>Shs. 100</td>
<td>Shs. 100</td>
<td>Shs. 200</td>
<td>Shs. 300</td>
<td>Abolished</td>
</tr>
<tr>
<td>1957 (November 27th)</td>
<td>100</td>
<td>1,000</td>
<td>300</td>
<td>600</td>
<td>600</td>
<td>1,200</td>
<td>Abolished</td>
</tr>
</tbody>
</table>

Table B

171. Gorilla.—It has again, instances, been impossible to carry within the Protectorate. A fairly large population is known to be resident in Uganda, but it seems fairly certain that there are more than two. Baboons is also known to a considerable extent. It is believed that the gorilla population is still increasing, and it is hoped that this will be confirmed by future surveys.

172. Chimpanzee.—No recent report having been received, it is believed that the chimpanzee population remains stable. It is estimated that the population is around 500 individuals.

173. Baboon.—The usual cry of the baboon has been heard at various parts of the country, but it is difficult to determine the exact number of baboons. It is believed that the population is around 3,000 individuals.

174. Of the various economic crops grown in the country, it is believed that the baboons have been particularly damaging to coffee and tea plantations.

175. Despite efforts made by the Game Rangers and other authorities, there have been reports of baboons attacking crops and livestock. It is believed that the population is increasing at a rate of 5% per year.

176. The Africans still do not have a means of controlling baboons, but it is believed that the population is decreasing at a rate of 2% per year.

177. Chestnut-Browed Ground Squirrel.—The population of this species has been increasing steadily, and it is believed that the population is around 10,000 individuals.
SECTION III—NOTES ON THE FAUNA

(A) Mammals

(i) PRIMATES

171. Gorilla.—It has again, due to a series of unfortunate circumstances, been impossible to carry out a survey of the gorilla population within the Protectorate. A fairly reliable estimate of the population of the Muhavura and Mgahina volcanoes gives their number as about 12 which includes two or three juveniles. It is still uncertain whether these creatures are permanently resident in Uganda or are visitors from the Belgian Congo but it seems fairly certain that there is movement backwards and forwards across the border. The gorilla population of the Kayonza (or Impenetrable) forest is unknown but it may be considerably higher than is generally believed. The Game Ranger, Toro, made one safari to this region during the year but owing to the abnormal rains no gorilla were seen, only their tracks.

172. Chimpanzee.—No reports were received of any chimpanzees having been killed or captured during the year. This ape is reasonably plentiful in various parts of Western Uganda. They are not often seen but can be frequently heard in forest areas.

173. Baboon.—The usual crop of complaints about depredations by baboons has been received. Baboons do as much damage to both food and economic crops as any other pest in the Protectorate and certainly far more than elephants and buffalo.

174. The Africans still do not appreciate the value of the leopard as a means of controlling baboons and despite the most strict protection measures many leopard are unnecessarily killed.

175. Following the example set by Kigezi District, where considerable success has been achieved by poisoning baboons, other districts have now started campaigns and have sent poisoners to be trained in Kigezi. Nevertheless, Africans in some districts, in which considerable damage is done by baboons, still refuse to allow baboon poisoners to operate as they are suspicious that the poisoners will use the poison for other purposes. They seem to completely forget that there are many other types of poison known only to Africans which can be made by them themselves and which, in many cases, are far more effective than Sodium Arsenite.

176. Although usually every man's hand is against the baboon, this is not always the case. A striking example has come to light this year—Mr. Aliibhai Sayji of Katakiwi, Teso District, has struck up a remarkable friendship with the baboons on Abela Rock. They come to his call and sit about on the rocks and even feed from his hand.

177. Chestnut-Browed Guenon.—Vide paragraph 86 of the 1948 Annual Report, the mystery of the skin sent in from Mt. Kadam (Debasian) has been cleared up by the British Museum (Natural History). On the
suggestion of Captain C. R. S. Pitman, the late Game Warden, the skin was compared again with the collection of Cercopithecus neglectus, the Chestnut-browed Guenon, and was found to compare exactly with a skin from an immature animal killed in the Belgian Congo. Published descriptions of a number of immature skins in a collection of 40 of this species in the American Museum confirm in every detail this identification. The extraordinary thing is that the immature animal differs widely from the adult in almost all particulars, the chestnut brow band only excepted, and even there the black band behind it which is found in the adult is missing in the young one.

178. Colobus.—This beautiful monkey is more common than generally believed and can be found in most patches of high forest in the southern part of Uganda.

179. The Game Ranger, Bunyoro, reports that a very young albino was seen in its mother's arms in a patch of forest some 8 miles from Hoima.

180. Monkeys (various).—The Game Ranger, Northern Province, reports that the blue monkey and the red hussar (or Patas) monkey are still fairly common in various parts of the Northern Province. The red hussar (or Patas) monkey is most abundant in West Nile and Madi.

181. Vociferous complaints were received from the Sese Islands and Buvuma about the damage caused by vervet monkeys to crops and gardens. A poisoning campaign on Buvuma Island carried out by a Game Guard achieved considerable success. It must, however, be recorded that the responsibility for dealing with minor pests which are vermin, e.g. monkeys, is that of the African Local Governments. While this Department is prepared to assist and advise when necessary, with the staff at present available we are not in a position to undertake this work.

(ii) CARNIVORA

182. Lion.—During the year there appeared to be a marked and satisfactory increase of lions all over the Protectorate, and it is gratifying to be able to report that with this increase there was little extra damage to stock. In the parts of the country where game has been almost eliminated either by tsetse control operations or large-scale poaching, it is hard to find how the lions manage to survive without stock raiding. It can, I think, be assumed that in these areas they live to a very large extent on bush-pigs and therefore every encouragement should be given to protecting them in view of the serious damage that pigs do to cultivation.

183. A Game Guard on patrol in the Waka area of West Madi reports an interesting incident which seems to belie the generally believed fact that the lion is king of beasts. A lion was observed walking along in longish grass until he came to an ant-hill. He climbed to the top of this with, presumably, the object of having a look round. A few yards on the other side of the ant-hill were half a dozen buffalo. As soon as they set eyes on the lion they immediately went for him. The lion deciding that discretion was the better part of valour made his motor bicycle into a well-known quarry when the unfortunate wart-hog in the Well of Buvuma about the damage caused by vervet monkeys to crops and gardens. A poisoning campaign on Buvuma Island carried out by a Game Guard achieved considerable success. It must, however, be recorded that the responsibility for dealing with minor pests which are vermin, e.g. monkeys, is that of the African Local Governments. While this Department is prepared to assist and advise when necessary, with the staff at present available we are not in a position to undertake this work.

184. The manager of a large marketing Corporation's Station at Mile 110) whereby the motor cycle was not seen again.

185. The lion story of the Game Ranger at 7 o'clock on the following morning a hippopotamus was killed within 40 yards of the houses. A large part of the night and, while it had eaten part of the back leg. The horn immediately destroyed by an Honorary Game Guard.

186. An interesting report of the Game Ranger, Bunyoro, on the Lake Albert Flats between the Sese Islands and Buvuma about the damage caused by vervet monkeys to crops and gardens. A poisoning campaign on Buvuma Island carried out by a Game Guard achieved considerable success. It must, however, be recorded that the responsibility for dealing with minor pests which are vermin, e.g. monkeys, is that of the African Local Governments. While this Department is prepared to assist and advise when necessary, with the staff at present available we are not in a position to undertake this work.

187. The Game Ranger, Bunyoro, reports that a very young albino was seen in its mother's arms in a patch of forest some 8 miles from Hoima.

188. Monkeys (various).—The Game Ranger, Northern Province, reports that the blue monkey and the red hussar (or Patas) monkey are still fairly common in various parts of the Northern Province. The red hussar (or Patas) monkey is most abundant in West Nile and Madi.

189. The best lion story of the year appears to be that of the Game Ranger, Bunyoro, on the Lake Albert Flats between the Sese Islands and Buvuma about the damage caused by vervet monkeys to crops and gardens. A poisoning campaign on Buvuma Island carried out by a Game Guard achieved considerable success. It must, however, be recorded that the responsibility for dealing with minor pests which are vermin, e.g. monkeys, is that of the African Local Governments. While this Department is prepared to assist and advise when necessary, with the staff at present available we are not in a position to undertake this work.

188. Leopard.—The Game Ranger, Northern Province, reports the following to the Game Warden: "I saw a large lion going cheap around here, though I gave a shock to a hare, and even there the black band behind it which is found in the adult is missing in the young one.

184. The manager of a large marketing Corporation's Station at Mile 110) whereby the motor cycle was not seen again.

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The late Game Warden, the skin was *Cercopithecus neglectus*, the Chestnut-bellied Patas monkey, which is found in the adult is missing.

The above animal differs widely from the adult in the fur of the lower face, the reddish brown band only excepted, and which is found in the adult is missing.

The Chestnut-bellied Patas monkey is more common than genera of forest some 8 miles from Hoima.

Game Ranger, Northern Province, reports that a very young albino of forest is from the Sese Islands and served monkeys to crops and gardens.

The manager of a large agricultural farm in the Western Province reported the following to the Acting Game Warden: "We have a large lion going cheap around here if anyone wants one. He seems quite docile, though it gave me a shock to meet him on my cycle. I always feel that there is a restriction on the speed of getaway with an ordinary bicycle."

185. The best lion story of the year comes from an African who sent his motor cycle into a well-known garage in Kampala for repairs. After detailing the list of repairs required the letter continued, "Personally, I am very ill on account of a collision with a lion (on the Masaka-Mubende road at Mile 110) whereby the motor cycle fell on me and it sustained severe injuries, and one of my legs got broken. On account of the shock, the lion did not harm me."

186. An interesting report was received from the Uganda Fish Marketing Corporation's Station at Kasenyi in Toro. Lions were heard round the station during one night and also considerable other noise; the following morning a hippopotamus was found in a moribund condition within 40 yards of the houses. A lion had been attacking it for the greater part of the night and, while it had not been able to kill it, it had actually eaten part of the back leg. The unfortunate hippopotamus was immediately destroyed by an Honorary Game Ranger.

187. The Game Ranger, Bunyoro, reports that lions are prevalent on the Lake Albert Flats between the Rivers Sonso and Waiga and recently have been seen frequently on the road to Bulisa, much to the alarm and consternation of cyclists. Reports indicate the presence of two large prides, one of which includes at least 12 lions. This latter party was encountered by the Game Ranger at 7 o'clock one morning and it is interesting to note that this comparatively large pride had been content to kill one wart-hog and to hartebeest standing within 200 yards. The explanation could be that the pride was intent on a larger quarry when the unfortunate wart-hog walked into their midst.

188. *Leopard.*—The protection given to leopards since 1946 is beginning to show results and even though leopards are rarely seen there has been a small but noticeable increase in their population. As yet this increase has not had any marked effect on the numbers of pig and baboon. Nevertheless it should be remembered that leopard kills are rarely found.

189. There have been the usual complaints of leopard raiding stock and a number have been killed in protection of stock. Due to this it is difficult to make the African believe that the leopard does anything but harm.

190. About the middle of the year leopards caused a certain amount of trouble in Mbale District, carrying off small stock and frightening the people in the Teningi and Kadama areas of Budaka-Bugwere county.
people, despite warning as to the protected state of the leopard, killed two. The second of these was trapped and gave the locals an anxious time as it broke loose with the trap attached to its leg and was at large for several days. Eventually it was speared to death just before a Police Officer arrived to deal with it.

191. An interesting incident has been reported by a Field Officer of the Tsetse Control Department, working in north Karamoja. One morning he saw near to his camp two bunches of vultures on the ground about 200 yards apart. Both lots of vultures were eating dead animals. One of the dead animals was a hartebeest which had not been eaten by its attacker, the second was found to be a leopard. It can only be presumed that the leopard had tackled the hartebeest and eventually killed it but before dying the hartebeest had mortally wounded the leopard.

192. Leopards may frequently be seen in the night on the road through the Mitango Gorge in Kigezi District, and the fact that no leopards have been killed in the area suggests that they are performing some considerable service to the population and confining themselves to baboons and pigs.

193. In Madi District a leopard was drowned in a river and left by the receding flood in a lifelike position on a rock, where it was forthwith shot by an enthusiastic hunter!

194. A visitor to Uganda out hunting in the Semliki valley had a lucky escape from a wounded leopard. The leopard was observed in the late afternoon lying on an ant-hill, but while it was being stalked by the visitor made off. The latter took a snap-shot at it and hit the animal in the back leg; it then went off into some thick grass where the visitor, accompanied by a European professional hunter, followed it. The leopard charged and even though a number of shots were fired, it was not stopped. It passed very close to the visitor and hit his rifle which caused the butt of the weapon to damage his knee. The angry animal knocked over an African gunbearer who was behind the visitor and severely mauled his arm. The gunbearer probably owes his life to the European professional hunter who actually shot the leopard while it was mauling him.

195. In August the Game Ranger, Bunyoro, was called upon to destroy a leopard which had been caught in a small gin-trap and which had made good its escape into thick elephant grass and undergrowth taking with it the 4 lb. gin on its near forepaw. Billhooks were employed to slash and clear the grass, which operation invoked savage growls from the angry leopard concealed only a few yards ahead of the hunters. Slashing continued slowly as every growl caused the Africans using the billhooks to scatter panicstricken. A Game Guard accompanying the Game Ranger got a glimpse of the leopard and took a snap-shot at it but it is uncertain whether he hit it. Eventually the Game Ranger climbed onto a horizontal branch 3' 6" off the ground and viewed the leopard lying partially hidden some 6 yards away and fired one barrel of his double barrel shotgun, loaded with S.S.G. shot, at it. The leopard at once emerged, to all intents and purposes quite unimpeded by the trap or wounds, and actually passed directly under the trigger of the second barrel as fortunately the gun misfired and happened. Luckily for the Game Ranger had time to reload, climb to a horizontal

196. Spotted Hyaena.—Vide p. 134, these creatures have continued to during January another person was taken shortly afterwards has had much less decided than the previous incident.

197. Hunting Dogs.—It is reported that during April a pack of six hunting dogs have been killing many game. The people have requested that there should be a game reserve in the West Suk District of Kenya. The animals have been released as to how the game is free from poisons and disease.

198. A licence holder hunting in the West Suk District of Kenya during April saw a pack of six hunting dogs which had recently dropped a lion. The owners of these pleasant creatures before it ventured out.

199. In Toro 20 of these dogs, were killed by the Department of Game Reserve.

200. Water (or Marsh) Hyaena.—A following interesting incident was reported by the Honorary Game Ranger, who was out on a sand-bank he happened to be a dead mongoose. He did not approach it as he did not think about to come out on the sand-bank he happened to be a dead mongoose. He did not approach it as he did not think it was dangerous. He was starting it to carry it away with it, as he approached the mongoose had its throat bitten out.

201. The animal was a Water Hyaena (H. nasus robustus), which is a very dark reddish brown colour, shorter than normal with a head completely naked.
The state of the leopard, killed two, gave the locals an anxious time as its leg and was at large for several paths just before a Police Officer was reported by a Field Officer of the locals. One morning seen vultures on the ground about 200 eating dead animals. One of the was not been eaten by its attacker. It can only be presumed that eventually killed it but before dying a leopard.

I seen in the night on the road strict, and the fact that no leopards are performing some considering themselves to baboons and pigs. was drowned in a river and left by on a rock, where it was forthwith

In the Semliki valley had a lucky the leopard was observed in the late while it was being stalked by the visitor at it and hit the animal in the back grass where the visitor, accompanied bowed it. The leopard charged and fired, it was not stopped. It passed which caused the butt of the weapon knocked over an African gunbearer I mauled his arm. The gunbearer is a professional hunter who actually m. 

A licence holder hunting in the area of Ndaiga Bay, Mubende, during April saw a pack of six hunting dogs running down a female Uganda kob which had recently dropped a fawn. He managed to bag three of these unpleasant creatures before the remainder of the pack beat a hasty retreat.

In Toro 20 of these destructive beasts, which are a menace to game, were killed by the Department in the vicinity of the Lake George Game Reserve.

Water (or Marsh) Mongoose (Atilax paludinosus).—The following interesting incident was reported by the late Mr. M. S. Tweedale, Honorary Game Ranger, who was employed by the Uganda Fish Marketing Corporation in the Semliki valley. While waiting for crocodiles to come out on a sand-bank he happened to glance around and noticed what appeared to be a dead mongoose on its back with all four legs in the air. He did not approach it as he did not want to startle the crocodiles who were about to come out on the sand bank. Suddenly a large brown eagle swooped on the supposedly dead mongoose. The bird then rose 2 to 3 feet in the air and fell to the ground. The mongoose immediately got up and was starting to carry it away when Mr. Tweedale decided to investigate; as he approached the mongoose ran away. He found that the bird had had its throat bitten out.

The animal was a Water (or Marsh) Mongoose (Atilax paludinosus robustus), which is a medium sized mongoose of a uniform rather dark reddish brown colour, the hair being slightly brindled. The tail is shorter than normal with a black tuft at the tip and the soles of the feet completely naked.
202. According to Pitman, late Game Warden, Uganda, it is asserted by a number of tribes, inhabiting various areas from Kenya through to western Uganda, that the Water Mongoose resorts to a most peculiar trick for the capture of its prey. It is reported to be capable of distending the anal orifice to such an extent that the region around it resembles a flower or a ripe fruit, thus inducing birds to peck at it, and so luring them to their doom! Mr. Tweedale's report seems to indicate that there is some truth in this assertion.

(iii) Ungulates.

203. Buffalo.—Buffalo are probably one of the most numerous of the game animals in the Protectorate. They appear to be able to hold their own and even multiply despite every sort of setback, and are responsible annually for a number of human casualties particularly in the Northern Province where the Madi, Acholi and Lugbara hunt them with spears.

204. A most unusual casualty occurred not long ago. A Madi speared a buffalo which went off into a muddy swamp. The hunter went after it and came on the buffalo which charged him; neither was able to move very fast on account of the mud which was up to the hunter's knees and the buffalo's belly. While retreating before the buffalo the African fell on his back and the brute reached out and bit the man in the abdomen removing his genitalia. The unfortunate Madi later died in hospital. This is a curious reversal of the common practice amongst certain tribes of devouring the testes of buffaloes in order to increase their virility.

205. At the beginning of the year buffalo were seen in the Serere area in Teso District, an unusual occurrence. In March one of these beasts was shot by an African licence holder at Kasilo near Bugondo and in April another was found dead at Odapakole, a few miles south of Serere. The cause of death was not diagnosed but the corpse was burnt as a precaution.

206. In September a Game Guard engaged in buffalo control on the Sudan border in the neighbourhood of the river Koich, in West Nile, was charged and injured by a buffalo that he had wounded but failed to kill. He undoubtedly owes his life to his tracker, one Musa Uwile who, unarmed, went to his assistance. Musa attracted the buffalo's attention to himself by pelting it with stones thus giving the Game Guard an opportunity to fire another shot which proved fatal. After six weeks in hospital the Game Guard fully recovered and is now hunting again.

207. The Katonga River valley and its tributaries are the home of sometimes very large herds of buffalo. The survey parties of the western extension of the railway which follows this route have frequently had minor, though none the less disconcerting, affrays with these beasts during the year, and several occasions surveyors had to give the buffalo best and were treed for periods varying from 15 minutes to 1½ hours.

208. The Fisheries Officer, east of Lake George appear to be, up. These animals are extensive region by illicit gold thieves who are regrettable to have to report that they in the Lake George region involved bore rifles such as .22s. In May dwindled in numbers although the Sango Bay area part of which is they are heavily poached in this district three home-made lead slugs in the charged him without warning.

209. In many parts of Uganda buffalo meat and have an insatiable that buffalo damage is always being damage usually proves to be either does exist the blame will be placed although the real culprits may be be in cases the evidence of tracks is usual.

210. To assist the settlers in settlement area of Mitoma in Ank of Kigezi. In Bunyoro some 120 b and 326 in Toro. In the latter dia the from the more settled areas but are.

211. In the Toro Game Reserve a poacher who had been hunting b and keeping the local people sup with an illegal .303 rifle and had a .577 rifle and a shotgun.

212. In July a Game Guard wounded a buffalo which charged in the presence of mind to lie flat, and insert a horn under his body it. The other man sustained no worse.

213. The Saza Chief of Bu obtained a young buffalo bull last was exhibited at the Bunyangabo interest. An Administrative Office stock exhibit as far as quality w old and still friendly enough tow become agitated if strangers appro.

214. A Forest Officer in Toro was walking through some tall el face so he about-turned and teit pushed him over with its nose and
208. The Fisheries Officer, Kichwamba, reports that buffalo to the east of Lake George appear to be either fewer or else the herds have split up. These animals are extensively poached along the foothills in this region by illicit gold thieves who are present in small numbers. It is also regrettable to have to report that there have been some disgraceful episodes in the Lake George region involving the wounding of buffalo with small bore rifles such as .22s. In Masaka District buffalo appear to have dwindled in numbers although there are believed to be plenty still in the Sango Bay area part of which is thick forest. There is no doubt that they are heavily poached in this district and a Game Guard recently found three home-made lead slugs in the shoulder of one of these beasts which charged him without warning.

209. In many parts of Uganda the local people are very fond of buffalo meat and have an insatiable appetite for it. Game Rangers state that buffalo damage is always being reported but that on investigation the damage usually proves to be either non-existent or almost so. If damage does exist the blame will be placed on the buffalo if humanly possible although the real culprits may be bushbuck, pig or smaller game. In these cases the evidence of tracks is usually conveniently ignored.

210. To assist the settlers over 200 buffalo were shot in the resettlement area of Mitoma in Ankole and 236 in the re-settlement areas of Kigezi. In Bunyoro some 120 buffalo were killed in protection of crops and 326 in Toro. In the latter district buffalo are gradually disappearing from the more settled areas but are holding their own elsewhere.

211. In the Toro Game Reserve Game Scouts succeeded in arresting a poacher who had been hunting buffalo for some months in the Reserve and keeping the local people supplied with meat. He had been hunting with an illegal ‘303 rifle and had two other men to assist him armed with a .577 rifle and a shotgun.

212. In July a Game Guard hunting in thick cover in Bunyoro wounded a buffalo which charged him. The Game Guard fell over but had the presence of mind to lie flat, and while the buffalo was endeavouring to insert an horn under his body it was despatched by a recruit Game Guard. The other man sustained no worse injuries than a strained neck muscle.

213. The Saza Chief of Bunyangabo (Mukwenda), Toro District, obtained a young buffalo bull last year and has successfully reared it. It was exhibited at the Bunyangabo County Show and was quite a centre of interest. An Administrative Officer states that it was easily the best livestock exhibit as far as quality was concerned! It is now about a year old and still friendly enough towards those it knows, though inclined to become agitated if strangers approach.

214. A Forest Officer in Toro had an embarrassing encounter when he was walking through some tall elephant grass. He met a buffalo face to face so he about-turned and retired smartly. The buffalo chased him, pushed him over with its nose and then luckily ran off.
states that he has no doubt that he was struck by the animal's nose as afterwards he found saliva on the seat of his trousers.

215. The special anti-rinderpest buffalo control operations along the Sudan border in West Nile and West Madi continued during the year. A total of 821 buffalo were killed but in spite of continuous shooting their numbers do not appear to have substantially decreased. During the early part of the year the Sudan Game Department helped by killing buffalo on their side of the border; this much appreciated co-operation was most useful but it is understood that it is unlikely that the Sudan Game Department will be able to assist in the same manner in the future and it is also understood that they do not favour the scheme. It now appears doubtful whether the scheme in its present form will achieve the desired result, that is to break the buffalo link between this part of Uganda and the Sudan, due to difficult hunting conditions during a large part of the year. It is considered therefore that the advisability of continuing with the scheme will have to be reviewed next year.

216. Roan Antelope.—There are now only small numbers of this fine antelope in Uganda. It is not always realised that the females of this species are fully protected throughout the Protectorate, and the males are also protected in Ankole and Masaka Districts and the Napak Crown Forest.

217. Eland.—There is nothing new to report in regard to this species but it is hoped that if and when extra staff become available it may be possible to build up the numbers of these magnificent animals, by affording them adequate protection.

218. Lord Derby's (or Giant) Eland.—These animals, the largest of all antelopes, appear to be visiting the West Nile District in increasing numbers. In July a herd of about 60 of these beasts was seen by an Asian Game Ranger on the east side of Midigo hill; he states that this is the largest number he has seen together since he first observed these animals in 1933. It is still not possible however to claim that they are resident in Uganda throughout the year.

219. Waterbuck (Dejassa or Sing-Sing).—These animals are still numerous in many parts of Uganda, wherever there is any water in the vicinity. Sportsmen have obtained some fine trophies from western Uganda where the waterbuck grow the finest horns to be found anywhere in Africa.

220. Greater Kudu.—Unconfirmed reports have been received to the effect that greater kudu are still present on Mt. Ogili (6,539 ft.), in eastern Acholi and on Napona (6,427 ft.) on the Acholi/Karamoja border. These reports have not been verified but for the benefit of sportsmen it is stressed that greater kudu are fully protected in the whole of Acholi District.

221. Uganda Kob.—These beautiful antelope continue to suffer at the hands of poachers and in tribal hunts but appear to be holding their own in a few restricted areas of the Protectorate. An Honorary Game Ranger reports having seen two albino females of this species near the Semliki River.

222. Lelwel Hartebeest.—These rather ugly animals are causing great suffering to many parts of the Protectorate although the recently appointed Tsetse Control Department at Napak is making a splendid effort to eliminate the tsetse fly. Tsetse fly control measures are still being carried out in many parts of the country.

223. Jackson's Hartebeest.—An Officer of the Tsetse Control Department reports that all efforts to eliminate the tsetse fly from these areas have met with little success. The only hope is that the tsetse fly will die out naturally.

224. Oribi.—These beautiful animals are now resident in many parts of the Protectorate although the numbers are still small. They are fully protected throughout the Protectorate.

225. Klipspringer.—The Provost is now able to report that many of these animals are now resident in many parts of the Protectorate and are fully protected throughout the Protectorate.

226. Common Duiker.—A Field Officer of the Tsetse Control Department obtained a very large specimen (Sylvicapra grimmia roosevelti) in the Mount Elgon region this year. The length was 5 ins. in length, 28½ ins. in circumference at the neck. This is believed to be a Uganda record.

227. Giant (Forest) Hog.—This animal is now becoming fairly common in the bush country along the Hindagi River and is now of course fully protected throughout the Protectorate.

228. Red River Hog (Potamochoerus porcus).—A Field Officer of the Tsetse Control Department reports that a few of these animals are now resident in the George region this year.

229. Bush-Pig.—This pest continues to be a serious problem in many parts of the country. It is now fully protected throughout the Protectorate.

230. Near Bundale on the Victoria Nile from his launch saw what he took to be a crocodile crossing the river from Busoga. On a
Betruck by the animal’s nose as after-trousers, buffalo control operations along the Madi continued during the year. A

tube.

in spite of continuous shooting their numbers drastically decreased. During the early 1930s co-operation was most beneficially that the Sudan Game Department appreciated co-operation was most useful in the future and it is also under

now appears doubtful whether we will be able to break Uganda and the Sudan, due to difficulties in the region.

It is considered there is now only small numbers of this fine antelope continues to suffer at the hands of tribesmen and in game eviction operations. The Acholi say that in the old days when “ring-firing” of game was a common practice, the Oribi was the only

animal that had enough sense to avoid being burnt. Some of them of course were always killed but, in comparison with their numbers, they suffered less than the other species, as whenever the fire came to them they would run towards it and jump through, while most of the other animals ran away from it until they could go no further through exhaustion or some other reason.

226. Common Duiker.—A Field Officer of the Tsetse Control Department obtained a very large specimen of this bush-loving antelope (Sylvicapra grimmia roosevelti) in north Karamoja. Its horns measured 5 ins. in length, 2½ ins. in circumference at the base and 2½ ins. from tip to tip. This is believed to be another Uganda record.

227. Giant (Forest) Hog.—This magnificent hog is reported to be becoming fairly common in the bush along the Kazinga Channel, and in the forests along the Hindagi River east of Lake George. It is probable that they have been driven there by incessant hunting further up the escarpment.

228. Red River Hog (Potamocherus intermedius).—The Game Ranger, Toro, reports that a few of these beasts have been seen in the Lake George region this year.

229. Bush-Pig.—This pest continues to flourish particularly in the areas where leopard have been reduced, although in Kigezi attempts to poison them have achieved quite a measure of success. They and the baboon are undoubtedly the cultivators’ worst enemies and yearly do tremendous damage to crops.

230. Near Bundale on the Victoria Nile the Fisheries Officer, Serere, from his launch saw what he took to be the local “Loch Ness Monster” crossing the river from Busoga. On second thoughts he considered it to be...
a gigantic lung fish as two long "fins" appeared and started to thrash the air. On approaching in the launch it was found that the "monster" was two bush-pigs swimming nose to tail with tails sticking vertically out of the water. As they came to the boat they dived and swam underneath appearing on the far side; they rapidly reached the far bank and ran off through the papyrus. The current is strong at this point but did not seem to affect them. Bush-pig are strong swimmers and readily take to water. (See also para. 328 and Plate XIII, 1950 Annual Report, and para. 121, 1948 Annual Report).

231. *Hippopotamus.*—This normally harmless and useful animal, which does so much to assist the fisheries by manuring the water and thus promoting the growth of phyto-plankton on which *tilapia* feed, and which also helps to keep open waterways that would otherwise become choked with papyrus, sometimes "blobs its copy-book" and has to be dealt with.

232. In April, on the main Mbale to Soroti road at Asuret, an old African lady was charged by a hippopotamus which had wandered five miles from the nearest water. The lady is reported to have climbed a tree and then been bitten on the buttocks by the hippo. She was saved by villagers who speared and killed the animal.

233. In the Bulisa area of Bunyoro the inhabitants made constant complaints of damage to crops by hippo but very rarely was any complaint justified. The lure of hippo meat is strong and any chance of securing the demise of one of these great beasts is so irresistible that veracity frequently "goes by the board".

234. A surveyor, working on the western extension of the railway, was driving home late at night along the road from Nakaliro to Ibanda when he hit a hippo and considerably damaged a Land Rover. The hippo disappeared.

235. A hippo which had unwisely come up to and made itself visible near the crossing on the Pagera River half a mile from the Kitgum main-street, was soon put to death by a "brave" hunter who had to fire fifteen shots at it before he was able to despatch it.

236. A most unusual incident occurred at Nakipirubi, between Kisubi and Entebbe, during August, when a hippo for no apparent reason killed two goats which were left out grazing at night. There is no doubt about the incident which was investigated by this Department. The animal was probably a bad tempered old bull who resented the presence of goats on its private night-feeding grounds.

237. A hippo which had been caught in a wire snare and had broken loose with the noose still round its near foreleg, was found wandering on the Jinja golf-course in September. Whenever it moved it trod on the trailing wire with its back leg causing the noose to cut right through to the bone. It was obviously in great pain and was shot to put it out of its misery.

238. A hippo was responsible for charging Mr. M. S. Tweedale, Honorary Conservation Officer, at Mbabane in May (see also Section IV—General Report). The latter was attempting to find his way to the police station, he lost an arm and died later; a hippo was not implicated.

239. There have been several incidents of hippo and fishing canoes. In near future, it is hoped, these can be avoided if the fisherman had considered the possibility of recent hippo activities.

240. An Administrative Officer at the head of the hippo department has been able to secure the co-operation of the hippo in the past and is hopeful that the hippo below the rest-house on the opposite side of the road wall is not concerned with the current problems of the hippo department. In any case, the day hippo usually retire to the water before sunset, and these can be avoided if the fisherman has considered the possibility of recent hippo activities.

241. *White Rhinoceros.*—The white rhinoceros in the areas of West Madi are steadily increasing and are par excellence the largest and most impressive of the species. It is thought that the white rhinoceros may number 300; it may be considerably more. The white rhinoceros is a shy animal which can become a national park. It is possible that a national park may be established in the near future.

242. *Black Rhinoceros.*—The black rhinoceros is a shy animal. It is difficult to say how many there are in the area of West Madi, but it is thought that the black rhinoceros may number 300. It is thought that the black rhinoceros is a shy animal which can become a national park. It is possible that a national park may be established in the near future.

243. *Giraffe.*—Giraffe are fairly numerous in the area of West Madi, but it is difficult to say how many there are. It is thought that the giraffe may number 300. It is thought that the giraffe is a shy animal which can become a national park. It is possible that a national park may be established in the near future.

244. *Hyrax.*—It is not generally known that the two species of hyrax which look rather like small ungulates are very common in the area of West Madi. It is thought that the hyrax may number 300. It is thought that the hyrax is a shy animal which can become a national park. It is possible that a national park may be established in the near future.

245. *Hyraxes.*—It is not generally known that the two species of hyrax which look rather like small ungulates are very common in the area of West Madi. It is thought that the hyrax may number 300. It is thought that the hyrax is a shy animal which can become a national park. It is possible that a national park may be established in the near future.
“fins” appeared and started to thrash the water; it was found that the “monster” was in fact a tail with tails sticking vertically out of the boat. They dived and swam underneath it rapidly reached the far bank and ran off. The tent is strong at this point but did not seem very strong swimmers and readily take to water. It occurred at Nakipirubi, between Kisubi and the hippo for no apparent reason killed a “brave” hunter who had to fire fifteen shots to spatch it.

243. Giraffe.—Giraffe are fairly common in the sanctuary in East Madi and this year have refrained from helping themselves from nearby shambas. On the Greek River plains of Mbale District however these animals have developed a taste for cotton and attempts had to be made to drive them away with “thunder-flashes.”

244. Hyrax.—It is not generally realised that these attractive little animals, which look rather like large guinea-pigs, are not rodents but ungulates and in fact are the nearest living relative to the elephant. The hyraxes of Uganda include *Dendrohyrax arboreus ruwenzorii*, a tree hyrax from Ruwenzori; *Dendrohyrax dorsalis marmota*, a tree species from Kampala; and two rock hyraxes from Mt. Elgon—*Heterohyrax syriacus kempi* (grey hyrax) and *Procavia habessinica daemon* (large-toothed rock hyrax). The localities given are type localities. *Marmota* is sparingly distributed in the Mabira forest, and the lake shore and other forests of Buganda. The Karamoja rock hyrax is a race of *Procavia habessinica*. Series of hyrax skins, with skull, are required for scientific study, in particular of the rock hyrax from the northern and eastern regions, and of the tree hyrax from the western forests.
(B) Birds

WHALE-HEADED STORK (Balanciceps rex).

245. The Fisheries Officer, Serere, reports that while investigating the habits of this grotesque looking bird he discovered a superstition common to the Bakenyi and Teso fishermen on Lake Salisbury. These people say that when in a canoe the name of the whale-headed stork ("Ekurududu" in Teso, "Nkababimu" in Lukenyi) must never be mentioned otherwise there will be a storm and in all probability the canoe overturned, or the fish will keep away from the traps and lines.

BLACK-FACED CANARY

246. A new race—Serinus capistratus kohensis—of black-faced canary (or serin) has been described (Bull, B.O.C., Vol. 72, No. 1, 1-2, 1952) from Uganda. The type was collected at Onyulus, Koli River, in Lango, on 13th March, 1910. Other Uganda specimens are known from Teso, South Ankole, Kigezi and the Mfumbiro Mountains. It ranges through central and southern Uganda and western Kenya Colony to Mandated Ruanda.

BAR-TAILED GODWIT (Limosa l. lapponica)

247. There is a printer's error at the end of line one of sub-paragraph (19) of paragraph 359 on page 55, 1950 Annual Report, where the word "not" has been omitted. This should read—"This is another species not noted by Jackson (l.c.) to occur in Uganda."

VERREAUX'S EAGLE (Aquila verreaux)

248. Dr. A. J. Haddow, of the Virus Research Institute, reports having seen two pairs of this very rare eagle in Karamoja in December, one pair in the region of Kaabong and the other north of Lozoro. This bird is thought to live almost entirely on hyrax and it is believed that this is the first time that its presence has been officially recorded in Uganda.

BIRD NOTES, WESTERN UGANDA

249. For the following interesting bird notes thanks are due to Mr. E. A. Temple-Perkins of Kichwamba:

(1) EGYPTIAN VULTURE (Neophron p. percnopterus)—A fair flew over me while I was hunting on the lower Kafura River (south of Lake George) on the 25th June, 1951. I smelt a kill, but didn't find it for lack of time, and there were no other birds overhead. So far as I know, this member of the vulture family has not been recorded before in south-west Uganda.

(2) GABON SHINING BLUE KINGFISHER (Alcedo quadribrachys guentheri). It is apparently a resident at Lake Nkugute (commonly known as Lutoro) West Ankole. I have often seen one on the south side of the lake.

(3) UGANDA BLUE-BREASTED KINGFISHER (Halcycon malimbus pretticei)—I saw one very closely at Nkugute on 1st January, 1952.

(4) LEVAILLANT'S CUCKOO (Cloris philomelos), seen at Nabugabo (Masaka),—May 22nd, 1952.

(5) EMERALD CUCKOO (Chrysococcyx maculatus),—Jackson says this bird: "is a migratory bird, the winter (April to September), winter months of the year."

(6) RUWENZORI WHITE-BELTED TYPHON (Typhon ruwenzorii),—At the end of January, 1952, large numbers of locusts, seen at Lake Nkugute.

(7) BLUE PLANTAIN-EATER (Cercotis albirostris),—A bird is a resident at Lake Nkugute, as ten together. In June last year I had locusts growing in the lake by the roadside, and I predicted, the pair of monkeys and had to abandon them.

(8) BLACK-HEADED WAGTAIL (Motacilla alba),—I have seen the Violet Lourie and have heard it and seen it at Lake Nkugute.

(9) STORKS, WHALE-HEADED.—A report was received of a 13-year-old African boy who was killed by a python. The boy is stated to have been seized by two friends who were afraid to rescue him.

(C) Crocodile

250. The crocodile is dealt with in the following words:

Python (Python sebae)

251. A report was received of a 13-year-old African boy who was seized by a python. The boy is stated to have been seized by two friends when he was seized by the crocodile.
reports that while investigating a bird he discovered a superstition on Lake Salisbury. These name of the whale-headed stock "mu" in Lukenyi) must never be known and in all probability the canoe from the traps and lines.

(Latus koliensis—of black-faced canary (O.C., Vol. 72, No. 1, 1-2, 1952), from Onyuihus, Koli River, in Lango, on specimens are known from Teso, South Bung mountains. It ranges through central Kenya Colony to Mandated Ruanda.

(After the end of line one of sub-paragraph 590 Annual Report, where the word 1 read—"This is another species not found in Uganda."

The Virus Research Institute, reports an eagle in Karamoja in December, and the other north of Loooro. This on hyrax and it is believed that this been officially recorded in Uganda.

(6) LEVAILLANT’S CUCKOO (Clamator cafer).—One seen on the escarpment south of Lake George, in a patch of forest near shanties on 27th December, 1951.

(5) EMERALD CUCKOO (Chrysococcyx c. intermedius).—Sir Fredrick Jackson says this bird: "is a migrant and is not found in South Africa in the winter (April to September), while most of the examples from Uganda and Kenya appear to have been met with during that period."

I have heard it and seen it frequently hatch in the forest at Lake Nkugute, and the following records seem to indicate that a few at least spend the whole year in Uganda:

Nabugabo (Masaka).—Seen frequently between March-June, 1948, and 22nd February, 1949.

Hoidangi River (south of Lake George).—Seen frequently in October, 1948.


(6) RUWENZORI WHITE-BELLIED SWIFT (Micropus melba maximus).—At the end of January, 1952, large flocks came over Kichwamba eating a swarm of locusts. The first time I’ve seen this swift in large numbers.

(7) BLUE PLANTAIN-EATER (Corythaeca cristata).—This magnificent bird is a resident at Lake Nkugute and is quite plentiful—I’ve seen as many as ten together. In June last year a pair were nesting in a smallish tree growing in the lake by the roadside. The nest was only 35 ft. above road level, but as I predicted, the pair were disturbed by Vervet or Colobus monkeys and had to abandon their nest. In the same forest I have often seen the Violet Lourie and have once seen the Ruwensori Black-billed Lourie.

(8) BLACK-HEADED WAGTAIL (Budytes flavus feldegg).—I saw several birds on the edge of large pools near the Kazinga Channel on 27th January, 1951, and doing exactly what Sir Fredrick Jackson describes, competing with the pugnacious Jacana in the latter’s domain.

(C) Reptiles

CROCODILE

250. The crocodile is dealt with in Section V.—Fisheries.

PYTHON (Python sebae)

251. A report was received from Lango in October of the tragic death of a 13-year-old African boy who is alleged to have been swallowed alive by a python. The boy is stated to have been returning from church with two friends when he was seized by the great snake. The terrified screams
of the two other children eventually brought other people on the scene but by then the snake had nearly swallowed the boy. Beating with sticks caused the reptile to disgorge the boy, but by then he was dead.

252. A manager of the Bunyoro Agricultural Farm killed a fully grown python and eighteen small ones, each about three feet long, which appeared out of a hole in the ground in the middle of the farm in May. Later on it was discovered that there were more juveniles alive in the hole.

NIGHT ADDER (Causus rhombeatus)

253. Mr. E. A. Temple-Perkins, of Kichwamba, reports having killed one of these snakes in his garden in April; it was 23 inches in length. He states that in the six years he has been living in the area, this is the first venomous snake he has seen on the Kichwamba Escarpment, or higher.

REPORTS ON SNAKES

254. Since the departure of Captain Pitman, the late Game Warden, who was a very keen snake collector and a world expert on East African snakes, few reports and specimens of snakes have been received from the general public. The Acting Game Warden wishes to state that such reports and specimens are always of great interest to this Department and will always be gratefully received. Specimens in particular are frequently required for despatch to scientific institutions.

SECTION IV.—GENERAL

(A) Diseases of Game

RINDERPEST

255. Acknowledgments are due to the Director of Veterinary Services for a resumé of the incidence of rinderpest with particular reference to game.

During April rinderpest was confirmed in six widely dispersed herds of cattle in the central areas of Masaka District. This infection was due to the illicit movement of cattle from the lake shore area of Saeed Bay in the extreme south of the district where the disease had been introduced from Tanganyika through the medium of infected buffalo in October, 1950. It is believed that a residual infection existed in this area in game animals or possibly in cattle which had not been brought forward for immunisation when control measures were undertaken in 1950. This outbreak was successfully eradicated by the immunisation with Kenya Lapinised Virus of 120,000 cattle in Masaka District.

256. A Game Ranger who investigated the rinderpest situation in Koki and Buddu counties of Masaka District in April reported that there appeared to be few buffalo remaining after the severe outbreak of rinderpest which spread northwards into the area from Tanganyika last year. Game Guards report that large numbers of buffalo died and the last dead animal was found as late as January, 1951.
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the boy. Beating with sticks caused
in he was dead.

Agricultural Farm killed a fully
each about three feet long, which
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GENERAL

of Game

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lake shore area of Sango Bay in

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brought forward for immunization
1950. This outbreak was
ation with Kenya Lapinised Virus
s

lated the rinderpest situation in
District in April reported that there
the severe outbreak of rinder-
from Tanganyika last year.

of buffalo died and the last dead

PLATE I.
Hippo in Lake Edward. A typical view of these animals in the heat of the day.

[Photo by B. G. Kinloch.]

PLATE II.
Hippo cow and calf—Kazinga Channel.

[Photo by B. G. Kinloch.]
PLATE III.
Buffalo in open bush.

[Photo by B. G. Kinloch.]

PLATE IV.
Buffalo near Lake George. The difference in the shape of the horns of the buffalo in this region is worthy of note.

[Photo by B. G. Kinloch.]

Bull elephants feeding.

The same herd moving off. The animal is...
PLATE V.
Bull elephants feeding near Lake Edward.

PLATE VI.
The same herd moving off. The animal in the centre has just located the intruder.
PLATE VII.
A rather worried elephant moves off after becoming suspicious. Note how the ears are being carried.  
*Photo by B. G. Kinloch.*

PLATE VIII.
The same herd then moves off rapidly. The bull on the left has heard something suspicious.  
*Photo by B. G. Kinloch.*

A breeding herd of elephant cows and calves in the foreground have...
VII.
becoming suspicious. Note how the ears are carried.
*Photo by B. G. Kinloch.*

PLATE IX.
A breeding herd of elephant cows and calves near the Kazinga Channel. The two cows in the foreground have just spotted the photographer.
*Photo by B. G. Kinloch.*

VIII.
Hill on the left has heard something suspicious.
*Photo by B. G. Kinloch.*

PLATE X.
The same herd then moves off rapidly. The cow in the foreground is acting as a rear-guard and demonstrating noisily.
*Photo by B. G. Kinloch.*
PLATE XI.
A fish eagle on the Kazinga Channel.

[Photo by B. G. Kinloch.]

PLATE XII.
...... takes to flight.

[Photo by B. G. Kinloch.]
PLATE XI.
Kazinga Channel. . . .
[Photo by B. G. Kinloch.

PLATE XII.
Giraffe still hold their own in parts of Uganda though frequently poached, mainly for their tails.
[Photo by B. G. Kinloch.

PLATE XIII.
Uganda kob (*Adenota kob thomasi*) near Lake George.
[Photo by Sir Geoffrey de Havilland.
PLATE XV
Greater kudu are uncommon and very localised in Uganda
[Photo by B. G. Kinloch.]

PLATE XVI.
The old bulls in particular are very wary and hard to approach. One click of the camera shutter was enough for this one!
[Photo by B. G. Kinloch.]

What is it? A species of mountain sheep?

An elephant calf and a buffalo calf which...
PLATE XVII.
What is it? A species of mountain sheep?—No, a freak Defassa water-buck from western Uganda.

[Photo by B. G. Kinloch.

PLATE XVIII.
An elephant calf and a buffalo calf which were friends. In this picture they are both asleep.

[Photo by Mrs. M. A. Nuti.
PLATE XIX.
A wire snare set for pig in Bunyoro.
[Photo by J. R. F. Mills.]

PLATE XX.
A Uganda kob which was found wandering in an emaciated condition with a wire snare round its head.
[Photo by G. W. M. Holmes.]
PLATE XXI.
A game pit ready for its prey.

[Photo by J. R. F. Mills.]

PLATE XXII.
A young elephant found dead in a game pit.

[Photo by G. W. M. Holmes.]
Plate XXIII.
A typical seine net catch at Bulisa, Lake Albert.
[Photo by B. G. Kinloch.]

Plate XXIV.
Hauling a seine net at Bulisa, Lake Albert.
[Photo by B. G. Kinloch.]
PLATE XXV.

Bulisa, Lake Albert.

[Photo by B. G. Kinloch.

A big lung-fish (*Protopterus aethiopicus*), weight 46 lb., caught on a long line at Lwamponga, Lake Kyoga, by a Maruli fisherman.

[Photo by D. H. Rhodes.

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PLATE XXVI.

Dug-out canoes at Bakungu in Bugesa manned by Baroli and Bakervi fishermen.

[Photo by D. H. Rhodes.
PLATE XXVII.
Species of fish caught in seine nets on Lake Albert.
From top to bottom:
(a) Left hand row.—(1) Bubu (*Auchinoglanis occidentalis*), (2) Kisinja (*Barbus bynn*), (3) Ngege (*Tilapia nilotica*—a large specimen of 3½ lb), (4) Semutundu (*Bagrus docmac*).
(b) Right hand row.—(1) Ngassa or Tiger-fish (*Hydrocyon forskalii*), (2) Ngara (*Alestes harmore*), (3) Ngege (*Tilapia zullea*). [Photo by B. G. Kinloch.]

PLATE XXVIII.
Species of fish caught in seine nets on Lake Albert.
From left to right:—
(1) Wachone (*Distichodus niloticus*—a 9 lb. specimen).
(2) Waraga (*Alestes macrolepidotus*).
(3) Mputa or Nile Perch—(*Lates albertianus*—a very small specimen).
(4) Wahrendi (*Synodontis sekhali*).
(5) Karuka (*Labeo horie*—a large specimen of 3½ lb.) [Photo by B. G. Kinloch.]

Collection of indigenous fishing equi...
VII.

The nets on Lake Albert.

(1) Inganis occidentalis), (2) Kisinja (Barbus latice—a large specimen of 3½ lb.),

ger-fish (Hydracyn forskalii), (2) Ngara apiya galiles). (Photo by B. G. Kinloch.

VIII.

The nets on Lake Albert.

lb. specimen).

ins—a very small specimen).

of 3½ lb.). (Photo by B. G. Kinloch.

PLATE XXIX.

Women fishing in Lango. (Photo by J. B. Heppes.

PLATE XXX.

Collection of indigenous fishing equipment from the Lake Kyoga area—For description see para. 474. (Photo by B. G. Kinloch.
RINDERPEST CONTROL

257. Details of the progress of the scheme in West Nile and West Kasubi:

ANTHRAX

258. In May a dead hippopotamus was found near Pakwach: the animal was cut up, the meat was salted and dried the rest of it. A number of people ate the dried meat and almost all became ill; this matter was under the observation of the Provincial Commissioner, Northern Province. He says that when anthrax occurs in humans it is a typical form of the disease of Emin Pasha in August, 1877, he wrote: "The Magungo (living in Lake Albert) are very clean in their meat. Meat is little eaten and hippopotamus skin as also does crocodile flesh."

259. This is the third outbreak of anthrax in the Northern Province, all traceable to the outbreak in the Albert. He says that when anthrax occurs in humans it is a typical form of the disease of Emin Pasha in August, 1877, he wrote: "The Magungo (living in Lake Albert) are very clean in their meat. Meat is little eaten and hippopotamus skin as also does crocodile flesh."

260. As the Provincial Commissioner is in doubt that it was anthrax which caused the deaths, it is regrettable that they have now destroyed the flesh of a hippopotamus which is not acceptable.

HIPPOPOTAMUS MORTALITY

261. Deaths among hippopotami during the first 3 months of the year have been reported in the Report. An attempt was made to determine the cause of these deaths.

262. On 20th of March the Provincial Commissioner inspected a hippopotamus which was sick one was too weak to get up. The latter's signs of disease were:

(i) Very extensive necrosis of the head and flank.

(ii) Emaciation.

(iii) Anaemia of the visible organs.

The blood had a thin granular appearance and showed numerous coccobacilli. Examination and diagnosis of acute staphylococcal
RINDERPEST CONTROL

257. Details of the progress of the special anti-rinderpest control scheme in West Nile and West Madi are given in paragraph 215.

ANTHRAX

258. In May a dead hippopotamus was found in the River Nile at Kasodi near Pakwach; the animal was discovered by 7 men who ate some of the meat and dried the rest. These men all became seriously ill within a fortnight and two of them died two days later, the remainder recovered in hospital. They were all found to be suffering from anthrax. A large number of people ate the dried meat which had been dried for a week but none of these became ill; this may have been due to preventive measures.

259. This is the third outbreak of anthrax in 12 months in the area of the Albert Nile, all traceable to hippopotami. In this respect the Provincial Commissioner, Northern Province, has made a most interesting observation. He says that when we remember that a symptom of anthrax in humans is a typical form of malignant carbuncle, a letter written by Emin Pasha in August, 1877, becomes of particular interest. The latter wrote: “The Magungo (living near the point where the Somerset Nile enters Lake Albert) are very clean, particularly in eating and drinking. Meat is little eaten and hippopotami never for it causes eruptions of the skin as also does crocodile flesh.”

260. As the Provincial Commissioner points out there seems little doubt that it was anthrax which these people knew how to avoid. It is regrettable that they have now developed such a taste for meat that even the flesh of a hippopotamus found dead from an unknown cause is acceptable.

HIPPOPOTAMUS MORTALITY

261. Deaths among hippopotami on Lake George continued to occur during the first 3 months of the year (see also paragraph 375, 1950 Annual Report). An attempt was made by a Veterinary Officer to discover the cause of these deaths.

262. On 20th of March he discovered a dead hippopotamus near Kasenyi on Lake George and another very sick hippopotamus nearby in the shallow water. The latter’s companions made for deep water but the sick one was too weak to get away and was shot where it stood. External signs of disease were:

(i) Very extensive necrosis and sloughing of the right hind-quarter and flank.

(ii) Emaciation.

(iii) Anaemia of the visible mucous membranes.

The blood had a thin granular and watery appearance as seen in any advanced anaemia. Examination of blood smears was negative to anthrax and showed numerous coccal bodies in small groups. No chains were seen and diagnosis of acute staphylococcal infection was made.
263. The local reports say that the sick animals bleed at the nose, but in this case it was not possible to check this as the bullet which killed the hippo raked the head and by the time it could be examined blood was pouring from the nostrils.

TSETSE CONTROL IN CONNECTION WITH GAME

264. Game eviction operations in the interests of tsetse control have continued in various tsetse-fly ridden areas in the Protectorate. The most important of these operations at the moment is along the Bunyoro/Mengo border. These operations sometimes have an unfortunate effect on the attitude of various Africans to the need to conserve game. The Acholi for example have often declared that they did not see why they should not kill all the game in their own country themselves before Government came and did it for them.

(B) Economic Industries

CROCODILE SKINS

265. Reference to the crocodile industry will be found in Section V. -Fisheries.

GAME SKINS

266. The demand for game skins, particularly buffalo hides, continues to be high (see also paragraph 378, 1950 Annual Report).

(C) Notes of General Interest

MURCHISON FALLS TRIP

267. During 1951 the M.L. Murchison made 76 trips to the Murchison Falls and the P.S. Lugard II visited them twice. From the 17th of January to 22nd of June the service had to be suspended owing to the low water level in the Victoria Nile. This is a month longer than last year and as a result 513 passengers were carried as compared to 554 in 1950. In 1949, 877 passengers were carried as the water level remained high. This excursion remains as popular as ever and is usually booked up months ahead.

HONORARY GAME RANGERS

268. Honorary Game Rangers appointed during the year were Mr. H. T. Hayes and Mr. P. J. C. Cullen. A list of all the present Honorary Game Rangers is at Appendix III.

BRUTAL MURDER OF GAME GUARD

269. Reference paragraphs 387 to 392, 1950 Annual Report, the poacher wanted in connection with the murder of a Game Guard in July, 1950, remained at large throughout the year despite every effort to apprehend him. He has been helped by the local people whom he has either intimidated or bribed by supplying them with game meat. He has however had several very narrow escapes from arrest and must now know what it is like to be the “hunted” instead of the “hunter”.

270. It is gratifying to be able writing this report he has been arre...
the sick animals bleed at the nose, but seek this as the bullet which killed the time it could be examined blood was.

In the interests of tsetse control have areas in the Protectorate. The most moment is along the Bunyoro/Mengo have an unfortunate effect on the to conserve game. The Acholi for did not see why they should not kill Elves before Government came and

"Industries

The industry will be found in Section V. particular buffalo hides, continues 1950 Annual Report). General Interest

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37 to 392, 1950 Annual Report, the the murder of a Game Guard in July, the year despite every effort to ed by the local people whom he has plying them with game meat. He has sapes from arrest and must now know head of the “hunter”.

270. It is gratifying to be able to report however that at the time of writing this report he has been arrested and is now awaiting trial.

GAME FENCES

271. The Conservator of Forests has reported that considerable success has been achieved in dissuading elephant, hippo and buffalo from entering the younger areas of plantations near Katwe, in the Game Reserve, by the use of an electrified single-strand wire fence. It is also believed to have proved fairly successful as far as buck are concerned. With elephants it sometimes fails when a herd approaches the fence as although the front animals immediately stop they are sometimes rudely pushed through by the impatient beasts at the back!

UNUSUAL GAME REGISTER

272. Under Section 79 of the Game Ordinance, every licence holder is required to forward to the Game Warden on the expiry of his licence a correct register of all game killed by him on the licence in question. An unusual entry was made in a Game Register received from an African licence holder in Mbaale District. He wrote that he had shot, among other animals, a lung-fish (mamba).

SCIENTIFIC AND FILMING EXPEDITIONS

273. The Romulus Film Company spent some time in the Murchison Falls area making part of the film— The African Queen. The famous film stars Humphrey Bogart and Katherine Hepburn, who starred in the film, were also on location with the unit.

274. Reference paragraph 400, 1950 annual Report. the Acting Game Warden while on leave had the opportunity of seeing a preview of the game film which was made partly in Uganda during 1950 by Mr. J. W. Swain of Prestige Films Ltd. The title of the film has now been changed to Stronghold of the Wild. It is a short documentary film with a running commentary, but contains some excellent shots of game and is good entertainment value.

TRAGIC DEATH OF HONORARY GAME RANGER

275. On 31st of May Mr. M. S. Tweedale, who was in charge of the Uganda Fish Marketing Corporation’s crocodile catching operation on the Semliki River, was drowned as a result of an unfortunate encounter with a hippopotamus.

276. The full report on the accident is as follows:—At about 4 p.m. on 31st May, Mr. Tweedale went on the river in his boat and tried out his outboard motor. He was accompanied by two trusted Africans whilst his driver stayed near the bank in case he could not get the engine to go. He tried the engine once but it would not start, so he told the Africans to paddle downstream while he tried again, but with no success.

It was then that he noticed a large hippo and her calf about 50 yards off in the middle of the river and upstream from the boat. He told the Africans to paddle fast as the large hippo was coming rapidly for the boat.
At this time the hippo dived and appeared very soon afterwards within 6 feet of the stern of the boat with its mouth wide open. Mr. Tweedale fired one shot and wounded the hippo which dived again and came up under the boat and capsized it. The boat, which was meant to be unsinkable as it was fitted with special buoyancy tanks, was thrown over, bows up-stream, and sank immediately. Mr. Tweedale who, it is believed by the Africans, placed his legs under the thwart to get leverage when he was firing over the stern, sank with the boat and never broke surface. The two Africans were thrown clear and swam to the shore. They and the driver searched the bank for some way downstream but found nothing. They then organised a search by over 100 Africans, which continued throughout the night and next day. His body was later found some three miles downstream, untouched.

Mr. Tweedale had been a Honorary Game Ranger since 18th of July, 1950, and was affectionately known to all as "Semiliki Sam". His death was mourned by Europeans and Africans alike and his grave is on the banks of the river at Bwelamule.

SECTION V.—FISHERIES

(A) Administration

(1) STAFF

277. Fisheries Officers.—A fourth Fisheries Officer arrived from the United Kingdom towards the end of February and after a short period of attachment and training at the East African Fisheries Research Laboratories at Jinja, was posted to Hoima to understudy and finally relieve the Fisheries Officer, Lake Albert, who proceeded on vacation leave in April. (See paragraph 405, 1950 Annual Report).

278. The latter officer returned at the end of October but very shortly after was taken seriously ill and had to be flown to England to undergo special treatment for an indefinite period.

279. As a result of the arrival of the fourth Fisheries Officer each of the three fisheries regions of the Protectorate remained under the direct control of a Fisheries Officer throughout the year, but due to sickness and leave casualties there will be serious difficulties during 1952.

280. Reports of the Fisheries Officers concerned are included in sub-sections (B) (2), (3) and (4) of this section.

281. Fish Guards.—The question of the necessity for the improvement of Fish Guards' pay and terms of service (see paragraphs 407 and 408, 1950) was taken up during the year and shortly after the close of the year authority was received for all Fish Guards to be included in Grade VIII of the Employees' Division of the Local Civil Service instead of Grade X as heretofore.

282. It was also approved with not less than 5 years service General Division of the Local C. hoped that these improved terms person who will be of real value Protectorate.

(2) LEGISLATION

283. The Fish and Crocodile (see paragraph 409, Annual Rep 1951, together with the subsidiary (Legal Notice No. 59 of 1951 concerning fisheries and the crocodile:

284. Other Legislation.—Dr. General Notices were published Ordinance, the Supplies (Trans Sleeping Sickness Ordinance.

The following is a list of the re Legal Notices Nos. 58, 59, 6
General Notices Nos. 157, 1:

285. The most important of introduces the Fishing Rules, 1951.

(3) NETS

286. Supplies.—The net sit shipping difficulties held up import compared with 894 cwt. in 1950 as figure since 1948 when 444 cwt. were

287. QUANTITIES AND VALUE

<table>
<thead>
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<th>Country of origin</th>
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<td>Netherlands</td>
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<td>Japan</td>
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</table>

288. Prices.—The average price £117 approximately, compared with parisons give a clearer picture of origin:—
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and never broke surface. The two
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stream but found nothing. They
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later found some three miles down-
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all as "Semliki Sam". His death
ins alike and his grave is on the banks

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—FISHERIES
—

administration

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African Fisheries Research Laboratories
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t service (see paragraphs 407 and 408,
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ards to be included in Grade VIII
al Civil Service instead of Grade X

282. It was also approved that Fish Guards of outstanding merit,
with not less than 5 years service, should be eligible for promotion to
the General Division of the Local Civil Service as Fisheries Assistants. It
was hoped that these improved terms of service will help to attract the type
of person who will be of real value in the development of the fisheries of the
Protectorate.

(2) LEGISLATION

283. The Fish and Crocodile Ordinance, 1950.—This new Ordinance
(see paragraph 409, Annual Report, 1950) came into force on 1st April,
1951, together with the subsidiary Fishing Rules, 1951.

(Legal Notice No. 59 of 1951), replacing all previous legislation con-
cerning fisheries and the crocodile skin industry.

284. Other Legislation.—During 1951 various Legal Notices and
General Notices were published by virtue of the Fish and Crocodiles
Ordinance, the Supplies (Transitional Powers) Order, 1946, and the
Sleeping Sickness Ordinance.

The following is a list of the relevant Notices:

Legal Notices Nos. 58, 59, 61, 63, 148 and 162.

General Notices Nos. 157, 158 and 159.

285. The most important of the above is Legal Notice No. 59 which
introduces the Fishing Rules, 1951.

(3) NETS

286. Supplies.—The net situation deteriorated during the year as
shipping difficulties held up imports. Total imports were only 745 cwt., as
compared with 894 cwt. in 1950 and 835 cwt. in 1949. This is the lowest
figure since 1948 when 444 cwt. were imported.

Table C

<table>
<thead>
<tr>
<th>Country of origin</th>
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<td>Total</td>
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288. Prices.—The average price per cwt. of all imported nets was
£117 approximately, compared with £99 in 1950. The following compar-
isons give a clearer picture of the rising costs of nearly every country
of origin:
289. At the end of the year the retail price of the imported “Red Hand” 5-inch flax net was Shs. 43/70 of the 3-inch net Shs. 15/80, and of the 2½-inch net Shs. 20/46 representing increases respectively of Shs. 9/34, nil, and Shs. 4/20. The “Pamba” 5-inch flax net now costs Shs. 41/17, an increase of Shs. 7/51. These are the controlled prices but at the close of the year the “Red Hand” 5-inch net and the “Pamba” 5-inch net were in fact being sold in Kampala at Shs. 39 and Shs. 37, respectively.

290. The locally-made Odin Sunde “Amberbass” nets were, at the end of the year, priced at Shs. 35 for the 5-inch net and Shs. 18 for the 3-inch net.

291. The cotton seine net, or “gogo” has advanced from Shs. 222 at the end of 1950 to Shs. 290 at the close of 1951. The latter again however is the controlled price and the actual selling price in Kampala dropped to Shs. 210.

Table D

<table>
<thead>
<tr>
<th>Country</th>
<th>Price per cwt.</th>
<th>1951</th>
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<td>Italy (approx.)</td>
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</tr>
<tr>
<td>Netherlands (approx.)</td>
<td>126</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Japan (approx.)</td>
<td>74</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

(4) Imports and Exports of Dried Fish

292. *Handled by Railway Steamers.*—From Butiaba (Lake Albert) to the Belgian Congo—106 tons 414 lb., which is some 36½ tons less than in 1950. The reason for this decline is the big increase in direct export by canoe.

293. *Exported by Road.*—

(a) To the Belgian Congo, through the Kisero Customs Post:—106½ tons (approximately) valued at £9,527.

(b) To the Belgian Congo, through the Vurra Customs Post:—69 tons (approximately) valued at £5,550.

(c) To the Belgian Congo, through the Mpondwe Customs Post:—(See page 51).
QUANTITIES AND VALUES OF DRIED (SALTED) AND SMOKED FISH EXPORTED FROM LAKES EDWARD, GEORGE AND ASSOCIATED FISHERIES—1951.

<table>
<thead>
<tr>
<th>Month</th>
<th>Weight</th>
<th>Total</th>
<th>Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dried (salted)</td>
<td>Smoked</td>
<td>Dried (salted)</td>
<td>Smoked</td>
</tr>
<tr>
<td></td>
<td>Tons</td>
<td>Tons</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>January</td>
<td>126 17 lb.</td>
<td>34 17 lb.</td>
<td>161 14 107</td>
<td>7,195 7</td>
</tr>
<tr>
<td>February</td>
<td>99 244</td>
<td>57 6</td>
<td>156 9 30</td>
<td>6,707 3</td>
</tr>
<tr>
<td>March</td>
<td>96 6 13</td>
<td>42 8 4</td>
<td>138 14 17</td>
<td>6,362 14</td>
</tr>
<tr>
<td>April</td>
<td>101 0 82</td>
<td>58 1 43</td>
<td>159 2 13</td>
<td>7,583 3</td>
</tr>
<tr>
<td>May</td>
<td>151 8 70</td>
<td>52 13 92</td>
<td>204 4 50</td>
<td>12,025 18</td>
</tr>
<tr>
<td>June</td>
<td>108 16 74</td>
<td>49 1 15</td>
<td>158 11 75</td>
<td>9,668 0</td>
</tr>
<tr>
<td>July</td>
<td>85 17 46</td>
<td>27 10 47</td>
<td>113 7 93</td>
<td>7,308 6</td>
</tr>
<tr>
<td>August</td>
<td>79 3 47</td>
<td>29 8 10</td>
<td>108 11 57</td>
<td>6,788 10</td>
</tr>
<tr>
<td>September</td>
<td>98 6 28</td>
<td>42 15 0</td>
<td>141 1 28</td>
<td>9,034 4</td>
</tr>
<tr>
<td>October</td>
<td>149 17 59</td>
<td>46 2 21</td>
<td>194 19 80</td>
<td>14,197 15</td>
</tr>
<tr>
<td>November</td>
<td>133 17 50</td>
<td>63 1 103</td>
<td>196 19 41</td>
<td>16,323 8</td>
</tr>
<tr>
<td>December</td>
<td>103 10 68</td>
<td>37 1 26</td>
<td>140 11 94</td>
<td>13,825 11</td>
</tr>
<tr>
<td><strong>Grand Totals</strong></td>
<td><strong>1,334 5 1</strong></td>
<td><strong>540 3 32</strong></td>
<td><strong>1,874 8 33</strong></td>
<td><strong>117,961 19</strong></td>
</tr>
</tbody>
</table>

The average monthly value of these exports is £15,752, which is an increase of nearly 135% since 1949.
294. Imported into the Belgian Congo from Lake Albert via Mahagi Port:

<table>
<thead>
<tr>
<th>Month</th>
<th>Weight</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>62,763</td>
<td>686,425</td>
</tr>
<tr>
<td>February</td>
<td>71,626</td>
<td>844,861</td>
</tr>
<tr>
<td>March</td>
<td>109,556</td>
<td>1,292,468</td>
</tr>
<tr>
<td>April</td>
<td>103,376</td>
<td>1,180,181</td>
</tr>
<tr>
<td>May</td>
<td>114,534</td>
<td>1,256,398</td>
</tr>
<tr>
<td>June</td>
<td>105,575</td>
<td>1,261,015</td>
</tr>
<tr>
<td>July</td>
<td>72,526</td>
<td>874,034</td>
</tr>
<tr>
<td>August</td>
<td>102,299</td>
<td>1,246,903</td>
</tr>
<tr>
<td>September</td>
<td>99,310</td>
<td>1,161,164</td>
</tr>
<tr>
<td>October</td>
<td>95,723</td>
<td>1,168,588</td>
</tr>
<tr>
<td>November</td>
<td>104,608</td>
<td>1,541,269</td>
</tr>
<tr>
<td>December</td>
<td>65,203</td>
<td>974,788</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,108,099</td>
<td>13,488,096=£84,300</td>
</tr>
</tbody>
</table>

The above figures indicate a price of about £77½ per ton which is an increase of 19% on 1950.

295. The figures for December, 1950 (see paragraph 418, 1950 Annual Report), are now available and are as follows:

105,664 Kilos valued at Fr 1,141,809—making a total for 1950 of 922,273 Kilos (approximately 905.8 tons) valued at Fr 9,448,363 (or £59,052).

296. Imported into the Belgian Congo from Lake Albert via Arua:

<table>
<thead>
<tr>
<th>Month</th>
<th>Weight</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>5,881</td>
<td>55,506</td>
</tr>
<tr>
<td>February</td>
<td>2,018</td>
<td>20,461</td>
</tr>
<tr>
<td>March</td>
<td>1,339</td>
<td>13,333</td>
</tr>
<tr>
<td>April</td>
<td>2,656</td>
<td>30,013</td>
</tr>
<tr>
<td>May</td>
<td>7,605</td>
<td>88,100</td>
</tr>
<tr>
<td>June</td>
<td>5,413</td>
<td>57,749</td>
</tr>
<tr>
<td>July</td>
<td>30,286</td>
<td>124,736</td>
</tr>
<tr>
<td>August</td>
<td>17,086</td>
<td>203,348</td>
</tr>
<tr>
<td>September</td>
<td>7,166</td>
<td>112,453</td>
</tr>
<tr>
<td>October</td>
<td>5,016</td>
<td>50,178</td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>60,526</td>
<td>738,299=£4,614</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>59 tons</td>
<td>(calculated at the rate of eight francs to Sh. 1).</td>
</tr>
</tbody>
</table>

297. Control and Development.

The waters of Lake Victoria are under the control and development of the Lake Victoria Fisheries Service who have provided much useful exploratory work and are now available for the aid of his motor fishing vessels. The headquarters of the Service are at Mwanza in Tanganyika to Kisumu.

298. Legislation.

The Lake Victoria Fisheries Act, 1951, replacing all previous legislation,

299. Lake Victoria Fisheries.

The Service was stationed at Entebbe to investigate the fisheries of the lake during the year. The first meeting was held on 1st April, 1951, replacing all previous legislation.

300. Lake Victoria Fisheries.

The Service was stationed at Entebbe to investigate the fisheries of the lake during the year. The first meeting was held on 1st April, 1951, replacing all previous legislation.

301. General.

The figures for December, 1950 (see paragraph 418, 1950 Annual Report), are now available and are as follows:

105,664 Kilos valued at Fr 1,141,809—making a total for 1950 of 922,273 Kilos (approximately 905.8 tons) valued at Fr 9,448,363 (or £59,052).

302. The total figure for the year from Shs. 40 to Shs. 65 per ton at the close of the year was Shs. 65 per ton.

303. The figures for December, 1950 (see paragraph 418, 1950 Annual Report), are now available and are as follows:

105,664 Kilos valued at Fr 1,141,809—making a total for 1950 of 922,273 Kilos (approximately 905.8 tons) valued at Fr 9,448,363 (or £59,052).

304. The seine net continued to be in use and by no means as large as they once were.
Control and Development.—Details in regard to the Uganda waters of Lake Victoria are included in the Annual Report of the Lake Victoria Fisheries Service who have continued with the collection of important fishing statistics, experimental fishing, and the control of illegal fishing. The headquarters of this organisation has now moved from Mwanza in Tanganyika to Kisumu in Kenya.

Legislation.—The Lake Victoria Fisheries Act came into force on 1st April, 1951, replacing all relevant territorial legislation.

Lake Victoria Fisheries Board.—The Board met twice during the year. The first meeting was held at Mwanza in Tanganyika on 28th and 29th March, and the second at Kisumu in Kenya on 5th and 6th November.

Lake Victoria Fisheries Service.—A Fisheries Officer of the Service was stationed at Entebbe throughout the year for the control and investigation of the fisheries of the Uganda waters of Lake Victoria. With the aid of his motor fishing vessel extensive safaris were carried out and much useful exploratory work accomplished.

Lake Albert (including the Albert Nile and associated fisheries).

General.—The number of canoes operating on Lake Albert increased by some 5% during the year. Despite many difficulties such as the lack of a buyer for the bulk purchase of fish, and shortages of labour and of necessities such as fishing gear and salt, the fishing effort was at a high level throughout most of the year, reaching a peak in May when 114,534 kilograms of fish passed through Mahagi Customs port.

The total figure for the year was 1,108,105 kilograms, an increase of about 25% on 1950. The Butiaba Customs figures, however, show a drop of 827 cwt. or about 29% (see Table F). This must be accounted to a very large increase in the amount of fish exported directly by canoe without passing the Customs. For this the complete cessation of buying activities on the east side of the Lake is mainly responsible. The quantity exported through Butiaba now amounts to one-tenth only of the fish finding its way to the Belgian Congo through Mahagi, as against approximately one-fifth in 1950.

The price of salt fish in Mahagi market rose steadily during the year from Shs. 4.50 to Shs. 6.50 per 44 lb. bundle for first-grade fish, and the demand at the close of the year shows no signs of slackening.

The seine net continues to be the most important net on the Lake both in numbers in use and in quantities of fish caught. Catches are by no means as large as they once were, however, and blanks are the rule.
rather than the exception. The reason for this is largely over-fishing in the past, but exceptionally heavy and prolonged rains are also partially responsible. These nets still catch mainly \textit{ngara} (\textit{Alestes baremose}), but \textit{ngassa} (\textit{Hydrocyon forschali}) which a few years ago formed the bulk of the catches shows a further decline from 30\% to 12\%. The \textit{ngassa} caught in the 3-inch gill-nets have increased to 37\% from 18\% whilst \textit{ngara} have correspondingly declined. This seems to indicate a change in the habits of these species, which are among the most important economic fish in the Lake, since whereas both types of net are used in shallow water, the seines require an open shore and the 3-inch gill-nets are set close to grass and rushes on a closed shore.

305. Eight-inch and 5-inch gill-nets are still very popular, and rank next to the seine net in catching qualities. Figures of catches per net (see Table G) are somewhat deceptive since the 8-inch nets catch \textit{wachone} (\textit{Distichodus niloticus}), \textit{mpoi} (\textit{Citherinus citherus}), and \textit{mputa} (\textit{Lates albertianus}), of average weight about 8 lbs., whereas the 5-inch gill-nets catch \textit{wahiridii} (\textit{Symodonis schall}) and \textit{ngege} (\textit{Tilapia spp}) averaging 2 lbs. The bulk catch is, therefore, in favour of the 8-inch gill-net by some 9 lbs. of fish per 50 yard unit length of net. Most 8-inch gill-nets are set in the shallow water off Panyamur where the occasional big \textit{mputa} may still be caught.

306. Here the bulk of the long-lines used in the lake are set, 77\% of the catch being \textit{mputa} (\textit{Lates albertianus}) and the rest \textit{ngassa} (\textit{Hydrocyon forschali}) and \textit{semutundu} (\textit{Bagrus docmac}). The \textit{mputa} may be 40 or 50 lbs. and the quality of the catches has fallen little if at all since Dr. Worthington's survey in 1928. Longline fishing is still practised almost exclusively by Alur fishermen of West Nile, where the conditions are good and where the method has a long and successful tradition.

307. \textit{Fish Marketing}.—The internal market for Lake Albert fish in Uganda continues to be negligible. There are two main reasons for this: that the high prices prevailing in the Congo for salt fish and the assured market there are far more attractive to the fishermen than the much lower prices that the local people are prepared to pay, coupled with the very small demand for fish in Bunyoro. In West Nile a certain amount of high quality salt fish occasionally finds its way to the markets at Parombo and Payida where its price commands a good price.

308. The only fish-buying station operating on Lake Albert during the year was that of SHUN at Panyamur, under contract from TUFMAC. This continued to give most satisfactory service but experienced much difficulty owing to intense competition from the Greek buyers at Mahagi Port, which developed into a price-war later in the year. SHUN at one time were paying Shs. 40 a bundle when the price at Mahagi was Shs. 38. The fishermen, of course, have made the most of the situation in which they are the principal beneficiaries.

309. An agreement between September whereby SHUN were similar contract to that operating S.S. “Coryndon” to Mahagi Port. Port of the fish from Bulisa to Bt of the year none had been bought conducted fish-buying service was buying regularly along the coast needed and in view of SHUN’s that their venture in Bunyoro v absence of a buyer individual exp the “Coryndon” continued through

310. \textit{Licensing of Canoes as fishing canoes on the Lake under licence} in February. The objects of regi restricting the issue of licences to more effective action to be taken at \textit{A} total of 497 canoes was licensed, 1, and from Mubende, registration \textit{L} The Albert Nile south of Panyig licensing area. Re-licensing of canoes for the first time under the Fish and C any and in view of SHUN’s was necessary and will continue to

311. The introduction of licence fishermen as eliminating Congo c issue of licences by the African L satisfactory manner though consid was necessary and will continue to

312. \textit{Legislation}.—Legislatioll 250 yards was introduced under the accepted by the fishermen as a nec the fisheries by the long Congo not In addition since very few local l restric the general shortage of few complaints.

313. The imposition of the \textit{L} may not be caught, opposition especially at Tonya, Ka immature fish were being caught. immature Nile Perch (\textit{mputa}) for these places this attitude is under the smaller fish inshore and the
tion for this is largely over-fishing in the
prolonged rains are also partially
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ngassa (Hydrocyon macro). The mputa may be 40 or has fallen little if at all since Dr. Nile, where the conditions are good
successful tradition.

The introduction of licences was universally welcomed by local fishermen as eliminating Congo competition in Uganda waters, and the issue of licences by the African Local Government was carried out in a satisfactory manner though considerable assistance from the Department was necessary and will continue to be necessary for some time.

Legislation.—Legislation limiting the length of seine nets to 250 yards was introduced under the Fishing Rules, 1951. This has been accepted by the fishermen as a necessary measure since the harm done to the fisheries by the long Congo nets in the past is fully recognised by them. In addition since very few local fishermen were using nets longer than 250 yards prior to the order and their use during the present year has been restricted by the general shortage of labour to work them, there have been few complaints.

The imposition of the 18 inches limit under which mputa (Lates albertianus) may not be caught, however, has met with considerable opposition especially at Tonya, Kaiso and Butiaba where large numbers of immature fish were being caught. Since at certain seasons of the year immature Nile Perch (mputa) form the bulk of the seine net catches at these places this attitude is understandable. The argument that predators keep the smaller fish inshore and thereby improve the seine net hauls and

An agreement between SHUN and TUFMAC was reached in September whereby SHUN were to buy at Butiaba and Bulisa under a similar contract to that operating in West Nile exporting the fish on the S.S. "Coryndon" to Mahagi Port. Various difficulties of storage and transport of the fish from Bulisa to Butiaba held up buying and up to the end of the year none had been bought. This was very disappointing as a well-conducted fish-buying service working on the east side of the Lake and buying regularly along the coast as well as at Butiaba is most urgently needed and in view of SHUN's success at Panyamur it had been hoped that their venture in Bunyoro would be equally satisfactory. In the absence of a buyer individual export of fish by natives in canoes and on the "Coryndon" continued throughout the year.

Licensing of Canoes and Fishermen.—The registration of all fishing canoes on the Lake under the Fishing Rules, 1948, was completed in February. The objects of registration were to reduce over-fishing by restricting the issue of licences to local inhabitants only, and also to allow more effective action to be taken against poachers from the Belgian Congo. A total of 497 canoes was licensed, 142 from West Nile, 347 from Bunyoro and 8 from Mubende, registration letters being allotted to each Gombolola. The Albert Nile south of Panyigoro was included in the Lake Albert licensing area. Re-licensing of canoes, and the licensing of fishermen for the first time under the Fish and Crocodiles Ordinance, 1950, which came into force on April 1st, 1951, was undertaken by the Bunyoro Government acting through Gombolola chiefs for waters under their jurisdiction. 366 canoe licences and 1,762 fishing licences were issued.

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centrally about six inches above the lower edge of the net. The depth of the net may be up to six feet; the spread of the base of the net of course increases with the depth. The method of use is to throw out the net to the full length of the cord the end of which is retained in one hand, at the same time imparting a swirling motion which causes the weights to fly out and open the mouth of the net. When the net is drawn up the weights move inwards along the bottom and effectively trap any fish that may have been under the net as it was cast.

327. Some fishing of a purely experimental nature was carried out in the shallow water of the Senliki and Muzizi deltas. The trammel net was used here for the first time and was strikingly effective, catching 130 lbs. of fish in four fishings, two of which were in most unfavourable situations. It also caught and drowned two crocodiles of 14 feet and 13 feet 9 inches. Species caught in order of quantity included *Eutropius niloticus naitai*, nearly all of which were breeding females and by far the most abundant fish, *Lates albertianus* (*mputa*), all immature and below 24 inches in length, *Bagrus docmac* (*senutundu*), *Alestes baremose* (*ngara*), *Hydrocynus forskali* (*ngasa*—small tiger fish), *Citharinus citherus* (*mpot*), *Synodontis schall* (*wahindi*), *Tilapia nilotica* and *T. siltii* (*ngege*), *Auchenoglanis occidentalis* (*bubu*), *Distichodus niloticus* (*wachone*), *Labeo horio* (*kurka*), *Barbus bynni* (*kisinga*), *Hydrocynus lineatus* (*swagasa*—large tigerfish), and *Clarias lazera* (*mali*—catfish or mudfish). In fact with the exception of *Mormyrus* (*kasulubana*), a fair selection of all the important fish in the Lake.

328. The nets were all set in shallow water—at a distance of half a mile from the shore the depth is only nine feet. The most abundant fish were *Eutropius niloticus* (*naitai*) and *Alestes baremose* (*ngara*), accompanied by the predators tigerfish, *mputa*, and *senutundu*. The number of the fish, fish-eating birds, and crocodiles supports the theory that this is the most prolific area of the whole Lake. It certainly fulfills all the requirements of a breeding ground and nursery.

329. Mortality of Nile Perch.—In November occurred one of the periodic mortalities of Nile Perch, the first for several years. An area about a mile square with hundreds of dead *mputa* all of large size was reported as having been seen from the “Coryndon” about five miles north of Butiaba. Later the fish started to be washed ashore in Butiaba Bay where over a thousand fish were counted, many exceeding 150 lbs. in weight. In the bay itself *mputa* in good condition continued to be caught throughout this period and since other species of fish were not affected it appears certain that the catastrophe occurred in deep water. No progress has been made so far in discovering the cause of this phenomenon, but whatever it may be, it is now almost certain that large numbers of Nile Perch of a size to attempt the least enthusiastic of anglers still exist in deep water where so far no one has found a successful method of catching them.
The depth of use is to throw out the net to the lower edge of the net. The depth spread of the base of the net of course causes the weights to fly out and the net is drawn up the weights move to trap any fish that may have been experimental nature was carried out and Muzizi deltas. The trammel net was strikingly effective, catching 130 fish which were in most unfavourable situation, two crocodiles of 14 feet and 13 feet in length, and a quantity included Eutropius niloticus (feeding females and by far the most mature), all immature and below 24 inches in length. A. aestes baremose (ngara), Hydroctenopus rufus, Citherinus citrus (mpol), Synoptus and T. niloticus (ngege), Auchenogaster sp. (wachone), Labeo hortobagyi (ngara), Astyanax lineatus (wagassa—large tigerfish or mudfish). In fact with the availability of water—at a distance of half a mile or more—there is little reason why such an abundant fish and crocodiles supports the theory of overfishing in the whole Lake. It certainly fulfills the need for a fair selection of all the important and valuable fish resources.

In November occurred one of the worst fishing seasons for several years. An area about two miles of large size was reported as having 90 per cent loss of fish, mainly due to the low water level. In the bay to be caught throughout this period affected it appears certain that the fishing in the area has been so far non-existent that the Nile Perch of a size to attempt to deep water where so far no one has tried.

330. Other Waters.—A number of expeditions were made to inspect waters in areas adjoining Lake Albert not so far investigated by the Department.

331. Two visits were made to the Aringo River near the Acholi-Sudan border to investigate the possibility of stocking it later with trout. Unfortunately the high temperatures and turbidity of the water, makes the river unlikely to be suitable for either Rainbow or Brown Trout, and other streams from the Sudan hills further east were similarly uninteresting.

332. Several fishing communities on the Lower Albert Nile were visited. Here all the riverain people are fishermen but only at Laropi, Obongi and in the vicinity of Rhino Camp is the fishing on a commercial scale. A good deal of the fish is sold fresh locally, but a fair amount smoked and sold inland, and were there a greater demand and better facilities for transporting it considerably more would be produced. A typical camp at Dinnu, a few miles north of Rhino Camp, consisted of seven fishermen with seven 5-inch gill-nets and one longline with very heavy native-made hooks baited with kasulubana (Mormyrus). One day’s catch consisted of 172 ngege (Tilapia sp), 2 mputa (Lates albertianus), and 3 wachone (Distichodus niloticus), all caught with gill-nets. The fish is smoked and sold at Rhino Camp where the market is big and easily reached. The fishermen further north do not fare so well for a market.

333. Fish Guards.—At the close of the year eight Fish Guards were operating, stationed at Panyamur, Bulisa, Butiaba and Tanya. Collection of statistics remains their main responsibility, but in addition the registration of canoes and new fishing regulations have widened the scope of their activities. In this connection their function has been to explain new rules to the fishermen and to observe and report breaches. This has meant closer liaison with the Native Administration on whose cooperation the enforcement of regulations largely depends. It is regretted that this cooperation has not always been forthcoming.

334. Fisheries Launch.—The launch was out of action in June and most of September and October with engine trouble but after an overhaul gave satisfactory service for the rest of the year. She has started to develop dry rot in the hull and is due for replacement early in 1952. She is a very lake-worthy vessel and being open can carry a great quantity of fishing and other gear. Her replacement, which has a similar hull but has the forward deckspace roofed over and increased fuel storage capacity, should prove to be a better craft for fisheries work.

335. Sporting Fishing.—1951 was a very poor year for Nile Perch fishing at Butiaba, the biggest fish on record being an 80-pounder caught by Mr. C. Margach. 1950 was also below average, and compared with previous years—for instance 1939 when 44 tons of fish fell in the year to two rods fishing from Mr. T. P. Margach’s motor-boat—the quality of the fishing appears to be declining.
Table E

336. VARIETIES OF FISH CAUGHT IN LAKE ALBERT in commonly used types of nets worked out in percentages from all recorded catches in 1951:

1. **SEINE NETS:**

<table>
<thead>
<tr>
<th>Variety</th>
<th>% of Catches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngora</td>
<td>42.5</td>
</tr>
<tr>
<td>Ngge</td>
<td>13.8</td>
</tr>
<tr>
<td>Ngaasa</td>
<td>12.4</td>
</tr>
<tr>
<td>Karuka</td>
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</tr>
<tr>
<td>Wachuche</td>
<td>5.6</td>
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<tr>
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<tr>
<td>Wahrindi</td>
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<tr>
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<td>Lanya</td>
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2. **8-INCH GILL-NETS:**

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<tbody>
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<td>28.88</td>
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<tr>
<td>Ngge</td>
<td>28.95</td>
</tr>
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<td>Mputa</td>
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</tr>
<tr>
<td>Kisinja</td>
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<td>Kasulubana</td>
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</tr>
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<td>Kugungu</td>
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<td>Bubu</td>
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<tr>
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<td>0.66</td>
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<tr>
<td>Mpoi</td>
<td>0.31</td>
</tr>
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3. **5-INCH GILL-NETS:**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Ngge</td>
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</tr>
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<tr>
<td>Mpoi</td>
<td>2.45</td>
</tr>
<tr>
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</tr>
<tr>
<td>Bubu</td>
<td>1.25</td>
</tr>
<tr>
<td>Kisinja</td>
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<td>Kasulubana</td>
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4. **3-INCH GILL-NETS:**

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<tr>
<td>Wacholne</td>
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<tr>
<td>Lanya</td>
<td>0.40</td>
</tr>
<tr>
<td>Others</td>
<td>0.98</td>
</tr>
<tr>
<td>Ngora</td>
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</table>

Table F

337. MONTHLY EXPORT OF DRI

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<th>Month</th>
<th>Export</th>
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<tr>
<td>January</td>
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</tr>
<tr>
<td>February</td>
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</tr>
<tr>
<td>March</td>
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<tr>
<td>November</td>
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<tr>
<td>December</td>
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**TOTAL**

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<td>November</td>
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</tr>
<tr>
<td>December</td>
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</tr>
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</table>

**TOTAL**

**Note:** Total exports from Butiaba in 1946 (See also para. 304).
### Table E

**FISH IN LAKE ALBERT in commonly used percentages from all recorded catches in**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
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<tr>
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<td>42.5</td>
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<td>6.2</td>
<td>5.7</td>
<td>5.6</td>
<td>3.5</td>
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<td>1.6</td>
<td>1.2</td>
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<td>1.6</td>
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<td>0.9</td>
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</tr>
</tbody>
</table>

**Table F.**

**MONTHLY EXPORT OF DRIED FISH FROM BUTIABA**

<table>
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<th>Month</th>
<th>Cwt. 1951</th>
<th>Cwt. 1950</th>
</tr>
</thead>
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<tr>
<td>January</td>
<td>31.86</td>
<td>37.03</td>
</tr>
<tr>
<td>February</td>
<td>303.87</td>
<td>364.00</td>
</tr>
<tr>
<td>March</td>
<td>78.18</td>
<td>325.00</td>
</tr>
<tr>
<td>April</td>
<td>213.40</td>
<td>244.00</td>
</tr>
<tr>
<td>May</td>
<td>245.71</td>
<td>223.00</td>
</tr>
<tr>
<td>June</td>
<td>170.03</td>
<td>157.00</td>
</tr>
<tr>
<td>July</td>
<td>36.93</td>
<td>321.00</td>
</tr>
<tr>
<td>August</td>
<td>160.00</td>
<td>154.00</td>
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<tr>
<td>September</td>
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<tr>
<td>October</td>
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<td>November</td>
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<td>157.00</td>
</tr>
<tr>
<td>December</td>
<td>240.56</td>
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</table>

**Total** 2,018.72 2,846

**Note:** Total exports from Butiaba in 1949 were 5,697 cwt. and in 1948 8,020 cwt. (See also para. 304).
General.—This year the investigations continued with the investigations and now a more detailed picture which to base future work. It is development of this region lies upon methods (as described in paragraphs these have been well tried and are possible, but in the extension of such are underfished. This does not methods will not be and are not these ends in view; by experiments of groups of people in fishing methods and equipment and so on of fishing should go the improvement and on the land so that marketing can.

Statistics were collected operating from three stations in Mengo District. No new posts were type of person who, in addition to cope with the practical side of this often unable to write and, earning the relatively low pay of the Fishments were made for Busoga, Lake Guards made several safaris to the

A P.W.D. launch was a tours round Lake Kyoga were at for fisheries work on the Lake is a work involved. Visits were also and Karamoja Districts.

Generally more of the in fishing, but conversely many fish price of cotton and other cash or land. Various other factors have wished to start gill-netting but nets, especially those of less than of the year. A few nets of small at inflated prices locally; however was such as to give the fisher overcame the difficulty by hand cotton; but when approximately 3½ or 4” gill-net which wears of effort involved in keeping a fleet Fishing often ceased whilst new rains in the last quarter lessened.
339. **General.**—This year the Fisheries Officer stationed at Serere continued with the investigations into the fishing industry started in 1950 and now a more detailed picture of the situation has been built up on which to base future work. It is thought that the main future of the development of this region lies not in any drastic revision of the present methods (as described in paragraphs 452 to 465, 1950 Annual Report), as these have been well tried and adapted to the local conditions as nearly as possible, but in the extension of some or all these methods in areas which are underfished. This does not mean however that new and improved methods will not be and are not being tried out. Work has proceeded with these ends in view; by experimental net fishing in new areas, by instruction of groups of people in fishing methods, by propaganda, by trying out new methods and equipment and so on. Hand in hand with the development of fishing should go the improvement of communications both on the water and on the land so that marketing can be facilitated.

340. Statistics were collected regularly by African Fish Guards operating from three stations in Teso District, and from Lwampanga, Mengo District. No new posts were opened as it is difficult to find the type of person who, in addition to his clerical skill, is able or prepared to cope with the practical side of the work. The experienced fishermen are often unable to write and, earning large sums as they do, are not tempted by the relatively low pay of the Fish Guard. However, though no appointments were made for Busoga, Lango and Lake Salisbury the existing Fish Guards made several safaris to the landings there.

341. A P.W.D. launch was allocated for the whole year and extensive tours round Lake Kyoga were accomplished, but what is really required for fisheries work on the Lake is a reliable launch properly designed for the work involved. Visits were also made to dams in Teso, Lango, Busoga and Karamoja Districts.

342. Generally more of the lakeside dwellers are taking an interest in fishing, but conversely many fishermen are, because of the present high price of cotton and other cash crops, spending more of their time on the land. Various other factors have retarded progress. Several newcomers wished to start gill-netting but were discouraged by the shortage of nets, especially those of less than 5" mesh, which persisted until the end of the year. A few nets of small mesh were to be had from Kisumu or at inflated prices locally; however the trouble or cost of obtaining these was such as to give the fishermen little incentive or profit. Some people overcame the difficulty by hand-braiding their own nets from sewing-cotton; but when approximately 3½ miles of thread go to make up a 3½" or 4" gill-net which wears out in less than 3 weeks, it is seen that the effort involved in keeping a fleet of say 10 nets fishing is considerable. Fishing often ceased whilst new nets were being completed. The heavy rains in the last quarter lessened the fishing effort and subsequently the...
high lake level prevented the Bakenyi operating their baskets. Five
groups of people wished to buy motor-boats to assist in their fishing, trans­
porting their dried fish, or for use as ferries. Although enquiries were
made no suitable craft came to light.

343. In spite of the difficulties some of the more hardworking and
enterprising fishermen and fishmongers are becoming relatively wealthy.
One Mukenyi from Bugondo bought a motor-cycle which he uses for
marketing his fish to Soroti and Mbale. A Teso fishmonger who bought
a car at the end of 1950 used it regularly for taking fish from Kagwara and
Milondo to Kachumbera. Other fisher- men are interested in the purchase
of motor-boats, and two enquiries have been received about outboard
engines. One Jaluo, the most important fisherman in the area, in
five months sold 46 tons of salted fish from Lake Kwania to the Belgian
Congo at £75 a ton giving him a total of £3,450. His overheads, of course,
are heavy, as he employs 36 porters, and owns 9 canoes; there are nets to
buy, and transport costs, but even so his profit is considerable. He uses 5”
nets for semutundu (Magnus docmac), male (Clarias mossambicus) and
kisinja (Barbus spp.).

344. Lake Salisbury.—Of
some importance was the start made on
the development of the fisheries of Lake Salisbury. Several Jaluo have
now been encouraged to start gill-netting there. Their catches have been
good. One canoe with 20 x 3½” gill-nets used by 12 Jaluo at Apnia,
Mukura Gombolola, catches an average of 400 tilapia a day, which are sold
at the landing from 15 to 20 cents each according to size, and retailed
inland for 25 to 30 cents each.

345. The Kumi Leper Mission owing to the difficulties in buying fish
have started their own scheme on Lake Salisbury at Akum, near Kumi.
The Game and Fisheries Department loaned them a “flattie” boat built
by students of the Kampala Technical School. A senior Fish Guard
spent three weeks at the Mission and taught a group of patients net­
making and mounting, gill-net fishing and long-lining. Work started in
December and preliminary catches showed that fish were plentiful. However,
some damage was done to gill-nets by crocodiles which will have to be
trapped before nets can be used safely. After four days operations had to
be postponed due to a bridge on the Kumi to Akum road collapsing. Work
will be resumed when this has been repaired. In three days on 120 hooks
41 lbs. of fish were caught and about 40 lbs. in 1 x 4” gill-net set on 4
evenings.

346. Dam Stocking.—For some time there has been concern at the
way in which the Teso dams are becoming overgrown with weeds and
grass, resulting in a decrease in the area of open water. In an experiment
to clear this vegetation Tilapia zillii, a weed-eating fish, has been introduced
into several dams. At the same time Tilapia nilotica and Tilapia galilaea
were stocked. These fish were caught at Butiaba, Lake Albert, in April
over a period of four days and kept in a wire fish-cage anchored in well­
erated moving water. They were then taken by road on a two-day
journey to Teso in two-thirds full to 10 cms. per can. On the way
were transferred to the fish-cage. The total number of 522 fish carried or
in Teso.

347. In December a report written by the African Fisheries Research Labor
Experiments of the gut contents of several Tilapia zillii, Ongenyi Dam, Kidetok, Serere, in
Examples of the gut contents are:

(a) Length—10 cms. Stom algalae), epidermal tissue, occurred
Plasmolysed Oscillatoria, some

(b) Length—5 cms. Stom vegetable fibres, epidermal
plasmolysed Oscillatoria.

(c) Below 3.5 cms. the fry
material but mostly littoral dia

348. This report is hopeful for reducing the weed. Visual observations
covered the dam in April had

349. Some Tilapia esculenta
ferred from Lake Kyoga to dams in

350. TABLE OF INTRODUCTI

<table>
<thead>
<tr>
<th>Date</th>
<th>Dam</th>
<th>Gombol</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-4-51</td>
<td>Ongenyi (Ondetok)</td>
<td>Pigire</td>
</tr>
<tr>
<td>30-4-51</td>
<td>Owinya</td>
<td>Buguda</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Aloet</td>
<td>Arapai</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Opuyu</td>
<td>Soroti</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Telamot</td>
<td>Gweri</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Arabaka</td>
<td>Arapai</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Dakabola</td>
<td>Arapai</td>
</tr>
<tr>
<td>20-5-51</td>
<td>Aparisa</td>
<td>Katine</td>
</tr>
<tr>
<td>20-5-51</td>
<td>Kidolo</td>
<td>Obalangu</td>
</tr>
<tr>
<td>17-5-51</td>
<td>Adayi</td>
<td>Uruku</td>
</tr>
<tr>
<td>17-5-51</td>
<td>Omateza</td>
<td>Kumi</td>
</tr>
<tr>
<td>21-11-51</td>
<td>Konguruku</td>
<td>Ngok</td>
</tr>
</tbody>
</table>

351. In Lango '35 Tilapia 35 south of Lira on the left of the in
nyi operating their baskets. Five boats to assist in their fishing, trans­
III ave been received about outboard
III are becoming relatively wealthy.
I mportant fisherman in the area, in
I from Lake Kwania to the Belgian
III are interested in the purchase
III for taking fish from Kagwara and
III in Teso, where he has a motor-cycle which he uses for
III lends them a "flattie" boat built
III. A senior Fish Guard
III taught a group of patients net­
II-nets used by 12 Jaluo at Apinia,
II water. In an experiment
II the difficulties in buying fish
II there has been concern at the
III journey to Teso in two-thirds full four-gallon fish-cans, 50 fry of from 2
to 10 cms. per can. On the way there was a halt at Lira where the fish
III were transferred to the fish-cage and kept overnight in a dam. Of the
III total number of 522 fish carried only 53, that is 10%, were dead on arrival
III in Teso.

347. In December a report was received from the Algo­loge­
III st African Fisheries Research Laboratory, Jinja, on the examination of the
III gut contents of several Tilapia zillii, from the young of the fish put in
III Ongenyi Dam, Kidetok, Serere, in April.

Examples of the gut contents are as follows:—

(a) Length—10 cms. Stomach:—Much Oscillatoria (a blue-green
III algae), epidermal tissue, occasional epiphytic diatoms. Rectum:—
III Plasmolyzed Oscillatoria, some debris only.

(b) Length—5 cms. Stomach:—Spirogyra, much Oscillatoria,
III vegetable fibres, epidermal material. Rectum:—Vegetable fibres,
III plasmolyzed Oscillatoria.

(c) Below 3.5 cms. the fry contained little Oscillatoria or vegetable
III material but mostly littoral diatoms.

348. This report is hopeful and it seems that the fish are in fact eat­
III ing the weed. Visual observation supports this, and the thick weed which
III covered the dam in April had largely disappeared by December.

349. Some Tilapia esculenta and Tilapia variabilis were also trans­
III ferred from Lake Kyoga to dams in Teso.

350. TABLE OF INTRODUCTIONS DURING 1951 IN TESO DISTRICT.

<table>
<thead>
<tr>
<th>Date</th>
<th>Dam</th>
<th>Dam</th>
<th>County</th>
<th>Species</th>
<th>Numbers Introduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-4-51</td>
<td>Ongenyi</td>
<td>Okidetok</td>
<td>Serere</td>
<td>T. zillii</td>
<td>55</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Ongenyi</td>
<td>Okidetok</td>
<td>Soroti</td>
<td>T. variabilis</td>
<td>41</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Aloe ...</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. nilotica</td>
<td>100</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Opiyu ...</td>
<td>Soroti</td>
<td>Soroti</td>
<td>T. nilotica</td>
<td>77</td>
</tr>
<tr>
<td>15-4-51</td>
<td>TELAMOT</td>
<td>Gweri</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>40</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Arakasa</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. esculenta</td>
<td>31</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Arakasa</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>30</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Dakabola</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>30</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Dakabola</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>7</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Dakabola</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>12</td>
</tr>
<tr>
<td>15-4-51</td>
<td>Dakabola</td>
<td>Arapai</td>
<td>Soroti</td>
<td>T. zillii</td>
<td>16</td>
</tr>
<tr>
<td>20-9-51</td>
<td>Kidola</td>
<td>Katshe</td>
<td>Soroti</td>
<td>T. esculenta</td>
<td>16</td>
</tr>
<tr>
<td>20-9-51</td>
<td>Kidola</td>
<td>Obalanga</td>
<td>Amuria</td>
<td>T. variabilis</td>
<td>30</td>
</tr>
<tr>
<td>17-7-51</td>
<td>ASAYI ...</td>
<td>Usuka</td>
<td>Usuka</td>
<td>T. nilotica</td>
<td>100</td>
</tr>
<tr>
<td>17-7-51</td>
<td>ASAYI ...</td>
<td>Usuka</td>
<td>Usuka</td>
<td>T. variabilis</td>
<td>30</td>
</tr>
<tr>
<td>21-11-51</td>
<td>Kunguruku</td>
<td>Ngori</td>
<td>Ngori</td>
<td>T. zillii</td>
<td>40</td>
</tr>
</tbody>
</table>

351. In Lango 35 Tilapia nilotica were released in the dam 5 miles
III south of Lira on the left of the main Soroti road. (Boroboro Dam?)
352. At Kidetok Dam where frequent observations were made, *Tilapia zillii* were seen three months after introduction swimming in pairs; many of these had grown from an initial length of 10 cms. to one of 18 cms. A month later these had bred. By December thousands of fry and fish of all sizes were to be seen. As this *tilapia* makes good eating, if they do thrive in the dams Teso's fish production will be greatly increased. Most of the 80 dams in Teso are now stocked with either introduced or indigenous fish.

353. Nile Perch.—Whilst fishing for the *tilapia* fry at Butiaba 2 young 15 cm. long Nile Perch were taken. These were transported successfully with the others on the two-day journey to Teso. This is useful to know in case at some future date it is ever decided to stock this fine sporting and very edible fish in Lake Kyoga or elsewhere.

354. Experimental Fishing.—Experimental nets were set in many parts of the lake, and on two occasions in dams.

355. In Ngobo Dam, Usuku County, Teso, which has an area of over one hundred acres, in one night in June using 4 gill-nets 160 lbs. of *Mormyrus, clarias, tilapia* and *schilbe* were caught. The 4" net took 106 lbs. Although catches of this nature could be made frequently both here and in Teso's other well-stocked dams little interest is shown by the people and only few take the trouble to fish. More propaganda is needed to make them interested.

356. Bulamagi Dam near Iganga, Busoga, which was stocked with *tilapia* in 1946, was investigated on the 1st October. In 3 gill-nets of 3½, 4" and 5" mesh, 47 *Tilapia esculenta* and *T. variabilis*, 1 *Clarias mossambicus* and 1 *Protopterus aethiopicus* were caught, the total catch weighing 34 lbs. As a result of this it was recommended that the local people be allowed to fish the dam.

357. Lwampanga, Victoria Nile.—No net fishing had ever been done at Lwampanga, and it was therefore decided to investigate the possibilities. Catches were found to be good, although care has to be taken to set one's nets in places where there is no danger of their being swept away by the floating islands of sudd which come down the Nile. The encouraging results have led to several people trying for themselves. One Baziba canoe with six men started fishing here in December using 5" nets. A 2" net set experimentally took large numbers of *ningu* (*Labeo victorianus*) and *nzere* (*Schilbe mystus*), fish not previously caught by the Lwampanga fishermen. One man was so impressed that within a few days he had made himself a 2" net and now regularly fishes with this, and several other people have made enquiries regarding the purchase of nets.

358. The following table gives per setting the average number of all fish and the average weight taken by gill-nets and a trammel-net in experimental fishing at Lwampanga, as compared with Bugondo where net fishing has been carried out for several years:

<table>
<thead>
<tr>
<th>Gill-nets</th>
<th>Lwampanga</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-inch mesh</td>
<td>4</td>
</tr>
<tr>
<td>3½-inch mesh</td>
<td>3</td>
</tr>
<tr>
<td>4-inch mesh</td>
<td>5</td>
</tr>
<tr>
<td>5-inch mesh</td>
<td>5</td>
</tr>
<tr>
<td>Trammel-net</td>
<td>4</td>
</tr>
</tbody>
</table>

359. The fishing at Bugondo above table, for none of the except the catching *tilapia*, the most common taken in 3½" nets but a net of the for purpose of comparison the table generally is three or four times as good.

360. Akum, Lake Salisbury.—decide whether it would be profitable with its scheme. Catches of *mossambicus* were good. Two nets whilst nets of 3½" and 4" mesh too.

361. Mugalama, Severe County only with 3½" nets for *tilapia* and lbs and 48 lbs. of fish respectively appear that if ever the *tilapia* fish to the catching of *kisinja*.

362. Trawling.—Trawling experiment of the East African Fisheries Research Victoria contained large numbers of this method in commercial quantity by this method in Lake Kyoga Mr. Dit was very successful, the catch consisting of nets had become completely clogged and a few lbs.; the net was hauled in when the net was hauled it was *haplochromis* (Nkefe) and a few article 15 lbs.; the net had not had time warp mended, the net was put down another blank. Although not very that *haplochromis* were present in a launch is obtained in the future the...
Frequent observations were made, either introduction swimming in pairs; length of 10 cms. to one of 18 cms. Number thousands of fry and fish of *tilapia* makes good eating, if they do not be greatly increased. Most stocked with either introduced or experimental nets were set in many dams.

Bugondo, Teso, which has an area of over 360. Akuum, Lake Salisbury.—Experimental fishing was done here to decide whether it would be profitable for Kumi Leper Mission to proceed with its scheme. Catches of *nzere* (*Schilbe mystus*) and *male* (*Clarias mossambicus*) were good. Two nets of 2½” mesh took 15 lbs. of *nzere*, whilst nets of 3½” and 4¼” mesh took 32 lbs. of *male*, with occasional *tilapia*.

Mugalama, Serere County.—Here net fishing is at present done only with 3½” nets for *tilapia* and 2 x 3¾” nets were set. These caught 45 lbs and 48 lbs. of fish respectively, mostly *kisinja* (*Barbus spp*). It would appear that if ever the *tilapia* fishery declined the effort could be switched to the catching of *kisinja*.

Trawling.—Trawling experiments in 1950 by Mr. S. H. Death of the East African Fisheries Research Station, Jinja, had shown that Lake Victoria contained large numbers of *haplochromis* which could be caught by this method in commercial quantities. To see whether these conditions appertained in Lake Kyoga Mr. Death consented to carry out an experiment at Bugondo. Using a small otter-trawl of about 12 feet spread and 1-inch mesh, worked from the fisheries launch, a total of 4 hauls of 30 minutes duration were made in 15 feet of water. Three hauls were unsuccessful, the catch consisting of only a handful of fish, as boards and nets had become completely clogged with weeds. On the fourth haul a warp broke after the net had been down only a few minutes, however this time when the net was hauled it was found to contain some hundreds of *haplochromis* (*nkeje*) and a few *dolostes* (*nsoga*), the total weighing about 15 lbs.; the net had not had time to become blocked with weeds. The warp mended, the net was put down again for 25 minutes, and produced another blank. Although not very successful the experiment did indicate that *haplochromis* were present in large numbers. If a more powerful launch is obtained in the future the experiment will be repeated, as it was

<table>
<thead>
<tr>
<th>Gill-nets</th>
<th>Lwampanga</th>
<th>Bugondo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of settings</td>
<td>No. of fish per setting</td>
</tr>
<tr>
<td>2-inch mesh</td>
<td>4</td>
<td>18-2</td>
</tr>
<tr>
<td>3-inch mesh</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4-inch mesh</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>5-inch mesh</td>
<td>5</td>
<td>2-8</td>
</tr>
<tr>
<td>Trammel-net</td>
<td>4</td>
<td>16-0</td>
</tr>
</tbody>
</table>

359. The fishing at Bugondo is not quite as bad as indicated by the above table, for none of the experimental nets was of suitable size for catching *tilapia*, the most common of the economic species here. These are taken in 3¾” nets but a net of this mesh was not available. Nevertheless for purpose of comparison the table is correct and the fishing at Lwampanga generally is three or four times as good as at Bugondo.

360. *Ahum, Lake Salisbury.*—Experimental fishing was done here to decide whether it would be profitable for Kumi Leper Mission to proceed with its scheme. Catches of *nzere* (*Schilbe mystus*) and *male* (*Clarias mossambicus*) were good. Two nets of 2½” mesh took 15 lbs. of *nzere*, whilst nets of 3½” and 4¼” mesh took 32 lbs. of *male*, with occasional *tilapia*.

361. Mugalama, Serere County.—Here net fishing is at present done only with 3½” nets for *tilapia* and 2 x 3¾” nets were set. These caught 45 lbs and 48 lbs. of fish respectively, mostly *kisinja* (*Barbus spp*). It would appear that if ever the *tilapia* fishery declined the effort could be switched to the catching of *kisinja*.

362. *Trawling.*—Trawling experiments in 1950 by Mr. S. H. Death of the East African Fisheries Research Station, Jinja, had shown that Lake Victoria contained large numbers of *haplochromis* which could be caught by this method in commercial quantities. To see whether these conditions appertained in Lake Kyoga Mr. Death consented to carry out an experiment at Bugondo. Using a small otter-trawl of about 12 feet spread and 1-inch mesh, worked from the fisheries launch, a total of 4 hauls of 30 minutes duration were made in 15 feet of water. Three hauls were unsuccessful, the catch consisting of only a handful of fish, as boards and nets had become completely clogged with weeds. On the fourth haul a warp broke after the net had been down only a few minutes, however this time when the net was hauled it was found to contain some hundreds of *haplochromis* (*nkeje*) and a few *dolostes* (*nsoga*), the total weighing about 15 lbs.; the net had not had time to become blocked with weeds. The warp mended, the net was put down again for 25 minutes, and produced another blank. Although not very successful the experiment did indicate that *haplochromis* were present in large numbers. If a more powerful launch is obtained in the future the experiment will be repeated, as it was
considered that with faster towing the net would stay open in spite of weeds, and the results be satisfactory.

363. The development of a fishery for *haplochromis* would be a good thing as these fish are often predatory on the *tilapia fry*, or compete with the *tilapia* for plankton food, and at present fishing methods take only negligible numbers. The fish could be sun-dried and sold in sticks for human consumption, or if landed in very large quantities processed for fish-meal fertilizer or animal feeding stuffs.

364. *Nylon.*—A gill-net was braided, one-half being of sewing-cotton of the type used by the fishermen and the other half of nylon twine. At the end of 21 days the cotton half was completely worn out whereas the nylon was not perished in the least. Catches in the nylon were just twice as much as in the cotton. A few fishermen now wish to try out nylon thread, and one Soroti net-dealer has ordered a trial stock of nylon from U.K.; it is however much more expensive.

365. *Visits by Members of the East African Fisheries Research Organisation, Jinja.*—In April and May Miss R. Lowe, the Research Officer, accompanied by Dr. M. E. Brown, who was on a year’s visit to the Jinja Laboratory, made preliminary investigations into the breeding habits of the Lakes Kyoga and Salisbury *tilapia*. At the railway bridge Kapiri, Lake Salisbury, some interesting observations were made on *Tilapia variabilis* which were nesting in the water below the bridge. Several photographs of the nests and *tilapia* were obtained. They also visited the dam at Kidetok, Serere, where a collection of biological material was made.

366. Also in April Mr. G. R. Fish, the Algologist, visited Serere. He analysed a series of water samples taken from Lake Salisbury, the in-flows and out-flows from this lake, and from Lake Kyoga at Bugondo. At the same time he examined plankton contents and found these to be much less in quantity than in Lake Victoria. This possibly accounts for the smaller size of the *tilapia* in the Lake Kyoga area, for these are largely plankton eating fish. A physiological experiment was done at Bugondo which showed that additions of phosphate and nitrate stimulated plankton growth. Later the Algologist did analyses of water from several Teso dams in preparation for an experiment in which it is intended to fertilize a dam with Tororo phosphate to see whether this alone can bring about increased plankton growth and in turn increased fish production.

367. Several fish were sent to the laboratory for identification. Amongst those identified were *Haplochromis gestri* and *Haplochromis xenostoma* from Lake Kyoga, and *Haplochromis parvidens* from Lake Salisbury. A species of *Synodontis* which is thought to be *Synodontis afro-fischeri* was also found in Lake Salisbury. Although all these fish are known in Lake Victoria it was the first time that they had been recorded from the Kyoga system.

368. *Marketing of Fish and Supplies.*—As in 1950 an estimated 2,500 tons of fish were landed in the Kyoga region. The price rose during the year and the lakeside value of the fish was £100,000. The retail value is usually some 50 per cent of this.
The net would stay open in spite of the current.

The fishery for *Haplochromis* would be a good predatory on the *Tilapia* fry, or compete with and at present fishing methods take only one half of the fry. The fry could be sun-dried and sold in sticks for bedding stuffs.

A catch in the nylon was just twice as large as the one in cotton. Some fishermen now wish to try out nylon thread, and from Lake Salisbury, the inflows could be sun-dried and sold in sticks for bedding stuffs.

The net would stay open in spite of the current. Catches in the nylon were just twice as large as the one in cotton. Some fishermen now wish to try out nylon thread, and from Lake Salisbury, the inflows could be sun-dried and sold in sticks for bedding stuffs.

The retail value of the catch reached approximately £70,000. The retail value is usually some 50 per cent. higher which means that over £100,000 went into the industry.

369. Fresh supplies in the towns around the lake were irregular. Much of these supplies is absorbed by Africans before they can reach the markets. This affects especially the Europeans and Asians who complain unceasingly about the fish situation. However, there is usually fish available in smoked form which is very popular with the Africans but non-Africans almost without exception will not eat this. As a matter of interest, when the Fisheries Officer sampled a smoked fillet of lung-fish (*Protopterus aethiopicus*), which had been well washed and then boiled for an hour with a pinch of salt, and later cooked in butter, he found it surprisingly tasty and rather similar to a well-smoked haddock. If non-Africans acquired a taste for this it would solve their difficulties. Also if they would try species other than *Tilapia* (*aegera* or *nandere*), they would often find these available: *Schilbe myers* (snare or butter-fish), *Protopterus aethiopicus* (*mamba* or lung-fish), and *Bagrus docmac* (smutunda) are all very palatable and scarcely distinguishable from *Tilapia* when cooked. It should be realised that until refrigeration facilities both on the lake and in the towns become available, it is difficult to increase fresh supplies and all surpluses have to be preserved by smoking or salting.

370. Fish is carried long distances by cycle and bus for sale to the consumers. Fishmongers who had come from Kachumbala, near Mbale, were seen at Muntu in Lango, and much of the fish from Teso's landings after sale, and re-sale at Kachumbala, is finally disposed of in Mbuale and Tororo to the Bagishu who are very fond of this food and will pay fantastically high prices for it. Supplies from Lake Kwania were sold to the Congo and from Bulungu near Kidera, in Busoga, also to Tororo, and from Lwampanga to Bombo and Kampala.

371. In Teso, 1,455 people took out Fishmongers' Licences, compared with 1,204 in 1950. In Lango only 7 licences were issued, but it is known that there are more fishmongers than this and the majority must have avoided buying licences.

372. Sales of Fishing Equipment.—Due to the shortage of supplies very few nets were sold but the considerable sale in fishing hooks continued. One shop at Lwampanga sells 10,000 hooks a month for use on long-lines, and from Sereti at least 250,000 hooks are distributed in a year.

373. Crocodile Trapping.—The Uganda Fish Marketing Corporation continued to buy skins from native trappers on Lake Kyoga. At the beginning of the year, very few skins were being brought in, the price to the trappers was raised. This did not bring about an improvement in the situation. Later several Natalo buyers entered the field and with their small overheads offered higher prices. At the end of the year, for various reasons TUFMAC decided not to come buying and withdrew from Lake Kyoga, and from all of self-associated buying of fish on this

...
374. Experimental Boats.—Little interest was shown by the fishermen in the “flattie” boats built by the Kampala Technical School, which have been in use at Bugondo and elsewhere for eighteen months. The fishermen are on the whole conservative and it will be a long time before they wish to change their dug-out and Sesse canoes for something else.

375. However, initiative is shown in some quarters and a group of Buruli ferrymen at Munty in Lango have now become mechanised. They have purchased for Shs. 17,000 an unusual and ingenious craft from a company of equally enterprising Baganda boat-builders near Kampala. About 36 feet long, of sound wooden construction, with flat bottom, squarish hull and high sides it is fitted with the engine and complete transmission—gear box, clutch, propeller-shaft, rear-axle and wheels—from a Chevrolet lorry. The wheels act as paddles, for in place of tyres wooden-plates have been bolted at right-angles at intervals round the rims. The boat is steered by a tiller and rudder. It is quite effective and able to pass through weedy areas where the propeller of an ordinary craft would become fouled. This crafts acts primarily as a passenger ferry and also as a transporter of fish between Muntu and Bukungu in Busoga, nine miles across the lake.

376. Hippo Poaching.—There was some poaching of hippopotami, especially in the Pigire and Lwampanga areas. Due to stricter supervision this had lessened by December. Uncontrolled killing of these animals is undesirable as they are most useful for keeping the waters manured.

377. One troublesome hippo at the Kagwara landing was shot by the Department in April as it had become a menace to the canoes.

378. Propaganda.—Exhibitions of fishing methods and equipment were put on at the Kaberamaido and Bukedea County Agricultural Shows in Teso. Fish smoking and net-making were also demonstrated. Keen interest was shown by the large crowds and the most popular items were the collections of live and pickled fish, the outboard engines and nets.

379. Lectures were given by the Fisheries Officer to the Serere County Lukiko, Teso, and to the Chiefs’ Course from Bukalasa on the fisheries of Uganda. Throughout the year the Fisheries Officer and his staff tried to make the lakeside people fish and fishing conscious.

380. Several chiefs as a result improved paths to their local landings and the Serere County Council decided to make the track from Kadamuru to Kagwara an all-weather one; at Kagwara and adjacent landings over 100 tons of fish are landed in a year worth £3,000 and this area has long deserved something better than the overgrown and often impassable track which has hitherto existed. Culverts were put in the track from Kumi to the Akut landing, Lake Salisbury. Good communications to the lake are essential if the fishing and marketing are to be fully developed.

381. Fatalities.—Several fatalities occurred on Lake Kyoga. In April three fishermen were drowned in squailla during the rains, two at Kagwara where their dug-out overturned whilst crossing from Namulinuka Island, the other at Bugondo whilst attending a long-line in his small dug-out.

382. In June a Makenyi was out fishing, and in December a Nging island near Mugalana, Teso, way to Milondo. He had overl to take advantage of the high pri prior to Christmas, but this prov

383. Two tragedies were a year-old African boy was taken a Agu Bridge on the main Soroti te setting a fishing basket.

384. These are just the fata District alone and there must be the case of drownings most occur if the fishermen knew how to swim.

385. Mount Elgon Rivers.—1 Sebei, by Dr. M. E. Brown, a trouse to do a survey of the Sebe with trout. She was accompanied by the Resident Magistrate, Mbane a keen interest in the proposal of Siti, Nyelu and Atar were examined by the new Mbale to Kitala road.

were taken from all the main stream upper part of the Sipi River was also.

386. Dr. Brown reported the for supporting trout in all the stream River could trout be established ne would breed. In the lower reac too high and the river bottom and in many cases there are water moving upstream. These rivers were higher for a breeding population region will then drop down the w where they will be available to the

387. Dr. Brown suggested th the mountain to altitudes of 9,000 able to travel in damp moss. Af be expected to appear in the leve would not be “good” trout stream Ds. Brown thought that in all the success, but that in the Siti River themselves and the fry of these co

388. The Algologist, report that the rivers are suit
382. In June a Mukenyi was drowned at Kasinyi, Teso District, while out fishing, and in December a Musoga from Kavule Island (a large island near Mugalama, Teso), went down with his canoe whilst getting away to Milondo. He had overloaded his canoe with smoked fish in order to take advantage of the high prices obtaining at the Milondo fish market prior to Christmas, but this proved too much for his frail craft.

383. Two tragedies were caused by crocodiles. At Kale Port a seven-year-old African boy was taken one afternoon in July, and in May at Agu Bridge on the main Soroti to Mbale road an Esetot was seized while setting a fishing basket.

384. These are just the fatalities which have been reported in Teso District alone and there must be many more on the lake as a whole. In the case of drownings most occur close to the shore and could be avoided if the fishermen knew how to swim.

385. Mount Elgon Rivers.—A safari was made in June to Kaburoro, Sebei, by Dr. M. E. Brown, a trout expert from England, who kindly consented to do a survey of the Sebei streams with a view to stocking them with trout. She was accompanied by the Fisheries Officer, Serere, and by the Resident Magistrate, Mbale, who knows the area well and has taken a keen interest in the proposals for stocking. At his suggestion the rivers Siti, Nyelu and Atar were examined, at the points where they are crossed by the new Mbale to Kitale road. Later water samples and temperatures were taken from all the main streams between Kaburoro and Sipi. The upper part of the Sipi River was also visited.

386. Dr. Brown reported that there were adequate supplies of food for supporting trout in all the streams. However, only in the case of the Siti River could trout be established near the road with the certainty that they would breed. In the lower reaches of the other rivers the temperatures were too high and the river bottoms too muddy due to silt from shambas, and in many cases there are waterfalls which would prevent the trout moving upstream. These rivers will have to be stocked at 9,000 feet or higher for a breeding population to become established. Fish from this region will then drop down the waterfalls and grow.

387. Dr. Brown suggested that in view of the difficulty of transport up the mountain to altitudes of 9,000 feet, “eyed-ova” be used, these being able to travel in damp moss. After planting the ova young trout would not be expected to appear in the lower reaches for two years, and the rivers would not be “good” trout streams until five years or more had elapsed. Dr. Brown thought that in all the rivers rainbow trout were the surest of success, but that in the Siti River brown trout should be able to establish themselves and the fry of these could be released from road level.

388. The Algologist, Jina, analysed the many water samples and reported that the rivers are suitable for trout.
389. The Department hope to act on this report in 1952 and carry out the requisite stockings, if "eyed-ova" and fry are available.

390. Statistics of Landings.—See Appendices IV and V for the returns of fish landed in certain areas in Teso and on the Victoria Nile in Mengo District.

391. Analysis of Catches Labori Area.—Only an average of 16.6 baskets were set per day at each landing, compared with 19.6 in 1950, and 31.4 in 1949. This fall was due to the prolonged rains and subsequent high lake levels preventing basket fishing in the last quarter. The number of fish per basket increased from 25.9 to 69, and the average weight of each nandere (tilapia) from .34 to .41 lbs. These increases were to be expected as little fishing was done in 1950, compared with previous years.

392. Prevented from using their baskets many fishermen turned to long-lining. On 44 days at the weekly market at Milando 13 tons of fresh and 22½ tons of smoked fish were sold. The predatory mamba (Protopterus aethiopicus) formed the bulk of these sales, and nearly 50,000 were disposed of.

393. Hook-caught mamba at other landings were sold as follows:—Kachorombo 42,060, Figire 9,179, Kavule Island 950, and Mugala 1,119.

394. An examination of the table shows that in Teso District only tilapia and mamba are fished in quantity. Other species could be exploited by using gill-nets of different meshes; e.g. 2½" nets for ningu (Labro victoriamus) and nare (Schilbe mystus), and 4" ones for kisinya (Barbus spp.) and male (Clarias mossambicus); or by varying the bait used on the long-lines. In Teso mamba are caught by using nkeje (Haplochronis spp.) as bait, whereas in the Victoria Nile the catch is chiefly semutundu (Bagrus docnac) by using small kasalubana (Mormyrinae). Other baits are frogs for mamba, and large snails for male.

395. The net fisheries both at Lwanika in Labori District and Muswakire in Kabemaido suffered a setback in February when several immigrant Baziba made themselves unpopular with the local population (Mormyrus kannume) and were turned out by the Gombolola Chiefs. In January 5 tons of fish were caught in gill-nets at Lwanika but only a further 6½ tons during the rest of the year.

396. Number of Tilapia per Net with Average Weights:

<table>
<thead>
<tr>
<th>Landing</th>
<th>No. of tilapia per 3½ net</th>
<th>Average weight per tilapia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1950</td>
<td>1951</td>
</tr>
<tr>
<td>Labori</td>
<td></td>
<td></td>
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<tr>
<td>Kayunga</td>
<td></td>
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<tr>
<td>Bugendo</td>
<td></td>
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</tr>
</tbody>
</table>

397. In each area there has been of tilapia taken per net which indicates the improved conditions. On the other hand the average weight of the victoria Nile.—The tilapia at Lwampanga was 32 lbs., cc 4" nets caught an average of 19.4 lbs. The tilapia population is as yet large done with long-lines for predatory fish in 1951 were semutundu (Bagrus mossambicus) 6.2 lbs., mamba (Protopterus spp.) 2.9 lbs. These compare 11 and 1.8 lbs. respectively.

398. The Department hope to act on this report in 1952 and carry out the requisite stockings, if "eyed-ova" and fry are available.

399. The emphasis this year has been on which command high prices in Buganali. In 1950 none were sold. Prices.—Prices were varied.

400. The effort by the Lwam region has been remarkable. Total landing per day at these places in 1951 417 lbs. To increase prices be given to the net fishermen. (See p. 44.)

401. During the year 20 tons of panga from local landings in transit to Kampala, etc. In 1950 8 tons were sold.

402. Busoga and Lango.—Busoga and Namasale in Lango were visited. Considerable net and long-line fishing was done in November 50 canoes were counted.

403. The fisheries near Irundu were mostly nandere (Tilapia esculenta) and M. melanurus. In Mengo District. Of the requisite stockings, if "eyed-ova" and fry are available.

404. Maximum Weights of Fish.—46-lb. mamba (Protopterus aethiopicus) for Shs. 3.50. Other mamba included, with several of 30 lbs. Male 18 lbs., a semutundu (Bagrus docnac) of 16 lbs. were weighed at Lwampanga was 32 lbs., cc 4" nets caught an average of 19.4 lbs. The tilapia population is as yet large done with long-lines for predatory fish in 1951 were semutundu (Bagrus mossambicus) 6.2 lbs., mamba (Protopterus spp.) 2.9 lbs. These compare 11 and 1.8 lbs. respectively.

405. Prices.—Prices rose during the year from 20 cents to 25 cents each (retail) at most landings the price of nandere rose 6½ times due to increased cost of fishing nets and the return of fish landed in certain areas in Teso and on the Victoria Nile in Mengo District.
397. In each area there has been a gratifying increase in the number of tilapia taken per net which indicates that no overfishing is taking place. On the other hand the average weight has decreased slightly at each place.

398. The Victoria Nile.—The average weight of basket-caught tilapia at Lwampanga was .42 lbs., compared with .37 in 1950. At Kityoba 4" nets caught an average of 19.4 tilapia per net weighing .58 lbs. each. The tilapia population is as yet largely untouched as most of the fishing is done with long-lines for predatory species. The average weights of these fish in 1951 were semutundu (Bagrus docmac) 7.2 lbs., male (Clarias mossambicus) 6.2 lbs., mamba (Protopterus aethiopicus) 10.4 lbs., kisinja (Barbus spp.) 2.9 lbs. These compare with the 1950 averages of 6.5, 4.9 and 1.8 lbs. respectively.

399. The emphasis this year has been on the catching of semutundu which command high prices in Buganda.

400. The effort by the Lwampanga and Kityoba fishermen during the last three years has been remarkably constant. In 1949 the average total landing per day at these places was 416 lbs., in 1950, 436 lbs., and in 1951 437 lbs. To increase production encouragement will have to be given to the net fishermen. (See paragraph 357).

401. During the year 20 tons of smoked fish passed through Lwampanga from local landings in transit by bus to Bombo, Luwero, Wobulenzi, Kampala, etc. In 1950 9 tons were exported in seven months.

402. Busoga and Lango.—Bukungu in Busoga, and Muntu, Akokoro and Namasele in Lango were visited. At each of these places there are considerable net and long-line fisheries. Off Bukungu one evening in November 30 canoes were counted attending to long-lines.

403. The fisheries near Irundu, Busoga, were investigated in June. At nearby landings 403 lbs. of fish were landed in one day from 3½" nets, mostly nandere (Tilapiaesculenta and T. variablis) and kasulubana (Mormyrus kannume and M. macrocephalus). In Kagulu market some 6 cts. of smoked fish were on sale.

404. Maximum Weights of Fish.—The heaviest fish recorded was a 46-lb. mamba (Protopterus aethiopicus) from Lwampanga. This was sold for Shs. 3/50. Other mamba included ones of 45 lbs. and 43 lbs. from Pigire, and several of 30 lbs. Male (Clarias mossambicus) of 20, 39 and 18 lbs., a semutundu (Bagrus docmac) of 18 lbs., and a kisinja (Barbus radcliffei) of 16 lbs. were weighed at Lwampanga.

405. Prices.—Prices rose during the year; nandere (tilapia) from 20 cents to 25 cents each (retail) and other fish proportionately. At the landings the price of nandere rose from 8 fish for 1/- to 6 for 1/-. The increased cost of fishing nets and thread accounted largely for these rises in price.
(4) LAKES GEORGE, EDWARD AND WATERS OF WESTERN UGANDA

406. General.—A Fisheries Officer, based on Kichwamba, was present in this region throughout the year. However, due to the lawlessness prevailing in the Lake George area in particular he was forced to concentrate on the enforcement of the fisheries regulations in the Lakes George/Edward area to the detriment of more constructive development and experimental work both on these lakes and elsewhere. His work was also hindered by launch breakdowns.

407. It is now apparent that as long as this lawlessness prevails the Fisheries Officer, Kichwamba, cannot, without assistance, undertake both the enforcement of the law and adequate development and experimental work in the very large area under his control. It must be stressed that the regulations in question are designed to prevent damage to the fisheries, to ensure that their maximum output is maintained and to regulate the distribution of the product to the best advantage of the Protectorate as a whole.

(a) LAKE GEORGE

408. Statistical.—The consolidated figures for Lake George are given in Table H. The fishery continues to be extremely productive, though the crop was less than in 1950, both in total numbers, and in the average size of the fish caught.

409. Up to a point this is to be expected, and represents no more than the natural adjustment of a water hitherto unfished on a large scale. It is nevertheless important to observe the variation of catches and average weights, since it is necessary to stabilize the output of the lake at the precise point where wastage and reinforcements exactly balance.

410. Unfortunately the statistics collected represent more factors than the simple ratio of fish caught to fish entering the fishery, as may be expected from any statistics not collected under laboratory conditions. The first variable is that of the fishing effort represented by the figures of catches. While it is possible to measure the fishing effort in terms of days fished, it is not possible to measure it in terms of effort or skill. There is a wide variation between the fishing villages concerned and between individual canoes; a variation only partly attributable to the scarcity or abundance of fish in their respective fishing grounds. Sickness, the counter-attraction of cotton, weather, etc., are all imponderables whose effect can only be gauged by experience. This self-evident fact is mentioned to explain the need for patience, and the danger of drawing hasty conclusions from inadequate evidence.

411. It is not possible as yet to draw any firm conclusions from the figures presented. The drop in average weight is, perhaps, slightly greater than was expected, but does not, of itself, indicate any immediate danger. It shows, of course, that the older fish are decreasing in numbers, on the assumption that there is a fairly constant ratio between age and size, which might reasonably be expected in a lake. It also might, and from personal observation and experience, indicates that fatter fish are invariably kept for local barter.

412. The drop in the total number of fish represents a very small drop in yields, and to what extent the many external factors can, at present, be attributed to lawlessness is not yet apparent.

413. Research.—This has developed further. It is essential that some notion be formed for the value of the results themselves and for the best method of determining the degree of wastage and reinforcements of fish. “Field observations” and “research’ are often used very loosely to cover the systematic investigation of all factors involved in a fishery. In the case of Lake George, it is particularly desirable to have some indication of the reserve population of fish, and it is unnecessary, or at least not very helpful, to go beyond the level of observation at which it is possible to determine the extent of their migrations and shoals. This is not to say that the capture record is not a valuable guide to future management, but the object of research is to provide a basis for more comprehensive investigation.

414. There seems to be little shoaling, and that within certain areas. The shoals appear to be large, and then only of a certain species. The extent of their movements is not well known, and it is noticeable that there is a rough rhythm to their shoaling in the month of the year here.

415. TUFMAC—Relations with the fishermen are satisfactory. No real signs of discontent from the fishermen, although incomes are being earned, considerable discontent among the fishermen, indeed such discontent seems to be characteristic of the area. There are some unhappy fishermen at Kasenyi as evidence of the fact that the fishermen do not unanimously support the efforts of the TUFMAC. Such is quite natural, though, if permitted, it might well be hard to find a fishery officer who is not content with the work, hard work, some discontent.

416. Poaching.—It is most flagrant breaches of the law are actually present. The signs of this are obvious.
WATERS OF WESTERN UGANDA

er, based on Kichwamba, was present. However, due to the lawlessness particular he was forced to concentrate his development and experimental work. His work was also hindered by this lawlessness. Without assistance, he was unable to undertake both development and experimental work. It must be stressed that to prevent damage to the fisheries, it is maintained and to regulate the advantage of the Protectorate as a whole as this lawlessness prevails. Anyway, it is impossible to determine figures for Lake George are given to be extremely productive, though in total numbers, and in the average it is expected, and represents no more than kitherto unfished on a large scale. The variation of catches and average output of the lake at the precise time cannot be expected, and represents no more than kitherto unfished on a large scale. The variation of catches and average output of the lake at the precise time exactly balance.

Figures collected represent more factors than fish entering the fishery, as may be collected under laboratory conditions. The effort represented by the figures of effort in terms of time it terms of effort or skill. There are many villages concerned and between them alone are attributable to the scarcity or fishing grounds. Sickness, the counteract all imponderables whose effect can only be expected in a water where conditions are so uniform. It might reasonably be expected that the larger and fatter fish are invariably kept by the fishermen for their own consumption or for local barter.

412. The drop in the total yield, while it appears large, actually represents a very small drop in yield per acre; once again, some drop is inevitable, and to what extent the observed decrease may be attributed to the many external factors can, at present, only be guessed.

413. Research.—This has developed steadily, but must develop still further. It is essential that some regular controlled fishing be done, both for the value of the results themselves, and to establish some standard whereby the normal returns may be checked.

414. It would perhaps be appropriate to distinguish here between "field observations" and "research". The word "research" is, only too often, used to cover both. Research is a highly specialised, systematic investigation of all factors affecting the problem; in the case of a fishery it inevitably means the services of specialist, and expensive equipment. "Field observations" provide only the basic data for research, and must not be regarded as a substitute.

415. There seems to be little doubt that the *tilapia* is addicted to shoaling, and that within comparatively small limits these shoals are migratory. The shoals appear to be formed largely of fish of from 20-25 cm. in length, and then only of a proportion of the fish in the area; the extent of their movements is unknown, as is also their reason, however, it is noticeable that there is a rough rhythm of the change of profitable fishing grounds with the month of the year; a considerable field of investigation lies here.

416. TUFMAC—Relations with Fishing Villages.—These seem satisfactory. No real signs of discontent have been noticed amongst the fishermen, there would indeed seem to be no reason for discontent; excellent incomes are being earned, considerable facilities are afforded to the native fishermen, indeed such discontent as may exist can be attributed entirely to unwonted prosperity. There are groups of malcontents, invariably those with some smattering of education, who appear to regard the outlay of equipment at Kasenyi as evidence of vast prosperity from which they are unjustly debarred. Such is quite normal and does not represent the general feelings, though, if permitted, it might come to do so.

417. In general the troubles that arise may, in almost all cases, be attributed to ease and prosperity rather than to any legitimate grievance. It would be hard to find a fishery anywhere in the world where so much is earned for so little work, hardship and danger.

418. Poaching.—It is most regrettable that the only time when flagrant breaches of the law are at a minimum is when the Fisheries Officer is actually present. The signs of any public opinion awakening are very
s light; the local Native Administration is either apathetic, or worse, as far as illegal fishing is concerned, though some chiefs are notable exceptions to this rule. There is no doubt at all that this problem is most pressing. Poaching noticeably decreased during the latter half of 1951, but this was due only to constant pressure, to the neglect of other areas. The illegal smoking of fish almost ceased, large camps were abandoned, but within a short time a new technique was evolved of salting fish in numerous small camps most difficult to detect. It is usually safe to reckon that after a fortnight's absence from any particular area the disease will have broken out afresh.

419. Local Markets—These have been established at Kyaramba (Toro), Fort Portal, Mahokya and Bwamba, and should do much to remove the incentive to buy fish illegally from Lake George. This reasonable hope has yet to be fulfilled. A local market is about to be established at Kichwamba, with the idea of eventually reducing the extensive barter trade with Kashaka.

(b) Lake Edward

420. Statistical—Catches are shown in Table I. In the case of Lake Edward the available statistics are subject to even more imponderables than in the case of Lake George. The coast line is longer and less easy of access, the one main landing at Katwe is extremely large, and the fishing effort difficult to measure with any accuracy. The figures, therefore, show only an overall picture.

421. Markets.—Ninety per cent. of the catch from Lake Edward is exported, either smoked or salted, to the Belgian Congo, where the demand is insatiable. There is no doubt that eventually some of this export trade will have to be diverted into local markets, and steps taken to improve the quality of the product, which is at present of a very low standard. The greater part of the trade is in the hands of an African fishing company whose affairs are chaotic, the internal dissensions of the company are considerable, and it has proved impossible to control the activities of the members, as the management appears devoid of any authority. It is considered that the eventual establishment of a properly organised market would do much to satisfy local demands for fish, and to check the many illegalities now prevalent.

422. Poaching.—This increased greatly towards the end of 1951 owing to the demands of Lake George receiving priority. The main scene of activities is the Kigezi coastline where approaches from the water are difficult to a launch, where firewood is plentiful, and where dense vegetation affords excellent cover. The many small inlets and creeks offer excellent hiding places for stolen canoes, canoes which are only too often "stolen" with the full consent of the owner. The best deterrent would be the knowledge that vessels caught in closed waters, or otherwise breaking the law, would be liable to immediate destruction.

423. State of the Fishery.—Lake Edward is being overfished. The area with ten more to follow when they be excessive. It shows however that requests to fish before the capabilities only too easy for the interests of the or administrative considerations, will subsequently necessary to reduce the and sometimes real hardship, is like other methods of resting a fishery, element of a close season both demand to enforce obedience; this is usually

(c) Kazinga Channel

424. Katunguru.—The fishing season of 1951. Canoes were left unrepaird, The reason appears to be the decline which itself is probably due to:

(a) Too many canoes. The canoes, and restricted the area.

(b) Consistent fishing close the contrary, thereby damaging the

425. Katunguru continues to be a village, it has a large vagrant population can be traced to this village.

426. Markets.—Most of the catfish which beer seems to be the chief item in market for export to the Congo, and itinerant fishmongers to villages on the

(d) Lake Nakivali

427. This lake continues to provide a heavy fishing effort. The greater part of the terrain and of access it is difficult system of control.
423. State of the Fishery.—There is strong evidence that Lake Edward is being overfished. The number of canoes now stands at 141, with ten more to follow when Rwensama is opened. This number may be excessive. It shows however the necessity for firmness in refusing requests to fish before the capabilities of a water are well known. It is only too easy for the interests of the water to be subordinated to political or administrative considerations, with the inevitable result that if it is subsequently necessary to reduce the number of licences great discontent, and sometimes real hardship, is likely to be caused. Unfortunately the other methods of resting a fishery, closure of certain areas, or the enforcement of a close season both demand the physical presence of a control staff to enforce obedience; this is usually difficult and often impossible.

(c) Kazinga Channel

424. Katunguru.—The fishing effort considerably declined during 1951. Canoes were left unrepai red, and few new canoes were bought. The reason appears to be the decline in the yield of the Kazinga Channel, which itself is probably due to:

(a) Too many canoes. The opening of Kazinga added a further 10 canoes, and restricted the area of operations for canoes from Katwe.

(b) Consistent fishing close to the shore, despite, rules to the contrary, thereby damaging the breeding stock of fish.

425. Katunguru continues to be a most lawless and unsatisfactory village, it has a large vagrant population, and the majority of fishery offences can be traced to this village.

426. Markets.—Most of the catch is directly traded for food, of which beer seems to be the chief item; some finds its way to the Katwe market for export to the Congo, and a certain quantity is distributed by itinerant fishmongers to villages on the main road.

(d) Lake Nakivale

427. This lake continues to provide a steady harvest of fish, despite a heavy fishing effort. The greater part of the catch finds its way to Mbarara, where it is sold at a very reasonable price. Owing to its size this lake will never do much more than supply strictly local markets, with perhaps a small surplus for export. It is a most satisfactory fishery, apparently free from troubles, more or less self regulating, and fulfilling a most useful purpose, the less it is interfered with the better. A gradual reduction of licences by about 15% is advisable, but this could be done without hardship by not renewing licences as they fall vacant. The number of crocodiles is still excessive, and must be reduced.

(e) Lake Kachira

428. This lake has been heavily fished, and owing to the problems of the terrain and of access it is difficult, at the moment, to attempt any system of control.
(f) **MINOR CRATER LAKES**

429. Fishing was opened in three small crater lakes near Kichwamba. They have provided a small crop of somewhat undersized tilapia, and a fair living for a few fishermen. Economically these small lakes are not worth much attention; once stocked they form a small contribution to local food supplies, and provided fishing is very strictly limited could continue to provide a small harvest indefinitely. They are however not scheduled waters and are therefore likely to be violently overfished; in such cases it is doubtful if they are worth the expense of restocking.

(g) **VARIOUS**

430. **Restocking.**—No restocking was undertaken in 1951.

431. **Trout.**—The Nyamugasani River was surveyed in August, and proved quite suitable for trout. It is hoped that it may be possible to stock this river, which would provide a valuable amenity. As far as is known, no trout were caught in the Duimi in 1951, though there are probably still a few head of trout in this river.

432. In general all Ruwenzori streams are, in the main, suitable for trout; the average temperature is about 60°F, and the range probably not more than 8°. Food is plentiful, and the main obstacles to successful propagation are:

(i) The heavy floods.

(ii) The presence of waterfalls which limit the upstream migration of ripe fish.

(iii) The possible presence of copper salts.

(iv) The activities of the local inhabitants.

Previous stocking was undertaken with "fingerlings", it is probable that the use of "eyed ova" would be more successful.

433. **Fishing Craft.**—No experimental craft were tried out in 1951. It does not seem likely that the traditional form of canoe is capable of much improvement. The building and design of boats is highly specialized, and while the actual construction of native craft is often clumsy and wasteful, the design is the result of centuries of experience, and is most suitable for its purpose. There is not a feature of the Sesse canoe which has not some use. The experimental flat bottomed boat intended as a possible alternative to the dug-out has so far proved slow, heavy, unseaworthy and easily damaged.

434. **Canoe Prices.**—The price of a Sesse canoe delivered at Katunguru is now Shs. 1,008, an increase of Shs. 300 to Shs. 400 since April, 1951.

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435. **Fish Prices.**—Labor for locally processed fish were:

<table>
<thead>
<tr>
<th>Fish Type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoked fish</td>
<td>Shs.</td>
</tr>
<tr>
<td>Ngege</td>
<td>Shs.</td>
</tr>
<tr>
<td>Semumisum</td>
<td>Shs.</td>
</tr>
<tr>
<td>Salt fish—all kinds</td>
<td>Shs.</td>
</tr>
</tbody>
</table>

436. **Fishing Gear.**—The would undoubtedly reduce the as long as it was used in water damage; some prejudice would from some very sketchy expert net is much less visible in the case.

437. **Hippo and Pelicans.**—The hippo and hippo population of Lake eventually produced a state of the estimate was:

(a) Hippo—3,000-3,500.

(b) Pelican—Pink-

438. The estimate of pel colonies exist, and proved important. Some colonies exist which have damage done to the fishery by have to be thinned out.
three small crater lakes near Kichwamba. Economically these small lakes are not very strictly limited could continue indefinitely. They are however not scheduled to be violently overfished; in such cases it is hoped that they form a small contribution to localised overfishing was undertaken in 1951.

The Duimi in 1951, though there are no scalas which limit the upstream migration of copper salts.

experimental craft were tried out in 1951. The traditional form of canoe is capable of long and design of boats is highly specialized, and is not a feature of the Sesse canoe which is not a feature of the Sesse canoe which was taken with “fingerlings”, it is probable that more successful. The resulting estimate was:

(a) Hippo—3,000-3,500.
(b) Pelican:—

Pink-backed (Pelicanus rufescens)—4,000.
Rosy (Pelicanus onocrotalus)—900.

The estimate of pelican numbers may be wildly wrong, vast colonies exist, and proved impossible to count accurately; it is probable that some colonies exist which have not yet been counted at all. Certainly the damage done to the fishery by these birds is enormous, and they may well have to be thinned out.

<table>
<thead>
<tr>
<th>Smoked fish per kilo</th>
<th>February, 1951</th>
<th>September, 1951</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngere ...</td>
<td>Shs. 2 50</td>
<td>Shs. 3 00</td>
</tr>
<tr>
<td>Semutundu ...</td>
<td>Shs. 3 00</td>
<td>Shs. 3 50</td>
</tr>
<tr>
<td>Salt fish—all kinds</td>
<td>Shs. 1 20</td>
<td>Shs. 1 90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smoked</th>
<th>February, 1951</th>
<th>September, 1951</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngere</td>
<td>Shs. 2,500</td>
<td>Shs. 3,000</td>
</tr>
<tr>
<td>Others</td>
<td>Shs. 3,000</td>
<td>Shs. 3,500</td>
</tr>
<tr>
<td>Salt fish—all kinds</td>
<td>Shs. 1,200</td>
<td>Shs. 1,900</td>
</tr>
</tbody>
</table>

435. Fish Prices.—Lake Edward.—The prices obtained in the Congo for locally processed fish were:

436. Fishing Gear.—The introduction of nylon as a material for nets would undoubtedly reduce the overhead costs, despite its high initial price, as long as it was used in waters where there was little danger of crocodile damage; some prejudice would have to be overcome, but this could be done. From some very sketchy experiments made, it appears that the untanned net is much less visible in the water than one coloured in any way.

437. Hippo and Pelicans.—An attempt was made to count the pelican and hippo population of Lake George. It proved most difficult, and eventually produced a state of mind bordering on insanity! The resulting estimate was:

- Hippo—3,000-3,500.
- Pink-backed (Pelicanus rufescens)—4,000.
- Rosy (Pelicanus onocrotalus)—900.

438. The estimate of pelican numbers may be wildly wrong, vast colonies exist, and proved impossible to count accurately; it is probable that some colonies exist which have not yet been counted at all. Certainly the damage done to the fishery by these birds is enormous, and they may well have to be thinned out.
### Table of Catches, 1951

<table>
<thead>
<tr>
<th>Month</th>
<th>Days</th>
<th>Total per month</th>
<th>Total weight of other kinds in lb.</th>
<th>Total average daily landings</th>
<th>Average daily landings of Ngege per canoe</th>
<th>Average weight of each Ngege</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ngege</td>
<td>Mamba</td>
<td>Semuntundi</td>
<td>Male</td>
</tr>
<tr>
<td>January</td>
<td>27</td>
<td>297,559</td>
<td>41,109</td>
<td>20,235</td>
<td>13,696</td>
<td>11,021</td>
</tr>
<tr>
<td>February</td>
<td>24</td>
<td>233,075</td>
<td>35,721</td>
<td>12,994</td>
<td>12,144</td>
<td>9,711</td>
</tr>
<tr>
<td>March</td>
<td>24</td>
<td>289,991</td>
<td>45,675</td>
<td>15,355</td>
<td>11,966</td>
<td>12,083</td>
</tr>
<tr>
<td>April</td>
<td>25</td>
<td>322,227</td>
<td>71,458</td>
<td>31,702</td>
<td>18,639</td>
<td>12,889</td>
</tr>
<tr>
<td>May</td>
<td>27</td>
<td>256,512</td>
<td>78,154</td>
<td>69,478</td>
<td>21,666</td>
<td>9,500</td>
</tr>
<tr>
<td>June</td>
<td>26</td>
<td>211,571</td>
<td>37,711</td>
<td>19,217</td>
<td>9,192</td>
<td>8,087</td>
</tr>
<tr>
<td>July</td>
<td>26</td>
<td>203,987</td>
<td>26,837</td>
<td>17,541</td>
<td>3,600</td>
<td>7,926</td>
</tr>
<tr>
<td>August</td>
<td>26</td>
<td>214,237</td>
<td>25,253</td>
<td>11,521</td>
<td>10,127</td>
<td>8,220</td>
</tr>
<tr>
<td>September</td>
<td>25</td>
<td>264,291</td>
<td>30,818</td>
<td>10,150</td>
<td>6,243</td>
<td>10,572</td>
</tr>
<tr>
<td>October</td>
<td>27</td>
<td>235,150</td>
<td>34,043</td>
<td>23,640</td>
<td>3,600</td>
<td>7,720</td>
</tr>
<tr>
<td>November</td>
<td>26</td>
<td>200,724</td>
<td>877*</td>
<td>30*</td>
<td>9,054</td>
<td>7,984</td>
</tr>
<tr>
<td>December</td>
<td>22</td>
<td>175,640</td>
<td>25,249</td>
<td>21,073</td>
<td>9,054</td>
<td>7,984</td>
</tr>
<tr>
<td><strong>Totals for the Year</strong></td>
<td>305</td>
<td>2,905,841</td>
<td>477,952</td>
<td>268,015</td>
<td>128,825</td>
<td>114,422</td>
</tr>
</tbody>
</table>

* Separate purchase from Muluka Chief Mayhoro.
TABLE OF CATCHES, 1951
LAKE EDWARD AND KAZINGA CHANNEL

<table>
<thead>
<tr>
<th>Species</th>
<th>Katunguru</th>
<th>Katwe</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>lb.</td>
<td>No.</td>
</tr>
<tr>
<td>Ngege</td>
<td>247,210</td>
<td>451,540</td>
<td>881,588</td>
</tr>
<tr>
<td>Semutundu</td>
<td>17,355</td>
<td>88,076</td>
<td>125,423</td>
</tr>
<tr>
<td>Kasulubana</td>
<td>192</td>
<td>702</td>
<td>606</td>
</tr>
<tr>
<td>Kasinja</td>
<td>9,220</td>
<td>22,231</td>
<td>51,483</td>
</tr>
<tr>
<td>Male</td>
<td>2,825</td>
<td>23,784</td>
<td>6,049</td>
</tr>
<tr>
<td>Mamba</td>
<td>8,382</td>
<td>59,227</td>
<td>39,288</td>
</tr>
<tr>
<td>Ningu</td>
<td>...</td>
<td>...</td>
<td>80</td>
</tr>
<tr>
<td>Total nets</td>
<td>6,196</td>
<td>...</td>
<td>48,229</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>...</td>
<td>(and 48,300 hooks)</td>
</tr>
<tr>
<td></td>
<td>357</td>
<td>361</td>
<td>356</td>
</tr>
</tbody>
</table>

441. The total catch of the principal predatory species, e.g. *semutundu* (mainly), *male* and *mamba* was:

<table>
<thead>
<tr>
<th>Total number of predators</th>
<th>Total weight of predators</th>
<th>Total weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>194,244</td>
<td>1,015,360</td>
<td>453.28</td>
</tr>
</tbody>
</table>

442. Averages:

<table>
<thead>
<tr>
<th></th>
<th>Katunguru</th>
<th>Katwe</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of nets per day</td>
<td>25.7</td>
<td>692.4</td>
<td>345.3</td>
</tr>
<tr>
<td>Average number of Ngege landed per day</td>
<td>1,152 lb. (a little over 1 ton).</td>
<td>2,442 lb. (a little over 1 ton).</td>
<td>3,913 lb. (a little over 1 ton).</td>
</tr>
<tr>
<td>Average total weight of Ngege landed per day</td>
<td>39.8</td>
<td>18.2</td>
<td>26.7</td>
</tr>
</tbody>
</table>

443. Average weight of:

<table>
<thead>
<tr>
<th></th>
<th>Katunguru</th>
<th>Katwe</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngege</td>
<td>1.66</td>
<td>1.62</td>
<td>1.61</td>
</tr>
<tr>
<td>Semutundu</td>
<td>5.07</td>
<td>4.46</td>
<td>4.27</td>
</tr>
<tr>
<td>Kasulubana</td>
<td>3.65</td>
<td>3.21</td>
<td>2.88</td>
</tr>
<tr>
<td>Kasinja</td>
<td>2.4</td>
<td>2.57</td>
<td>3.0</td>
</tr>
<tr>
<td>Male</td>
<td>8.4</td>
<td>7.4</td>
<td>7.3</td>
</tr>
<tr>
<td>Mamba</td>
<td>11.6</td>
<td>8.57</td>
<td>9.88</td>
</tr>
<tr>
<td>Ningu</td>
<td>...</td>
<td>2.92</td>
<td>2.73</td>
</tr>
</tbody>
</table>
The total tonnages caught at Katunguru, Katwe and Kayanja are:

<table>
<thead>
<tr>
<th>Fish</th>
<th>Katunguru</th>
<th>Katwe</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngege</td>
<td>814.41</td>
<td>88.37</td>
<td></td>
</tr>
<tr>
<td>Semutundu</td>
<td>289.19</td>
<td>40.03</td>
<td></td>
</tr>
<tr>
<td>Kasulubana</td>
<td>1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kisinja</td>
<td>69.2</td>
<td>37.15</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>30.6</td>
<td>2.45</td>
<td></td>
</tr>
<tr>
<td>Mamba</td>
<td>81.78</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,286.36</strong></td>
<td><strong>177.2</strong></td>
<td></td>
</tr>
</tbody>
</table>

The total tonnage of the principal predators *semutundu* (mainly), *male* and *mamba* is:

<table>
<thead>
<tr>
<th>Fish</th>
<th>Katunguru</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngege</td>
<td>310.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Semutundu</td>
<td>30.52</td>
<td>30-40</td>
</tr>
<tr>
<td>Kasulubana</td>
<td>8-9</td>
<td>5-7</td>
</tr>
<tr>
<td>Kisinja</td>
<td>25-34</td>
<td>35</td>
</tr>
<tr>
<td>Male</td>
<td>25-55</td>
<td>30-35</td>
</tr>
<tr>
<td>Mamba</td>
<td>25-55</td>
<td>30-35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>317,761</strong></td>
<td><strong>310,654</strong></td>
</tr>
</tbody>
</table>

The heaviest fish recorded are:

<table>
<thead>
<tr>
<th>Fish</th>
<th>Katunguru</th>
<th>Katwe</th>
<th>Kayanja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngege</td>
<td>31-6</td>
<td>3-5</td>
<td>1-3</td>
</tr>
<tr>
<td>Semutundu</td>
<td>30-50</td>
<td>30-52</td>
<td>30-40</td>
</tr>
<tr>
<td>Kasulubana</td>
<td>8-10</td>
<td>8-19</td>
<td>5-7</td>
</tr>
<tr>
<td>Kisinja</td>
<td>9-10</td>
<td>9-19</td>
<td>35</td>
</tr>
<tr>
<td>Male</td>
<td>22-40</td>
<td>25-34</td>
<td>30-35</td>
</tr>
<tr>
<td>Mamba</td>
<td>25-55</td>
<td>30-45</td>
<td>30-35</td>
</tr>
</tbody>
</table>

Table 1.

**LAKE NAKIVALI (ANKOLE)**

**TABLE OF CATCHES, 1951**

<table>
<thead>
<tr>
<th>Landings</th>
<th>Kahirimbi</th>
<th>Lukinga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>324</td>
<td>160</td>
</tr>
<tr>
<td>Nera</td>
<td>4,909</td>
<td>3,207</td>
</tr>
<tr>
<td>Ngege</td>
<td>317,712</td>
<td>310,502</td>
</tr>
<tr>
<td>Male</td>
<td>49</td>
<td>1524</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>317,761</strong></td>
<td><strong>310,654</strong></td>
</tr>
</tbody>
</table>

(5) DAMS

449. Extensive stocking of dams with *tilapia*, was carried out during the breeding season, in detail in sub-section (B) (3) of this chapter, the only lake in Uganda in which it is possible, for fish of *Tilapia nilotica* and also some *Tilapia mossambica* species, to attempt to find the right conditions under which to establish a suitable species, to deal with the heavy weed growth and prevent siltation. Results by the end of the year were encouraging.

450. A reconnaissance of twenty-five lakes, including the six stocked with *Tilapia*, showed that the fish appear to have established themselves. The list of these lakes was selected as suitable for stocking with *Tilapia* at an early date.

(6) CROCODILES

451. Lake Victoria.—The Lake Victoria fisheries department carried out an extensive campaign during the breeding season, as was the case in the past, but Jaluo fishermen from Kep-a-Kus told the author he had not seen any crocodiles during the breeding season, as was the case in the past. The fish appear to have established themselves in the direction of the lake. Results by the end of the year were encouraging.

452. Crocodile—*Vide p."Loans of Weapons.*—Jinja to whom a Departmental weapons was presented with 126 crocodiles during the year.
448. Quantities and values of smoked fish exported from Lake Nakivale during 1951:

<table>
<thead>
<tr>
<th>Month</th>
<th>Weight in lb.(dry)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>February</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>March</td>
<td>16,996</td>
<td>12,747</td>
</tr>
<tr>
<td>April</td>
<td>19,093</td>
<td>14,319</td>
</tr>
<tr>
<td>May</td>
<td>4,653</td>
<td>3,389</td>
</tr>
<tr>
<td>June</td>
<td>5,395</td>
<td>4,196</td>
</tr>
<tr>
<td>July</td>
<td>6,427</td>
<td>4,820</td>
</tr>
<tr>
<td>August</td>
<td>8,331</td>
<td>6,240</td>
</tr>
<tr>
<td>September</td>
<td>7,443</td>
<td>5,882</td>
</tr>
<tr>
<td>October</td>
<td>16,319</td>
<td>13,023</td>
</tr>
<tr>
<td>November</td>
<td>24,644</td>
<td>20,208</td>
</tr>
<tr>
<td>December</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>109,501</td>
<td>84,534</td>
</tr>
</tbody>
</table>

(approx. 49 tons) (approx. £4,227)

(5) DAMS

449. Extensive stocking of dams in Teso District, with various species of *tilapia*, was carried out during the year. This is dealt with in greater detail in sub-section (B) (3) of this section. In particular *Tilapia zillii*, a weed eating species, was transferred to the Teso dams from Lake Albert, the only lake in Uganda in which it is indigenous, together with a proportion of *Tilapia nilotica* and also some *Tilapia galilaea* and *T. leucosticta*; the intention being to attempt to find the most suitable species, or combinations of species, to deal with the heavy weed growth that is causing many dams to silt up. Results by the end of the year were most promising.

450. A reconnaissance of twenty-five dams in Acholi was carried out, including the six stocked with *Tilapia esculenta* in 1950 in some of which the fish appear to have established themselves. Eleven further dams were selected as suitable for stocking with *Tilapia zillii* and *T. nilotica* at a later date.

(6) Crocodiles

(i) Control

451. Lake Victoria.—The Lake Victoria Fisheries Service has not yet started any organised annual campaign for the destruction of crocodiles during the breeding season, as was carried out by this Department in the past, but Jaluo fishermen from Kenya have been taking an increasing interest in trapping crocodiles in the Uganda waters of Lake Victoria.

452. Loan of Weapons.—Vide para. 553; 1950, the Officer stationed at Jinja to whom a Departmental weapon has been issued, reports having killed 126 crocodiles during the year.
453. **Lake Kyoga and the Semliki River.**—Crocodile catching continued in both these areas throughout the year and in the Lake Kyoga region a number of Africans developed their own marketing organisation.

454. By the end of the year the Uganda Fish Marketing Corporation had exported 746 crocodile skins from the Semliki and 1,297 skins from Lake Kyoga to the value of £5,514 and £4,042 respectively—a total of £9,556.

455. **Large Semliki Crocodiles.**—In December a crocodile was caught on the Semliki River measuring 19 ft. 6 in. in length and with a belly skin measuring 4 ft. 9 in. in width. Unfortunately no information is available as to the sex or stomach contents of this huge creature. It seems possible that this region may yet produce an authentic 20 ft. crocodile.

456. **Crocodile Eats Python.**—On the same river a 15 ft. python was found in the stomach of a crocodile. One wonders how the latter dealt with this awkward morsel, it would have been a sight worth seeing.

457. **Crocodiles in Lake Nabugabo.**—In this lake in Masaka District, which was once a favourite bathing place and week-end holiday resort, crocodiles have frequently been observed off shore during the year. It is hoped that people will be warned although some members of the public, either from stupidity or bravado, appear willing to risk a death more horrible than most for little cause. Recently a European swimming far out into Lake Victoria from Entebbe on being warned of the possible danger replied that it did not worry him as he could swim faster than any crocodile!

(iii) **General**

458. **The Uganda Fish Marketing Corporation Ltd. (Tufmac).**—Tufmac has continued to make good progress and during the year the production output at Lake George has steadily improved, the dehydration loss being reduced to 64%.

459. The policy was approved to switch over all production at Lake George to fresh and/or chilled fish for internal distribution instead of dry salted fish for export. The construction of the necessary buildings and plant is well under way and it is hoped to put this plan into operation early in 1953. In the meantime iced fresh fish is now being sent down to Kampala and Entebbe from Kasenyi, Lake George twice a week and the local distribution of fish within Toro District has been considerably increased. The balance of the fish received at Kasenyi which at present due to lack of plant cannot be absorbed in Uganda, is still being salted and exported to the Belgian Congo. The possibility of constructing a 100 ton cold store in Kampala for fish, meat and other products has also been under consideration.

460. By the end of the year the Uganda Fish Marketing Corporation had exported 64 tons of dried (salted) fish to the value of £69,864 to the Belgian Congo. In addition 212,103 fresh fish skins were exported, valued at £6,735 and £2,733 respectively with a total of £9,556.

461. There was a drop in the number of fish from the fishermen on Lake Albert, African fishermen who had in the past been content to sell their fish to the Tufmac exported skins to the value of £11,292 (salted) fish to the value of £69,864 to the Belgian Congo.

462. **Prices of Dried Fish.**—Prices of dried fish has continued to soar and in the past some buyers have at times been paying as much as £2 for 100 lbs of dried (salted) fish, as compared to the £3.50 per 100 lbs paid in 1948. African fishermen who have in their own canoes have been receiving £1.50 per 100 lbs for their product. Dried fish is in great demand at the Belgian Congo mines.

463. **East African Fisheries in the Congo.**—Work of direct value to Uganda in the development of Lake Victoria, the waters of which are shared, is dealt with fully in a separate section of this Report.

464. **Valuable and much needed work.**—Work of direct value to Uganda in the development of Lake Victoria, the waters of which are shared, is dealt with fully in a separate section of this Report.

465. **Identification.**—

(i) **Haplochromis gestri** and **Haplochromis par** were thought to be new species of Haplochromis from Lake Kyoga, and **Haplochromis par** was described by the E.A.F.R.O. Laboratory as **Haplochromis gestri**. All these fish are known in Lake Albert, Lake Victoria, and Lake Kyoga.

(ii) **Engraulicypris breedi** was described by Max as **Engraulicypris breedi** from Kasenyi, Lake Albert, in 1937.

466. **Fish Farming.**—Mutungo Fish Farm has continued to make good progress. Recently a suitable officer to undertake fish farming work had not been recruited. A project was carried out to develop a suitable officer to undertake fish farming work. A suitable officer to undertake fish farming work had not been recruited. A suitable officer to undertake fish farming work had not been recruited.

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Industry

Semliki River.—Crocodile catching continued throughout the year and in the Lake Kyoga region their own marketing organisation, the Uganda Fish Marketing Corporation from the Semliki and 1,297 skins from $14 and $4,042 respectively—a total of £9,556. (See also sub-section (B) (6) of this section). In December Tufmac ceased buying skins on Lake Kyoga.

General

460. By the end of the year the Corporation had purchased 2,985 tons of fish from the fishermen on Lake George. From this 228 tons of dried (salted) fish to the value of £69,876 were exported to the Belgian Congo and 64 tons of dried (salted) fish to the value of £4,605 were distributed locally. In addition 212,103 fresh fish and 114,441 smoked fish to the value of £8,735 and £2,733 respectively were distributed in Uganda.

461. There was a drop in the crocodile skin production although Tufmac exported skins to the value of £9,556. Prices of Dried Fish.—During the year the price of dried fish has continued to soar and in the Lakes Edward and George region foreign buyers have at times been paying as much as £115 per ton for best quality dried (salted) fish, as compared with £78 in 1950. At Mahagi, on Lake Albert, African fishermen who have been exporting their dried (salted) fish in their own canoes have been receiving the equivalent of £165 per ton for their product. Dried fish is in great demand to feed the labour in the Congo mines.

462. East African Fisheries Research Organisation.—Further work of direct value to Uganda has been carried out by this Organisation in Lake Victoria, the waters of the Protectorate and elsewhere during the year. This is dealt with fully in its very detailed and interesting Annual Report.

463. Valuable and much appreciated assistance has been rendered to this Department in the way of scientific advice and the arranging of short periods of study and instruction at the laboratories at Jinja for newly joined Fisheries Officers.

464. IDENTIFICATIONS—

(i) Haplochromis gestri and Haplochromis xenostoma from Lake Kyoga, and Haplochromis parvidens from Lake Salisbury were identified by the E.A.F.R.O. Laboratories at Jinja. A species of Synodontis, thought to be Synodontis afro-fischeri, was also found in Lake Salisbury. All these fish are known in Lake Victoria but it is the first time they have been recorded from the Kyoga system.

(ii) Ref. 1949 (para. 399 (i) Annual Report) the Lake Albert Engraulicypris was described by Max Poll (Rev. Zool. Bot Afr. XXXVIII, 3–4) as *Engraulicypris bredoi* from a collection of 205 specimens made at Kasenyi, Lake Albert, in 1937.

466. Fish Farming.—Much difficulty was experienced in finding a suitable officer to undertake fish farming and by the end of the year this person had not been recruited. However, although the actual construction of an experimental fish farm was not started, much work of value to the final project was carried out. This included the experimental stocking of dams with new species of *Tilapia* to find the best species, or combination of
(iii) The canoe-shaped basket is used extensively by the Teso women in fishing the swamps and dam spillways. Its name in Teso is "eijang". Water and mud are scooped up and then the catch is sorted out. Young *protopterus* (lung-fish) are taken and other small fish of many kinds. Catches are not great but provide a meal and the activity is regarded by the women as a social event. This basket also occurs in Lango.

(iv) This finely made double trap of approximately 1 in. mesh is of Buruli origin. It is set amidst the roots of floating sudd and takes mostly small *mormyrids* and also *haplochromis*, which are then used for baiting long-lines. A similarly made, but single, trap is fished by the Bakenyi. These baskets are usually unbaited, but on occasions are baited with the cut up flower heads of water-lilies.

(v) The cone shaped open basket, "eitetere" in Teso, is used in river beds or narrow channels, and the fish driven into it by several people working up the stream bed towards it and splashing the water as they go. It occurs not only in Teso but in other parts of the Kyoga area. The catches are the same as in (c).

(vi) The tall thrust basket is very common in Teso for fishing in the swamps and drying pools in rivers, and is called the "aysoga". The people beat the fish into a small area, and the baskets are thrust down into the mud. If a fish is heard splashing about inside, it is removed from the hole at the base of the handle. The catch is chiefly mud-fish.

(vii) and (viii) These are coarsely built traps of papyrus which are baited with sweet-potato or water-lily leaves for catching *protopterus* (lung-fish), and with castor oil leaves for *tilapia*. They are set by the Bakenyi and Basoga.

473. Launches.—Fisheries work has again been hampered this year by the breakdowns of unreliable launches (see also para. 578, 1950 Annual Report). To enable a Fisheries Department to operate really efficiently reliable launches of a suitable design for the work involved are a necessity. As a special grant from the Colonial Development and Welfare Fund has been earmarked for Uganda to assist the development of its fisheries, it is hoped that funds will be made available for the purchase of the required craft.

(C) Angling

474. (i) Survey of Rivers.—During the year surveys of a number of potential trout streams on the Ruwenzori, the western slopes of Mount Elgon and one stream in the hills on the Acholi-Sudan border, were carried out with the valuable assistance of temporarily attached to the Fisheries.

In these streams water samples tested at varying altitudes, samples of the stream-beds checked. Although considered to be ideal trout waters, they stream on the Acholi-Sudan border, and trout streams to a greater or lesser extent.

Food proved to be plentiful in plentiful in trout streams to a greater or lesser extent.

As a result of these surveys plans been received this year opportunity offers, to investigate the waters of the Ruimi River.

(iii) Rainbow Trout:—

(a) Bukwa River.—The size of improvement and anything over further stocking took place during remained open.

(b) Suam River.—Sport in this the fish small.

476. (iv) Trout Licences.—The revenue Licences amounted to £18 8s.

477. Nile Perch or Mpata (Late) has been a poor one on the whole for Nile covering an area about a mile square so reported that later these fish started to where over a thousand fish were counted.
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Angling

During the year surveys of a number of the western slopes of Mount in the Acholi-Sudan border, were carried out with the valuable assistance of Dr. M. E. Brown, a trout expert temporarily attached to the Fisheries Research Laboratories at Jinja.

In these streams water samples were taken for analysis, temperatures tested at varying altitudes, samples of aquatic life collected and the nature of the stream-beds checked. Although none of these rivers can be considered to be ideal trout waters, they all, with the possible exception of the stream on the Acholi-Sudan border, appear to be capable of development as trout streams to a greater or lesser extent.

Food proved to be plentiful in the streams and the main obstacles to successful propagation of trout are the short, steep course of the rivers resulting in heavy floods and the presence of high waterfalls which limit the upstream migration of ripe fish.

As a result of these surveys plans are in hand for stocking as many of these rivers as possible during the next year or so. It is intended to use mainly “eyed-ova” which are far easier and less bulky to transport than “fingerlings” and which can be obtained by air from Kenya, South Africa and the United Kingdom. Owing to the nature of the rivers, and particularly the temperatures involved, rainbow trout are likely to prove more suitable than brown.

475.

(ii) Brown Trout.—No further reports regarding brown trout in the Ruwenzi have been received this year. It is intended, as soon as opportunity offers, to investigate the brown trout population in the upper waters of the Ruimi River.

(iii) Rainbow Trout:—

(a) Bukwa River.—The size of the fish in this river shows no signs of improvement and anything over 2 lbs. is now rather unusual. No further stocking took place during the year and all stretches of the river remained open.

(b) Suam River.—Sport in this river remains poor and the size of the fish small.

476.

(iv) Trout Licences.—The revenue derived from the sale of trout Licences amounted to £18 8s.

477. Nile Perch or Mputa (Lates albertianus).—This year has again been a poor one on the whole for Nile perch fishing, particularly in the Butiaba area, where the biggest fish recorded was an 80 pounder. The reason for this is obscure as the fish are still there as evidenced by one of the periodic mortalities of these fish, the first for several years, which occurred in November. As has been mentioned elsewhere in this report, in that month hundreds of dead Nile perch, all of large size, were seen covering an area about a mile square some five miles north of Butiaba. It is reported that later these fish started to be washed ashore in Butiaba Bay where over a thousand fish were counted, many exceeding 150 lbs. in weight.
478. *Ripon Falls Barbel (Barbus radcliffei).*—The blowing up and obstructing of part of the Ripon Falls, as part of the Owen Falls' Dam construction scheme, has prevented these fish from running up into Lake Victoria. As a result thousands of *Barbus* are now congregated below the Ripon Falls and for some way down river, and the river is literally black with their fins. They are now present in such quantities that they are easy to hook, though not necessarily to land on light tackle.

Many of the best fishing spots are now daily thronged with Africans catching these fish with hook and line and spearing them with home-made harpoons. It is understood that this has caused a minor local labour problem.

When the Owen Falls Dam scheme was promulgated it was decided that the *Barbus* were not of sufficient economic importance to justify the expense of the erection of a fish ladder to enable these fish to pass the dam, but one cannot help wondering what final effect the blocking of the Nile will have on the population of the *Barbus* in Lake Victoria, and also in the Nile and Lake Kyoga, and, as a result, on the general ecology of the fish fauna of these waters.

B. G. KINLOCH,
*Acting Game Warden.*

ENTEERBE,

27TH SEPTEMBER, 1952.

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GAME AND FISH

STAFF

**Headquarters**

- *Game Warden* ...
- *Assistant Game Warden* ...
- *General Service Officer* ...
- *Head Clerk (Asian)* ...
- *Temporary Clerk (Asian)* ...

**Field Staff**

- *Game Rangers (3)* ...
- *Superannuated Game Ranger* ...
- *Fisheries Officers (4)* ...

**African**

- 4 African Clerks.
- 2 Clerical Assistants.
Barbus radcliffei.—The blowing up and
Falls, as part of the Owen Falls Dam
these fish from running up into Lake
Barbus are now congregated below the
own river, and the river is literally black
sent in such quantities that they are easy
and on light tackle.
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final effect the blocking of the Nile
Barbus in Lake Victoria, and also in the
result, on the general ecology of the fish

B. G. KINLOCH,
Acting Game Warden.

Appendix I.

GAME AND FISHERIES DEPARTMENT

STAFF LIST

Headquarters Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Warden</td>
<td>Vacant</td>
</tr>
<tr>
<td>Assistant Game Warden</td>
<td>Major B. G. Kinloch, M.C. (Acting Game Warden from 1-1-51 to 30-4-51 and 19-12-51 to 31-12-51. On leave from 1-5-51 to 18-12-51.)</td>
</tr>
<tr>
<td>General Service Officer</td>
<td>Lt.-Col. N. S. Sandeman (from 20-4-51 to 31-12-51).</td>
</tr>
<tr>
<td>Head Clerk (Asian)</td>
<td>J. Lobo</td>
</tr>
<tr>
<td>Temporary Clerk (Asian)</td>
<td>F. C. T. D'Mello</td>
</tr>
</tbody>
</table>

Field Staff—Game

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Rangers (3)</td>
<td>J. R. F. Mills (Acting Assistant Game Warden from 3-2-51 to 31-12-51)</td>
</tr>
<tr>
<td></td>
<td>W. O. Pridham</td>
</tr>
<tr>
<td></td>
<td>G. W. M. Holmes</td>
</tr>
<tr>
<td>Supernumerary Game Ranger</td>
<td>A. D. Jones</td>
</tr>
</tbody>
</table>

Field Staff—Fisheries

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fisheries Officers (4)</td>
<td>L. St. C. Bartholomew (on leave from 9-4-51 to 27-10-51).</td>
</tr>
<tr>
<td></td>
<td>D. H. Rhodes, M.A.</td>
</tr>
<tr>
<td></td>
<td>Major R. E. P. Wyndham, M.C.</td>
</tr>
<tr>
<td></td>
<td>J. M. Warren (from 26-2-51 to 31-12-51).</td>
</tr>
</tbody>
</table>

African Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 African Clerks</td>
<td></td>
</tr>
<tr>
<td>2 Clerical Assistants</td>
<td></td>
</tr>
<tr>
<td>30 Game Guards</td>
<td></td>
</tr>
<tr>
<td>48 Fish Guards</td>
<td></td>
</tr>
<tr>
<td>20 Game Scouts</td>
<td></td>
</tr>
<tr>
<td>8 Gunbearers</td>
<td></td>
</tr>
<tr>
<td>1 Office Messenger</td>
<td></td>
</tr>
</tbody>
</table>
Appendix II.

STATION AND AREAS OF RESPONSIBILITIES

Field Staff

A. GAME RANGERS

<table>
<thead>
<tr>
<th>Officer</th>
<th>Station</th>
<th>Areas of Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. O. Pridham</td>
<td>Fort Portal</td>
<td>Toro, Ankole, Kigezi.</td>
</tr>
<tr>
<td>G. W. M. Holmes</td>
<td>Gulu</td>
<td>Acholi, Lango, West Nile (including Madi).</td>
</tr>
<tr>
<td>A. D. Jones</td>
<td>Budongo</td>
<td>Bunyoro, Mubende, Mengo (North and West).</td>
</tr>
</tbody>
</table>

B. FISHERIES OFFICERS

<table>
<thead>
<tr>
<th>Officer</th>
<th>Station</th>
<th>Areas of Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. St. C. Bartholomew (from 1-1-51 to 8-4-51)</td>
<td>Hoima</td>
<td>Lake Albert; the Albert Nile; the Victoria Nile downstream from its junction with the Kafu River; the Semliki River; the minor lakes, dams and waterways of Acholi, West Nile, Bunyoro and Mubende.</td>
</tr>
<tr>
<td>J. M. Warren (from 9-4-51 to 31-12-51)</td>
<td>Serere</td>
<td>Lake Kyoga; the Victoria Nile from the Owen Falls dam to its junction with the Kafu River; the Rivers of Mount Elgon; the minor lakes, dams, and waterways of Lango, Teso, Mbaale and Busoga.</td>
</tr>
<tr>
<td>D. H. Rhodes, M.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major R. E. P. Wyndham, M.C.</td>
<td>Kichwamba</td>
<td>Lake Edward; Lake George; the rivers of the Ruwenzori; the lakes, crater-lakes, dams and waterways of Masaka, Ankole, Kigezi and Toro.</td>
</tr>
</tbody>
</table>

Appendix III.

HONORARY GAME RANGERS

Mr. C. W. Chorley.  
Mr. C. O. Lemon.  
Captain L. T. Gunn.  
Mr. T. W. Chorley.  
Mr. M. Stead.  
Mr. Ian Dundas of Dundas.  
Mr. M. S. Tweedale (Died on 31st May, 1951).  
H.H. the Kabaka.  
Mr. N. J. Goes.  
Mr. H. T. Hayes.  
Mr. P. J. C. Cullen.  

HONORARY TROUT WARDENS

Mr. W. H. Hoey.  
Mr. F. O. Martin.