



TISSUE LIBRARY

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Several minute pieces are collected from each, and immediately placed in preservative solution in small labelled jars.

The collection should preferably be made within half an hour of death, depending somewhat on the temperature and the size of the animal.

Back in the laboratory, the preservative solution is changed several times, until the pieces have been thoroughly penetrated and the real process of preservation is then begun.

The latter is a lengthy procedure requiring several weeks per tissue. The pieces are taken from the preservative and put into low-percentage alcohol.

During the ensuing days, the alcohol concentration is gradually raised, until the last vestiges of water have been driven out.

PRESERVED

Then we place them in wax solvent such as Xylol; the tissue can then be subjected, usually under vacuum, to a mixture of Xylol and wax penetrating the tissues completely.

Eventually, the tissues are cast into individual and labelled blocks. In this state, they can be preserved indefinitely, and the wax forms no barrier to the cutting of microscopically thin slices, each only a few thousandths of a millimetre thick.

Cutting, removal of the wax, staining and mounting of a microslide can be done at a later date.

CAN anything else be done with these tissues besides forming a reference library of healthy animal tissues?

The library is a first step and we must know the normal before we can study the variations therefrom.

At the same time, however, the study of these tissues will give information with regard to the nutritional state of the animal, the prevalence of nutritional and metabolic disorders and the reproductive activity.

MAXIMUM USE

Currently, the parallel studies being started with the help of other scientists are:

The geographical pathology of muscular dystrophy and the species' susceptibility;

The function of skin glands in relation to the reproductive and migration cycle;

The micro-structure of the placenta, particularly of animals such as the elephant;

We hope, however, that this is only a beginning and that the specimens now being collected will form a basis for a large number of other studies.

The principle we are now working on is to make maximum use of the greatest number of animals which must be killed in Kenya and further afield in East Africa.

In doing this, we hope to provide against such a time in the future when these animals may be too precious to kill, by assembling knowledge to be used for their conservation.

The preserved tissues will enable further work to be carried out as needed and as scientific method advances.

A. M. HARTHORN.

Warden of Meru Game Reserve Ted Goss and his new charges. (Right) The White Rhino were "acclimatised" with help from Mr "Billy" Woodley, Warden of the Aberdare National Park

WHITE RHINO IN KENYA

SIX WHITE (or Square-lipped) Rhino have arrived in Kenya from Southern Africa and are providing one of the most vital experiments in translocation ever undertaken in the country.

Wildlife experts listed for AFRICANA six important points concerning the experiment:

1. From a small nucleus of some 30 animals — all which remained of formerly great herds — White Rhinoceros have increased in numbers to the extent that they were over-populating areas available to them in Zululand.

And because they are among the few survivors of the species left in the world, it was thought advisable to disperse this now growing population ensuring the species' continuation.

2. The habitat in Meru Game Reserve, Kenya seemed exceptionally favourable for this particular animal. Meru's grass types are very similar to those to which the White Rhinos were accustomed in Zululand; so also is the type of bush.

At the same time, other game is scarce in Meru, which was proclaimed a game reserve only recently.

3. The presence of prodigious grazers like the White Rhino should improve the grass for other game. This species is an animal which customarily keeps grass short and sweet, improving the sward.

In one of their lips is a cartilaginous strip which assists them to graze very closely, rather like the hippopotamus.

4. The White Rhinoceros is an extremely attractive animal — fairly tame and not as wild as the Black Rhinoceros. It is easily seen, and because of its rarity in East Africa, it should therefore attract tourists to the Meru area.

5. The Meru Game Reserve is one which has a very well-defined natural boundary and the animals can be kept conveniently in sight. They can thus be prevented from wandering away.

6. "This is an extremely interesting scientific experiment," said a wildlife expert. "We are re-introducing the White Rhino into a country from

which they disappeared some time ago.

"There are no records, but it is probable that they disappeared through hunting, for they are easy prey.

"These six animals are doing well so far. They are putting on weight and we know of no reason why they shouldn't live and breed in Kenya, particularly in Meru.

"At present, they are being accustomed slowly to their new home under very careful observation and supervision. They undergo regular medical checks, and small blood samples are submitted for microscopic examination."

Records are being compiled of their behaviour and of the way they are adapting themselves after a period of confinement in cages.

They spend their nights in small paddocks and, during the day, are released in very large paddocks, all together.

Sometimes, when rhinoceros have been separated for some time, or have come from even slightly different areas, they fight.

But in Meru they seem to be reasonably friendly and have formed into two groups of three — one group containing two females and the other group, one female.

They graze in their groups, bearing no animosity towards each other.

It is now planned to extend the large paddock. Eventually, the rhino may be completely released under a system of herding.

They can even be driven home again in the evenings, so that checks against local disease conditions can be made over their first year.

The wildlife expert summed up this way: "I think that when we consider very large ecological areas in Africa, politics shouldn't come into it at all."

"This is a natural ecological experiment and I think that all countries will benefit a great deal from it."