

593111

PLAINS

The main development of Plains land system has been in the north-west corner of the Region where it forms extensive areas of flat to gently undulating plains. The heath country described by Hubble (1951) lies mostly within this system. Its southern extent includes Brittons Swamp and the boundary then swings just north of Togari. Down the west coast one area extends from south of Marrawah almost to the Arthur River. Only scattered pockets occur elsewhere along the north coast, the largest being round Wynyard and Devonport. The parent materials are principally sandy Quaternary deposits. The plains in the north-west corner have resulted from the emergence of a shallow seabed. Gill and Banks (1956) have described this process and the development of the present landscape.

The rejuvenated erosion of surrounding country rocks together with the movement of freshly exposed sand deposits following emergence of the area and local drainage effects have resulted in the development of a complex array of soils in a zone around the base of neighbouring higher geologies. Sandy duplex, sandy clays, gradational and sandy gradational profiles were observed in this zone. Clay overlying sand and alternating layers of clay and sandy material were also found. Colours ranged from greys to browns and were whole coloured or had varying degrees of mottling. The 'Marsh soils' and soils of the Mowbray Swamp area described by Hubble (20) are included in this zone.

The characteristic soil found over most of Plains land system resembles the 'Woolnorth sand' and 'Woolnorth peaty sand' described by Hubble (1951). A black surface layer quickly changes to a greyish brown sand, which, at about one metre

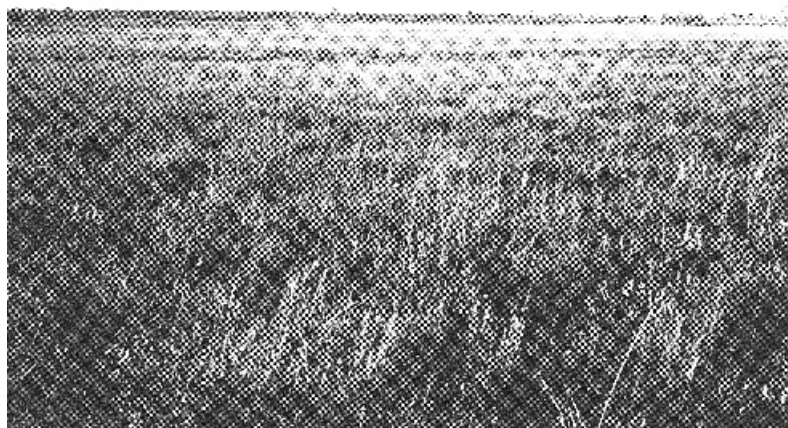
depth gives way to a variously darkened and variously compacted layer of coffee coloured sand. The dark layer varies in thickness and in some instances the profile changes back to a pale coloured sand at greater depth. The compacted layer in the soils of the Richardsons Flat area, south of Marrawah, appears to be a seasonal effect. A pan in summer may be absent during the wet winter months (pers. comm. J. Lees, former District Agriculture Officer, Smithton).

Isolated patches of mottled saline sands occur on the plain. Along drainage lines and in depressions, throughout the system, are black, uniform sand soils. On tidal flats at Ulverstone saline, light olive brown silty clay was found overlying sand.

Vegetation is mainly on open heath and sedgeland, comprising *Melaleuca squarrosa*, manuka and other tea-trees with *Leptocarpus tenax*, tassel cord rush and *Juncus* spp. On higher better drained sandy areas is an open forest of Smithton peppermint, swamp gum and white gum. On the black sands is an open scrub and sedgeland dominated by *Melaleuca* spp., manuka, white gum and swamp gum with cutting grass and *Sprengelia incarnata*. The zone of complex soils and particularly those of finer texture support a closed scrub or forest community. The principal associates are paperbark, manuka, woolly tea-tree and cutting grass, plus the peppermint and gums already mentioned. On the tidal flats is the salt tolerant shrub, *Arthrocnemum arbuscula*, with a ground cover of the herb, *Suaeda australis*.

Extensive areas have been cleared of heath and scrub and in some cases drained for grazing and restricted cropping.

Wind erosion is the major hazard, and water-logging, flooding and salting are important in certain localities.

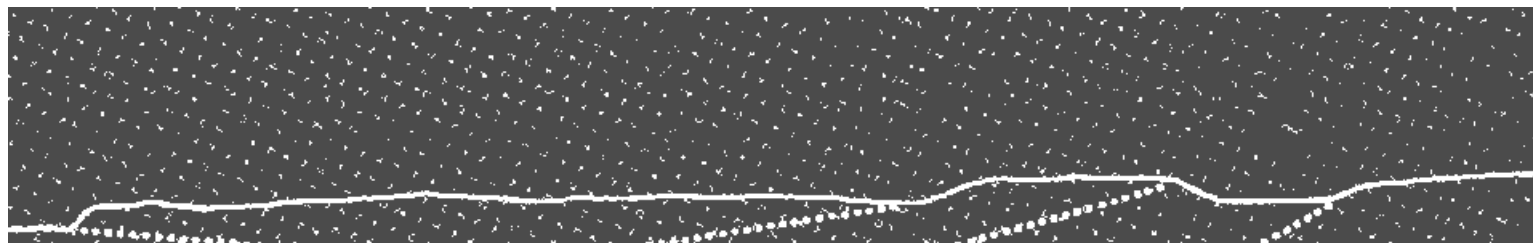


A landscape typical of most of Plains land system

LAND SYSTEM

593111

Plains



COMPONENT	1	2	3	4	5
PROPORTION %	5	55	15	10	15
CLIMATE	Average Annual Rainfall 1 000-1 250 mm				
GEOLOGY	Quaternary sands, clay deposits				
TOPOGRAPHY	Mainly level plain				
Land form	Mainly level plain				
Position	Tidal flats	Plain	Upper terrace, sand ridges	Drainage	Very gentle footslopes
Average Stdeslope °	0		1	0	
NATIVE VEGETATION					
Structure	Open heath, sedgeland		Open forest	Open scrub, sedgland	Closed scrub
Association	<i>Arthrocnemum arbuscula</i> , <i>Suaeda australis</i>	lanuka, <i>Melaleuca squarrosa</i> , <i>Leptospermum niti dum</i> , <i>L glaucescens</i> , <i>Leptocarpus tenax</i> , tassel cord rush, <i>Juncus pallidus</i>	Smith ton peppermint, swamp gum, white gum, black wood, prickly mimosa, bracken, <i>Melaleuca squarrosa</i> , manuka	<i>Melaleuca squarrosa</i> , <i>M squamea</i> , manuka, white gum, swamp gum, cutting grass, <i>Sprengelia incarnata</i>	Paperbark, swamp gum, <i>Melaleuca squarrosa</i> , woolly tea tree, manuka, cutting grass
SOIL	Saline, light olive brown (2.5 Y 5/4) silty clay soil, sandy at depth	reyish brown (10 YR 5/2) sand soil, dark B horizon, uniform texture	Grey (10 YR 6/2) sand soil, uniform texture	Black sand soil, uniform texture	Complex
Surface Texture	Silty clay	Loamy sand		Peaty loam	
Permeability	High				
Average Depth m	1 0+		>1 8		
PRESENT LAND USE	Grazing, recreation, residential, airports				
HAZARDS		oderate wind, low rill erosion	High wind, rill erosion	Moderate flooding	Low sheet erosion