

Oryx

The International Journal of Conservation

The original paper was published in the *Journal of the Society for the Preservation of the Wild Fauna of the Empire* (1903-1925 and 1926-1950) or in *Oryx*, the journal of Fauna and Flora International (from 1951).

The website of the journal is (from 2008):

<http://www.oryxthejournal.org/>

The PDF is reproduced with permission from the CD version of The Centenary Archive 1903-2003, a fully searchable database of 100 years of the publications of Fauna and Flora International.

More information on: <http://www.fauna-flora.org/>

The Society was founded in 1903 as the Society for the Preservation of the Wild Fauna of the Empire, and subsequently named the Fauna and Flora Preservation Society. Fauna & Flora International is conserving the planet's threatened species and ecosystems – with the people and communities who depend on them.

Oryx - The International Journal of Conservation, is now published quarterly by Cambridge University Press on behalf of Fauna & Flora International. It is a leading scientific journal of biodiversity conservation, conservation policy and sustainable use, with a particular interest in material that has the potential to improve conservation management and practice.

The website, <http://www.oryxthejournal.org/>, plays a vital role in the journal's capacity-building work. Amongst the site's many attributes is a compendium of sources of free software for researchers and details of how to access Oryx at reduced rates or for free in developing countries. The website also includes extracts from Oryx issues 10, 25 and 50 years ago, and a gallery of research photographs that provide a fascinating insight into the places, species and people described in the journal.

The [Rhino Resource Center](#) posted this PDF in June 2009. We are grateful for the permission.

operations are in train. No extension into Victoria Nyanza is contemplated until and unless it is satisfactorily established that the Nile Perch introduced into Nabugabo strike a natural balance with the fish already there.

(b) The promising little fishing industry at Ndaiga, at the southern end of Lake Albert, has been materially assisted by the provision of up-to-date nets.

74. *Trout*.—Plans for the introduction of trout into the suitable streams had to remain in abeyance during the year, but are to be carried out early in 1932.

NIGERIA.

PRESERVATION OF WILD LIFE.

REPORT BY COLONEL A. H. HAYWOOD, APRIL, 1932.

PREFACE.

As is hereafter described, I carried out an extensive tour in West Africa in the winter of 1931–2 at the request of the Society for the Preservation of the Fauna of the Empire, being selected for the mission upon the recommendation of Sir Donald Cameron.

My personal acquaintance with Nigeria extends over twenty-five years, while I have travelled widely in the other three colonies during the past fifteen years. I have both studied and hunted game in all four colonies.

My varied service with the West African Frontier Force covering the above period has afforded me an opportunity of acquiring a good insight into the problems of the administration of West Africa generally.

Returning to West Africa after an absence of eight years without any official occupation, I venture to claim that I was able to arrive at an unbiassed view of the situation I had been asked to investigate; furthermore, the study of the subject was undertaken *con amore* for I have long been greatly interested in wild life.

Before leaving England I renewed acquaintance with the West African section of the Colonial Office, and desire to express my gratitude to the officials there who kindly allowed

me to peruse various papers connected with the question of wild life preservation.

Upon arrival in each colony, I was enabled to interview H.E. The Governor and the Colonial Secretary and in all cases was cordially assisted. With the permission of Their Excellencies, I circulated a questionnaire and am deeply indebted to the Provincial and District Officers who, generally speaking, took much trouble to reply. In addition I consulted the medical authorities, the officers engaged on tsetse research, the Lands Department, and any others whose views it was considered might be relevant.

During my mission to West Africa I travelled 3,500 miles in Nigeria and 1,500 in the Gold Coast. I visited a number of game areas and interviewed over 100 officials and non-officials in every degree of seniority and experience.

With my previous knowledge of West Africa and as the result of my recent mission the depletion of wild life during the past generation strikes me as alarming. The process of extermination due to the spread of civilization and the activities of native hunters is proceeding relentlessly, moreover this view is confirmed by the majority of educated public opinion I have consulted.

My conclusions are that, particularly as regards Nigeria and the Gold Coast, a number of important species are rapidly approaching total extermination, and this process is extending as surely and certainly to the rest of the fauna of West Africa. Amongst the species especially referred to are in Nigeria, rhinoceros, ostrich, and giraffe; in the Gold Coast, elephant.

It follows that, unless effective measures are taken, and taken without delay, to conserve the wild life of these countries, in a comparatively few years it will have ceased to exist.

The question for Government to decide is whether it will remain apathetic and allow the attrition to continue or whether it will take reasonable measures to check it.

The development of the country must of course receive the first consideration; the long-standing hunting rights

of the native population it may be said cannot fairly be abolished, although it is certain that in most areas these rights will be of little value in a very few decades as the natives will find little left to kill and will have to depend for their meat supply on domestic animals, in places where such animals will live.

The species now to be found in West Africa are in my opinion well worth perpetuating, including as they do, a number peculiar to that country. The measures strongly advocated are to dedicate certain well chosen and efficiently warded areas of considerable size as Sanctuaries or National Parks. The overflow from such areas will provide a supply of animals, for an indefinite period, available to be hunted by the natives for meat as heretofore. Unless such steps are taken the wild life throughout the whole region will be frittered away within comparatively few years until practically none is left. It cannot be too strongly emphasized that protection of Sanctuaries by the provision of a Game Warden and small staff of native rangers is essential. Without this provision the Sanctuaries are probably quite useless.

This I claim is the long view and I would urge with the greatest vigour that the matter be taken up energetically, and without delay, by the West African Governments concerned. The financial liability involved is small, as is shown in my reports. Moreover, this can be met easily and legitimately out of revenue derived from game licences, gun and ammunition licences, and export duty on ivory.

If a reasonable proportion of the fauna of British West Africa is to be conserved it is imperative that action be taken at once, otherwise there will be nothing left to preserve and future generations will rightly hold us responsible.

In the present incomplete state of knowledge of the relations of tsetse fly to man and domestic stock, some local biologists question the wisdom of creating sanctuaries; their views have received careful consideration.

It is true that game animals are generally immune to tsetse fly diseases and are suspected of acting as reservoirs for the trypanosome. My view, arrived at after due

consideration and much consultation, is that as the game animals are decreasing so the number of potential reservoirs are also decreasing.

If Sanctuaries are constituted as proposed, the game therein will anchor within their confines the tsetses which feed on the animals. Any animals which stray beyond the confines will be either killed or will retreat to the Sanctuaries to escape molestation. It is probable that game outside the proposed Sanctuaries will be practically annihilated by native hunters within a comparatively short period. Deprived of the blood of wild game the survival of the tsetse will then depend on access to the blood of humans or domestic stock. Whether the tsetses will then die out remains to be seen. Be that as it may, however, I am unable to see that the presence of tsetse flies conflicts with the proposal to create sanctuaries, providing that areas are selected which are not used for domestic cattle to graze in.

NIGERIA.

General Position as regards the Preservation of Wild Life.

Nigeria consists of three administrative areas comprising the Colony, the Northern Provinces, and the Southern Provinces. Generally speaking, in the Southern Provinces and amongst the pagan tribes of the North, in every district, a certain number of professional hunters are to be found. These people are very jealous of their hunting rights, more particularly in the South. They one and all kill without discrimination of age and sex. In many cases this takes the form of company hunting, when large numbers turn out to drive the bush, surround it, and slay the inmates.

The fauna of Nigeria falls into three categories :—

1. *Swamp and Forest Zone.*—Comprising the forest race of elephant, forest duikers, apes, baboons, monkeys, cats, lemurs, etc. Also the Nigeria race of buffalo, the Harnessed and Situtunga antelopes, and both the ordinary and (probably) pigmy hippopotamus.

2. *Orchard and More Open Zone.*—Comprising elephant, duikers, baboons, monkeys, cats, lions, buffalo, antelopes, hippopotamus, rhinoceros, and giraffe.

3. *Scrub and Desert Zone*.—Elephant, monkeys, cats, lions, antelopes, hippopotamus, giraffe, and gazelles.

Owing to the position of the mountain masses the only one which might affect migration within Nigeria is the Bauchi Plateau, and this would hardly interfere with elephant. As it happens there is very little game on the plateau, except in the south-eastern corner, whence its migration is probably southward towards the Benue River.

The big rivers, such as the Niger, Benue, and Cross River must influence the migration of species from one side to the other to a considerable extent, although of course it is well known that the larger types will frequently swim big rivers, singly or in herds; this is, however, perhaps generally done under fear of pursuit or bush fires.

SPECIES AND DISTRIBUTION.

The following list of animals in the three Zones above-mentioned is compiled from information contained in replies to the questionnaire, and data given by Mr. H. N. Thompson, C.M.G., late Director of Forests, also by Lieut.-Col. Shorthose, D.S.O., who has made a special study of the fauna of Nigeria.

FOREST ZONE.

- | | | |
|------------------------|------------------------|---|
| 1. Elephant. | 10. Water Chevrotain. | 17. African Civet. |
| 2. Buffalo | 11. Bush Pig. | 18. W. African Palm Civet. |
| 3. Bongo. | 12. Red River Hog. | 19. Paradine Genet. |
| 4. Harnessed Antelope. | 13. Hippopotamus. | 20. Gorilla. |
| 5. Royal Antelope. | 14. Forest Leopard. | 21. Chimpanzee. |
| 6. Situtunga. | 15. African Tiger Cat. | 22. Various Baboons and Monkeys, including Colobus. |
| 7. Black Duiker. | 16. Jungle Cat. | |
| 8. Maxwell's Duiker. | | |
| 9. Bay Duiker. | | |

ORCHARD ZONE.

- | | | |
|---------------------------|----------------------------|----------------------------|
| 1. Elephant. | 12. Red-flanked Duiker. | 22. African Civet. |
| 2. Buffalo. | 13. Crested Duiker. | 23. W. African Palm Civet. |
| 3. Western Hartebeest. | 14. Duiker Bok. | 24. Serval Cat. |
| 4. Senegal Hartebeest. | 15. Nigerian Klipspringer. | 25. Lesser Cat. |
| 5. Roan Antelope. | 16. Bush Pig. | 26. Senegal Genet. |
| 6. Waterbuck (Sing-Sing). | 17. Red River Hog. | 27. Hyæna. |
| 7. Buffon's Kob. | 18. Wart Hog. | 28. Jackal. |
| 8. Reed Buck. | 19. Hippopotamus. | 29. Lion. |
| 9. Harnessed Antelope. | 20. Rhinoceros. | 30. Hunting Dog. |
| 10. Oribi. | 21. Leopard. | 31. Baboons and Monkeys. |
| 11. Yellow Backed Duiker. | | |

SCRUB ZONE.

- | | | |
|-------------------------|--------------------|------------------|
| 1. Elephant. | 5. Addra Gazelle. | 9. Jackal. |
| 2. Senegal Hartebeest. | 6. Dorcas Gazelle. | 10. Hunting Dog. |
| 3. Giraffe. | 7. Lion. | 11. Cheetah. |
| 4. Red-fronted Gazelle. | 8. Hyæna. | 12. Ostrich. |

Most of the animals are fairly evenly distributed in their respective zones ; the exceptions are :—

FOREST ZONE.

- No. 3. *Bongo*.—Said to occur in Cameroons only.
 No. 10. *Water Chevrotain*.—Only reported from Cameroons and Abeokuta Provinces, but probably more widely distributed.
 No. 13. *Pigmy Hippo*.—Reported as occurring in the Niger Delta, both from Warri and Owerri Provinces.
 No. 20. *Gorilla*.—Borders of Ogoja and Cameroons Provinces.
 No. 21. *Chimpanzee*.—Reported from forest regions of Oyo, Onitsha, Cameroons, Owerri, Ijebu-Ode and Abeokuta Provinces, so probably also in Benin, Ondo, Calabar, and Warri Provinces.

ORCHARD ZONE.

- No. 4. *Senegal Hartebeest*.—Is local here, but commoner in the Northern "Scrub" Zone.
 No. 15. *Klipspringer*.—Is fairly widespread but only in the Bauchi Plateau, Zaria Provinces, approximately between 9 and 10 degrees east and 10 and 11 degrees north.
 No. 20. *Rhinoceros*.—Around the junction of the Provinces Bornu, Adamawa, and Bauchi. It seems unlikely that more than 50 at most survive.

SCRUB ZONE.

- No. 3. *Giraffe*.—Reported as fairly plentiful in the Ruma Bush of Zaria Province. "Few" or "Scarce" in parts of Sokoto, Bornu, Bauchi, Benue, and Adamawa.
 No. 5. *Addra Gazelle*.—Numerous in north-east Bornu, but none elsewhere in Nigeria.
 No. 6. *Dorcas Gazelle*.—Scarce in north-east Bornu, their only Nigerian habitat.
 No. 12. *Ostrich*.—This seems to be very scarce. A few occur in the extreme north of Bornu and Sokoto Provinces only.

Of the species just enumerated the following are on the respective Schedules :—

Schedule I. (Special Licence required.) Nos. 22, 20, 3 (giraffe).

Schedule II. (Limited number can be killed.)

3. Bongo.
4. Senegal Hartebeest.
5. Addra Gazelle.
6. Dorcas Gazelle.

In addition it is prohibited to kill Giraffe in the old Chad Reserve and in the Katsena Division of Zaria Province.

Something much more stringent appears to be needed for *Nos. 20 and 3, Rhinoceros and Giraffe*. Total prohibition as well as a Sanctuary if possible. The same treatment is required for *Pigmy Hippo, Dorcas Gazelle, and Ostrich*.

Bongo should be transferred from Schedule II and be similarly treated.

Water Chevrotain might be specially mentioned and limited to 2 in Schedule II.

Senegal Hartbeest and Addra Gazelle are well catered for already in Schedule II, where 4 and 2 are allowed on the licence.

Klipspringer is fully protected in the Ningi Forest Reserve, but it should be specially mentioned and a limited number only allowed (say 2) in Schedule II.

The distribution of the rarer species, and particularly of elephant herds is shown on Map IV. The subject of elephant merits fuller consideration here on account of its attraction to sportsmen, its value as meat to the native hunter, and lastly its commercial value for the ivory. At the moment the price of ivory is so low that the third consideration does not weigh so highly as it did. The two former, however, still make the elephant an eagerly hunted prey by both European and Native.

The following is an approximate estimate of herds and numbers in the whole country :—

<i>No. of herds.</i>	<i>Area.</i>	<i>Total Beasts.</i>	<i>Nos. killed annually.</i>
3	Cameroons Province	200	20
1	Chad	200	9
1	Gwoza/Dure	400	6
21	Remainder of Nigeria	1,200	10
<hr/>		<hr/>	<hr/>
Total 26		2,000	45

It must be noted that no replies were received from Calabar or Ogoja Provinces, but it is probable that the herds of the former are accounted for in Cameroons, and the latter are comprised in herds 4, 12, and 13, which are those shown as operating in the Benua and Kabba Provinces.

Now as regards the Chad and Gwoza Areas, Government has expressly withdrawn restrictions against elephant hunting

on account of the damage the animals were reported to be doing to crops. The numbers reported killed do not appear to be excessive for the object in view, but it is hoped that the policy will be to "control" them merely in the farming area and not to drive them entirely out of British territory by harrying them wherever they go. I mention this because I was told by natives at Lake Chad that the elephant from that region had deserted to French Territory north of the River Komadugu Yobe, beyond the shores of Lake Chad.

As regards the Cameroons herds, the percentage of destruction is surely far too high merely for the protection of crops. If the same number of elephant can be controlled by killing nine annually in Chad area, why should it be necessary to kill twenty in Cameroons? In my opinion controlling should be put in the hands of an expert European hunter and not left to natives. This would be an opportunity for a keen European sportsman, of whom there are a number in Nigeria to my knowledge.

Desirability of Preserving Wild Life.

I think it will be admitted by the majority of Europeans in Nigeria that they have taken very little interest in the subject of the fauna and its preservation, while the "Wild Animals Preservation Ordinance" seldom came into their purview and its provisions were naturally not often studied.

Consequently, in considering replies to questionnaires and other evidence, it is only in a few cases that opinions of much real weight can be obtained. I select a few of these culled from senior officials, whose views are the outcome of many years experience and are therefore worth very serious consideration.

His Honour G. J. Lethem, the Acting Lieutenant-Governor of the Northern Provinces, is in favour of establishing a National Park if a suitable area is available; he prefers Borgu but there may be difficulty about "hunters rights" there. He says that existing game laws are "not effective". In general he thinks people have lost interest in game and not much is done now to protect it.

Dr. Johnson, Director of Medical and Sanitary Services.—Very interested in Game Preservation; suggested several possible areas for a Reserve or Park; though Borgu or Zamfara the best. Said selected area would have to be surveyed by the tsetse research branch; in any case it is essential that such area be controlled by warding. Game reserves now existing were poached.

Captain Henderson, Chief Veterinary Officer.—In favour of game being rigorously confined to certain non-cattle areas and warded to prevent the spread of tsetse fly.

Mr. Ainslie, Director of Forests for Nigeria.—In favour of Sanctuaries. Said existing Reserves ineffective as they were unwarded. Advocated Borgu and Lokoja Forest Reserve as the best for Game Reserves.

Mr. T. C. Newton, Resident, Bauchi Province.—"I am strongly in favour of establishing a National Park if the question of finance can be overcome. Part of Duguri Bush of Bauchi could just possibly be formed into a Park, but . . . I hear of a much more suitable area to the South of Duguri, it being really a continuation of the Duguri Bush. . . ." He also says "warding is necessary".

Mr. Brice-Smith, Resident, Ijebu-Ode Province.—Says game laws are not effective; warding needed. Is in favour of Sanctuaries and National Park project. Suggests Kachia area in Zaria Province.

Appendix VII (a): Mr. Langslow Cock, Chief Inspector of Mines.—In paragraph 4 of his letter says: "I consider the creation of Sanctuaries where possible without their being detrimental to native interests, would be quite useless without an adequate staff of rangers to enforce restrictions."

Mr. B. T. L. Burrowes, Manager United Africa, Yola.—"Strongly in favour of a Game Reserve well warded in the Lau/Ibi District. Game Laws are most ineffective against natives who slaughter a quantity of antelope by drives."

Taking the summary of replies to the questionnaire, which constitute the opinions in the main of Residents of Provinces, we find:—

In the Northern Provinces.—Out of 12, 6 are in favour,

4 are indefinite in their replies ; and 2 (Adamawa and Kano) are definitely against a National Park.

In the Southern Provinces.—Out of 12, 8 are in favour, 2 are indefinite, and the replies of two others have not been received (Ogoja and Calabar). I submit that on the showing of the evidence summarized above there is a considerable preponderance of opinion in favour of establishing Sanctuaries and National Parks.

Damage Done by Animals to Crops, etc.

As regards this argument against the preservation of the fauna of Nigeria it will be seen that in the 57 answers recorded the great mass of evidence of damage to crops and stock attributes this to pigs, baboons, and monkeys, the carnivora or elephant.

As shown by following schedule :—

<i>Baboons and Monkeys.</i>	<i>Elephant.</i>	<i>Hippo.</i>	<i>Unrecorded.</i>	<i>Carnivora (Lion, Leopard, Hunting Dog).</i>	<i>Antelope.</i>	<i>Pig.</i>
15	14	12	5	6	2	3
Total, 57.						

In paragraph 2 on page 34 above it has been pointed out that elephant causing damage can be dealt with by being judiciously controlled ; baboons and monkeys and carnivora must also admittedly be controlled by killing as and where necessary, also pig.

It is claimed that, having regard to the size of Nigeria, isolated instances can only be exceptions and do not materially affect the argument for preservation of the fauna of the country.

Relation of Tsetse Fly to Game in Nigeria.

The following documents relating to tsetse fly in Nigeria are referred to :—

V (a) “ Experiments in the Control of Tsetse Fly ” (1924–6). (By Lloyd, Johnson and Rawson.)

V (b) “ Tsetse Fly in N. Nigeria,” by Lloyd, 1929.

V (c) Memorandum by the Deputy Director Tsetse Investigation on the subject of my visit to Nigeria (6th January, 1932).

V (b) states that there are four main species of Tsetse in Nigeria and describes their habits and habitats.

- | | | |
|---|---|---|
| (1) <i>G. Palpalis</i> | { | Riverine species, not wandering far from the fringing forest of streams and pools. |
| (2) <i>G. Tachinoides</i> | | |
| (3) <i>G. Morsitans</i> | { | Of wider range, but somewhat restricted in the latter part of the dry season to the edges of thickets and heavy savannah not far from the neighbourhood of water. |
| (4) <i>G. Longipalpis</i>
(called "Bush Tsetse") | | |

Food :—

- | | | | |
|--------------------------------|-----------------------------------|---------------------------------|-----------------------------------|
| 1. <i>Palpalis</i> .
(S.S.) | 2. <i>Tachinoides</i> .
(S.S.) | 3. <i>Morsitans</i> .
(C.D.) | 4. <i>Longipalpis</i> .
(C.D.) |
| 1. Reptiles. | 1. Game or man. | 1. Game. | 1. Game (?). |
| 2. Man. | 2. Domestic animals. | 2. Domestic animals. | |
| 3. Game. | 3. Reptiles (?). | 3. Man. | Do. (?). |
| | | 4. Birds. | |

(Note.—(S.S.) means carrier of Sleeping Sickness ; (C.D.) of Cattle Disease.)

The food in each case is put in order of priority but the important point is that, whereas the extermination of game may perhaps cause the extermination of *G. morsitans* (and *G. longipalpis* ?), it may have the disastrous effect of making the riverine species (*G. palpalis* and *G. tachinoides*), both sleeping sickness carriers, go more readily to man for their food. It is true Dr. Taylor qualifies this by saying *G. tachinoides* will be reduced in numbers, but on the other hand Lloyd tells us that, "It is generally considered that man himself is the main source of infection in epidemics of sleeping sickness and that the antelope play little, if any, part in the spread of the disease." Presumably, therefore, a small number of *G. tachinoides* is enough to transmit the disease to any number of people.

Dr. Lester states that, "Unless areas can be found where tsetse does not and cannot exist, as far as we know these are limited to certain parts of Bornu, the following conditions are essential.

1. The area chosen must contain little or no human population.
2. It must not be a cattle country.

3. A system of warding the game must be inaugurated to minimize the risk of the migration of game into surrounding districts."

It would appear that the most rational way to deal with the problem is to confine game to Sanctuaries which are remote from populous districts and ward them so effectively that the game is not inclined to spread to any extent outside the areas. The intervening country can then gradually be freed from tsetse fly by clearing and cultivating. Recent field research opens up the possibility of attracting and confining tsetse to areas where a food supply is abundant, therefore if a Sanctuary be established in a tsetse area the result as regards the surrounding territory is likely to be beneficial rather than otherwise.

I have gone into this subject at some length because it is of fundamental importance in Nigeria as a whole, owing to three factors, the widespread range of tsetse fly, the big population of the country, and the large cattle population, mainly in the North.

In East Africa the problem is probably less acute, as there are such vast tracts of practically uninhabited land. Nigeria carries a population of five or six times as dense as the East African Dependencies of Kenya and Tanganyika, while it supports no less than 3,000,000 head of cattle. It follows that the relation of tsetse fly to game must be of the highest importance. It is impossible to exterminate all the tsetse, except by a gradual and methodical programme of clearing and cultivating the land. This will take a considerable time. As a first step, however, a big advance in the right direction can be made by selecting suitable isolated areas as Sanctuaries and confining as far as possible the ungulata to them under the supervision of Game Wardens.

It seems to me that such a policy will fit in with the views of medical, veterinary, and political authorities, while at the same time it will legislate for the preservation of the fauna of Nigeria under the best conditions it is possible to formulate for their welfare.

THE ADEQUACY OF THE EXISTING GAME ORDINANCE AND REGULATIONS.

The only alterations suggested to the Ordinance are the following items in the Schedules :—

Schedule I.—This allows hunting “for scientific or other reasons”. Under it two elephant or two rhino may be killed. Rhino are so scarce that they should certainly not be allowed to be killed under any circumstances; this also applies to Giraffe, Gorilla, and Ostrich at present in the same Schedule, and again to Bongo and Dorcas Gazelle in Schedule II. Pigmy Hippo also. Hippopotamus should come into Schedule I from Schedule II. Eland and Oryx (White) have not been reported from anywhere; I do not think they exist in Nigeria, in twenty years connection with the country I have never heard of them, although I believe the former occurs in French Cameroons much farther north-east. They could be omitted from Schedules I and II respectively. Water Chevrotain and Klipspringer to be put in Schedule II.

These suggestions recapitulated are :—

<i>(Totally Protected.)</i>		
<i>Add Special Schedule.</i>		
1. Rhinoceros.	<i>Schedule I.</i>	<i>Schedule II.</i>
2. Giraffe.	<i>Add Hippopotamus.</i>	<i>Delete Hippopotamus.</i>
3. Dorcas Gazelle.	<i>Delete Eland.</i>	Bongo.
4. Bongo.		Dorcas Gazelle.
5. Gorilla.		Oryx (White).
6. Ostrich.		<i>Add</i> Water Chevrotain (2).
7. Pigmy Hippopotamus.		Klipspringer (2).

REGULATIONS UNDER THE ORDINANCE

As regards the efficacy of these, out of the fifty-seven replies, only two Residents and two individuals definitely say “Yes”. These are the Residents of Ondo and Warri Provinces, and Messrs. Newton and Tweed. Mr. Newton observes that the Emirs help him to keep the Game Laws enforced which naturally helps matters considerably.

In nearly every other instance of the remaining fifty-three we are told the regulations are “ineffective”, or “not enforced”, in one or many material particulars. The truth,

I think, undoubtedly is that, except in the case of elephant, the native does as he pleases almost everywhere both inside and outside Game Reserves. This unsatisfactory state of affairs is almost impossible to prevent unless there is someone in authority whose sole duty it is to keep watch and ward against it. The trouble lies almost entirely with the native ; there is very little evidence to show charges of "slaughter" against Europeans, except perhaps in the Wase and Ningi regions. Certain proposals for tightening up the regulations against both parties have been advocated in the Appendices referred to above.

To summarize the above recommendations :—

- | <i>Europeans.</i> | <i>Natives.</i> |
|--------------------------|-----------------------------|
| (a) Register to be kept. | (1) Prohibit Drives. |
| (b) Report to Resident. | (2) Prohibit Spring Traps. |
| | (3) Prohibit Night Hunting. |

PRINTING OF LICENCES.

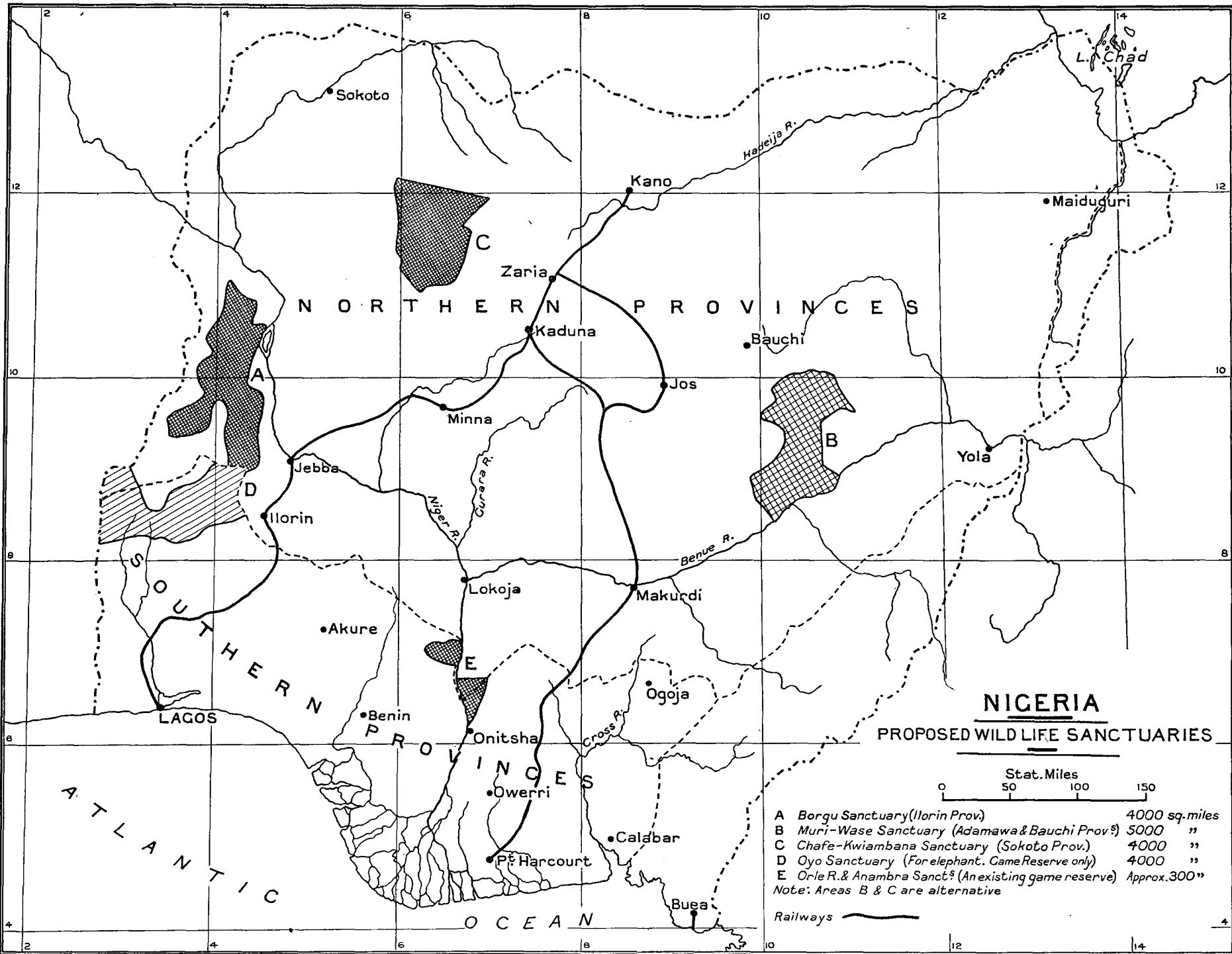
Print on the back of the form a list of species allowed to be killed under the appropriate Schedules.

DESIRABILITY OF CREATING A GAME DEPARTMENT.

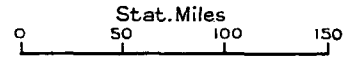
The desirability of preserving the wild life of Nigeria was, we venture to think, conclusively proved previously, and the difficulties, if not impossibilities, of so doing without some system of warding has repeatedly been emphasized.

It has been pointed out that it is essential to have a European Game Warden charged with the sole duty of supervising Game Sanctuaries and other arrangements for the efficient protection of the fauna of Nigeria, and to assist him for warding such Sanctuaries a small staff of native rangers would be necessary.

While it is fully realized that the present time is a most unfavourable one for putting forward any proposals entailing fresh expenditure, yet it is earnestly hoped that it may be possible to find the extremely small amount of money necessary to ward Sanctuaries and make the Game Laws really effective. The Governor agreed, at my interview in February, that he would be ready to consider appointing



NIGERIA
PROPOSED WILD LIFE SANCTUARIES



- A Borgu Sanctuary (Ilorin Prov.) 4000 sq. miles
 - B Muri-Wase Sanctuary (Adamawa & Bauchi Prov^s) 5000 "
 - C Chafe-Kwiambana Sanctuary (Sokoto Prov.) 4000 "
 - D Oyo Sanctuary (Fore-ephant. Game Reserve only) 4000 "
 - E Orle R. & Anambra Sanct^s (An existing game reserve) Approx. 300 "
- Note: Areas B & C are alternative

Railways

a Game Warden at £800–£900 a year if the case for Sanctuaries was proved and suitable areas could be made available.

There are in existence certain sources of revenue derived from game licences, gun and ammunition licences, and the export of ivory which, as will be shown, could be made to cover the cost of a Game Warden and native staff. Details of these are given in returns supplied by the Nigerian Secretariat.

Taking the average of the past five years in each case :—

Annual Income from

Game Licences.	Guns and Ammunition.		Ivory.					
	£	s. d.	£	s. d.	£	s. d.		
601	16	0	2326	8	0	185	16	0

Total £3,114.

In order effectively to patrol the Sanctuaries proposed (i.e. Borgu/Oyo, Muri/Wase, or Chafe/Kwiambana), as well as the existing ones it is intended to retain, it is considered a staff of sixty-four native guards would be necessary. In this an average figure of 30s. per month per native is taken. A few headmen at £2 10s., and a proportion of junior guards at 25s. are included.

Further, in order to minimize the expense it is suggested that the Gold Coast might share the cost of the Game Warden with Nigeria. It should be quite feasible so to organize the work that the one European could combine both duties.

ESTIMATED COST OF ADMINISTRATION.

1. Game Warden's Pay at £900 per annum, unpensionable, travelling expenses in the Colony at £365 per annum. Nigeria's share of above, two-thirds	£	845
2. Return passage to United Kingdom (two-thirds of £104)		70
3. 64 Native Guards at 30s. per month, for eight months (not required in rains)		768
4. Clerk and Office Expenses		100
Total		£1,783

It will be seen that the annual revenue, given above, would amply cover the cost of administration leaving a surplus credit of £1,330.

42 SOCIETY FOR THE PRESERVATION OF

THE ADVISABILITY OF ESTABLISHING ONE OR MORE NATIONAL PARKS.

Governing Principles.

The case for providing Sanctuaries has been discussed at length on pages 34 and 35. It has been there shown that the provision of such Sanctuaries are essential if the wild life of the country is to be preserved and that the feeling of educated opinion is decidedly in favour of them.

During the course of my tour in Nigeria I came to the conclusion that certain areas were eminently suited for the purpose. These are enumerated on page 41 and shown in tabulated form below, together with a list of the existing Game Reserves.

<i>Existing Game Reserves.</i>	<i>Square Miles.</i>
1. Gorgoram (Bedde/Bornu Emirates)	(Approx.) 1,600
2. Gilli-Gilli (Benin Province)	" 100
3. Orle River (Benin Province)	" 200
4. Anambra (Onitsha Province).	" 35

In addition, the following are protected animals in the areas named below :—

Giraffe.—In Chad area of Bornu Province and Katsena Division of Zaria Province.

Elephant.—In Katsena Division of Zaria Province.

Klipspringer.—In Ningi Forest Reserve (Bauchi Province).

Hippopotamus.—When found in, or on the banks of :—

- (a) The Niger between Badjibo and Boussa (Ilorin Province) ;
- (b) The Gongola between Shillen and Gwani (Adamana and Bornu Provinces).
- (c) The Oron River between Obubra and Ikom (Ogoja Province.)

<i>Proposed Sanctuaries.</i>	<i>Square Miles.</i>
1. Borgu/Oyo (Ilorin/Oyo Provinces)	8,500
2. Muri/Wase (Junction of Adamawa/Plateau and Bauchi Provinces).	5,000
3. Chafe/Kwiambana (Sokoto Province)	alternative 4,000

EXISTING GAME RESERVES : CONDITIONS THEY FULFIL.

1. *Gorgoram Reserve.*—The Reserve itself is very small and according to the tsetse investigators it is in the heart of the sleeping sickness area. Thus it cannot be looked on as a very suitable, or representative, Sanctuary.

2. *Gilli-gilli Reserve*.—Dealing with the Southern Reserves, Gilli-gilli appears to shelter a small herd of elephant. It also contains a fair assortment of the "Forest" types mentioned on page 31. It is, however, very small, and as far as I have been able to ascertain does not contain any species which cannot be found in the Orle River or Anambra Game Reserves. If this proves to be the case there seems no object in retaining it.

3. *Orle River Reserve*.—This is situated in the Kukuruku Division of the Benin Province. The District Officer in Charge states: "I believe that much of the Agbede and Ineme Districts are a Game Reserve, but there is no correspondence on the subject in this Office." He has obviously been at some pains to collect the information he gives, which is very creditable considering the lack of data referred to in his Office.

The area would seem to shelter most of the species mentioned under "Forest Zone" on page 31, including elephant. It seems likely it is more representative than No. 2, Gilli-gilli. It is unpopulated, well watered by the Obe River, and easily approached from Idah by a road which runs through its centre. It seems very well suited as a Game Reserve.

4. *Anambra River Reserve*.—In this connection the position is very clearly described by Lieut.-Col. Shorthose, who writes: ". . . There is not much wild life in this Reserve and the elephants only just enter it in their southern beat. Most of the wild life is north of the Northern Boundary of the existing Reserve." He goes on: ". . . I submit a better Reserve would be all that tract of land which lies within the boundaries formed by the River Niger, the Anambra River, and a demarcated boundary running west from a point on the right bank of the Anambra River opposite Mweji, to a point on the left bank of the Niger River."

This includes elephant, buffalo, probably hippo, bushbuck, situtunga, and most of the forest fauna.

This area would be about 250 square miles and I agree would be far better than the existing one. It is less populated,

well watered without being waterlogged as is the one now in being, and fairly accessible by water from the Niger and Anambra Rivers.

I recommend the Orle River and Anambra Game Reserves, as herein proposed, be retained as a "Forest Zone" Sanctuary; they practically adjoin, except for the intervening Niger, and together contain almost all the forest species. The exceptions being probably Gorilla, Bongo, and perhaps Water Chevrotain. As regards these latter, provision has been made for their being specially dealt with.

Gorilla and Bongo to be absolutely protected.

Water Chevrotain to be added to Schedule II and only two allowed to be killed on a licence.

It is not recommended that the Orle and Anambra Reserves should be National Parks owing to the difficulty of acquiring land for this purpose in Southern Nigeria. This point is dealt with in a subsequent paragraph.

PROPOSED NEW SANCTUARIES.

On page 42 the proposed new sanctuaries were stated to be (Areas 2 and 3 being alternative):—

	<i>Square Miles.</i>
1. Borgu/Oyo (Ilorin/Oyo Provinces) . . .	Area approx. 8,590
2. Muri/wase (Adamawa/Plateau/Bauchi Provinces) . . .	5,000
3. Chafe/Kwiambana (Sokoto Province) . . .	4,000

1. *Borgu/Oyo*.—This area was selected as being the most suitable to represent the "Orchard Zone" Species, given on page 2. It was particularly mentioned as being the most favourable for a National Park by fifteen out of the fifty-seven authorities consulted. It is, however, particularly pointed out by the Residents of Ilorin and Oyo Provinces that a difficulty will be in conciliating native hunting rights.

It is proposed that this should be done by excluding from any reserve an area of 15 miles round the big townships; also by propaganda through the Political Officers, pointing out that the native hunter himself will be helped by creating a reservoir of game for the future from which an overflow will be available for hunting.

This area naturally divides itself into two parts : (1) Borgu in the Ilorin Province, a part of the Administrative region of "The Northern Provinces", and (2) Oyo in the Province of the same name, which forms a portion of "The Southern Provinces".

Borgu Portion.—During my visit to Borgu I made a short journey into the bush, south-east of Kaiama and another north of that place, making my headquarters at Kuli on the Oli River and this area, shown on attached map, possesses the following qualifications for a National Park, for which I would strongly recommend it :—

(a) It contains all species mentioned under "Orchard Zone" on page 31, except Klipspringer and Rhinoceros. The Elephant are, however, not numerous, consisting of two small herds of about 12 and 16. The game is well distributed.

(b) The area is about 4,000 square miles.

(c) Population about five to the square mile, but almost entirely concentrated in the townships, thus excluded from the area by 15 mile radius enclaves.

(d) Being in the "Northern Provinces" the Governor has power to appropriate the land for a specific purpose.

(e) It is not required for any other purpose, and appears to have no appreciable commercial value.

(f) It is well watered by three big tributaries of the Niger ; the Wessa, Oli, and Teshi. There is ample grazing.

(g) There is a good motor road to Kaiama, 130 miles from Ilorin Railway Station. Thence bush tracks lead into the area.

Oyo Portion.—This area is about the same size as the last, but being in the Southern Provinces it is recommended that it should be a Game Reserve pure and simple without the status of a "National Park". The area is shown on attached map and is uninhabited except for the central stretch fringing the main Iseyin/Shaki Road. The portion round the townships here would be excluded under the 15 mile radius rule.

In Borgu the hunters are said to hunt singly, but in Oyo they practise community hunting on a big scale, so the importance of excluding the 15 miles radius is here greatly enhanced. While the value of propaganda, as suggested by the Acting Resident, Mr. Murray, amongst the natives is self-evident.

I regret I did not see the Alafin of Oyo, as I had originally proposed to do. My first intention had been to get his

sympathy by explaining the object of my mission, but as I pointed out earlier most Residents whose views I consulted thought it wiser to wait until they were in a position to put forward a concrete proposal themselves to the Paramount Chiefs of their Provinces.

The Oyo portion of the area under consideration contains most of the species mentioned as inhabiting the Borgu portion, the elephant consist of a much bigger herd numbering about 100. It will give them a much needed sanctuary, besides providing a corridor of communication with Borgu which will greatly improve the space available for seasonal migration both north and south.

Its remaining qualifications under headings (b) to (e) and (f) are similar to those given for the Borgu portion above.

As regards (d) it would be necessary to exclude all hunting rights, except in the 15 mile radius around townships. No title to the land would, however, be required.

As regards (g) the district can be easily approached by railway to Ibadan thence by motor road via Iseyin to Shaki; this road passes through the centre of the area. From it further communication would be by bush path only.

2: *Muri/Wase*.—This area is probably the best game country in Nigeria according to most authorities on the subject. The fact that it is considered to be infested by tsetse is not necessarily a drawback, though possibly the medical authorities might hold a different opinion. On the other hand, it is decidedly inaccessible, except by long railway and motor journeys before some point near Wase close to the western border is reached. Every endeavour has been made to exclude the area visited by migratory cattle from the north.

As regards its attributes in detail :—

(a) It contains nearly every species of the "Orchard Zone" except more notably Klipspringer and Rhino. It also contains most of the "Scrub Zone" species, but certainly excluding Addra Gazelle, Dorcas Gazelle, and Ostrich. The game is well distributed and there is at least one herd of about 100 elephant.

(b) It is about 5,000 square miles in extent.

(c) Almost uninhabited except around Wase and Bashar, which would be excluded by the 15 mile radius plan.

(d) As in the case of Borgu, the land could, I am told, if necessary, be dedicated for this purpose.

(e) The Silver Lead Mines at Zurack are of economic value, but the vicinity could be excluded as for Wase if so desired, and a suitable zone around this concession set out, together with a road of access.

(f) The Yule, Wase, and Benue with tributaries provide ample water. Grazing is adequate.

(g) The area is rather inaccessible.

3. *Chafe/Kwiambana*.—In view of the possibility of objection on medical grounds to Area 2, the Chafe/Kwiambana area is suggested as an alternative. Here it is believed there is less tsetse fly, and the region is accessible by bush path from the railway at Chafe or Gusau. On the other hand, it is not so plentiful in species, while there is only one small herd of twenty elephant, part of whose ambit comes into this sanctuary.

Its qualifications as a Game Reserve are :—

(a) Contains all species in Wase/Muri, but fewer elephant and giraffe ; some others less numerous.

(b) About 4,000 square miles. Shown on attached map.

(c) Appears rather more populated than Muri/Wase.

(d) As for Muri/Wase.

(e) The land has little economic value.

(f) Well watered by Gulbin, Ka, Magami, and their tributaries. Grazing is adequate.

(g) From the railway there is a good bush path running through the centre of the area to Kwiambana.

To sum up the foregoing proposals :—

(1) EXISTING GAME RESERVES.

Forest Zone.—

(1) Abolish Gilli-Gilli.

(2) Retain Orle.

(3) Retain Anambra, but alter Northern Boundary as shown on Map III.

(2) NEW SANCTUARIES.

Orchard Zone.

(4) Borgu/Oyo ; the former to be a National Park, the latter portion to be a Game Reserve.

Orchard Desert Zone.—

(5) As a Game Reserve either Muri/Wase or Chafe/Kwiambana, alternatively.

RECAPITULATION OF RECOMMENDATIONS.

(a) For Game Reserves and a National Park these have just been stated in the preceding paragraph.

(b) A Game Warden and sixty-four Native Guards, also a Clerk, to be provided out of revenue from Licences and

Import Duty for Game, Guns and Ammunition, also export of Ivory.

(c) *Alterations in Ordinance*—

(1) Add a new Schedule, *absolutely protecting* :—

Pigmy Hippopotamus.
Rhinoceros.
Dorcas Gazelle.
Giraffe.
Bongo.
Gorilla.
Ostrich.

(2) *Schedule I.*

Add Hippopotamus.
Delete Eland (as there are none).

(3) *Schedule II.*

Delete Hippopotamus.
Bongo.
Oryx (White).
Add Water Chevrotain (2).
Klipspringer (2).

(d) *Alterations in Regulations*—

For Europeans.

- (1) Register to be kept of game killed.
- (2) Licensee to report to the Resident of Province in which he is proposing to hunt.

For Natives.

- (1) Prohibit Drives.
- (2) Prohibit Spring Traps.
- (3) Prohibit Night Hunting.

(e) *Printing of Licences.*—A list of the species allowed to be killed, under their appropriate Schedules, to be printed at the back of the Form.

Native Outlook.—It is also considered important that the co-operation of the native authorities should be invoked, it being made clear to them that the wild life is not being conserved for the benefit of Europeans and that it is only by intelligent measures for preservation that a supply of wild game meat can be obtainable for an indefinite period. At present the game is steadily decreasing and within a measurable time there will be hardly anything left to hunt.
