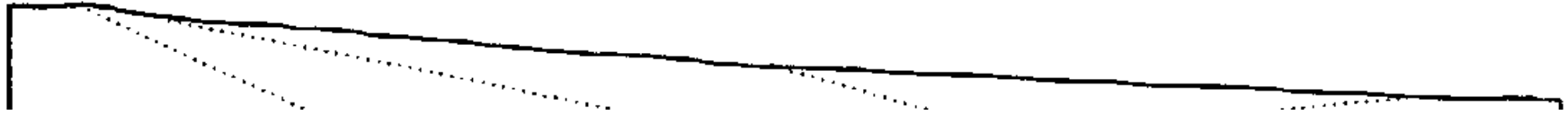


LAND SYSTEM  
Bernacchis Creek

368151

Area (ha):  
4217



COMPONENT	A	B	C	D	E
PROPORTION(%)	5	5	40	40	10
RAINFALL (mm)	Approximate Annual Rainfall: 625-750				
GEOLOGY	Triassic	Sandstone	Permian	Mudstone, Siltstone, Sandstone, Limestone	
TOPOGRAPHY	Localised Sandstone Benches and Extensive Sandstone/Mudstone Slopes and Associated Flats				
Position	Sandstone Benches	Sandstone Slopes	Upper Slopes	Mid Slopes	Lower Slopes/Flats
Typical Slope(o)	3	10-20	15-20	20	2
NATIVE VEGETATION					
Structure	Open Forest				
Floristic Association	Eucalyptus obliqua	Eucalyptus obliqua	Eucalyptus viminalis	Eucalyptus globulus	Eucalyptus globulus
	Eucalyptus globulus	Eucalyptus globulus	Eucalyptus globulus	Eucalyptus viminalis	Casuarina stricta
	Pultenaea juniperina	Olearia lirata	Acacia dealbata	Eucalyptus obliqua	Astroloma humifusum
	Olearia lirata	Acacia dealbata	Astroloma humifusum	Lomandra longifolia	
	Dianella tasmanica	Lomandra longifolia	Olearia lirata	Pteridium esculentum	
	Cyathodes glauca	Pteridium esculentum	Pteridium esculentum	Acacia dealbata	
	Coprosma quadrifida			Lepidosperma laterale	
	Pteridium esculentum				
	Acacia verticillata				
SOIL					
Surface(A)Texture	Sandy Clay Loam	Sandy Clay Loam	Fine Sandy Loam	(Sandy) Clay Loam	Medium Clay
B Horizon(subsoil) Colour (moist) Texture and primary profile form	Shallow stony medium clay - strong brown (7.5 YR 4/6) on bedrock. Duplex.	Shallow, stony sandy clay loam on bedrock. Uniform.	Shallow stony, hard setting fine sandy loam -dark greyish brown (10 YR 4/2). Uniform.	Deep clay - Light yellowish brown (10 YR 6/4) with light grey (10 YR 7/2) mottle. Duplex.	Deep clay - Black (10 YR 2/1) over dark greyish brown (10 YR 4/2) with dark yellowish brown (10 YR 4/6) mottle. Uniform.
Permeability	Moderate	Moderate/High	Moderate/High	Moderate/Low	Low
Typical depth(m)	0.50	0.40	0.40	1.00	>1.40
LAND USE	Nature Conservation, Recreation				Grazing
HAZARDS	Moderate Sheet, Rill Erosion			High Gully Erosion	

368151

BERNACCHIS CREEK

This land system is located on Maria Island inland from Darlington, and is formed on sediments of the Parmeener Supergroup. It consists of localised Triassic sandstone benches and slopes, with extensive slopes formed from Permian sediments (mudstone, siltstone, sandstone, limestone).

Localised sandstone benches occur immediately below the dolerite country in the Mt Maria (472251) Land System. These have a shallow (0.50 m), duplex soil with a sandy clay loam surface over a strong brown medium clay. The vegetation is an open forest dominated by *Eucalyptus obliqua* and *Eucalyptus globulus* over a heathy understorey of *Pultenaea Juniperina*, *Olearia lirata*, *Dianella tasmanica*, *Cyathodes grlauca*, *Coprosma quadrifida*, *Pteridium esculentum* and *Acacia verticillata*.

Sandstone slopes contain a shallow (0.40 m), stony, uniform sandy clay loam developed on bedrock. This supports an open forest dominated by *Eucalyptus obliqua* and *Eucalyptus globulus* over an understorey of *Olearia lirata*. *Acacia dealbata*, *Lomandra longifolia* and *Pteridium esculentum*.

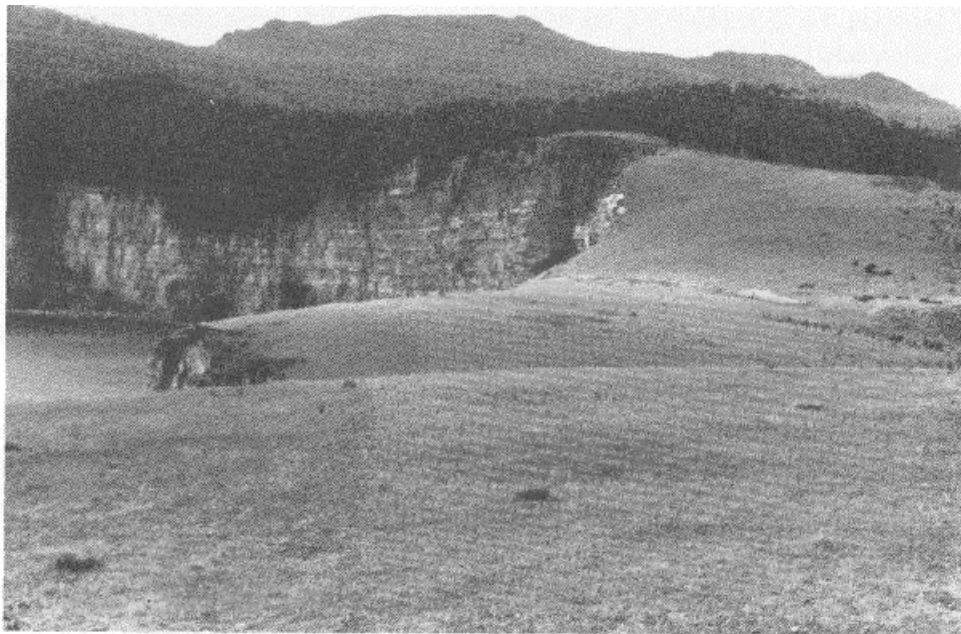
Upper slopes have a shallow (0.40 m), stony, hardsetting, fine sandy loam which supports an open forest dominated by *Eucalyptus viminalis* and *Eucalyptus globulus* with an understorey of *Acacia dealbata*, *Astroloma humifusum*, *Olearia lirata* and *Pteridium esculentum*.

Mid-slopes contain a deep (1.00 m) duplex soil consisting of a clay loam to sandy clay loam surface over a light yellowish brown clay with a light grey mottle. This sustains an open forest dominated by *Eucalyptus globulus*, *Eucalyptus viminalis* and *Eucalyptus obliqua* with an understorey of *Lomandra longifolia*, *Pteridium esculentum*, *Acacia dealbata* and *Lepidosperma laterale*.

Lower slopes and flats contain a deep (>1.40 m), uniform, black to dark greyish brown clay with a dark yellowish brown mottle. An open forest dominated by *Eucalyptus globulus* with an understorey of *Casuarina stricta* and *Astroloma numifusum* develops in these areas.

The land system is used for nature conservation and recreation. The land is particularly susceptible to erosion. Sheet and rill erosion problems are associated with the steeper slopes whilst gully erosion is evident on the lower slopes and flats. The vegetation of Maria Island has been described and mapped by Brown and Bayly-Stark (1979b).

BERNACCHIS CREEK (368151) LAND SYSTEM



Lower slopes of the Bernacchis Creek (368151) Land System near Darlington with the Mt Maria (472251) Land System in the background.



Severe gully erosion on cleared lower slopes of the Bernacchis Creek (368151) Land System, near Darlington.