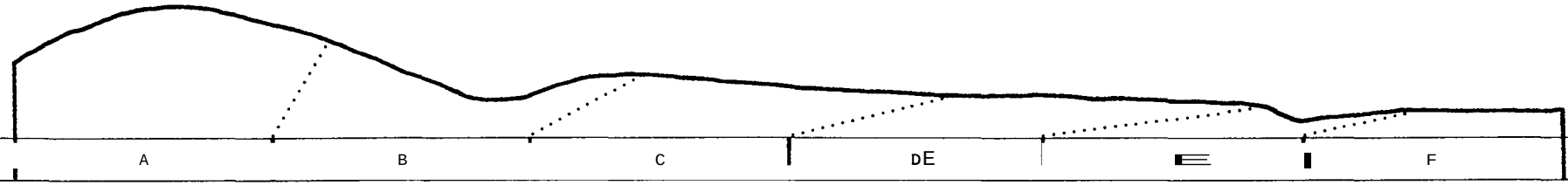
LAND SYSTEM
Freycinet

241151

Area(ha):
12967



COMPONENT	A	B	C	DE		F
PROPORTION (%)	20	20	20	20	10	10
RAINFALL (mm)	Approximate Annual Rainfall: 500-625					
GEOLOGY	Devonian Granite					
TOPOGRAPHY	Mountainous Country					
Position	Smooth Rounded Granite Crests	Saddles/Flat Topped Shoulders	Well Drained Slopes	Gentle Slopes/Flats	Protected Creeklines	Drainage Flats
Typical Slope(°)	50	10	10-20	0-10	5	0
NATIVE VEGETATION structure	Stunted Open Heath/ Low Scrub	Woodland/Open Forest	Woodland/Open Forest	Low Open Woodland over Heath	Open Forest	Closed Heath/Sedgeland
Floristic Association (See Appendix 1 for common names)	Eucalyptus amygdalina Eucalyptus tenuiramis Leptospermum grandiflorum Kunzea ambigua Epacris barbata Bursaria spinosa Extensive areas devoid of vegetation and soils.	Eucalyptus amygdalina Eucalyptus sieberi Bossiaea cinerea Pteridium esculentum Aotus ericoides Leucopogon collinus Lepidosperma concavum Lomandra longifolia Pultenaea daphnoides Acacia botrycephala Platylobium triangulare	Eucalyptus amygdalina Eucalyptus globulus Pteridium esculentum Aotus ericoides Bossiaea cinerea Lepidosperma concavum Hibbertia riparia Leptomeria drupacea Acacia mearnsii	Eucalyptus amygdalina Calytrix tetragona Lepidosperma concavum Leucopogon collinus Thryptomene micrantha Aotus ericoides Dillwynia glaberrima Hypolaena fastigiata Gompholobium huegelii Hibbertia riparia Banksia marginata Leptospermum glaucescens Acacia suaveolens Casuarina monilifera	Eucalyptus obliqua Eucalyptus globulus Eucalyptus ovata Blechnum nudum Acacia melanoxylon Pomaderris elliptica Blechnum wattsii Lepidosperma elatius Leptospermum scoparium Acacia verticillata Casuarina littoralis Pomaderris apetala Bedfordia salicina Pultenaea daphnoides Cassinia aculeata	Patersonia longiscapa Gymnoschoenus sphaerocephalus Selaginella uliginosa Casuarina monilifera Lepidosperma concavum Hypolaena fastigiata Dampiera stricta Boronia sp. Leptospermum scoparium Hibbertia riparia
SOIL Surface (A) Texture	Sandy Quartz Gravels	Gravelly Loamy Sand	Gravelly Loamy Sand	Loamy Sand	Sand	Silty Clay Loam
B Horizon (subsoil) Colour (moist) Texture and primary profile form	Skeletal. Localised accumulations of shallow gravels and gritty loamy sands, sometimes with a very shallow clay horizon. Uniform.	Deep gravelly, stony, sandy clay - brown (10 YR 5/3) to light grey (10 YR 7/1). Duplex.	Deep gravelly, sandy clay - Greyish brown (10 YR 5/2). Duplex.	Sand over hardpan - Light brownish grey (10 YR 6/2) to light grey (10 YR 7/2). Uniform.	Gravelly sand - Greyish brown (10 YR 5/2) with small pockets of black clay (10 YR 2/1) through profile. Uniform.	Deep sandy clay - Light grey (10 YR 7/1). Duplex.
Permeability	High	Moderate	Moderate	High	High	Moderate
Typical depth(m)	0.10	>1.50	>1.40	0.65	>1.50	>1.50
LAND USE	Nature Conservation, Rockclimbing, Bushwalking, Water Catchment					
HAZARDS	High Sheet, Rill, Gully and Streambank Erosion					

241151

FREYCINET

Granite country on Freycinet Peninsula and Schouten Island is included in this land system.

Rocky crests and upper slopes are typically smooth, rounded, and devoid of soil because erosion occurs faster than the soil formation process except in localised sites such as cracks and ledges where skeletal soils develop. These soils are usually less than 0.10 m depth and consist of a gravelly, loamy sand that supports a stunted open heath/low scrub dominated by *Eucalyptus amygdalina* and *Eucalyptus tenuiramis.* The understorey includes *Leptospermum grandiflorum, Kunzea ambigua, Epacris barbata* and *Bursaria spinosa.*

On broad saddles where run-off is less extreme, deep (>1.40 m) duplex soils are found. These typically consist of a gravelly, loamy sand surface horizon over a brown to light grey sandy clay. They support a woodland/open forest dominated by *Eucalyptus amygdalina* and *Eucalyptus sieberi* with shrub and bracken understorey.

On steeper, well drained slopes are duplex soils which are similar to those described above. The vegetation is also similar and includes *Eucalyptus globulus, Hibbertia riparia, Leptomeria drupacea* and *Acacia mearnsii.*

On gentle lower slopes and flats, uniform sands occur. These consist of a loamy sand surface over a light brownish grey to light grey hardpan that is frequently impenetrable to a soil auger. Here the vegetation is dominated by *Eucalyptus amygdalina* low open woodland with a heath understorey.

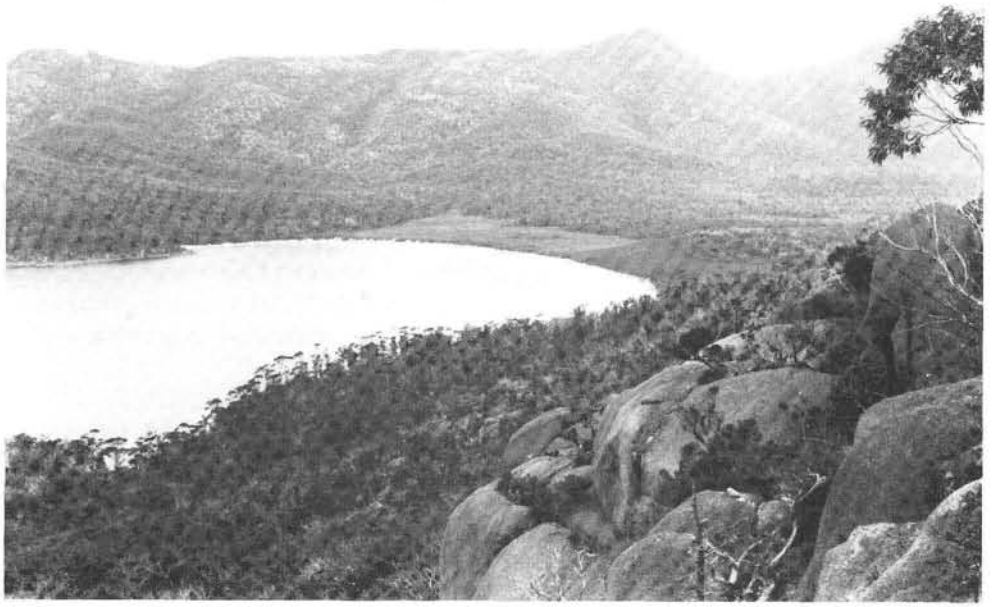
Along topographically protected creeklines uniform gravelly sands have developed which may contain small inclusions of black clay through the profile. Open forests dominated by *Eucalyptus obliqua, Eucalyptus globulus* and *Eucalyptus ovata* grow on these soils, with a wet sclerophyll understorey of *Acacia melanoxylon, Pomaderris apetala, Bedfordia salicina, Pultenaea daphnoides, Cassinia aculeata* and *Blechnum nudum.*

Deep duplex soils are found on drainage flats. These consist of a silty clay loam surface over a sand (A2) horizon over a light grey sandy clay. Deep uniform clays similar to those described in the Serpentine Lagoon Flats (298111) Land System may also be present. Closed heath/sedgeland develop in these areas.

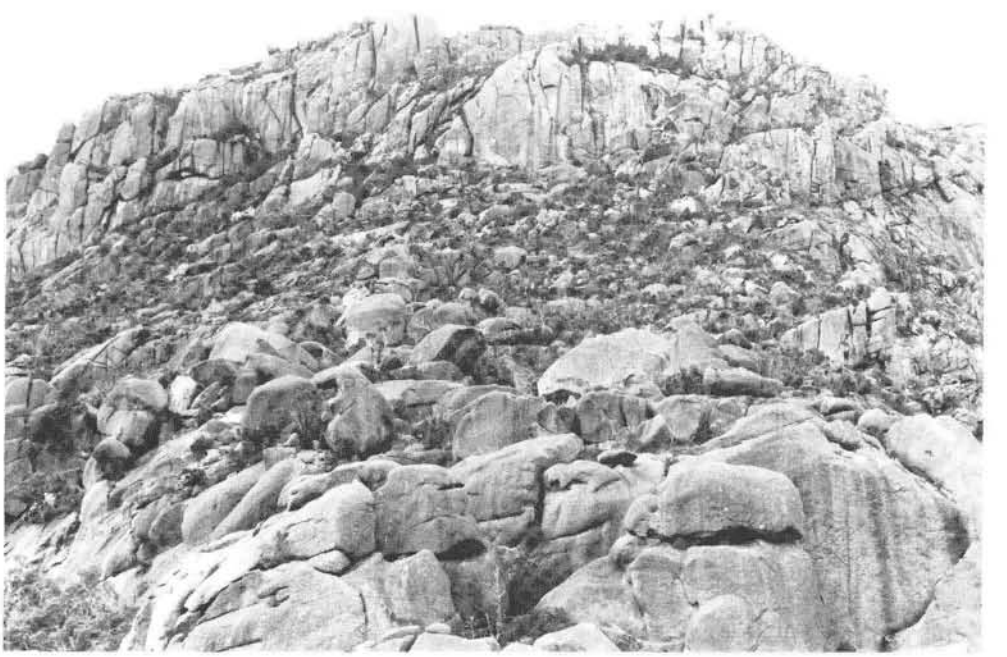
The country is particularly vulnerable to sheet and rill erosion on the steep upper slopes and crests while gully, tunnel and streambank erosion are commonly observed on the lower slopes and flats.

Granite soils similar to those described in this land system have been described on Flinders Island by Dimmock (1957b). Related Land Systems on granite in the study area are Bicheno (341143), Royal George (341141), Barren Head (341142), St Patricks Foreland (441134) and St Marys Pass (541151).

Vegetation on the granite at Schouten Island has been described by Harris and Kirkpatrick (1982) whilst Ashton and Webb (1977) have described the ecology of similar granite country at Wilsons Promontory in Victoria.



Mt Graham and Wineglass Bay in granite country of the Freycinet (241151) Land System.



Stony granite crests and slopes on The Hazards near Coles Bay with vegetation consisting of stunted low scrub/heath dominated by Eucalyptus amygrdalina and Euca1yptus tenuiramis over an understorey of Leptospermum (grandiflorum and Kunzea ambicrua.

Coastal granite headland near Bluestone Bay on the Freycinet Peninsula.

Low open woodland of Eucalyptus amygdalina with a heath understorey developed on a shallow uniform sand over a hardpan - on the Sleepy Bay Road near Coles Bay.