

## *Descriptions of the Land Units*

### **Land Unit 1.**

The basins are defined as broad valley bottoms with predominantly concave slopes ranging up to about 25 per cent. On the granite within the Park boundary, these range in elevation from about 3,000 feet up to about 4,500 feet but there are lower elevation basins to the west of the Park which just extend into the area.

These basins have probably escaped dissection because of more resistant rock at the lower end. Thus they appear to be formed under the control of a localised base level and are not necessarily relics of an ancient once extensive land surface.

As well as concave cross-valley slopes, the thalweg or average stream gradient is also concave. This results in a range in elevation and, therefore, in climate, soils and vegetation in both longitudinal and transverse directions within the land unit. Furthermore each basin has a different base level and varies in length. An attempt to encompass these variations has made the land unit diagram appear rather complex. However, if it is remembered that with increasing elevation, temperatures decrease and the vegetation and soil sequences vary in a consistent way, any simple basin situation can be readily worked out.

The basin to the south of The Horn probably has an annual rainfall of about 50 inches with little winter snow. Basins to the south of Anderson's Peak and south of Eagle Point may receive 60 inches with occasional winter snow. In the Upper Bunyip Creek basin, an average annual precipitation of 70 inches or more may be expected with persistent winter snow.

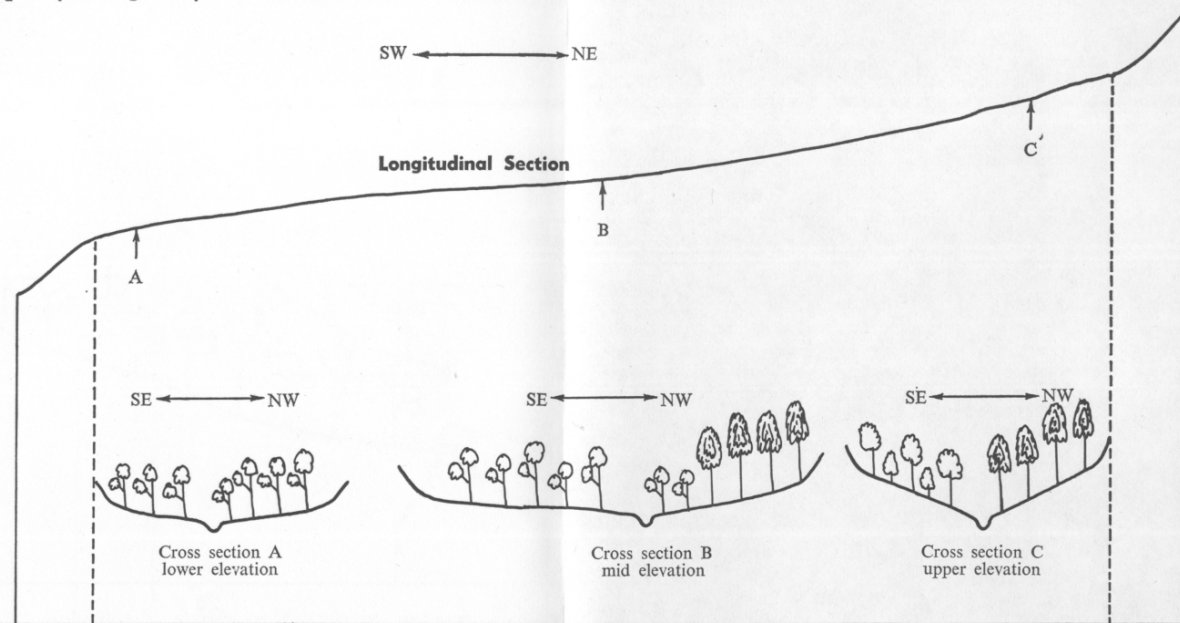
An estimate of temperatures based on correlation with height indicates a range in average monthly temperature from about 63° F. in January to about 39° F. in July in the lower areas, and from about 58° F. in January to about 34° F. in July at the higher elevations.

The vegetation ranges from peppermint—gum forest (*E. radiata*—*E. rubida*—*E. dives* alliance) with small patches of alpine ash forest (*E. delegatensis* association) on southern aspects in the basin south of The Horn, through the mixed forests in the basin south of Eagle Point, where mountain gum (*E. dalrympleana* association) occurs on the upper northerly aspects and alpine ash occurs on southerly aspects, through the dominance of alpine ash forest in the basin south of Anderson's Peak, to the mixed sub-alpine vegetation of the Upper Bunyip Creek basin. In this latter area, the typical high-valley plains have been separated. Elsewhere in the Upper Bunyip Creek basin, alpine ash forest occurs on most areas but mountain gum—snow gum woodland (*E. dalrympleana*—*E. pauciflora* association) occupies the eastern side.

The soils range from cryptopodsols with some leptopodzols at lower elevations, through acid brown earths to transitional alpine humus soils and limited areas of alpine humus soils at the highest elevations. Because of the generally less-steep topography of the basins, soils are generally deeper than elsewhere in the Park.

Fig. 1

**LAND UNIT 1** (Basin: granite)



Topography		Narrower valley	→	Generally concave slopes up to about 25 per cent.	→	Broader valley	→	Narrower and steeper	
Elevation		About 3,000 ft.	→		→	3,500 ft. to 3,800 ft.	→	4,000 ft. to 4,500 ft.	
Estimated average temperature		Jan. 63°F. : July 39°F.	→		→		→	Jan. 58°F. : July 34°F.	
Estimated average annual precipitation		50 in.	→		→	60 in. to 70 in. some winter snow	→	up to 80 in. winter snow	
Soils	Land Units 3, 4 or 7*	Cryptopodzols some leptopodzols	→		→	Cryptopodzols to acid brown earths	→	Acid brown earths to transitional alpine humus soils	Land Units 4 or 7*
Vegetation		Wet sclerophyll forest of pepper- mint—gum ( <i>E. radiata</i> - <i>E. rubida</i> - <i>E. dives</i> alliance)	→		→	Wet sclerophyll forest of pepper- mint—gum with alpine ash ( <i>E.</i> <i>delegatensis</i> assn.) on pre- dominantly southern aspects	→	Wet sclerophyll forest of alpine ash with forest of mountain gum —snow gum ( <i>E. dalrympleana</i> - <i>E. pauciflora</i> assn.) on northern aspects.	

\* Land Unit 9 is present in the centre of the Bunyip Creek basin : not shown in this Land Unit diagram.