

August 30. The country above Wolvefontein is covered with a very low shrub and overrun with sheep. It looks much like the bud-sage areas in Nevada. A little farther down *Euphorbia*, *Acacia giraffii*, and our *Opuntia ficus indica* with *Ziziphus* become especially abundant at Glen Connor at 722 feet elevation and 62 miles from Port Elizabeth. It forms a dense thicket, here known as bush.



ell. (Out of place). Shows the low brush type in the back; soil bank in the fore.





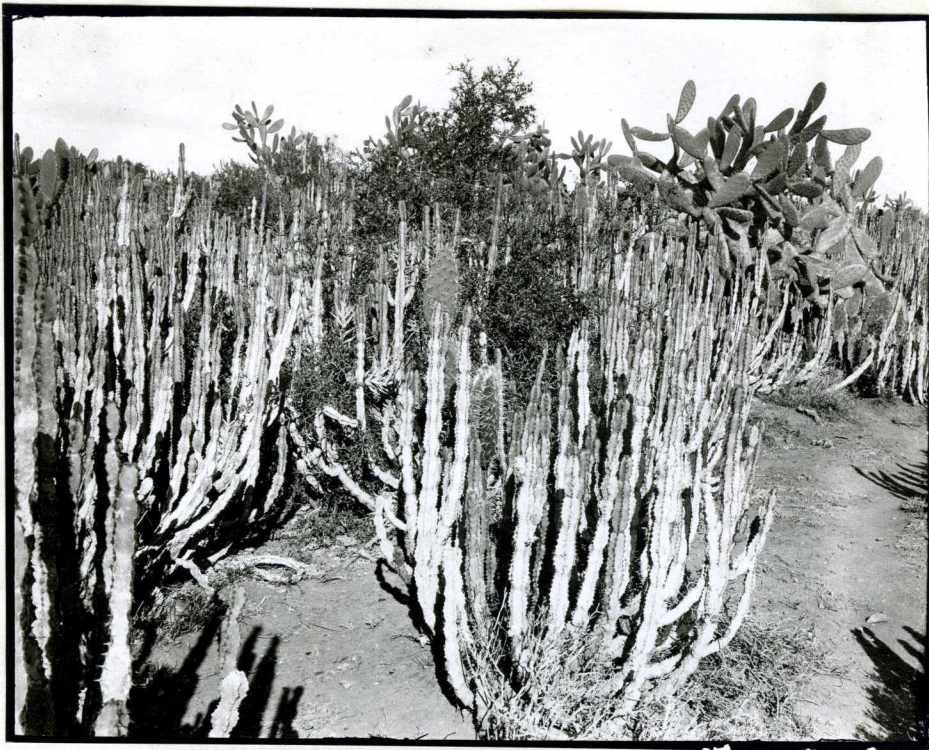
6 12. Shows the low brush in the fore and tall succulent Euphorbias in the back.

Bluecliff. A dense stand of Euphorbia, a small spiny columnar type about one to one and one-half inches in diameter, a dichotomous spiny Ziziphus, and a large number of Opuntia ficus indica were found here. The soil is dark red, the surface 12 inches a red loam on clay and below this a white rock which looks like a lime soil. The vegetation is very dense and apparently much of it is edible.



f 1. Shows low brush Euphorbia, Opuntia, Ziziphus, and an occasional Aloe.





I 9. A detail of vegetation at Bluecliff; shows Euphorbia, Opuntia, Ziziphus, and an occasional Aloe.



I 10. As above.





I 11. As above.



I 12. As above, but more of the small shrub in the foreground.





f 2. A view of a dense portion of this type of vegetation covering the hills below Bluecliff.

Centlivres. The desert here is still a thick, thorn bush. There is an enormous growth of *Opuntia* in places and an occasional field cleared for cultivation.

Sandfontein. Little change, more grasses and open fields and an occasional farmhouse.

Uitenhagen. Same type but irrigated land; beautiful hill country with gardens - cauliflower, cabbage, and sweet potatoes. Many of the houses in this section have roofs of corrugated sheet iron.

Red House. Here A. P. Nesbitt, of the Royal Flying Corps, who had traveled with us from Cape Town, left our compartment. The vegetation is gradually changing at this point to the *Protea* type or the *Erica* type of the Cape brushland. The line of demarkation should be drawn just above Red House. The river here is bounded with salted plants, the vegetation looking very much like our American salt grass.

We arrived at Port Elizabeth at 11:30 a. m. Major and Mrs. P. J. Pretorius met us at Brenton's Grand Hotel just after lunch. We discussed

the possibility of going to the Addo Bush and Mr. Pretorius welcomed us to this camp where he had already killed seven elephants and captured one. At this point Mr. Raven planned to collect mammals, while I would continue collecting plants. The Major also offered to permit any photographs to be taken which were for educational purposes only.

Both the Major and his wife are interesting and unusual people. The Major has been an elephant poacher all his life and knows the habits of the animal perfectly. He approaches the animals to within a distance of about six paces which is about as far as one can see in the dense brush. Mrs. Pretorius takes charge of the animal as soon as killed and dries the meat, which is sold as biltong, saves the skeletons and skins which are sold to museums. Their principal purpose for killing these elephants is that they are interfering with farmers living in the region, tearing down their fences, drinking their irrigation water, and occasionally killing the farmer himself. This is, however, the only self-sustaining herd of South African elephants and their destruction means practically the extermination of the race. Many of the males are tuskless and they remain in the thick bush composed largely of thorn trees which seldom attain a height over 15 feet.

August 31. Went through the Botanical Garden. Here we found the scale insects killing Cycads and Aloes, the latter plant especially is being exterminated in places by these uncontrolled pests. Two samples were taken:: Sample 1 on Cycads, and sample 2 on Aloes. In the afternoon a long trip was taken along the ocean front. The vegetation here is not especially interesting, since it is largely introduced acacias, and the soil is dune sand.



J 1. A female cormorant.



J 2. As above.



J 3. A closer view.

This bird showed practically no fear of man or the camera.

September 1. I went to the museum where I met Director Fitzsimons and Reverend John R. Kingon, of St. Andrews Manse, Victoria Park Drive. Mr. Kingon is especially interested in plants of *Mesembryanthemum* and promised to send on a large collection of these wonderful flowering plants. It might be well to take up the matter with him by correspondence.

In the museum there is a wonderful collection and no small amount of interest attaches to the live snake gardens which is attached to the museum. Here Director Fitzsimons has collected and studied the venom of practically all of the poisonous snakes of South Africa. Of these, the puff-adders and cobras are probably the most poisonous. The black mamba is perhaps the most dangerous snake in the world, largely because of its unusual agility and aggressiveness. The yellow, Cape cobra is one of the most common South African forms. Director Fitzsimons strikes a venom by