

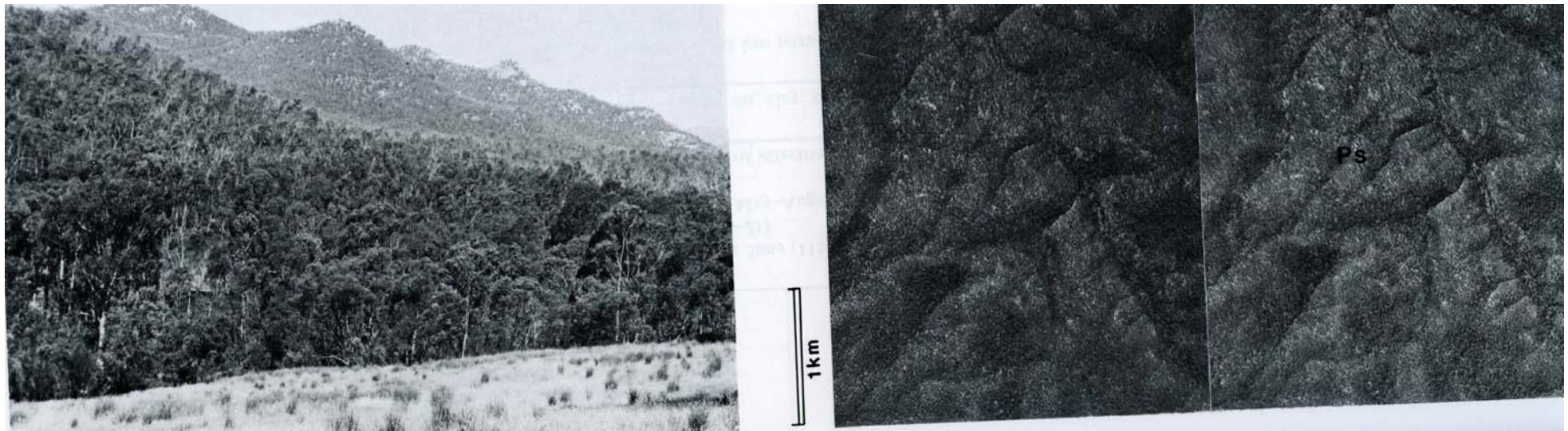
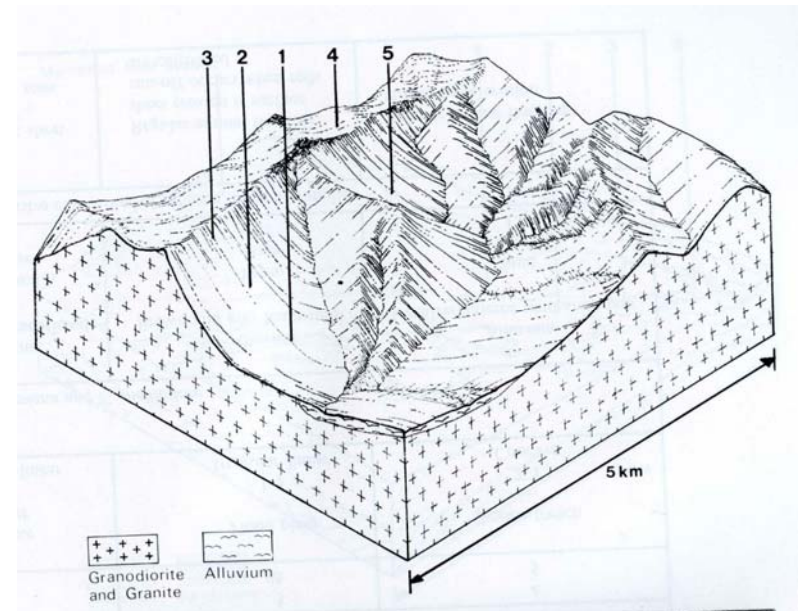
7.19 Pinnacles land system

This land system consists of seven separate areas of granite, granodiorite and metamorphic rocks scattered across the study area. The landscape is steep, with basins in the main valleys, smaller perched basins at varying levels and small plateaux. The Mount Selwyn area has more plateaux and in general the southern areas have less-steep rocky escarpment than the other areas. Annual rainfall ranges from moderate in the north to high in the southern areas. Summers are warm in the north and mild in the south, and winters range from cool to cold with light winter snow on the highest areas.

Soils range from coarse sand soils to weakly bleached reddish brown gradational soils in drier areas, with yellowish brown forms in wet areas. Red duplex soils with smooth ped fabric occur in the basins. In moister areas, reddish brown gradational soils with rough ped fabric grade into friable brown gradational soils. Stony loam soils occur on the very steep slopes and may grade into scree.

The vegetation varies from open forests of *Eucalyptus polyanthemos* and *E. goniocalyx* through predominantly *E. radiata* with *E. rubida* and *E. dives*, to *E. delegatensis* and *E. dalrympleana* and *E. pauciflora* on the drier, exposed areas at the highest elevation.

Erosion from access tracks and roads can be a problem. Drainage-line soils are usually deeply weathered, and serious gully erosion can occur rapidly.



PINNACLES LAND SYSTEM Area 230 sq km

CLIMATE Rainfall, mean (mm) Temperature, mean (°C) Seasonal growth limitations	Annual 850-1250; lowest January (45-50), highest July (120-160) Annual 9-13; lowest July (2-7), highest January (15-20) Temperature – less than 10°C (av): lowest areas June-September, highest areas April-October Precipitation – months less than 50% frequency of effective rain. January-February				
GEOLOGY Age, lithology	Silurian and Devonian granite, granodiorite and associated metamorphic rocks				
PHYSIOGRAPHY Landscape Elevation range (m) Relative relief (m)	Mountains with plateaux and basins 350-1400 350				
LAND COMPONENT Percentage of land system	1 25	2 35	3 15	4 10	5 15
PHYSIOGRAPHY Land form Position on land form Slope range (%) Slope shape	Mountain slope Slope below about 600m 20-40 Linear	Mountain slope Slopes between about 600 and 1100m 20-40 Linear	Mountain slope Slope above about 1100m 20-40 Linear	Plateau - 5-15 Linear	Basin Between about 600 and 1100m 5-20 Concave
NATIVE VEGETATION Structure Dominant species	Open forest II <i>E. macrorhyncha</i> , <i>E. goniocalyx</i>	Open forest III <i>E. radiata</i> , <i>E. rubida</i> , <i>E. dives</i>	Open forest IV <i>E. delegatensis</i>	Open forest IV <i>E. delegatensis</i>	Open forest II <i>E. radiata</i> , <i>E. rubida</i> , <i>E. dives</i>
SOIL Parent material Description Surface texture Permeability Depth (m)	Colluvial mantle over weathered bedrock Weakly bleached reddish brown gradational soils Sandy loam High 1.0	Colluvial mantle over weathered bedrock Reddish brown gradational soils with rough ped fabric Sandy loam High 1.0	Colluvial mantle over weathered bedrock Friable brown gradational soils Sandy loam High 1.5	<i>In situ</i> weathered rock Friable brown gradational soils Sandy loam High 1.5	Colluvial mantle over weathered bedrock Reddish brown gradational soils with rough ped fabric Sandy loam High 1.0
LAND USE	Mostly uncleared; timber production from <i>E. delegatensis</i> forests; forest grazing Cleared areas; grazing, sheep and beef cattle				
SOIL DETERIORATION HAZARD Critical land features, processes, forms	The coarse-textured soils are usually very erodible; deeply weathered soils in drainage lines may erode to deep gullies; erosion from intensive-use areas – tracks, stock camps, log landing.				