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THE VEGETATION OF MOUNT KINABALU - - - Betty Allen

(This note on the vegetation of Mt. Kinabalu, in what used to be British North Borneo - now Sabah, in Malaysia - was sent to me from Spain by Mrs. Betty Allen, an old friend and a member of long standing, who was at one time botanist to the Auckland Museum. E.D.H.)

This mountain, the highest in S.E. Asia, is of enormous interest to naturalists, especially botanists. When I climbed it in 1957, one had to fly in to Ranau (c.1,000 ft.) and walk the rest of the way, over 20 miles. This took me 4 days to do, and owing to extremely bad weather, a friend and I made another assault on the summit the next day from the famous Paka Cave, where we slept and which is some 9.000 ft. in altitude. So on the second day I was able to see more of the plants on the summit ridge. Of course it can be done much more quickly, but this is indeed difficult for botanists to do, for nearly everything is new and exciting. From the padi fields and tropical rain forest of the lower slopes, to the mountain flowers of the upper slopes (some of which are related to those of montane areas of temperate climates) Mt. Kinabalu provides a wide range of plants, It is not an exaggeration to say that many of them have such a restricted range that they may be confined to this area, and a vast number are not found outside S.E. Asia.

As one approaches the mountain by the road from Ranau, there are large areas which have been cultivated for hill rice, but in between is tall, tropical rain forest. From the road can be seen many interesting plants; the beautiful Aeschynanthus maquitica (Gesneriaceae) with large red flowers, a woody scrambling plant which was once greatly prized in hot houses in Europe. About February (the driest time) a coral tree (Erythrina) sheds its leaves and produces masses of coral-pink flowers which falling, carpet the road in patches; and a small flowered Dutchman's pipe (Aristolochia) is quite common, climbing over other plants at the road's edge. Nearly all the way one sees wild raspberries, whose large red fruits are good thirst quenchers.

Above Kundasang a large fern, Angiopteris ferox, becomes common. It is closely related to Marattia, has a very scaly stem and is unknown elsewhere. At this point the vegetation starts to change, but almost imperceptibly. A few of the southern hemisphere conifers (Podocarpus and Dacrydium) can be seen, and occasionally one is rewarded with a view of the Kinabalu mistletoe (Loranthus centiflorus), but this is rare though not easily missed. It parasitises fairly small trees and its lovely deep red, fluffy flowers are about 2 inches across and not like a mistletoe at all. There are orchids here also; the famous Bornean moon orchid (Phalanopsis) with large white flowers and yellow eye, perches on trees. Of terrestial orchids Calanthes and Phaius are perhaps the most common. Maidenhair and other exotic-looking ferns clothe the banks of the road, and some which are extremely common here may be very rare elsewhere. Others (for example Adiantum diaphanum) are identical with New Zealand species, and this Antipodean influence becomes more noticeable as one ascends.

The high rain forest continues after the main road is left and a path starts off through tall trees which form a canopy overhead. Beneath there are unusual treeferns (both Cyathea and Dicksonia) as well as small palms. Dawsonia, one of the world's largest mosses, with erect stems a foot in height, is common here on the forest floor. Both below and above Kamborangoh (the radio station at over 7000 ft.) Miss Gibb's bamboo, an extremely common, delicate, tall-growing plant gives a shadowy ethereal appearance to the scene. Perching orchids are common here and their flowers make bright patches. Occasionally one's progress is halted by the lovely saffron-yellow flowers of Low's Rhododendron; the flowers are large, each head being about a foot across. It is normally a shrub but will sometimes be found as a tree of 30 feet in height. Another common Rhododendron perches high on the taller trees; its scarlet blossoms fall to the ground and carpet the path, inviting one to look up and see the profusion of flowers catching the sunlight. Until very recently, many plants here were unknown to science, and there must still be many more that are uncollected, usually because of an expedition's haste to get to the summit, or for the lack of specialised collecting in a single group or family of plants.

The soil becomes peaty and springy with sparse undergrowth, but for the careful observer there are tiny violets growing on the forest floor. Their flowers are white, veined with lilac and delicately scented. There are also Malayan cowslips (Didymocarpus) with lilac, yellow or white flowers. Tiny Bulbophyllum orchids with sulphur-yellow flowers, and miniature comb ferns (Schizaea malaccana), occur on tree trunks in the forest. On the ridges the trees become smaller and the celery pine (Phyllocladus hypophylla) is first seen. (This, another southern conifer, is rare in Borneo and related to the New Zealand tanekaha; the flattened stems resemble and do the work of leaves.) Mosses, liverworts and ferns are common all the way, becoming abundant nearer Kamborangoh where the forest gradually becomes stunted and draped with lichens.

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