

the robin; but their songs are intermixed with several curious abrupt notes unlike anything English. One utters deliberately "peek, pak, pok;" another has a single note like a stroke on a violin-string. The mokwa reza gives forth a screaming set of notes like our blackbird when disturbed, then concludes with what the natives say is "pula, pula" (rain, rain), but more like "weep, weep, weep." Then we have the loud cry of francolins, the "pumpuru, pumpuru" of turtle-doves, and the "chiken, chiken, chik, churr, churr" of the honey-guide. Occasionally near villages we have a kind of mocking bird, imitating the calls of domestic fowls. These African birds have not been wanting in song, they have only lacked poets to sing their praises, which ours have had from the time of Aristophanes downwards. Ours have both a classic and a modern interest to enhance their fame. In hot dry weather, or at midday when the sun is fierce, all are still: let, however, a good shower fall, and all burst forth at once into merry lays and loving courtship. The early mornings and the cool evenings are their favourite times for singing. There are comparatively few with gaudy plumage, being totally unlike, in this respect, the birds of the Brazils. The majority have decidedly a sober dress, though collectors, having generally selected the gaudiest as the most valuable, have conveyed the idea that the birds of the tropics for the most part possess gorgeous plumage.

15th.—Several of my men have been bitten by spiders and other insects, but no effect except pain has followed. A large caterpillar is frequently seen, called lezuntabuea. It is covered with long grey hairs, and, the body being dark, it resembles a porcupine in miniature. If one touches it, the hairs run into the pores of the skin, and remain there, giving sharp pricks. There are others which have a similar means of defence; and when the hand is drawn across them, as in passing a bush on which they happen to be, the contact resembles the stinging of nettles. From the great number of caterpillars seen, we have a considerable variety of butterflies. One particular kind flies more like a swallow than a butterfly. They are not remarkable for the gaudiness of their colours.

In passing along we crossed the hills Vungue or Mvungwe, which we found to be composed of various eruptive rocks. At

one part we have breccia of altered marl or slate in quartz, and various amygdaloids. It is curious to observe the different forms which silica assumes. We have it in claystone porphyry here, in minute round globules, no larger than turnip-seed, dotted thickly over the matrix; or crystallised round the walls of cavities, once filled with air, or other elastic fluid; or it may appear in similar cavities as tufts of yellow asbestos, or as red, yellow, or green crystals, or in laminae so arranged as to appear like fossil wood. Vungue forms the watershed between those sand rivulets which run to the N.E. and others which flow southward, as the Kapopo, Ue, and Due, which run into the Luia.

We found that many elephants had been feeding on the fruit called Mokoronga. This is a black-coloured plum, having purple juice. We all ate it in large quantities, as we found it delicious. The only defect it has, is the great size of the seed in comparison with the pulp. This is the chief fault of all uncultivated wild fruits. The Mokoronga exists throughout this part of the country most abundantly, and the natives eagerly devour it, as it is said to be perfectly wholesome, or, as they express it, "It is pure fat," and fat is by them considered the best of food. Though only a little larger than a cherry, we found that the elephants had stood picking them off patiently by the hour. We observed the footprints of a black rhinoceros (*Rhinoceros bicornis*, Linn.) and her calf. We saw other footprints among the hills of Semalembue, but the black rhinoceros is remarkably scarce in all the country north of the Zambesi. The white rhinoceros (*Rhinoceros simus* of Burchell), or Mohóhu of the Bechuanas, is quite extinct here, and will soon become unknown in the country to the south. It feeds almost entirely on grasses, and is of a timid unsuspecting disposition: this renders it an easy prey, and they are slaughtered without mercy on the introduction of fire-arms. The black possesses a more savage nature, and, like the ill-natured in general, is never found with an ounce of fat in its body. From its greater fierceness and wariness, it holds its place in a district much longer than its more timid and better conditioned neighbour. Mr. Oswell was once stalking two of these beasts, and as they came slowly to him, he, knowing that there is but little chance of hitting the small brain of this animal by a shot in the head, lay expecting one of them to give his shoulder, till he was within a few yards.

The hunter then thought that by making a rush to his side he might succeed in escaping, but the rhinoceros, too quick for that, turned upon him, and though he discharged his gun close to the animal's head he was tossed in the air. My friend was insensible for some time, and on recovering found large wounds on the thigh and body: I saw that on the former part still open and five inches long. The white, however, is not always quite safe, for one, even after it was mortally wounded, attacked Mr. Oswell's horse, and thrust the horn through to the saddle, tossing at the time both horse and rider. I once saw a white rhinoceros give a buffalo which was gazing intently at myself a poke in the chest, but it did not wound it, and seemed only a hint to get out of the way. Four varieties of the rhinoceros are enumerated by naturalists, but my observation led me to conclude that there are but two; and that the extra species have been formed from differences in their sizes, ages, and the direction of the horns, as if we should reckon the short-horned cattle a different species from the Alderneys or the Highland breed. I was led to this, from having once seen a black rhinoceros with a horn bent downwards, like that of the kuabaoba, and also because the animals of the two great varieties differ very much in appearance at different stages of their growth. I find, however, that Dr. Smith, the best judge in these matters, is quite decided as to the propriety of the subdivision into three or four species. For common readers it is sufficient to remember that there are two well-defined species, that differ entirely in appearance and food. The absence of both these rhinoceroses among the reticulated rivers in the central valley may easily be accounted for, they would be such an easy prey to the natives in their canoes at the periods of inundation; but one cannot so readily account for the total absence of the giraffe and the ostrich on the high open lands of the Batoka, north of the Zambesi, unless we give credence to the native report which bounds the country still further north by another network of waters near Lake Shuia, and suppose that it also prevented their progress southwards. The Batoka have no name for the giraffe or the ostrich in their language; yet, as the former exists in considerable numbers in the angle formed by the Leeambye and Chóbe, they may have come from the north along the western ridge. The Chobe would seem to have been too narrow to act as

an obstacle to the giraffe, supposing it to have come into that district from the south; but the broad river into which that stream flows, seems always to have presented an impassable barrier to both the giraffe and the ostrich, though they abound on its southern border, both in the Kalahari Desert and the country of Mashona.

We passed through large tracts of Mopane country, and my men caught a great many of the birds called Korwé (*Tockus erythrorhynchus*) in their breeding-places, which were in holes in the mopane-trees. On the 19th we passed the nest of a korwe, just ready for the female to enter: the orifice was plastered on both sides, but a space was left of a heart shape, and exactly the size of the bird's body. The hole in the tree was in every case found to be prolonged some distance upwards above the opening, and thither the korwe always fled to escape being caught. In another nest we found that one white egg, much like that of a pigeon, was laid, and the bird dropped another when captured. She had four besides in the ovarium. The first time that I saw this bird was at Kolobeng, where I had gone to the forest for some timber. Standing by a tree, a native looked behind me and exclaimed, "There is the nest of a korwe." I saw a slit only, about half an inch wide and three or four inches long, in a slight hollow of the tree. Thinking the word korwe denoted some small animal, I waited with interest to see what he would extract; he broke the clay which surrounded the slit, put his arm into the hole, and brought out a *Tockus*, or *red-beaked hornbill*, which he killed. He informed me that when the female enters her nest she submits to a real confinement. The male plasters up the entrance, leaving only a narrow slit by which to feed his mate, and which exactly suits the form of his beak. The female makes a nest of her own feathers, lays her eggs, hatches them, and remains with the young till they are fully fledged. During all this time, which is stated to be two or three months, the male continues to feed her and the young family. The prisoner generally becomes quite fat, and is esteemed a very dainty morsel by the natives, while the poor slave of a husband gets so lean that, on the sudden lowering of the temperature which sometimes happens after a fall of rain, he is benumbed, falls down, and dies. I never had an opportunity of ascertaining the actual