Sera which were weakly stained by the benzidine reagent were very frequent in the material we tested. Presumably, minor differences in the technique could have led us to classify them in the 'ahaptoglobinæmia' group. In such populations, if the size of this group is so largely dependent on the technique, it will be very difficult to make accurate comparisons from an anthropological point of view.

A more detailed report will be given elsewhere<sup>6</sup>.

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## BIOLOGY

## Translocation of Wild Animals as a Means of Game Control

A PRELIMINARY trial in the translocation of the herd of kob antelope (Adenota kob thomasi) at Lugari in Kenya was made in June of last year (Buechner, H. K., Harthoorn, A. M., and Luck, C. P., unpub-lished work). The herd in question numbers some 500 head, and is the only herd of kob in Kenya. Its existence in this number on the farm- and ranch-land of Lugari cannot be supported by the landowners. Moving part of the herd to other areas is the only alternative to destruction.

During the first eight days of the scheme early in March of this year, forty animals were darted, using one Capchur gun and Crockford syringes. Of this number 13 failed to go down; this was discovered to be due to a fault in loading, with resulting syringe blow-out between leaving the gun and entering the animal; three animals escaped on the first day due to faulty construction of the holding area; and three animals died during immobilization. Whereas deaths due to succinylcholine had not been reported previously in the course of immobilizing some sixty males, it appears that the female, possibly only the pregnant female, is more susceptible. After adding atropine to our succinylcholine solution, as is our routine practice with animals such as buffalo, no more deaths from this cause ensued. Among the first animals caught, two died from injuries caused by their efforts to break out of the stockade. Adequate thatching of the inner face of the perimeter stockade will possibly prevent this in the future, as will the presence of tame animals. Furthermore, these animals had not been tranquillized with 'Largactil'.

Twenty kob were ready at the end of the eight days for loading on to a truck to be moved to a game reserve 320 miles away. Of these, 18 were females, the greater number of whom were clearly pregnant ;

two were sub-adult males. The extreme tips of the young horns of the males were removed and the ends covered with strips of 'Elastoplast'. They were caught one by one by being driven into a crush, injected with 'Largactil' (chlorpromazine hydrochloride) and placed in the darkened truck interior. There they settled down immediately. The inner walls of the lorry had also been lined with grass.

The first attempt at moving these animals from the holding enclosure failed. The crush at that time opened into a small catching chamber where it was hoped to hold the animal by manual restraint while the injection was being made. This proved to be quite impracticable, and some injury was inflicted on the handlers. A modification whereby the animals ran through the crush into a specially constructed slatted box, where they could be tranquillized and afterwards moved to the truck, proved to be satisfactory. It was found convenient to drive the animals into the crush at dusk. Artificial lights were used to encourage the animal to move towards the slatted box. The animals were transported during the night to avoid overheating-an important factor in tropical climates.

In the first batch moved there were a dozen females and one male. All arrived safely at the new Meru Game Reserve, having travelled a distance of 320 miles.

The trial has indicated that the number of animals that can be caught by one gun or other projector, and moved per week, can be at least doubled with increased experience and improved equipment. This method of game control has now been shown possible. It is hoped that the principle of removing wild animals from contested areas will be used with increasing frequency instead of the destruction that has been practised up to date.

We wish to express our gratitude to the farmers in the Lugari area for their co-operation with us on this scheme. Equipment was supplied by the Kenya Game Department and the project has been assisted by a grant-in-aid from the Fauna Preservation Society, London. The succinylcholine chloride was kindly given by Messrs. Burroughs Wellcome (East Africa), Ltd., and the 'Largactil' by Messrs. May and Baker.

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## Effect of Penicillin on the Maintenance of Rumen Oligotrich Protozoa

It has been shown previously<sup>1,2</sup> that sheep rumen Entodinia spp., principally Entodinium caudatum, could be grown in vitro, dividing every 48 hr. on a medium of salts, dried grass, rice starch, chloramphenicol and fresh or autoclaved rumen fluid, but that it was necessary to add fresh grass and rice starch to the medium every day. This communication describes the successful maintenance of these Protozoa in the presence of penicillin for periods up to 14 days without daily additions.