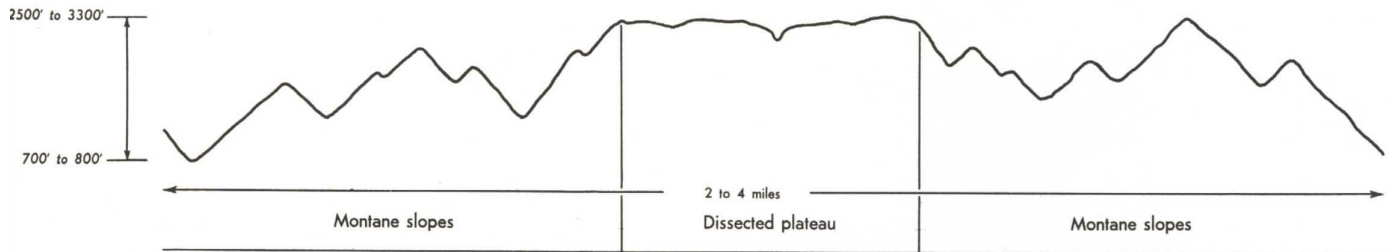


BUNJIL LAND SYSTEM

BUNJIL LAND SYSTEM

Area: 193 square miles 5.0% of catchment

a) Distribution of land forms



(b) Land system diagram

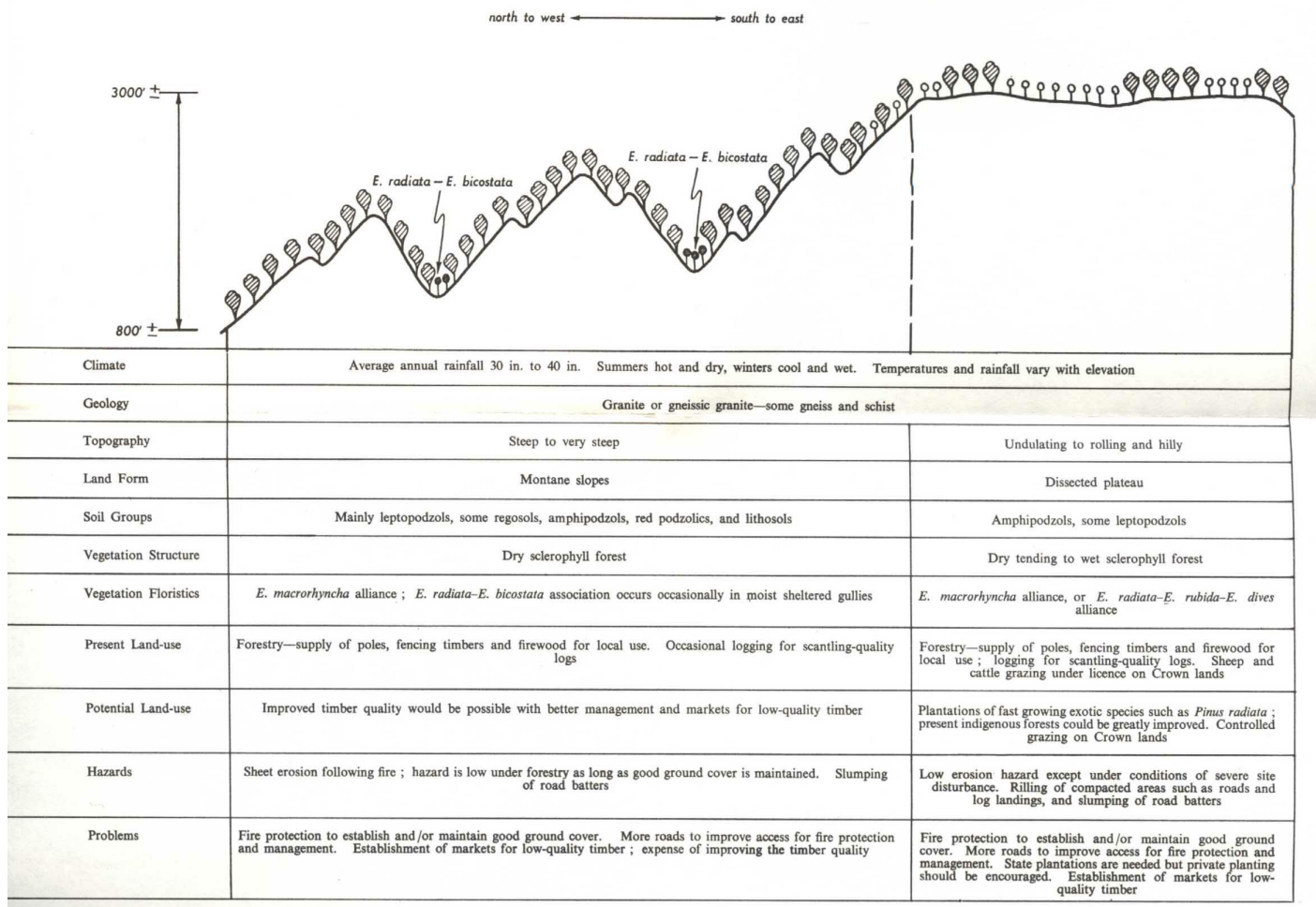


Fig. 23 – Bunjil Land System

This land system occupies a good deal of the north-western corner of the catchment, and consists of a number of separate areas, the largest of which is an area of Crown land with some freehold land south of the Murray River at Thologolong and through the parishes of Bunjil East and Bunjil, where Timber Reserve and Crown land are equally represented. The Timber Reserve in the Parish of Tatonga, and some freehold land just north of it, form a separate part of the land system. To the south of Tallangatta a relatively large area of Crown land fringed with freehold land, which forms the divide between Lockharts Creek and the Mitta Mitta River, is included in the land system. Another area, mostly of freehold land with a little Crown land, extends along the divide between Spring Creek and Honeysuckle Creek to the north, and Fairyknowe Creek to the south. The smallest separate part of the land system, which occurs to the south-east of Mt. Bullhead, is entirely Crown land. Altogether, these areas make up a total area of 193 square miles, which is 5 per cent of the total area of the catchment.

The land system consists of montane slopes, which occupy some 50 to 60 per cent of the area, and plateaux (Figure 23). The nature of the plateaux in these areas is a weakly dissected surface which has been strongly dissected along major drainage lines. The individual plateau areas are seldom very extensive and are usually surrounded by steep montane slopes. They occur at elevations of about 2,500 feet to 3,300 feet and the valleys at the bases of the montane slopes are generally at about 700 feet to 800 feet. Some peaks, such as Mt. Lawson (3,350 feet) and Mt. Granya (2,970 feet), rise above the plateaux.

The dominant rock for much of the land system is grey granite, but to the west of Granya Gap, and west of the Mitta Mitta River, gneissic rocks predominate. Schists occur to a limited extent. An alluvial tin mine is operated on the plateau to the north of Mt. Lawson. Tin and some quartz crystal are obtained from ancient river gravels, apparently the bed of a pre-Kosciusko-uplift river.

The climate can be expected to be quite variable over such an area, where elevation differences are large. Rainfall is about 30 inches to 40 inches per annum and has a winter maximum. Snow occasionally falls on the higher country, and several falls which may last for a day or so may be expected in most winters. Severe frosts are experienced in areas of cold-air drainage on the plateaux. Winters are generally cold, and summers are mild to warm on the plateaux, and warmer temperatures are experienced on northern aspects and at lower elevations.

On the plateau country, soils of the amphipodzol group are dominant over most of the landscape. Leptopodzols occur in shallow drainage lines and on some steep slopes. Often, the ridge tops are very stony and large outcrops of rock are common. On steep montane slopes, the soils are dominantly leptopodzols; some are pale greyish-brown and others are reddish-brown in the subsoil. Regosols are usually restricted to the bases of very steep slopes, or to the break of slope in non-perennial drainage lines. Amphipodzols and red podzolics may occur on ridge and spur tops and on less-steep slopes.

The vegetation of the plateau areas is dry sclerophyll forest, tending to wet sclerophyll forest in which the *E. macrorhyncha* alliance dominates. Occasionally, wet sclerophyll forest of the *E. radiata*-*E. rubida*-*E. dives* alliance occurs in moister localities. The vegetation of the well-drained montane slopes is dry sclerophyll forest of the *E. macrorhyncha* alliance in which the drier components are often dominant and *E. radiata* and *E. bicostata* occur in moister gullies.

In general, the present condition of most of this land system is satisfactory. However, sheet erosion is occurring on some dry, poorly-vegetated slopes, particularly on northern aspects in the Talgarno area. The erosion hazard is moderate on the plateau country where the soils are permeable and the slopes are generally gentle, but the montane slopes have a higher erosion hazard. Damage or destruction of protective ground cover, which is largely accumulated leaf litter, will lead to extensive sheet erosion. Protection of these areas from fire is of great importance, and to assist in this a good network of roads is necessary.

The main produce of the forest areas is fencing timbers and poles. Limited quantities of scantling-quality sawn timber are cut intermittently. Some better-quality *E. bicostata* is used for heavy construction timber, such as bridge stringers. Firewood for local use is only a minor product of the area. Some of the Crown lands on the plateaux are grazed with cattle and sheep, under an annual licence system. The few areas of freehold land on the plateaux are mostly cleared and used for the grazing of cattle or sheep.

With careful management, the quality of the timber crop, particularly on the plateau areas, could be improved. However, this appears to be uneconomical at present. The plateaux would be quite suitable for the establishment of plantations of *Pinus radiata*. They would probably also be suitable for some form of agricultural or horticultural development. However, optimum land-use seems to be forestry, with plantations of fast growing soft-woods providing the most valuable and useful product.

Economic improvement of the present indigenous forests would necessitate finding a market for much low-quality timber. Some form of particle-board industry would provide a suitable outlet.