

793162

PRION BEACH

This land system covers the beach and dunes scattered between Surprise Bay and Louisa Bay in the south of the study area. Longshore drift has contributed to the formation of the sand spit at Prion Beach and the tombolo, on the eastern side of Louisa Bay which extends to Louisa Island. The mouths of the New River Lagoon and Louisa River are controlled by the movement of these sand deposits and large floods, which can form new channels through the tombolo or sand spit. Dunes at Surprise Bay and Prion Beach are sometimes finely bedded. Boulder deposits occur on some of the beaches (e. g. western side of Surprise Bay). These are composed principally of Precambrian quartzite with scattered white pumice stones derived perhaps from sub-antarctic islands.

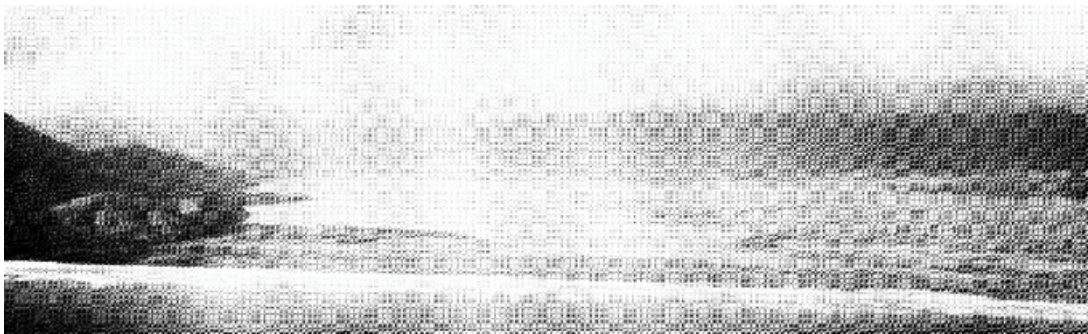
Included in this land system is a sand deposit immediately north east of the Prion Beach sand spit and New River Lagoon mouth. In this protected ("Protected coastal location component") position rain/mixed forest (*Nothofagus cunninghamii* and *Eucalyptus nitida*) grows on deep loamy sand and sand with a 0.25 m deep surface peat deposit. The understorey includes species common in wet forests (*Anopterus glandulosus*, *Coprosma quadrifida*, *Pittosporum bicolor* and *Gahnia*

grandis) and those favouring sandy sites (*Pteridium esculentum* and *Melaleuca squarrosa*). Species not recorded at site 6 ("Protected coastal location component") but which were found in this part of the land system growing on deep sands include *Acacia verticillata*, *Zieria arborescens*, *Leptospermum scoparium* and *L. lanigerum*. High rainfall (1600 mm), low evaporation and good drainage probably explains the vegetation association on this component. More protected positions behind the tombolo at Louisa Bay probably support similar vegetation. This area was not visited during field work.

Slightly more exposed coastal slopes with uniform sands support woodland dominated by *Banksia marginata* and *Leptospermum scoparium*, often with lower thickets of *Correa backhousiana*, *Pultenaea daphnoides* and scattered *Exocarpos syrticola* towards the sea shore. The most exposed and disturbed foredune positions have a mosaic of sandy patches and heath vegetation. *Helichrysum paraliium* and *Acacia sophorae* dominate on the higher parts of the dunes. The height of this vegetation increases with increasing protection (e. g. western end of Prion Beach). The grass, *Festuca littoralis* and native pigface, *Carpobrotus rossii* dominate the base of dunes in the most exposed salt affected sites.

Dunes are often undercut by waves during storms which are most frequent during winter. This land system is situated in the South West National Park and bushwalking is the dominant use.

Photo 42

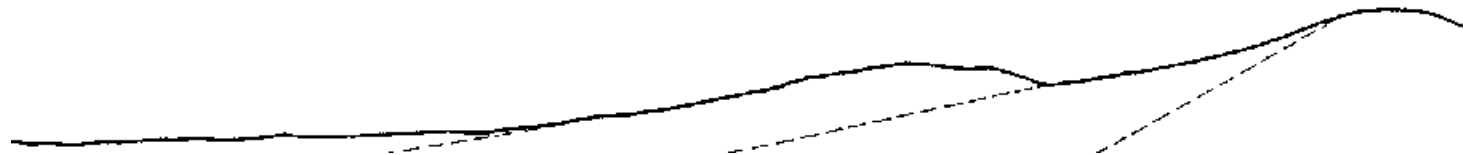


Prion Beach with New River Lagoon is the background

LAND SYSTEM
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Area (ha) : 489



ALTITUDINAL RANGE (m)	0-300	APPROXIMATE ANNUAL RAINFALL (mm) 1500-2000		
SITE NO. /ALTITUDE (m) /ASPECT	No site data	7/5/SW	1/10/SE	6/10/SW
TOPOGRAPHY		Coastal sand dunes and beaches		
Position	Beach	Foredune	Coastal slopes	Protected coastal location
Typical Slope()	0-1	3-10	3-10	0-10
Proportion (%)	40	30	20	10
GEOLOGY		Recent coastal dunes		
NATIVE VEGETATION		Open to closed heath	(Coastal) woodland	Open to closed forest
Floristic Association (See Appendix 1 for common names)	Unvegetated	Helichrysum paraliu Acacia sophorae Monotoca glauca Isolepis nodosa Carpobrotus rossii Festuca littoralis Acaena novae-zelandiae Senecio spathulatus Stackhousia	Banksia marginata Leptospermum scoparium Pteridium esculentum Drimys lanceolata Gahnia grandis Anopterus glandulosus Correa backhousiana Zieria artbescens Olearia phlogopappa	Nothofagus cunninghamii Eucalyptus nitida Anopterus glandulosus Gahnia grandis Cyathodes juniperina Pittosporum bicolor Pteridium esculentum Monotoca glauca
SOIL Surface(A or P horizon) colour (moist) and texture	Sand	Pale brown (10 YR 6/3) sand	Reddish black (10 R 2.5/1) loam over a black (10 YR 2/1) loamy sand over greyish brown (10 YR 5/2) sand	Reddish black (10 R 2.5/1) peat
Subsoil (or B horizon) colour (moist) and texture				Black (7.5 YR 2/0) loamy sand over brown (10 YR 5/3) then dark yellowish brown (10 YR 3/4) sand
Primary Profile form	Uniform	Uniform	Uniform	Uniform
Depth surface horizon(m)		>2.00	1.30	0.25
Typical total depth(m)		>2.00	1.30	>0.85
Permeability	High	High	High	High
LAND USE		Recreation		
HAZARD				