898122

MELALEUCA

This land system is scattered through the far south west of the study area and consists of undulating, poorly drained lowland plains covered by sedgeland/heath. Small knolls on these plains may have formed by differential expansion and contraction of peat. These are found on other land systems (e. g. 898121) as are river terraces which could have formed during increased flows in Pleistocene times. The broad valley between Cox Bight and Melaleuca Inlet and associated gravel deposits probably also formed during this period. Over the rest of the land system peats overlie finer, unconsolidated gravel and sand or Precambrian bedrock (quartzite or mica schist).

Organic soils cover most of the land system and typically consist of reddish brown fibrous peat over grey muck peat. Occasionally there is a lack of muck peat or gravels, with fibrous peat resting directly on Precambrian quartzite or mica schist. Peat may also overlie mica rich clay loam mineral soils which develop from the schists.

Poorly drained flats and depressions have deep organic soils (1. 80 m) and are dominated by Gymnoschoenus *sphaerocephalus.* Slightly better drained sites often have scattered *Banksia marginata* and *Agastachys odorata* which emerge above surrounding sedgeland/heath vegetation. Sites close to the harbour or lagoon shore or those flanking creeks have scrub or woodland with *Eucalyptus nitida, Leptospermum* spp., *Melaleuca* spp., Acacia *verticillata* and *Monotoca glauca.* In places sedgeland/heath replaces the scrub or woodland and reaches the shoreline. There is often a lack of muck peat or gravels, with fibrous peat resting directly on Precambrian quartzite or mica schist, or in some situations on mica rich mineral soil consisting of very dark grey clay loam soils which develop on the schist.

Land uses in this land system include nature conservation, recreation, mineral exploration and small scale tin mining in the Melaleuca Inlet region. The major soil erosion hazard in the region is the loss of peat as a result of firing. This has occurred on some better drained positions. Muddy wallows have developed on tracks resulting in track bifurcation.

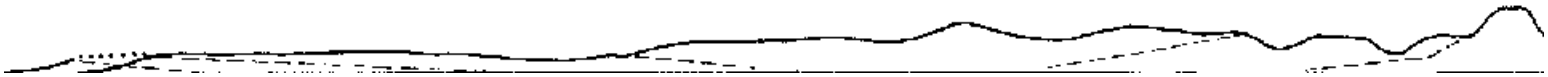
Photo 60

Extensive tracts of sedgeland/heath dominate this land system Location—Rowitta Plains north of Bathurst Harbour

LAND SYSTEM
MELALEUCA

898122

Area(ha): 50611



ALTITUDINAL	0-300		APPROXIMATE ANNUAL RAINFALL (mm)			
SITE NO. /ALTITUDE	25/5/N	22/5/W	23/5/-	(24/5/-)(20/40/E)	21/40/E	26/10/-
TOPOGRAPHY			Undulating Iowland plains			
Position	Lagoon shore	Harbour shore	Very poorly drained flats	Well drained flats and low	Creek banks	Small knolls
Typical slope(%)	2-5	5-10	0	0-5	2-5	0
Proportion (%)	5	5	30	40	15	5
GEOLOGY		Peat deposits (0. 30 to >1. 8m) overlying sand & /or gravels & mica				
NATIVE	Low woodland	Woodland	Open to closed-	Open to closed-	Open-scrub	
Structure			sedgeland/heathldnd	sedgeland/heathland		
Floristic:	Eucalyptus	Eucalyptus nitida	Gymnoschoenus	Gymnochoenus	Eucalyptus nitida	Leptospermum
Association	Melaleuca	Leptospermum	Leptocarpus tenax	Sprengelia	Melaleuca squarrosa	Agastachys odorata
(See Appendix 1	Monotoca glauca	L. nitidum	Sprengelia incarnata	Baeckea leptocaulis	Leptospermum	Meleuca squarrosa
for common	Leptospermum	Monotoca glauca	Melaleuca squamea	Leptospermum	Pumelea lindleyana	Baurea rubioides
NAMES)	Gahnia grandis	Acacia verticillata	Calorophus elongatus	Bauera rubioides	Sprengelia	Leptospermum
	Bauera rubioides	Phebcalium squameum	Restio complanatus	Banksia marginata	Gahnia grandis	Gymnoschoenus
	Restio	Cenarrhenes nitida	Baeckea leptocaulis	Calorophus	Gleichenia dicarpa	Empodisma minus
	Cenarrhenes	Bauera rubioides	Restio monocephalus	Restio monocephalus	Empodisma minus	
	Gleichenia	Pteridium	Xyris sp.	R. complanatus	Restio	
	Ptendium	Banksia marginata	Drosera sp.	R. australis	Epacris lanuginosa	
		Melaleuca squamea	Actinotus	Boronia parviflora	Baumea acuta	
		Actiotus suffocata	Boronia parvif lora	Xyris sp.		
		Prionotes	Leptospermum nitidum	Agastachys odorata		
SOIL Surface(A or P horizon (Colour (moist) and	Dark reddish brown (5 YR 2. 5/2) fibrous peat over black (10 YR	Dark reddish brown (5 YR 2. 5/2) fibrous peat	Dark reddish brown (5 YR 2. 5/2) fibrous petit over very dark grey (2. 5 Y 3/0) muck peat	Dark reddish brown (5 YR 2. 5/2) or very dark grey (10 YR 3/1) fibrous	Dark reddish brown (5 YR 3/2) fibrous peat over very dark grey (2. 5 Y 3/0) muck peat	Dark reddish brown (5 YR 2. 5/2) fibrous peat over a black (5 YR 2. 5/1) muck peat
Subsoil (or B horizon) colour (moist) and	Gravels on bedrock.	Gravelly, very dark grey (10 YR 3/1) clay loam	Very dark greyish brown (2. 5 Y 3/2)	Gravels or sandy clay or loamy sand	Various mineral horizons.	
Primary Profile form	Organic	Uniform	Organic	Organic	Organic	Organic
Depth surface horizon(m)	0. 75	0. 05	1. 40	0. 15 - 1. 15	0. 40	0. 60
Typical total depth(m)	0. 75	0. 65 - 1. 00	1. 80	0. 30 - 1. 50	0. 60	>1. 30
Permeability	High	Moderate	High	High	High	High
LAM) USE			Nature conservation, recreation			
HAZARD		Moderate track erosion and bifurcation				