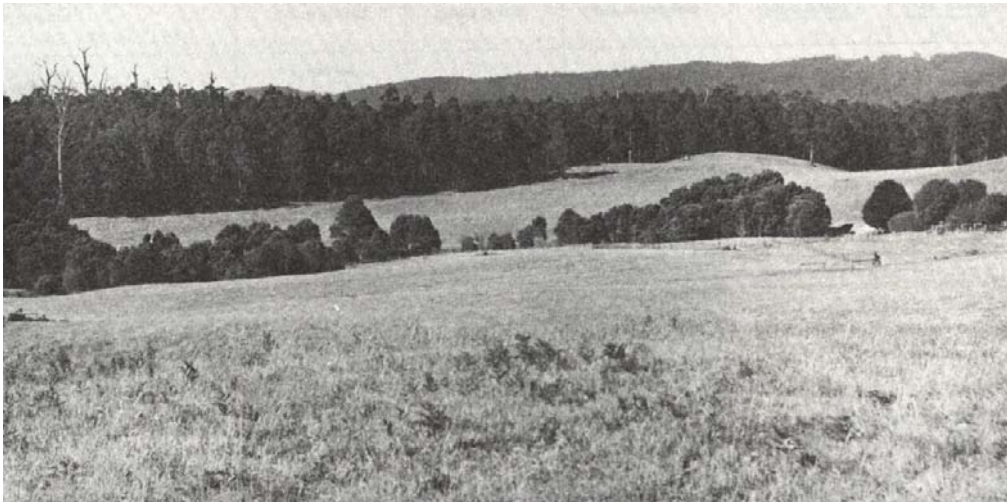


**7.29 Mount Sabine Land System**

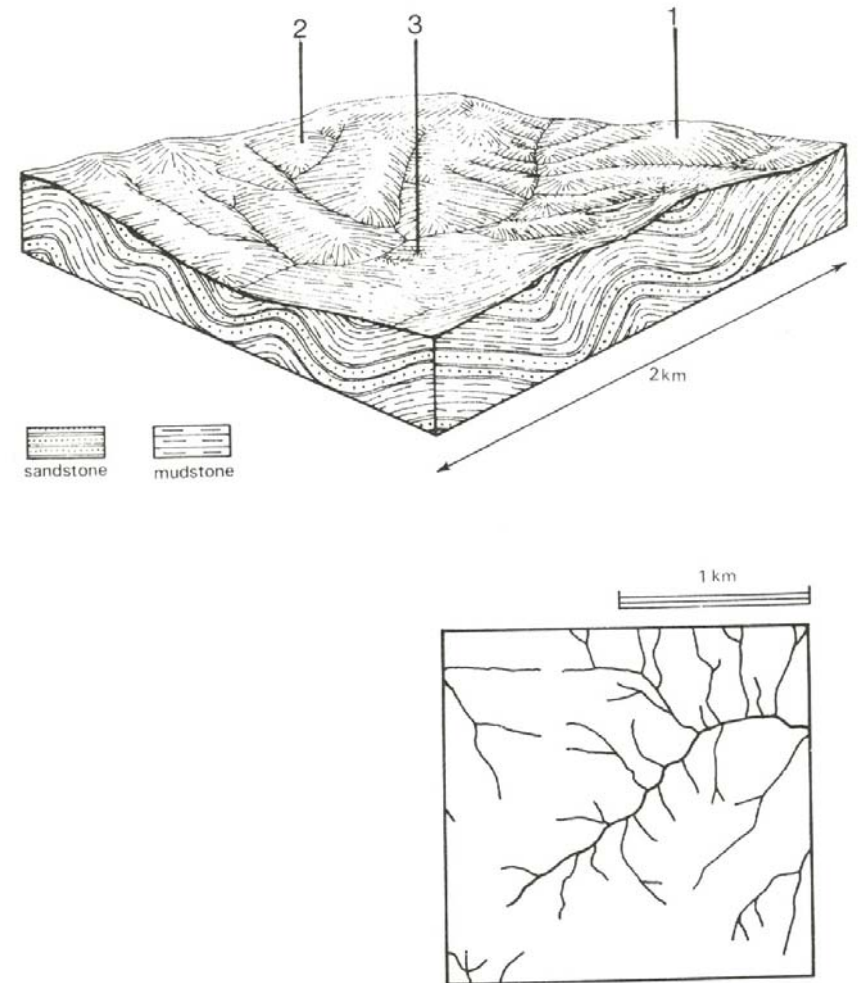
Disconnected remnants of an undulating plain are found on the high parts of the Otway Range from near the Parker river to Gentle Annie Hill. The wettest and most extensive part of this undulating plain comprises the Beech Forest land system. All other areas receive an annual rainfall of 1,700 mm or less and the tall open forests, although they reach impressive heights, do not approach the 100 m stands reported for the Beech Forest land system prior to clearing.

Most slopes and crests have moderate deep and fertile soils. The occurrence of extremely deep and friable soils in some areas seems to be related to a change in the nature of the Cretaceous beds. The depth to weathering parent material is often in excess of 2 m in these profiles.

The remote nature of most of these plateau remnants has hindered their development for agriculture. Many of the areas originally cleared by early settlers have reverted to dense scrub while others have been regenerated to Eucalyptus regnans or other hardwood species. Landslips and loss of soil nutrients in such a wet climate are the main hazards to land use.



*Only small areas of farmland sill remain, the remoteness from areas of substantial settlements being one of the major problems.*



<b>MOUNT SABINE</b> Area: 95 km <sup>2</sup>	Component and its proportion of land system		
	1 25%	2 70%	3 5%
<b>CLIMATE</b> Rainfall, mm Temperature, 0°C Seasonal growth limitations	<b>Annual:</b> 1,200 – 1,700, lowest February (65), highest June (170) <b>Annual:</b> 10, lowest July (6), highest February (15) <b>Temperature:</b> less than 10°C (av.) May – October <b>Precipitation:</b> less than potential evapotranspiration early December - February		
<b>GEOLOGY</b> Age, lithology	Lower Cretaceous feldspathic sandstone and mudstone		
<b>TOPOGRAPHY</b> Landscape Elevation, m Local relief, m Drainage pattern Drainage density, km/km <sup>2</sup> Land form Land form element Slope (and range), % Slope shape	Rolling hills along the top of the Otway Range 400 – 670 60 Dendritic pattern with some radial areas 3.6 Hill Upper slope 15 (1-25) Convex General slope 15 (1-25) Convex Lower slope 9 (1-12) Concave		
<b>NATIVE VEGETATION</b> Structure Dominant species	Tall open forest <i>E. obliqua, Acacia melanoxylon, E. regnans, E. cypellocarpa</i>	Tall open forest <i>E. obliqua, E. cypellocarpa, E. regnans, Acacia melanoxylon, occasional E. ovata</i>	Tall open forest <i>E. regnans, E. cypellocarpa, E. obliqua, Acacia melanoxylon</i>
<b>SOIL</b> Parent material Description Surface texture Permeability Depth, m	In-site deeply weathered rock Brown friable gradational soils Loam High 1.8	In-situ weathered rock Brown gradational soils Clay loam High 1.3	Colluvium Dark brown gradational soils Loam High >2
<b>LAND USE</b>	<b>Uncleared areas:</b> Hardwood forestry for sawlogs and pulpwood; softwood plantations; nature conservation; passive recreation; water supply. <b>Minor cleared areas:</b> Some beef cattle grazing on unimproved pastures; most reverting to native forest or converted to pine plantations.		
<b>SOIL DETERIORATION HAZARD</b> Critical land features, processes, forms	High rainfall and high permeability lead to leaching of nutrients and losses in organic matter and soil structure. Steeper slopes may be subsequently prone to sheet erosion.	High rainfall and moderate permeability lead to leaching of nutrients and losses in organic matter and soil structure. Steeper slopes are subsequently prone to sheet erosion. Clay subsoils on steeper slopes subject to frequent saturation are prone to landslips.	High seasonal water table leads to waterlogging and soil compaction.