

TRYPANOSOMIASIS IN THE GWAAI VALLEY.

Following the recommendations of the 1955 Commission on the Control of Tsetse and Trypanosomiasis efforts were made to restrict game slaughter by confining operations to fenced areas with the object of creating game and cattle free zones which, it was hoped, would provide barriers to movement of tsetse fly. This policy was implemented in South Sebungwe in 1957. Meanwhile under the protection of drugs cattle on the Kana River were maintained in good health. By 1960, however, it became obvious that this method was not proving effective, since the infected area was increasing in size towards the south. An alternative had to be sought. A successful trial with insecticides was carried out in that year and a new plan was made. Investigations had shown that the main source of the infections lay in a dense concentration of tsetse fly on the headwaters of the Nagupande River immediately to the north of the fenced zone in which hunting had been concentrated. It was also demonstrated by marking, releasing and recapturing tsetse flies that they were crossing the shooting zone from north to south.

The new plan, which is being adhered to, was:

- a) to eliminate the Nagupande fly population and
- b) to create by bush clearing and settlement a strip of country which would be unfavourable to fly movement.

The first attempt to eliminate the Nagupande focus was made with insecticides in July to September 1961 but failed. The reason for the failure lay in our inability, with the professional staff available to us, to get enough insecticide on the right places in the limited time available. A start had been made in the much longer process of opening up for settlement land still undeveloped along the defence line in May 1961. By this time 8000 head of African owned cattle in the reserves covering the Kana and Shangani Rivers were being maintained in health by use of drugs, while on the European owned Karna Ranch several hundred head were similarly protected. During this period (from mid 1961) surveys were being carried out to discover if there

One G.morsitans was taken on the Manganganga River, a small tributary of the Shangani just east of the Karna Ranch, in September.

Meanwhile the Gwaai farmers began to urge that a large-scale game destruction operation should be undertaken between the tsetse belt in the north and the Wankie National Park. Whatever problems such an operation might have solved, it would not have had any effect on the trypanosomiasis problem unless it was accompanied by the evacuation of over 8000 head of cattle in the African areas on the Shangani and large numbers of European owned cattle on the Karna Ranch. Since these cattle had been kept in health with relatively little expense by drugs for several years the Veterinary Department did not support the proposal.

In April of this year five animals were found to be infected with trypanosomiasis on the Sotani Ranch just south of the Falls Road about ten miles west of Lupane. African owned cattle around Nduna, just north of this ranch had been receiving drug treatment since March 1961, It is emphasized that there has been no sudden deterioration in the situation. The decision to intensify action at the present time was taken for three reasons. First the Sotani infection showed that the spread of disease was still continuing; secondly three more G.morsitans had just been taken in the Manganganga area indicating that a population of tsetse might be building up there and thirdly there were indications, in some of the African cattle about ten miles north of the Falls Road, that routine drugs were becoming ineffective and a new regime would have to be instituted. In any case much further spread of infection would put a great strain on veterinary staff resources already heavily involved with other duties.

Basically the plan now being implemented involves no departure from the previous plan, except that the Nagupande focus is to be attacked initially by game destruction and the bush clearing work is to be intensified and immediately concentrated on the Manganganga area. The decision to use game destruction on the Nagupande was only taken after considerable thought. It covers a very small area - only 200 square miles as compared with the former 1200 square miles formerly shot out in the Sebungwe area, while only

those species of immediate importance to the tsetse fly problem are to be destroyed. Initially it is hoped that the opening of this area as a Controlled Hunting Area during the present hunting season will have the effect of driving out most of the bigger game, especially elephant and buffalo which are the species most likely to be effective as carriers of tsetse. The area is already fenced and protected to the south by an existing game fence and the movement of large animals out of the area will therefore be in a northerly direction and not south into the cattle areas. At the same time another fence is being built to enclose the Nagupande area on its northern borders. This fence will finally be closed at the end of the hunting season, in September. Thereafter an intensive attack will be made by fifty African hunters, controlled by Veterinary Department staff, on the four species of game animals known to be of chief importance as hosts of tsetse-fly, warthog and kudu (forming the principal food supplies of G. morsitans) and bushpig and bushbuck (the principal hosts of G. pallidipes). Incidentally this operation will implement a proposal often urged in recent years by those interested in game conservation, that an experiment in selective shooting of game, based on modern knowledge of tsetse feeding habits should be undertaken to demonstrate, as much evidence already suggests, that many animals, for example impala, zebra, duiker, are not hosts of tsetse-fly. Every effort will be made to concentrate as much scientific observation as possible on this operation.

However, the Nagupande shooting is only part of the scheme. More important from the view point of the justifiably anxious Gwaai farmers, is the bush clearing which has already started on the Shangani and its tributaries. The felling of the fly habitat in the Manganganga area should be completed within two months and the work will then continue into the Karna Ranch and thence northward along the rivers which provide the principal paths of tsetse infiltration. To intensify the immediate effect of the clearing, insecticides will also be used and, as well, will be applied to river systems which will not come under the axe for a year or more. Finally, the continuing and intensified development of the area will lead towards the final objective which is the elimination of all bush capable of harbouring the tsetse

To conclude: infection with trypanosomiasis can and does occur many miles from established tsetse populations. It is not true, therefore, to say that there is fly on the Gwaai. There is not. The foregoing will also serve to correct another misrepresentation in recent press articles. There is to be no shooting in the Gwaai area (the Nagupande River is forty-five miles north of the Gwaai) and there is no intention of changing the policy of the Federal Government to avoid, whenever possible, the use of game destruction. The very considerable successes, recently achieved in holding another large advance of tsetse in the Sabi valley, without resorting to shooting, encourages the view that the Shangani-Gwaai problem will also be solved.