917451

FRENCHMANS CAP

Frenchmans Cap at 1443 m is the highest mountain in the South West. Most of the land system was covered by ice during Pleistocene glaciations. These have carved spectacular glacial erosional features such as the faces of the peak (see photograph in Topography section), 'u' shaped valleys, sharp jagged ridges, cirques and lakes. Peterson (1966) has mapped and commented on the glacial morphology of Frenchmans Cap. Precambrian quartzite and schist are the dominant rock types in the region.

Exposure to severe weather conditions has resulted in the development of large areas of feldmark (see photograph in Subalpine and Alpine Vegetation section) at higher altitudes, with sand and gravel typical in soil profiles that support patchy or stripy vegetation. Finer soil material is blown away by strong westerly winds which batter vegetation forcing it to grow towards the east. Feldmark is particularly well developed on the Clytemnestra South West of Frenchmans Cap. In high gullies organic loams develop on the surface, but even these have been removed in places or have been mixed into the soil profile due to downslope movement. These colluvial processes are probably aided by snow accumulation and regular freeze/thaw events. Organic soils have formed on the two lower components of the land system but again small bare areas are evident, e. g. on the ridge leading north from Frenchmans Cap to the Franklin River valley. The deepest organic soils in the area have formed on the lower slopes where closed scrub probably protects it from extreme weather conditions.

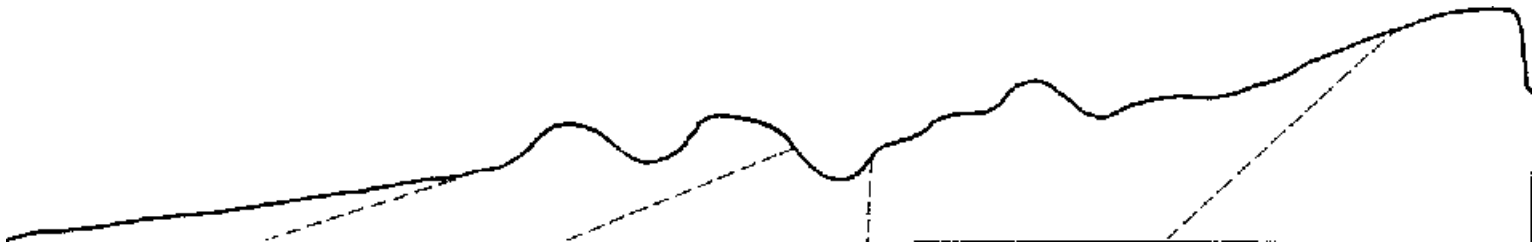
Snowbanks form above 1000 m during winter and often last well into summer. This together with low temperatures and high winds has influenced the formation of low open vegetation which has formed in gullies and on high exposed ridges and crests. Vegetation on the crest of Frenchmans Cap has similarities with the sparse low shrub and grass cover of Federation Peak. Areas around higher lakes were not examined in detail but *Nothofagus cunninghamii* thickets are common, with *Richea pandanifolia* and *Athrotaxis selaginoides* where fires have not occurred. Exposed lower positions have open heath while slightly better protected positions are dominated by *Richea scoparia, Eucryphia milliganii, Richea milliganii* and *Nothofagus cunninghamii* scrub. Poorly drained flat positions are relatively uncommon in this land system but around the flats of Artichoke Valley *Astelia alpina, Gnaphalium* sp., *Leptospermum rupestre, Epilobium* sp, *Scirpus* sp. and *Dracophyllum milliganii* occur. Between this area and Lake Tahune the dwarf conifers *Diselma* archeri and *Microstrobos niphophilus* occupy some poorly drained locations.

The land system is included in the Franklin Lower Gordon Wild Rivers National Park. Track erosion has developed in an area near the Lake Tahune hut where deep gullies have formed in yellow brown clayey soils. Other problems are landslips which sometimes occur on very steeply dipping schists, and unstable, poorly sorted scree slopes. These screes would be effected by freeze/thaw conditions with down slope movement of material likely during very cold months.

LAND SYSTEM
FRENCHMANS CAP

917451

Area(ha): 1682



ALTITUDINAL RANGE (m)	1200-1500		APPROXIMATE ANNUAL RAINFALL (mm) >2500 (2600-2800)		
SITE NO. /ALTITUDE (m) /ASPECT	125/880/SW	129/1000/NE	126/1050/S	128/1120/-	127/1443/-
TOPOGRAPHY			Glaciated mountainous terrain		
Position	Lower slopes	Lower exposed ridges	Gullies (likely snowbank positions)	High exposed ridges/slopes	Crests
Typical Slope( )	20	10-15	20-30	0-20	0
Proportion (%)	30	20	5	35	10
GEOLOGY		Glaciated Precambrian quartzite and shists			
NATIVE	Closed scrub	Open heath	Closed to open	Open heath to low	Feldmark/Low
Structure				(open) shrubland	open-shrubland
	Richea scoparia	Leptospermum	Richea scoparia	Eucalyptus vemicosa	Richea sprengelioides
Floristic	Eucryphia	Eucalyptus	R. pandanifolia	Isophysis tasmanica	Helichrysum milliganii
Association	E. lucida	Melaleuca squamea	Diselma archeri	Epacris navicularis	Phyllachne colensoi
(See Appendix 1	Richea milliganii	Sprengelia	Drimys lanceolata	Richea	Dracophyllum minimum
for common	Persconia gunnii	Empodisma minus	Helichrysum backhousii	Cyathodes petiolaris	Dichosciadium ranunculaceum
names)	Nothofagus	Restio	Isophysis tasmanica	Monotoca	Poa gunnii
	Trochocarpa gunnii	Forstera	Milligania densiflora	Olearia ledifolia	Erigeron stellatus
	Arcneria serylli	Epacris serpyllif	Forstera bellidifolia	Richea scoparia	Danthonia sp.
	Eucalyptus	Isophysis	Orites milliganii	Epacris serpyllif	Aciphylla procumbens
	Epacris	Persccnia gunnii	Microcachrys tetragona	Oreobolus	Abrotanella scapigera
	Drimys lanceolata	Carpha alpina	Archeria comberi	Campynema lineare	Gentianella diemensis
	Gaultheria hispida	Anemone	A. serpyl1ifolia	Milligania	Hierochloe fraseri
SOIL Surface(Aor P horizon)CDlcur	Black (5 YR 2. 5/1) fibrous peat	Brown/dark brown (7. 5 YR 4/2) fibrous peat	Dark reddish brown (5 YR 2. 5/2) sandy organic loam	Very dark grey (10 YR 3/1) loamy sand with a high proportion of	Dark grey (5 YR 4/1) sand to loamy sard with a high proportion of
Subsoil (B horizon) colour (moist)		Gravelly, dark grey (5 } 4/1) sandy clay	Very dark grey (5 YR 3/1) gravelly sandy loam over a gravelly		
Primary Profile form	Organic	Uniform	Complex (colluvium)	Uniform	Uniform
Depth surface horizon	(m) 0. 40	0. 05	0. 05	0. 10	0. 10
Typical total depth(m:	)	0. 25	>0. 40	0. 10	0. 10
Permeability	High	Moderate	High	High	High
LAND USE			Nature conservation, recreation		
HAZARD	High track erosion, high sheet erosion hazard if burnt		High rockslide	High track erosion, moderate landslip	