

1933

OPERATIONS. 1.

By proclamation 1 of 1933 the destruction of Elephant, Giraffe, Rhinoceros and birds was prohibited in those areas where operations against game are in progress. Actually there are no giraffe or resident elephant in any of the areas and rhinoceros only occurs in one or two remote localities. Birds were of course, never included in the operations.

During the year 21,000 head of game and other animals were destroyed in all areas.

OPERATIONS. LOMAGUNDI (DOMA).

The area over which controlled shooting operations are in progress was not increased during the year as contemplated in last year's report. As regards the presence of "fly" there is a further slight improvement over the very favourable position reported last year. No flies were seen inside the southern fenced area and only very occasional ones close to the north fence near the Winde River and Bekute River in the northern fenced areas. The pocket of fly on the Yamuti River near Tchetchemini Hill, which has persisted for a number of years, appears to have disappeared. An isolated outbreak of animal trypanosomiasis occurred on one farm where seven animals died and four others contracted the disease. Five were old cases. Sheep and goats are now permitted at native kraals inside the southern fenced zone and a relaxation in the conditions permitting ox drawn transport to enter this area has been made.

2. OPERATIONS : LOMAGUNDI S.W.

The improvement mentioned in last year's report has been maintained, no cases of animal trypanosomiasis having been reported from this area. A quantity of new stock has been introduced into one farm where considerable losses from "fly" occurred three years ago. Density counts indicate a progressive retrogression of "fly" towards the Ufuli River. This movement is reflected in the decrease in the number of "fly" caught at the cleansing chamber.

3. OPERATIONS : GATOOMA.

Controlled shooting operations in this area are confined to a 20 mile wide strip lying immediately west of the eastern Government Game fence which runs along the boundary of the occupied farms. A small portion of the Guelo District lying between the Umniati River and Umsweave-Ngondome Road and a portion of the Sebungwe District around the Mafungabusi Peak are included. Very few native kraals exist in this area.

Density counts taken over the whole of the area indicate a progressive reduction in the density of "fly" inside the fenced zone. This reduction in "fly" density has been steady and continuous since the commencement of the operations. "Fly", in any quantity, is now only to be found close to the western half of the fenced area no flies at all were located during the detailed survey carried out from June to August.

The incidence of animal trypanosomiasis on various farms in the Golden Valley area shows a considerable improvement over past years. On the Rhodesian Plantations oxen are being used on several sections where previously tractors were used. On the northern portion of the Estate only two deaths from animal trypanosomiasis have been recorded compared with twenty three in the previous two years. Over the whole of the estate there were 29 deaths from October 1930 to September 1931 and 15 deaths between October 1931 to November 1933. Most of these cases occurred in 1932.

On the Government farm "Woodstock" there were 33 animals in November 1932, one animal became infected in May 1933 and nine other cases developed by September or approximately 30% of the susceptible stock on this farm. It had previously been impossible to keep animals on this farm. The Rob's Drift road runs through this farm which may account for the cases. Only one other case has been reported from this vicinity.

Three native hunters have died from sleeping sickness during the year and two other positive cases are being treated for the disease in Gatoona. A fatal European case was also contracted on the Umniati River in September.

#### OPERATIONS. WANKIE

It is not possible as yet to report any tangible retrogression of fly in this area. A steady and continuous reduction in the density of "fly" in the vicinity of the Gwasai River and Bulawayo-Victoria Falls Road has been recorded, with a corresponding reduction in the number of "fly" taken at the cleansing stations. The Gwasai River Settlement farms are still within the zone where occasional "fly" are to be found and none of the farms from No. 76 westward may be considered safe for cattle. From the numbers of flies taken at the cleansing station on Sikumi Farm, this farm and neighbouring farms must be considered as being in a more or less definite "fly" zone and therefore unsuitable for stock even though all these "flies" may be carried on pedestrian traffic from the Gwasai River. High "fly" densities still occur along the Shangani River from the Gwasai-Shangani junction to the Mchlagwa River.

Due to the drought, a great influx of game from the Sebungwe District and Wankie Game Reserve occurred towards the end of the dry season. At one period several hundred elephants drank daily on the Little Sekumi River.

Operations against game in this area were commenced after the Gwasai River had become heavily infested with "fly" and the task of dislodging the "fly" and driving it back again to the north side of the Shangani River may prove to be a protracted undertaking.

#### OPERATIONS. MELSETTER.

The clearing operations carried out during 1932 were confined to a strip along the border running from Wolverhampton Farm to the Buzi River. During the present year the clearings have been extended south as far as Farfall Farm. About 20 miles of the border have now been cleared and, it is hoped, protection given to a very large area lying behind the clearings. From information supplied by the District Veterinary Surgeon, Melsetter, on the incidence of animal trypanosomiasis it would appear that considerable benefit has already been derived from the clearings made last year.

On six farms protected by the 1932 clearings no new cases were diagnosed. On a farm protected, 10 cases occurred, while on three farms not protected 214 cases occurred.

#### OPERATIONS UNDER CONTROL OF THE NATIVE DEPARTMENT.

##### (a) Shangani Reserve.

Controlled operations against game for the protection of the Shangani Native Reserve were continued throughout the year under the direction of the Assistant Native Commissioner.

As far as can be ascertained by direct inspection, no spread of "fly" up the Shangani River has taken place during the year, in fact there is some evidence indicating that the "fly" has receded several miles down the Shangani River. During 1932, fly was prevalent above the junction with the Tshongolwe River but recent inspections have failed to locate any "fly" in this vicinity. The operations in this area have been conducted with unpaid hunters since they were inaugurated in 1929. This system has proved somewhat unsatisfactory and difficult to supervise in this locality. For a limited period...

(b) Urungwe.

The number of native hunters in this area has been doubled during the year and an European Ranger has been appointed to assist the Assistant Native Commissioner to control their operations. The cordon of native hunters has been extended north and east to join up with the operations in the Loma area and to the south to connect with the operations in the Lomagundi S.W. area. No extension of "fly" has been recorded during the year nor are any cases of trypanosomiasis known definitely to have occurred. This indicates a marked improvement in the position during the past two years.

(c) Sinolile

The great improvement mentioned in previous reports has been maintained. No "fly" are known to occur in the Native Reserve and cattle are thriving in areas where they could not exist a few years ago. No cases of trypanosomiasis are known to have occurred. There is probably now no established "fly" south of the escarpment in this district except in the low-lying valleys of the Hunyani and Dande Rivers.

(d) Darwin.

A single case of animal trypanosomiasis, in contrast with a larger number of cases in 1932 occurred in an ox belonging to the Government in this district. Only one "fly" was seen south of the escarpment (except in the vicinity of the cleansing chambers) during the year. A careful search was made along the Ruia River where this "fly" was found, but no other specimens were seen. The reduction in the number of "fly" taken at the cleansing chamber on the Msongerera Path indicate that the "fly" area below the escarpment may have receded westward, or may have been reduced in density as a direct result of the operations. The number of cattle in the Native Reserve is on the increase.

TRAFFIC CONTROL

The control of traffic, particularly pedestrian traffic leaving a "fly" area presents many difficulties and it is deemed impossible to exercise effective control of pedestrian traffic by Regulations. Two additional cleansing chambers were erected during the year bringing the total of stations in operation to eleven. Requests for the erection of more chambers have been received and are being considered. In view of the continued retrogression of "fly" as a direct result of controlled operations against game, two stations, namely, one on the Bobb's Drift Road in the Hartley district, and one on the Tchetchenini Road in the Lomagundi district, were moved some five miles nearer the present "fly" limit. The defined "fly" areas in the Wenkie, Robi, Hartley and Lomagundi (Loma) areas were changed by proclamation during the year and amending regulations published.

(a) Tchetchenini Road: Lomagundi (Loma)

Forty four motor cars, 1,123 cyclists and several hundred pedestrians passed through the chamber bringing one fly (male). Last year six flies were caught at this station.

(b) Miswi-Zembezi Road (Urungwe).

One hundred and fifty one cars, thirty four cyclists and 1,291 pedestrians passed through the cleansing chamber bringing a total of 94 flies (48 male and 46 female), 51 flies (28 male 23 female) off cars and 43 flies (20 male and 23 female). Last year 106 flies were taken at this chamber.

(c) Copper Queen Road

The improvement in this area is reflected in the return of "fly" caught at this chamber. Last year 16 flies were caught, this year only 2 flies, both dead, were handed to the guard by a native pedestrian. Four Cars, 4,990 pedestrians and 270 cyclists were examined at the chamber.

(d) Robb's Rift Road

More motor cars passed through this chamber during the year than in the previous year, the increase being due to the resuscitation of mining activity in the district. In consequence more flies were taken at the chamber which was moved 5 miles nearer the "fly" limit in September. Two hundred and thirty three cars bringing 397 flies (203 males and 194 females) 291 cyclists and several hundred pedestrians bringing 101 flies (59 male and 42 female) were treated in the chamber during the year. Total flies caught during 1933, 498 (212 male and 286 female) compared with 377 flies in 1932.

(e) Bulawayo-Victoria Falls Road.

In the Gwasi River Tsetse Fly Area there are five chambers for the treatment of traffic leaving the area. A temporary chamber has also been erected at the base camp. Two chambers for treating motor traffic were erected during the year, one on Sekumi Farm and one on the Inyantue deviation. Motor traffic to the Shangezi River was prohibited in August 1932 and in January 1933, the chamber on Walker's Road was moved, and a smaller chamber for treating pedestrian traffic was substituted.

No. 1 Chamber : Leti Valley

The amount of motor and pedestrian traffic using the main Falls road remains approximately the same as last year. Five hundred and fifty three cars 87 cyclists and 1,055 pedestrians (414) parties passed through the chamber.

A total of 183 flies (72 males 111 females) were caught by the guards, 139 off cars (52 males 87 females) and 44 off cyclists and pedestrians (20 males 24 females). In 1932, 336 flies were caught, a decrease during the year of 46%.

No. 2 Chamber : Farm 114

Five hundred and eighteen cars, 79 cyclists and 1,804 pedestrians passed through the chamber bringing 152 flies (91 males 61 females) 58 flies off cars (34 males 24 females) and 94 flies off pedestrians (57 male and 37 female). In 1932, 299 flies were taken at this chamber a decrease of 50% during the year.

No. 3 Station : Walker's Road

Eight cars, 1,730 pedestrians (689 parties) and 5 cyclists were examined at the chamber during the year bringing 989 flies (620 male and 369 female) 14 flies off cars (9 male 5 female) and 975 (611 male and 364 female) flies off pedestrians. In 1932, 4180 flies were taken at this chamber, 699 off cars and 3,481 off pedestrians. The number caught off pedestrian traffic shows a decrease of 81%. These figures are a reliable indication of the general decrease in the fly over the area generally.

No. 4 Station : Sikumi Farm

Eighty three cars and 1,460 pedestrians passed through the chamber during the seven months it was in operation. A total of 64 flies (37 male 27 female) were taken by the guards, 2 flies (males) off cars and 62 flies (35 male and 27 female) off pedestrians.

No. 5 Station : Mabare Valley

Owing to the shortage of water in this area the station has had to be erected at a point slightly inside the "fly" area and "fly" can be found on both sides of the chamber. Pedestrian traffic both entering and leaving the area are examined at the chamber. The following traffic was examined during the 10 months the chamber was in service.

Out of the Area

14 cars and several hundred pedestrians bringing 101 flies (58 male and

and 39 female).

Into the Area.

Several hundred pedestrians bringing 53 flies (29 males and 24 female)

(f) Darwin.

The two chambers in this district are built on the edge of the escarpment and deal with pedestrian traffic coming from the Zambezi Valley.

(1) Masongerera's Path

A total of 18,787 persons were treated in the chamber bringing 12 flies (6 male and 6 female). During 1932, 100 flies were caught at this chamber a decrease of 88%.

(2) Nyamapara Path

A total of 2,797 pedestrians passed through the chamber bringing 97 flies (69 male and 28 female). In 1932 112 flies were caught at this chamber.

RECONNAISSANCE AND INVESTIGATION.

A detailed examination of the area north of the fences in the Doma Area was carried out with a view to extending operations northwards and an examination of the position in the Mafungebusi area was made during the year. A detailed density survey of the unfenced area in the Gatooma district was also made.

RESEARCH

Some preliminary experiments in poisoning native trees have been commenced. These experiments are designed to furnish some information on methods of creating cleared barriers.

ANNUAL REPORT OF THE CHIEF ENTOMOLOGIST, 1933

An exceedingly unfortunate development during the year has been the appearance of Sleeping Sickness along the Umniati River between the Hartley and Sebungwe districts, the infected are apparently extending eastward into the zone of anti-tsetse operations. A survey of the small native population in the Umniati valley in 1912 revealed no cases of sleeping sickness. Two cases of this disease were, however, tentatively traced by the Medical Department to the Umniati River as long ago as 1926, but as northern natives were the victims, there was some doubt as to the exact locality where infection had been contracted. One European during September of the present year contracted the disease with a few days of entering the fly area on the Umniati river not far from its junction with the Umfuli, and several natives have contracted the disease apparently within the zone of the anti-tsetse operations. It seems probable that other native cases have escaped notice in the Umniati valley. It is judged that the disease has in all probability been introduced to the Umniati from the western side of the Sebungwe district where it is known to have been present at least since 1912.

The apparent success of the border clearing in the Melsetter district in checking the incursion of tsetse flies, G. pallipes Aust. and possibly G. brevipalpis Newst. from Portuguese Territory is decidedly encouraging, especially as the creation of these clearing has not proved unduly expensive, and maintenance at a comparatively small annual expenditure appears possible.