



q-9. At Bendula. Very dark. Shows brush and ox team in the back.

November 4, 1919. From Marandellas on the country is almost exactly like that seen at Pretoria. There are Proteas, Strychnos and many other genera common. Granite boulders, one piled on top of another, are characteristic of all this country. There is almost no cultivation along the railway. Wherever fields occur there is corn. The trees are for the most part from 10-15 high and the grasses about 4 feet high. There are a great many shrubs in places. Fire runs through this type of vegetation each year and damages the trees to some extent, but apparently does not kill them. The Proteas are white-flowered (possibly *P. abyssinica*). The soil is not red, but a slate or lighter gray, and appears to be very deep. The vegetation shows very little variation.

In the case of a great many plants the underground portion is the only perennial part. The aerial portion is pushed up each year and burned back to the ground each year by the grass fires.

Arrived at Salisbury at 7 a.m. and left at 1 p.m. This city is

spread over a wide area. The street trees are not attractive. A few of the tall *Casuarina* are planted here, but most of the trees appear to be native. S.P.I. 49200, *Caesalpinia sepiaria*, is a weak shrub, with strongly recurved hooks. Forms an absolutely impassable hedge and one which ~~it~~ is almost impossible to resist. It is a true wait-a-bit. See Herb. 377.

The open country about Salisbury consists of a great grassland with scattered trees, which in places on more rocky soil form clumps not unlike the dry forest. Wherever the grass has been cut the herbaceous growth becomes very prominent and rather luxuriant. This consists quite largely of coarse legumes, vigna-like, such as *Bampinia fassoghensis*. .



01-10. A general view of this grassland, shows the grasses, composed largely of *Themeda*, the coarse herbs largely *Bampinia* and scattered trees in the background.



01-11. Practically a duplicate of 01-10.



01-12. Shows a cut over area in which the growth of herbs is shown. Although the country appears to be pure grassland the number of herbs is of course relatively great.



Pl-1. The grassland with typical clumps of trees in the background.



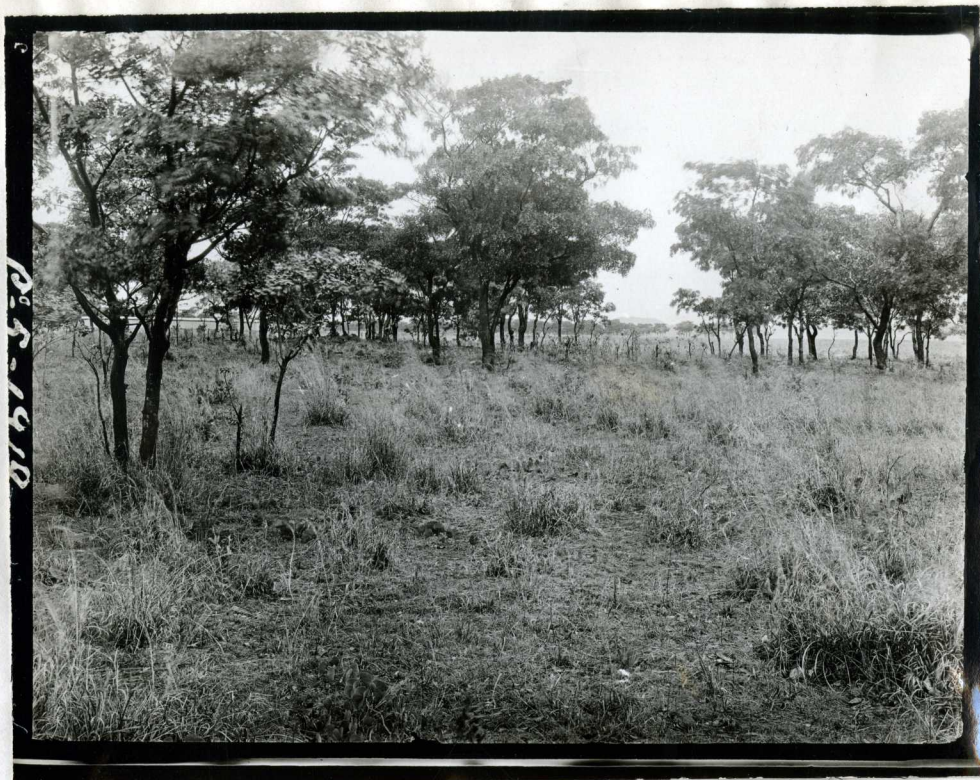
Pl-2. A team of oxen hauling wood to Salisbury.



P¹-3. Ox team with native driver hauling grain to Salisbury.



P¹-4. A detail of the grassland. Shows a considerable quantity of Cymbopogon and relatively small trees in the background.



P^l-5. A detailed view of a grove of trees which practically constitute a dry-forest type.



P^l-6. Detail of trees on rocky outcrop.



Pl-7. A detail in the denser portion of the tree growth.



Pl-8. A detail of grassland in the fore, with trees in the back.



Pl-9. Gladiolus.



Pl-10. Cut-over grassland. Shows luxuriant growth and scattered herbs. The most prominent tree is Brachystegia, see Herb. 376. This is the most prominent tree in the region of Salisbury.

The grassland is uniform and filled with herbs, which begin growth much earlier when the grass is cut or burned than they do when it is allowed to stand on the ground.

The soil is red and very sticky when wet.

Left Salisbury at 1 p.m. for Bulawayo.



r-4. Shows grass with hill in background over which is scattered an open growth or relatively flat-topped trees.

One of the most characteristic things about these African hills is that just below the top of the hill there appears usually a white streak of sky, due to the fact that the trees are relatively flat-topped and that those on the crest permit the light to pass through underneath, giving a peculiar open appearance so characteristic of all the mountains of Africa which are covered by dry forest type.



r-5. Is a detail of the vegetation at Norton. It shows the rather dense, almost brush type.



r-6. A detail at Lydiate. This land has been burned over. Trees stand out above the charred land surface.

All this country is open grassland with scattered low trees. It is

not as rocky as the region was east of Salisbury. The termit hills have formed low mounds and on these the trees are likely to be clustered. There is also a tendency for them to mark rock outcrops.

Makwiro. Elevation 4307 feet. A very pretty place, but very little agriculture about here. The soil is light or ash colored to about 3 feet, with gravel or ironstone below, which seems to form a hardpan. The trees are exceedingly varied here. There are Strychnos, Protea, Burkea, Bahinia, and a great many other trees, especially those with long, large pods. The grasses are relatively dense, forms about half sod, quite similar to bunch grass of Western Nebraska, in its type of cover, but seemed more even. There are also trees of Ficus and Combretum.

Selous. elevation 4027 feet. A low open forest, grasses almost secondary. Great varieties of trees make up the forest of this place.

Hartley. An open low forest, very even distribution of trees. A deep red soil.

From this we passed into clay, shale-like soil. It looks waterlogged at times. And here we find almost pure acacia, which occurs principally on the ant hills. This type soon changed back to the old type.

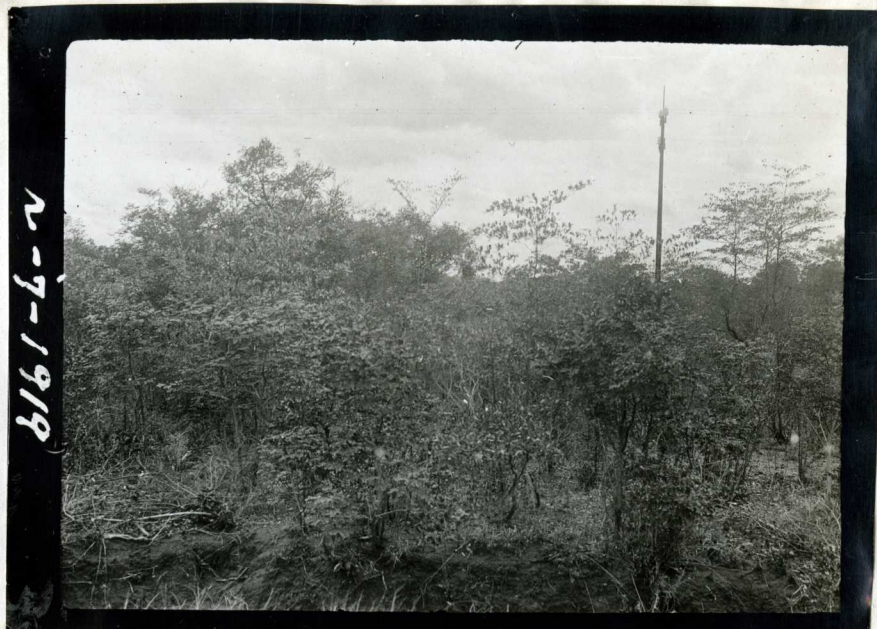
It is now too dark to take snapshots

Chigwell.

r-8. An attempt to secure a photograph of the rather dense tree growth at this place. There are now large trees here and it is rather dry. There is comparatively little pasturage. Grasses are coarse. There are a few poor looking banana plants here.



(r-7 and
r-8 are in
reverse
order)



r-7. An open low forest. Grass almost secondary in importance.

Very large ant hills occur here. The very largest trees occur on these ant hills.

This is not an especially good agricultural country. The corn will yield only about two bags to the acre and it is not especially good grazing. It is generally said to be no good for ranch or farming, since water is very difficult to secure.

Walmar Park. Large number of trees of Combretum in the dry forest.

Bulawayo, Southern Rhodesia, November 5, 1919. Arrived at 7 a.m. The vegetation about Bulawayo is similar to that of Pretoria, with almost no change. The trees are for the most part small and scattered. Seldom over 12-20 feet high. Grass apparently about 3 feet high and soil 2-3 feet deep to a calcium layer. Ziziphus, Combretum, Burkea, Acacia albida, and many other trees occur here.

At this point I met Heller and Scott and prepared to go on on the inland route, while they prepared to go on up the coast.

November 6, 1919. Out early collecting and photographing.