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Résumé

NATURAL AND ANTHROPOGENIC VEGETATION CHANGES IN NEW CALEDONIA

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The changes which occur in the plant cover on ultrabasic rocks and on sedimentary and metamorphic rocks will be examined in turn.

Outcrops of ultrabasic rocks occupy one third of the surface of New Caledonia. They appeared during the Oligocene and have given rise to unusual soils carrying a specialized vegetation closely adapted to the edaphic conditions. Variations in altitude and a broken relief produce very varied plant associations whose distribution is illustrated by a vegetation map of Mount Koniambo on the scale of 1 : 50,000. Ecological isolation due to diversity of biotopes and separation of ultrabasic outcrops has contributed to the differentiation of a rich flora which is highly endemic because of its insular origin and its strict adaptation to ultrabasic conditions. The species are almost all endemic to New Caledonia and mostly confined to ultrabasic areas. Among them are some relicts of a great interest.

The peculiarities of the soils discourage invasion by gregarious introduced plants and protect the original flora from their competition. Changes observed in the plant cover of ultrabasic regions after burning and mining operations, are restriction of forest to the thalwegs and occupation of the affected areas by floristically-poor pioneer associations which evolve very slowly toward a higher and thicker vegetal cover and therefore do not protect the soil against erosion. Some species confined to restricted areas and closely adapted to their environment are threatened with extinction.

On sedimentary and metamorphic rocks, former changes due to fires have contributed to the establishment of Melaleuca leucadendron savannah. Nowadays, repeated fires contribute to the preservation and extension of this secondary plant cover which would otherwise frequently evolve naturally toward a climax forest cover.