

all of the Ground Squirrel family and do not climb trees. They make very charming pets.

**SERVAL** (*Felis serval*). This cat is fairly common, and is sometimes killed by the natives in mistake for the cheetah.

**TORTOISE** (*Testudo pardalis* and *Kinixys belliana*). May be found anywhere and grows to a moderate size. Largest specimen seen by the writers weighed 30 lb. There appear to be two varieties.

**TURTLE** (*Pelusios sinuatus* and *Pelomedusa galeata*). Both the Larger and Lesser varieties of the River Turtle may be found, the former in the river and the latter sometimes in waterpans of Dsheik. Sea Turtles are also caught by the local fishermen, the shell of the Hawksbill being particularly in demand by traders.

**WARTHOG** (*Phacochoerus æthiopicus*). Very common indeed everywhere, usually seen in pairs or family groups of up to eight. The Somalis being Muslims will not touch it and the meat is too coarse for European consumption. The Warthog is therefore left to multiply, except by those who wish to obtain a pair of the surprisingly large tusks.

**ZEBRA** (*Equus burchellii*, *Equus grevyi*). The Grant's Zebra is the most common and may be seen on the open plains between the river and the Kenya border. A herd of some twenty was recently seen standing on the main road to Kismayu near Yonti. The larger Grevy's is much scarcer and has only been found on the east bank of the river north of Gelib.

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## SOUTHERN RHODESIA—THE TSETSE FLY QUESTION

Copy of correspondence between the President of the Fauna Preservation Society  
and the Prime Minister of Southern Rhodesia.

LONDON,  
4th November, 1949.

RT. HON. SIR GODFREY HUGGINS, K.C.M.G., C.H., F.R.C.S., M.P.  
SALISBURY,  
SOUTHERN RHODESIA.

DEAR SIR GODFREY HUGGINS,

The Society for the Preservation of the Fauna of the Empire is taking stock of the faunal conditions of Africa in the light of recent developments, with special reference to investigations

that have taken place and are in progress, of the incidence of fly-borne diseases and of methods of control of such diseases by direct attack on the fly through the use of insecticides and otherwise, and by treatment of cattle with prophylactics such as antrycide. We have been encouraged to hope that Governments in British territories, including Southern Rhodesia, where controlled killing had been undertaken with a view to eradicating tsetse fly were now disposed to suspend this method of attack for a period pending examination of the results of experiments in progress.

Our latest information, however, is to the effect that organized killing continues in Southern Rhodesia and that it is carried out mainly through the agency of native hunters whose activities are not very adequately controlled.

We have discussed this and other subjects relative to the Conservation of Wild Life, through our own representatives, with the Governments of most of the British territories of East and Central Africa, but have not had an opportunity of discussing it with your Government. I hope, therefore, that you will not take it amiss if I, as President of the Society, appeal to you personally to take this question into consideration.

We receive communications from many directions, latterly especially from America, asking whether something more cannot be done to protect the fauna of Africa, and I am sure that you will agree with me that this unique and grand fauna is a precious heritage not only of Africa but of mankind. Therefore, I make bold to suggest to you that a halt might well be called to all Government-sponsored killing, at least for a year, in the hope that, in the interval, conclusions may be reached from the many experiments now in progress which would justify the abandonment of attempts by this method to control fly-borne diseases.

I greatly hope that you and your Government may see your way to give the game a complete rest from officially sponsored destruction. If not, may I suggest that, at least, all shooting be suspended when the borders of the Zambesi escarpment are reached. We had understood that the policy of your Government was to clear certain territory of game and when that had been done to follow up this clearance by immediate settlement. The low-lying ground between the escarpment and the river being unsuitable for settlement, we trust that, in any case, control measures will not be carried beyond the line of the escarpment. I mention this particular point because, if we are correctly informed, the native hunters, whose chief concern is

of course meat, are consistently shooting in the valley, where game is more plentiful and thus easier to obtain.

May I repeat that I believe that you are no less concerned than I am to preserve the grand and varied fauna of Africa, in so far as such conservation is compatible with the real needs and interests of humanity. I have confidence, therefore, that you will not resent this letter as officious, and that you will give my request your earnest consideration.

Yours,

(Signed) DEVONSHIRE,

*President, S.P.F.E.*

PRIME MINISTER,  
SALISBURY.  
2nd December, 1949.

MY DEAR DUKE,

Thank you for your letter of the 9th November. I am afraid I did not receive your first letter, which must have gone astray.

With reference to your present letter, a brief outline of the tsetse fly position in this colony will, I think, be of use. Before the rinderpest epizootic in 1896 tsetse (*G. morsitans* Westw.) occurred in an area of over 50,000 square miles in the north of the colony as well as in an area rather less than half this size in the south of the colony. The total extent of the colony is 150,000 square miles. The central plateau seems never to have harboured tsetse. Immediately after the rinderpest, the fly disappeared completely from the southern area (in which it has never become re-established) and almost completely in the northern area, remaining in a few small, isolated and widely separated areas only. From these areas it has spread outwards again until, by about 1920, 25,000 square miles of the pre-rinderpest area had been reoccupied and it seemed that it would not be very long before much of the other 25,000 square miles of its previous haunts were reoccupied too. So the present policy of organized game destruction confined to an offensive belt at the edge of the fly area was introduced, and to date by advancing this belt the fly has been driven back over about 10,000 square miles. Game destruction for this control is not, and never has been, widespread in the Colony. At the present time it covers, at the most, one-twentieth of the area of the Colony. The offensive belt has, in effect, now become a protective barrier, but can at any time be moved forward again if additional

land is required for development. In this connection, I quote from the report of the Division of Entomology for 1947 :—

“ The policy of controlling *G. morsitans* by game destruction continues. It was supported as being effective against *G. morsitans* by the East and Central African Fauna Conference held in Nairobi during May. Because land reclaimed by this means is occupied by humans, and because a tendency of the fly is to spread to its former haunts, the policy must continue for the protection of the occupants until a less undesirable method known to be equally effective in local application against the same fly can replace it. The cessation of game destruction within our barrier belt without applying a reliable alternative would be disastrous. Charges that the game of the country is being shot out by tsetse fly operations are, of course, founded on a false impression and are absurd.”

Like everyone else who gives the subject serious consideration, I would like to see the present method of eradication of tsetse fly by controlled game destruction abandoned in favour of some other proved effective method. I must emphasize, however, that no such alternative method, applicable to the conditions obtaining in this country has yet been discovered. It is true that experiments with insecticides and prophylactics in other parts of Africa have shown great promise. The results of these experiments are readily available to and are studied with great care by the Trypanosomiasis Committee in this Colony but, so far, this Committee has not felt that these results justify my changing the present policy. Moreover, it does not seem to me that a suspension of the present operations would render the examination of these results any more thorough.

To call a halt in our present programme for at least a year would, both metaphorically and strategically, be a backward step. Unless in the interim some other method of tsetse control were found, which on present evidence does not seem very likely, a halt would probably lead to the destruction of more animals than would the normal continuation of our present programme. For within that year game and with it tsetse would undoubtedly reoccupy much of the ground previously cleared. A distinction must be drawn here between the effects of game moving into cleared country on the one hand from an area infested with tsetse which would undoubtedly cause a spread of tsetse, and on the other hand from an area without tsetse, which could clearly do nothing to bring about a spread of this fly.

With regard to your suggestion that shooting should be

suspended when the Zambesi escarpment is reached, an area below the escarpment between the Rekomitje and Angwa Rivers is closed to shooting mainly to form an unofficial black rhinoceros reserve, this animal being particularly abundant there. Elsewhere there are several reasons why tsetse cannot be allowed to reign supreme in the valley. The most important of these are the development of the Kariba Gorge hydro-electric scheme, the transit of the area by the main road from Salisbury to Lusaka, and in the Lomagundi and Darwin districts the presence of farms reaching north to the edge of the escarpment. Furthermore, the interests of the natives living in the valley must be considered as well as the possibilities of European agricultural development in the valley. The low-lying ground between the escarpment and the river is in many places very fertile, maintains a considerable native population, and would doubtless maintain a much larger one if tsetse were eliminated and the area developed. The native hunters shoot in the valley only where they are instructed to do so. This covers at the most a quarter of the area of that portion of the valley which lies in Southern Rhodesia. Above the confluence of the Sebungwe and the Zambesi Rivers (about 80 miles below the Victoria Falls) and in part of the Darwin district, tsetse is absent from the valley (the latter due to the game destruction policy); in the whole of the Sebungwe district and parts of the Urungwe and Lomagundi districts our operations do not reach the valley, and in part of the Lomagundi district, as mentioned above, there is an unofficial rhinoceros reserve.

Regarding the method of game destruction, it is true that this is carried out mainly by native hunters, but it is an overstatement to say that "Their activities are not very adequately controlled". All of them are under the direct supervision of reliable Europeans and the amount of ammunition issued to them is strictly limited, and they are required to produce evidence that they have used it carefully so as to reduce to a minimum the number of animals which may be wounded but not killed. Hunters found operating outside their approved shooting area are punished.

Under the Game and Fish Preservation Act the wild fauna of this Colony is protected and permits to shoot on Crown lands are strictly controlled. Reclamation of land infested with tsetse is carried out only when the land is required for settlement and development. We believe, however, that cattle farming and game preservation are not compatible. Therefore, so that the first of these objects will not be paramount over the second,

a large area of the Colony has been set aside as Game Reserves or National Parks, and plans are now being made for the development and extension of the largest of these, the Wankie Game Reserve. This Reserve will, we are convinced, eventually develop into one of the finest game sanctuaries in Africa. In it large numbers of most of the game animals which have ever occurred in the Colony are strictly preserved. Of the few species not occurring there, nyala, Lichtenstein's hartebeeste, and hippopotamus receive protection wherever they do occur in the Colony, and the black rhinoceros (which is thought recently to have entered the Wankie Game Reserve) is afforded adequate protection except in the one place where its numbers interfere with tsetse fly operations and where a small number (usually under twenty) are shot annually in this connection. When an area has been cleared of tsetse by game destruction, the game are allowed to return to the area unmolested by tsetse fly operations. A point which is often either overlooked or misunderstood is that tsetse control by game destruction does not aim at extermination of game even in the offensive area. We have recently received reports of herds of buffalo and roan antelope numbering over one hundred present in an area in the Sebungwe district where shooting has only recently been discontinued.

Considering now other methods of tsetse control, the use of modern insecticides has probably achieved its greatest success in the Union of South Africa. It must be emphasized at the outset that the species of tsetse with which we are mainly concerned in this Colony is *Glossina morsitans* Westw., the open savannah game-loving tsetse, which does not occur in the Union of South Africa. In that country three species of tsetse occur, *G. pallidipes* Aust., *G. brevipalpis* Newst., and *G. austeni* Newst., none of which is so restricted in its feeding habits to the larger species of wild game as is *G. morsitans*. Furthermore these three species of tsetse occurred in an area of which only about 200 square miles formed a suitable dry-season habitat for the tsetse. Perhaps most important, this area was separated by a barrier of some 200 miles or more from any other area containing tsetse so that once tsetse were eliminated the possibility of their re-entering the area was remote. Contrasting this with conditions in this Colony, of the 25,000 square miles infested with tsetse when operations against them were begun, 15,000 square miles are still occupied by fly, and no attempt is at present being made to clear them. The cost of an insecticidal campaign over such a large area, even assuming that it would be

successful, would be completely prohibitive. It could never achieve the final success hoped for in the Union of South Africa unless the authorities in Portuguese East Africa, Northern Rhodesia and, taking the long view, the Bechuanaland Protectorate undertook to exterminate tsetse in their territories at the same time as we did, as otherwise reinfestation of this Colony would be bound to occur. In the case of the first two of these territories, the cost of an insecticidal campaign would be even more prohibitive than in this Colony, since a very much greater area in them is now infested by tsetse than here.

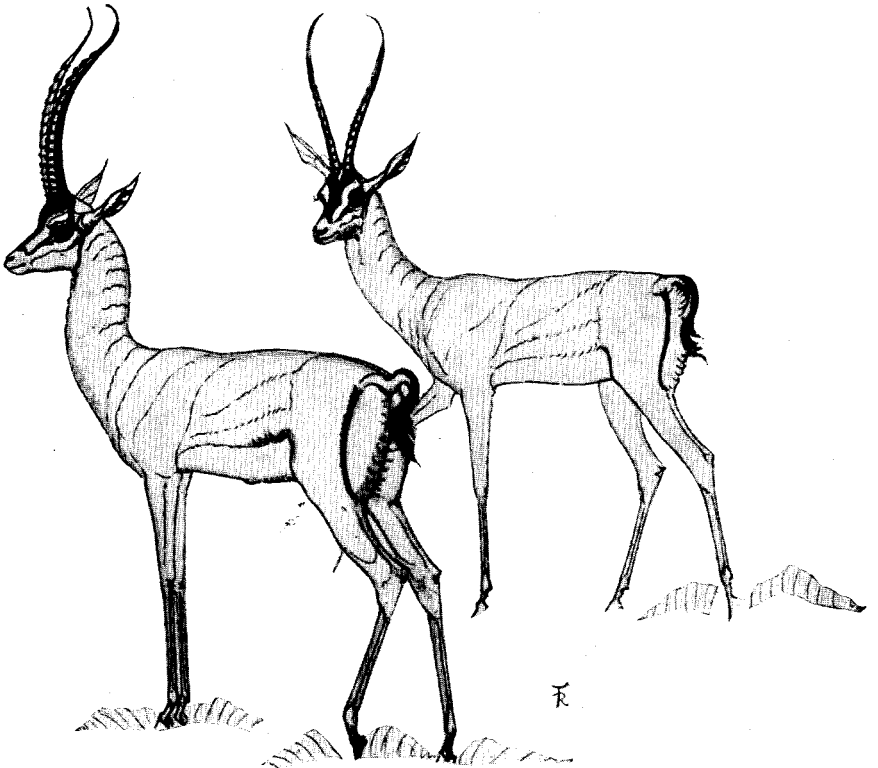
For successful application, the use of prophylactics, such as antrycide, demands that their use shall be coupled with a certain minimum degree of close settlement to drive tsetse away and prevent their return. Over most of the tsetse fly areas of this Colony such a degree of close settlement is not attainable owing to the poor nature of the land involved. The study of the effects of antrycide is still far from complete. It has been found in certain cases to lead to the building up of resistant strains of trypanosomes, strains resistant not only to antrycide but also to the curative drug dimidium bromide, which has been and is still being used successfully here. In the present state of our knowledge we do not wish to incur the risk of rendering our proved cure useless.

I hope you will find that this letter answers your requests and suggestions and that you will see that although I and the great majority of people in this Colony are as concerned as you that the game shall not be exterminated, a cessation of our present policy, even if only temporary, could in the present state of our knowledge do only harm, both to the Colony and, ultimately, to its game. I assure you that no species of game animal has been so reduced in numbers that it verges on extermination because of tsetse fly operations, and I further assure you that I shall see that such a dangerous reduction of any one species shall not occur while I have power to prevent it.

Yours,

(Signed) G. M. HUGGINS.

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**GRANT'S GAZELLE IN NAIROBI PARK.**