

MIOCENE SEDIMENTS IN SOUTH TURKANA.

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From the work of C. Aramburg, V. E. Fuchs and others sediments yielding a Miocene fauna are well-known from North Turkana, while the Turkana Grits of the Lokitaung Gorge, believed to be part of the same series, have yielded fossil wood (*Dryoxylon*) considered to be of Oligo-Miocene age.

In South Turkana, A. M. Champion has recorded a small area of Turkana Grits a few miles east and north-east of Loperot, which lies about 60 miles south-south-east of Lodwar. On a recent geological map these are shown as resting on the Basement Complex along the eastern side, and elsewhere as surrounded by volcanic rocks, here mainly basic. In this area the Grits form white-sided tabular hills possibly 200 to 300 feet in height; they are not capped by lavas, but between this outcrop and Loperot ridge there are lower hills of similar appearance, but interbedded with lavas, while Lodwar ridge itself contains, at the foot, two 6-foot beds of white, mauve, and red more or less ashy grits interbedded with basalt and tuffs. Lodwar ridge is about 200 feet high and consists mainly of basalt. It would therefore appear, in view of the general gentle westerly dip of the sediments and lavas of this area, that the main Turkana Grits series is also dipping in this direction and is interbedded with lavas at the top.

The object of this note is to record the existence of a considerable area of interbedded lavas and sediments south of Loperot which have yielded a Miocene fauna, as identified by Dr. L. S. B. Leakey. These beds form an extension of the Loperot ridge group; they are well-exposed in the vicinity of the road running south from Loperot for a distance of eight miles or more, and over a width of several miles on either side of the road.

The country comprises a flat more or less sandy plain, with patches of volcanic rubble, on which appear low hills a few score feet high and river bluffs exposing alternating lavas and sediments, all showing a just perceptible westerly dip. These conditions extend to a few miles west of the road, where the group passes under the main volcanic escarpment that runs for many miles in a general southerly direction. From the road the sediments of the ridges and the scarp foot are easily picked out by their common bright red colouring, and similar beds extend eastwards also along the southern foot of Loperot ridge.

At a point six miles south of the foot of Loperot ridge the road crosses a stream course overlooked by a striking red bluff about 30 feet high. This consists of faintly-bedded, locally current-bedded, fine-grained sediments ranging from mudstones to marls and fine to medium sands; the colours range from pale grey to pink and red. These beds yield innumerable tortoise scutes and some mammalian remains.

A mile or two northwards of this point along the road, and a mile to the west, across a flat lava rubble plain, there are low hills, up to 200 feet in height, standing out about a mile from the foot of the main escarpment, which is upwards of 500 feet in height. The constituent sediments yield numerous scutes at several points, but around the foot of the highest of these hills they yield also numerous mammalian remains including *Dinotherium Hobleyi*. The hill referred to consists of 140 feet of apparently unbedded, or but faintly bedded, pink, reddish, pale green or grey sandy clays passing to clays at the top, where they are capped by about 50 feet of basalt.

Passing under the lavas at the foot of the main escarpment, about a mile farther west, is a 15-foot band of red very coarse to pebbly friable sandstone followed by 10 feet of hard pale-grey to white thick-bedded, current-bedded, coarse sandstone with sub-angular pebbles closely resembling typical Turkana Grit, except that in the latter the pebbles are usually well-rounded.

There are doubtless numerous other localities yielding additional mammalian and other remains, and there is every reason to believe that this area would well repay systematic examination.