933351

TYNDALL RANGE

Inadequate access prevented thorough field examination of this system and the description below is derived from aerial photo-interpretation and extrapolation from similar country nearby, which was surveyed more closely.

It comprises a range of mountains with markedly glaciated land forms in which cirque lakes are a prominent feature. It forms part of the West Coast Range north-east of Queenstown and includes the Tyndall Range.

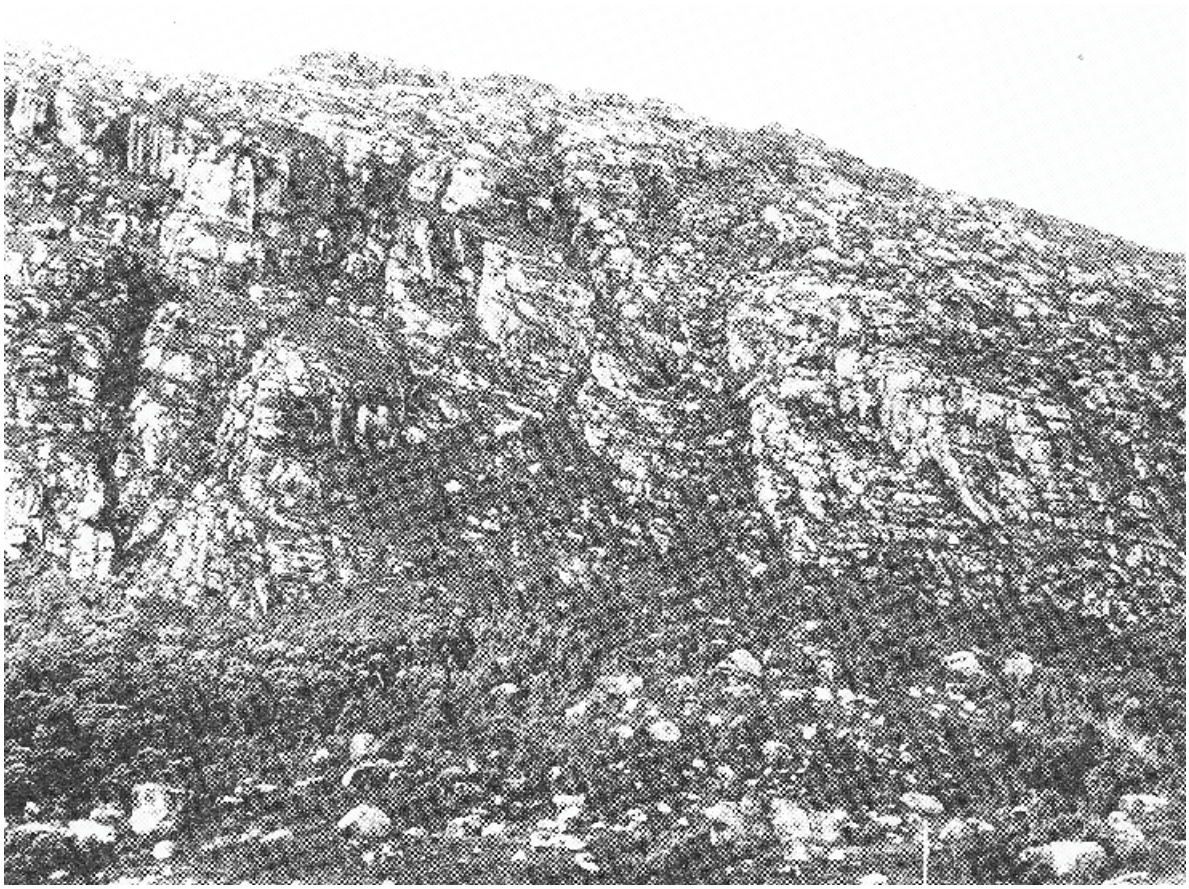
Shallow, gravelly and sandy organic soils have undoubtedly formed on the siliceous parent materials comprising most of the area. On the peaks and highest slopes they would only be skeletal and bare rock would predominate. The vegetation growing here is either a heath or scrub in which manuka. *Sprengelia incarnata*. *Epacris lanuginosa* and button grass are most likely represented.

Deeper sand soils are likely to occur on scattered pockets of almost level terrain. The vegetation here would probably be a closed sedgeland dominated by button grass, *Leptocarpus tenax*, *Xyris operculata* and *Sprengelia incarnata.*

The occurrence of forest vegetation on some of the slopes indicates the presence of finer textured soils and relatively deep, gradational profiles, may be expected. The vegetation could be a rainforest, a eucalypt forest or a mixed forest with Smithton peppermint and myrtle as important constituents.

As the area is little disturbed it serves mainly for nature conservation. However, mining exploration is being conducted in the area and Lake Margaret was constructed for mining purposes.

There is a high risk of erosion over almost the entire land system.



Part of the Tyndall Range

LAND SYSTEM

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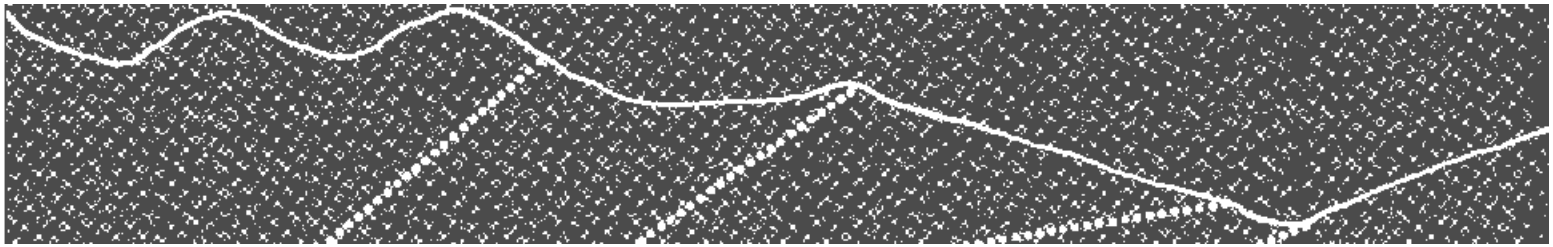
Tyndall Range



COMPONENT	1	2	3	4	5
PROPORTION %	35	20	25	5	15
CLIMATE	Average Annual Rainfall >2 500 mm				
GEOLOGY	Ordovician siliceous conglomerate, Quaternary glacial deposits, Cambrian volcanic rocks				
TOPOGRAPHY					
Land form			Mountainous		
Position	Peaks, steep upper slopes	Cirques	Steep lower slopes	Alluvium	Steep timbered slopes
Average Sideslope °	30	60	14	<1	20
NATIVE VEGETATION					
Structure	Closed heath and sedgeland	Closed scrub	Closed heath	Closed sedgeland	Closed forest
Association	Manuka, *Sprengeha incarn-ata, Epacris lanuginosa,* button grass	Manuka, Smith ton pepper-mint	Manuka, *Sprengeha incarn ata, Epacns lanuginosa,* button grass	Button grass, *Leptocarpus tenax, Xyris operculata, Sprengeha incarnata*	Smith ton peppermint, myrtle
SOIL	Skeletal, rock outcrop pre dominant	Gravelly organic soils	Sandy peat	Sandy soils	Stony brown gradational soils
Surface Texture			Peat		
Permeability		High			Moderate
Average Depth m		Shallow		Relatively deep	
PRESENT LAND USE	Nature conservation, water conservation, mining				
HAZARDS	High sheet erosion	High sheet, rill erosion, moderate siltation	High sheet, rill erosion	Moderate waterlogging	High sheet, gully erosion