

Article 12

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Thanks to the co-operation of the Game Department it has been possible to make a somewhat brief survey of the tsetse position around the shores of Lake Kariba. This survey has shown that the rising waters of the lake and the consequent formation of temporary islands are presenting opportunities for various types of investigation which, I feel, it would be a pity not to take up.

If it were possible, as I think it would be with the further help of the Game Department and the use of a boat and an outboard engine of our own, to conduct some experiments and observations in this area, the work could be along two main lines. Firstly, there would be the work on the tsetse fly - probably both G. morsitans and G. pallidipes involving the setting up of fly rounds on islands, promontories and the mainland, and also some marking experiments. Secondly, an ideal opportunity is presented by the game rescue operations for the conduction of a survey of the incidence of trypanosomiasis in game animals.

Tsetse

In the flooded area of the Sanyati river not far from Kariba there are situated several islands of various sizes. The vegetation on these is, as one would expect to a certain extent, mostly mopane, since the lower lying riverine vegetation and thicket are the first to be flooded. The mopane is now beginning to become dry and shadeless as the leaves fall, and normally the tsetse would be moving out. In many cases, however, they seem to have been trapped, usually with game animals. One large island from which game has not yet been removed was visited. A brief search for tsetse was made and though none were found this may have been due to it having been the hottest time of day (2.0 p.m.). If tsetse were found on this island, or indeed on similar ones, it would be an excellent one on which to follow the disintegration and destruction of a fly population. A fly round set out sometime in the near future before the animals are taken off would enable one to follow changes in A.D. and female percentage as the food source was removed. A record would also be obtained of what animals were providing the food and smearing of the animals and dissection of flies might give some idea of the trypanosome position.

On another smaller island not far from that described above a number of tsetse were seen and two stage 4 males, 3 females and one ^{General} male G. morsitans were caught. The interest of this island lies in the fact that the game animals, some seven impala, five warthog, two bushbuck and a honey badger, had been taken off exactly a week previous to my visit. I also managed to get back there a fortnight after this event finding the island considerably reduced in size and no tsetse present. On another island in this group also with no animals several tsetse were again seen and three female flies and two teneral males caught. Islands such as these might, I think, be of interest to Dr. Bursell.

Further work on tsetse could be conducted on a promontary which extends out into the lake between the Nyanyana and Naodsa rivers. Survey on this showed duiker, stembok and kudu to be present and three stage 3 and two stage 2 male flies were caught. This peninsular will be an island possibly within the next fortnight or three weeks and therefore presents an opportunity to study the fly as it becomes isolated. A control fly round could be set up on what will be the mainland for fly were certainly present on the ridge; the continuation of ~~the ridge~~ ^{which} forms the peninsular. There is the danger however that these tsetse will move out of the mopane on the ridge before very long and into the thicket vegetation of the valley in which the density is already extremely heavy.

Trypanosomes

Game rescue operations in the Kariba area are now well under way and work is at the present time being conducted in the region of the Bumi river. During the three days I spent in this area at least 70 animals, mostly impala, warthog and bushpig were captured in nets and transported to the mainland to be released. These animals are all marked with numbered metal tags and I feel that if they were also smeared and the slides stained for trypanosome, some interesting results might well be obtained.

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