possibly be a Rhus, but has been called Lonicera in my notes to date because of its habits and growth.

Herb. 135 is rather common and apparently constitutes one of the principal elements of the clustered shrubs. They are very well covered with fruit, which are now dry, and these fruits are eaten by animals. This plant is a Diospyros.

From fecal examinations the elephants appear to be fond of Schotia (Herb. 115).

S.P.I. 48521. This plant, Leucospermum linniare (?), collected at Port Elizabeth on September 3 (see Herb. 107). It is probably the same as the one photographed at Kirstenbosch (See G 12).

September 8. -- This was a day of considerable excitement, since the cavalcade went off early in the morning after elephants. It consisted of Major Pretorius and his corps of black gun bearers and the dogs. Two elephants were shot and one wounded and a small, rather light-colored bull calf captured. This calf followed the boys into camp. Nothing more strange to me than to see this 10-months old elephant follow men whom it had never seen up to that day as faithfully as a pet dog, keeping so close to them that its small trunk would touch their heels at every step. When once in camp it refuses to be left alone. We now have two elephants in camp. Herb. 127 to 140 were collected today.

September 9. Everybody up early and off on a treck to the dead elephants. The party consisted of Major and Mrs. Pretorius, Miss Godfrey, his secretary, Mr. Shaw, an animal

trainer from London, Mr. Raven, a mammalogist, Mr. Thierry, a journalist, and myself. We were also accompanied by 4 to 6 Boer farmers and about 2- natives. In this cavalcade the natives, Thierry, Shaw and Shantz were on foot, while the others were mounted. We pushed on 8 miles through a dense thorn forest, the brush in many cases being so dense that to stay 10 feet behind meant great difficulty in following the trail. The Boer farmers were very much excited for fear we would all be killed by elephants, since this herd had recently killed 7 men. The forest is largely thorn of several kinds. Those collected for herbarium specimens are the most important.

Usnea hangs from all of the large trees, especially Schotia , and gives the whole bush a weird, rather wonderful appearance.

Aloes are abundant and constitute one of the principal foods of the elephants.

In many places the ground had been plowed up by the elephants for roots, which they seem to relish, and in many places much of the other vegetationwas broken down.

Although the trees are of relatively good size, 10-12 feet high, the elephants pass through almost as if nothing existed there.

One of the principal foods of the elephant is Portulacaria afra (See S.P.I. 48510).

Speckboom. Tree often 8" in diameter, but for the most

part soft and edible. The elephants feed chiefly upon this plant and upon roots, aloes, and on the pods of the Boerboon or Schotia.

The density of this bush is so great that Major Proterius is unable to see the elephants at a distance of more than 6 paces. It is terribly dangerous, but he apparently never fails to kill the elephant or drop him at least with the first shot. He has shot as many as 9 elephants at a single charge without any assistance.

His usual method of hunting them here in the bush is to send the dogs ahead as soon as the elephants are located. the elephants band together and charge, and the Major stands ready for any who charge in his direction. After we had passed 8 miles up hill and down, through dense thorn which lacerate the clothes and hands, we arrived at the first bull elephant, and by a process of orientation on the part of the Major which is entirely beyond my comprehension. It is all but impossible to find your way through the bush, and we were forced to keep together in order not to be lost. Here we had a breakfast on elephant meat, with absolutely no water, since the native boys had shaken the bags to such a extent en route that all the water had been shaken out. We some times suspected they used some of it themselves. At least the Major was so put out he would gladly have dispensed with the whole troop, but although the native may be most aggravating, he is necessary at all times.

Mr. Hill of the veterinary department of the government

had come on early for the purpose of examining the elephants for parasites.

We were forced to use Barroe as a water supply, and here I collected a beautiful asparagras, herb. 141, S.P.I. 78, but which apparently died en route.

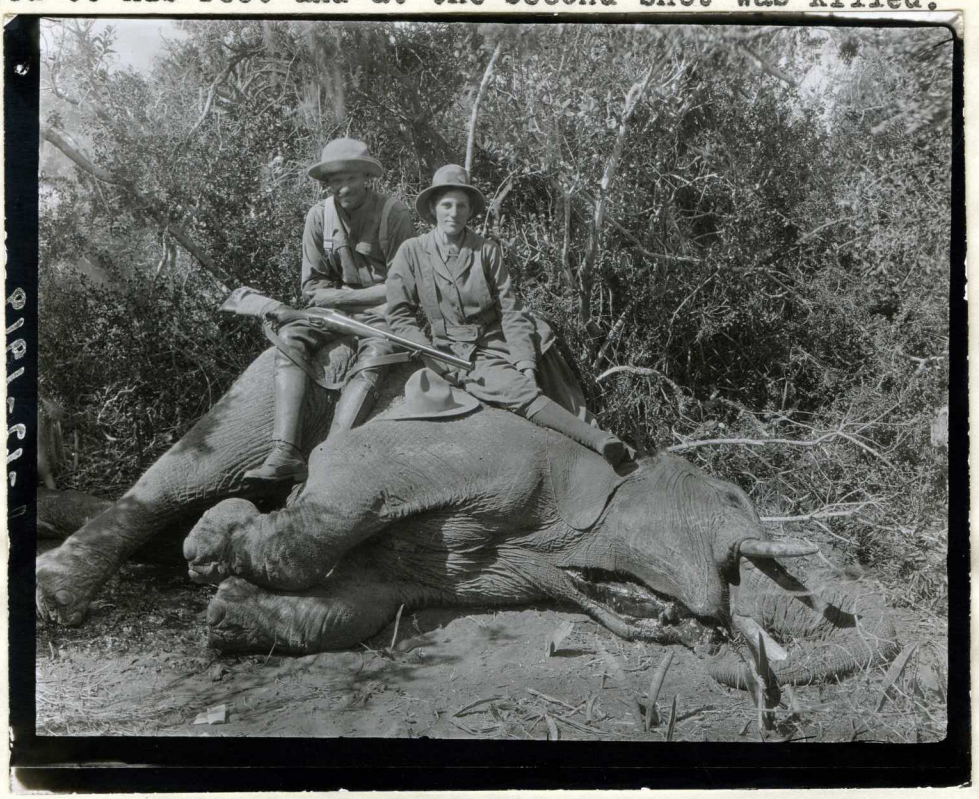
A number of photographs were taken in and about the places where the elephants were killed.

L 9. Shows one of the dead elephants, with Mr. Shaw, the elephant tamer, and one of the native boys in the background.

L 10. Shows a dead elephant and Major Pretorius. The Major wears a leather coat which he has taken off temporarily. It would be impossible to go through the bush in ordinary attire.

L 11. Another view of the same elephant shown in L 10.

The elephant shown in the 3 preceding pictures was shot by the Major while lying down and asleep. He came behind suddenly in the bush and fired. At the first shot the elephant jumped to his feet and at the second shot was killed.



L 12. Shows another elephant killed in the Addo Bush. Major and Mrs. Prëtorius in the photograph. Some idea of the density of the bush can be obtained from the background. The plants in the foreground are Sansevieria.

M 1. A dead elephant, with Miss Agnes Godfrey, the Major's secretary. Major Pretorius is writing an auto-biography, and spends several hours each day in dictation.

M 2. Three Americans who were in the elephant camp: H.C.Raven of the Smithsonian Institution; E.M.Thierry of the News Enterprise Assn.; and H.L.Shantz of the U.S.Dept. Agr.(We did not kill any of the elephants, but helped to eat them.)

M 3. Mr. A. L. Hill of the veterinarian department of the Union of South Africa had the task of looking over these dead elephants for parasites. Blood parasites, surface parasites, as well as intestinal worm parasites were collected by him. He is shown here at work in the elephant camp.

M 4. A tuskless male elephant.

Major P.J. Pretorius is a professional elephant hunter, and shoots these animals while charging them, the first shot being fired when they are about within 18 feet. He is employed by the government to kill off a number of this herd, because of the damage they have done to agriculture in the region. Many people have been killed by them in South Africa. They are regarded as an unusually dangerous herd. Many of the most ferocious males are tuskless.

M 5. Major Pretorius and Mr. H.C.Raven. The photograph is taken to show the size of the ear of the South African elephant.

M 6. The head of a tuskless male elephant.

M 7. This photograph shows Maj. and Mrs. Pretorius, Miss Godfrey, Shaw, Hill, Thierry and Raven. (The horses were left with the native boys and the white members of the party pushed through the brush for some distance in passing from the point where the first elephant was killed to one of the later killings) The undergrowth is largely of Sansevieria.

M 8. Similar to M 7, but to give some idea of the density of the bush.

The trip back to camp was rather exciting, since twice the dogs started on the chase, and all waited, not knowing what would happen. Elephants, buffalo, spring buck, black leopards, one of the numerous wild cats, ant bears, or ostriches might have been the cause of the excitement of the dogs. Major Pretorius was the only one in the party armed, and would ask his party, in such event, to stand still while he galloped ahead to ascertain the trouble. Generally the impatience of Mrs. Pretorius would lead off the cavalcade of horsemen, leaving the three pedestrians, Shaw, Thierry and Shantz, alone in the bush, with no means of protection, and not knowing exactly what to do in case we came in contact with the elephant herd. The first cause of excitement proved to be nothing but an ostrich, which came tearing through the bush, followed by the

dogs. Later a terrific crash in the bush near us prepared us for almost anything, and after some few exciting moments a cow burst through almost at our side and fell to the ground as a result of clearing the tangled branches and coming suddenly into an open space.

The Boer farmers were very much excited and almost succeeded in arousing the rest of us to fear of this bush.

A distant view of the bush is very interesting, as it looks very much like California oak or chaparral, with its low trees and heavy, moss-covered branches, but there are no open spaces below. The Wacht-een-bietje (wait a bit), usually an asparagus, occurs everywhere and from this vine it is almost impossible to escape. It tears clothing and hands alike. There are also several plants of Ziziphus, which are also wait-a-bits. Sansevieria forms a rather dense undergrowth, and there are many lilies and many tuberous and bulbous plants. Thorns abound everywhere. Here also occurs the Testudinaria elephantipes, or the Elephant's Foot, a plant related to Dioscorea.

This bush, while it resembles in some respects the densest portions of our bush, is filledwith useful plants, while ours is usually made up of plants of no practical value. The Spekboom should be valuable in our Southwest, for it forms the chief food of the elephants, and I have seen children eating the leaves and small branches.

M 9. A portion of the Addo Bush, too dense to be penetrated, used as part of the enclosure of the elephant camp at Kenkelbosch.

M 10. Two young elephants, the nearest one passing under the name of "Jumbo", and the farthest one, which was captured only the day before, being called "Pretorius". The last named has a bullet shot in the front ankle, probably because of the excitement

of the gun bearers, who, when the elephants charge, become so terribly excited they lose their heads entirely and fire off every one of the reserve rifles, and usually hit nothing. In one place I collected about two dozen shells where the elephants had charged the Major and the gun bearers had fired the reserve rifles. This is done partly, I suppose, to frighten the elephants, an object not at all accomplished by this method of procedure.

M 11. The two young elephants and their keepers in camp in the Addo Bush. These natives are so-called Cape boys. Miss Godfrey, the Major's secretary, is feeding one of the elephants. These elephants are continually making a noise, grunting somewhat like a large hog and squealing excitedly at night when they roam about in camp and enter all the tents. They never lie down to go to sleep, but fall asleep standing up and later fall over. They showed a great liking for the camp fire and in a short time had toasted their front legs until they were raw.

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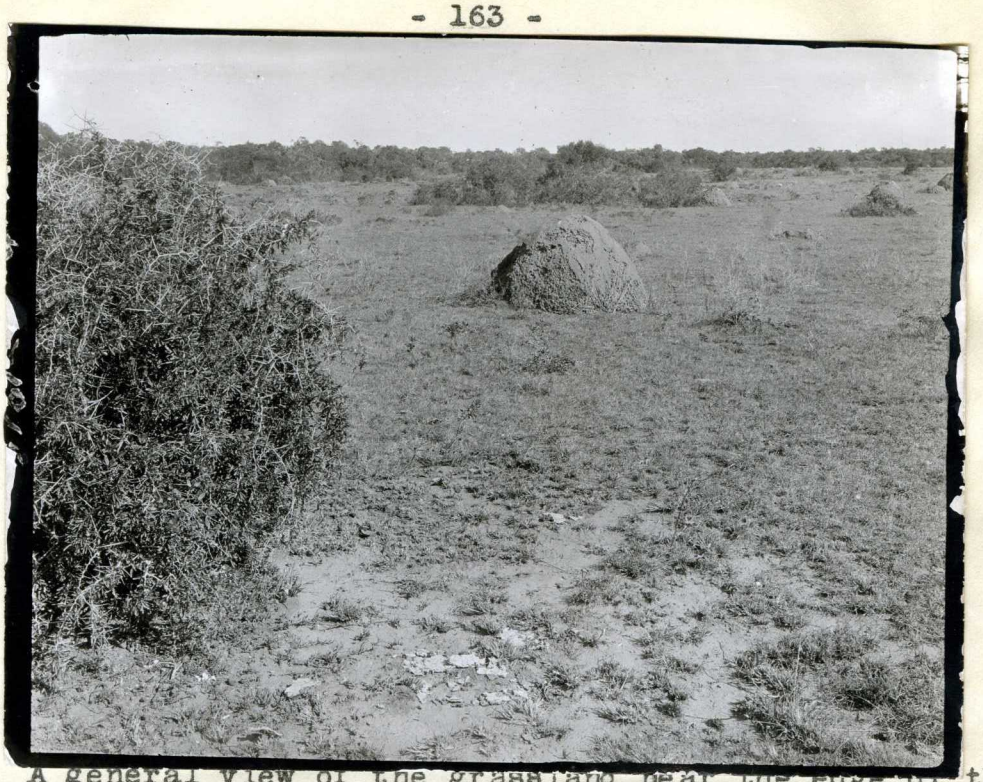
M 12. Major and Mrs. Pretorius with some of the dogs in camp. The large collie at the right was not allowed to go into the elephant hunts, for fear the elephants would kill him. He was particularly despized by the young elephants, who used to spend much of their time chasing him about camp. They would charge and squeal every time he came near them. In fact, although the elephants showed much friendliness to men, they never cared much for the dogs.

Practically the whole day spent in getting ready to leave, changing plans, packing trunks and duffelbags and having these hauled to the station.

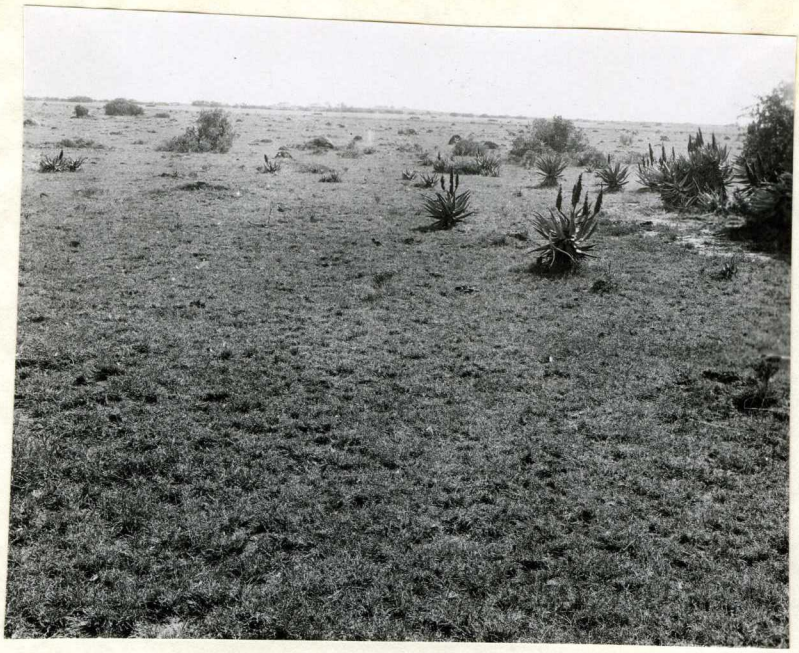


N 2. A general view of the grassland near the edge of the bush. Shows termite hills and Addo Bush at the left.

N 3. A general view of the grassland and in the background the enclosure which forms the elephant camp. This grassland reminds one somewhat of the western portion of our prairie.

N 4. Another general view of the grassland with the Addo Bush and termite hills in the background.

N 5. Typical genēral view.

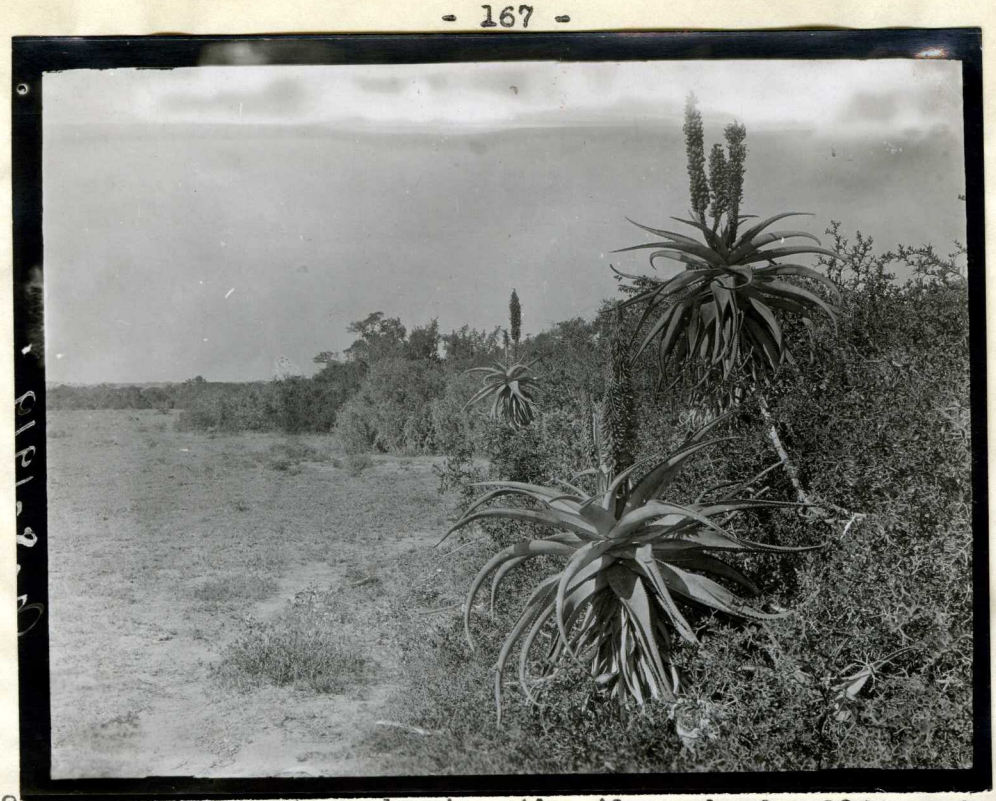


N 6. A general view, showing Aloe both in the bush and out in the grassland areas.

N 7. A closer view of the enclosure which constitutes the camp.

In general this country consists of a thick bush--the Addo Bush--and around the edges breaks up into alternating patches of bush and grassland. This is a beautiful, park-like country, The grassland is usually dotted with large termite hills. This place was visited at the end of a long, dry period, and even at this time was most interesting to the botanist, since many of the plants were coming into flower, especially the trees and lilies, although grass had not yet started to grow.

N 7. Soil sample-#2 was taken in this grassland; #2a represents the first foot, a light red loam; 2b, the second foot, almost the same in color and structure. At a depth of about 4 feet the soil changes suddenly to almost an ashen white.



N 8. A general view showing the Aloe, herb. 118, and the bush at the right, grassland at the left. This Aloe is one of the charactistic plants of the Addo Bush.

A fairly detailed account of the vegetation of the Addo Bush will be fowrd in S.Schonland's Botanical Survey of South Africa, Memoir No. 1, pages 20 and 21. Where aloe appears in the grassland it gives an appearance almost identical with the yucca grasslands of Arizona and New Mexico.

G 1. In camp in the Addo Bush just prior to starting on the expedition to the dead elephants. An attempt was made to remove the bullet from the front leg of the young elephant. It shows the group. The heavy man at the left is one of the Boer farmers, the man next to him, Major Bottomly, one of the officers of the bureau of mines at Pretoria.

General note. --In the Addo Bush the soil is deep and fertile, but droughts are of so long duration, although it is located only five miles from the ocean and the humidity is not very low, the whole appearance is that of vegetation adapted to drought conditions. The grasslands are marked by the regular appearance of termite hills. In periods of rain large land snails develop and the presence of the Usnea and an occasional orchid indicate high humidity during at least a part of the year. The farmers produce wheat, oats and meles (corn). Pumpkins are important as stock feed.

Thierry and I left Kenkelbosch at 12:15 noon. Mr. A. L. Hill wishes especially the Nebraska studies on ticks,

etc.

Just below the stationare great areas of sand dunes. Farther down these also occur again.

G 3. Shows a soil bank at the Sundays river. The first 5 feet of soil is red, and below this the soil is white.

G 4. Shows the bush above the Sundays river, and 2 wild ostriches in the fore.

G 5. Sundays river at the left and the bush country at the right.