

PO1: Fragic, Pipey, Aeric Podosol

General description of the soil

A rapidly drained Podosol with a strongly developed pipey B horizon which is weakly coherent.

Distribution:	These soils occupy small but widespread areas fringing parts of the coastline of southern and eastern Australia, including Tasmania, and extending north to Cape York Peninsula.
Typical land use:	Mainly nature conservation, some selective logging and limited areas of improved pastures.
Common variants:	Horizon thickness and magnitude of the 'pipes' are variable features.
World Reference Base:	Hyperalbic Arenosol.
Other names:	Pipey Podzols.

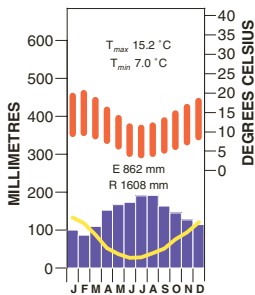
Environment and location of the example profile

Landform:	Dune crest of rolling rises.
Parent material or substrate:	Quaternary aeolian sands.
Drainage class:	Rapidly drained.
Surface condition:	Loose.
Site disturbance:	Minimal.
Native vegetation:	Eucalypt forest with heath understorey.

Site location



Site climate



Strahan district, Tasmania

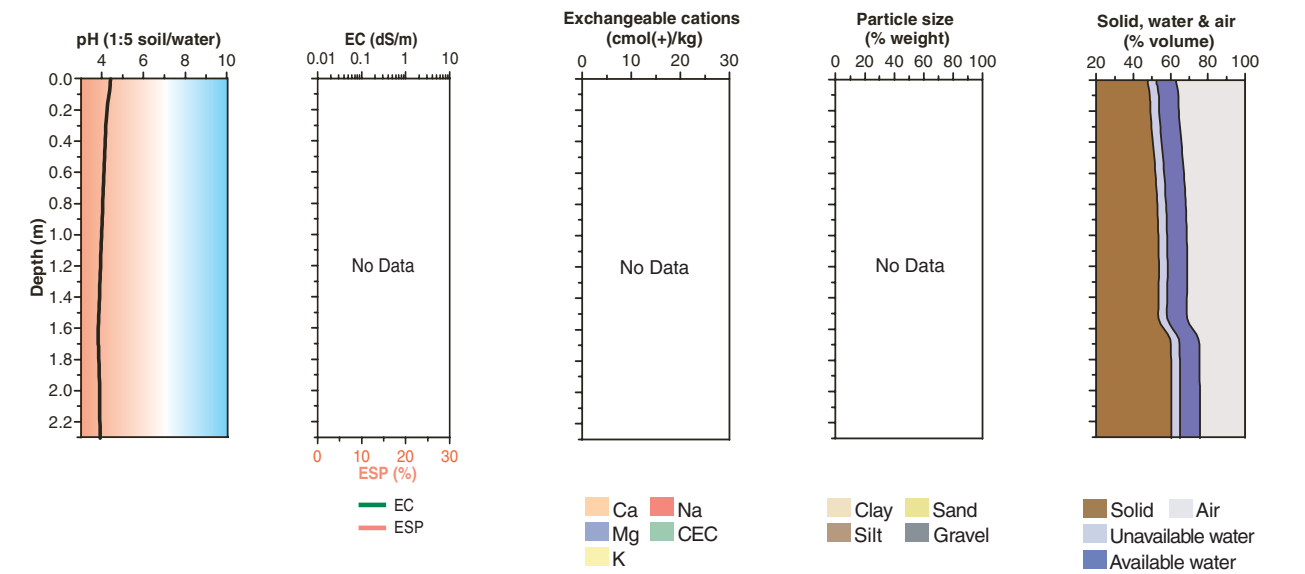
Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.12	grey (10YR 5/1)	–	sand	weak	granular	2–5 mm		very weak (moderately moist)	–	clear
A21e	0.12–0.30	light grey (10YR 7/1)	–	sand	single grain	–	–		loose (moderately moist)	–	gradual
A22e	0.30–1.60	white (10YR 8/1)	–	sand	single grain	–	–		loose (moderately moist)	–	sharp irregular
B2h	1.60–1.70	reddish black (5YR 2.5/2)	tongues of A22e material penetrating the B2h and the B2s horizon by 0.25 m (pipey B horizon)	sapric sand	weak	angular blocky	20–50 mm		very weak (moderately moist)	–	abrupt
B2s	1.70–2.30+	yellow (10YR 7/6)	10–20% reddish black (5YR 2.5/2) prominent (15–30 mm)	sand	weak	angular blocky	20–50 mm		very weak (moderately moist)	–	

Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H ₂ O ^A	pH CaCl ₂	Elect. Cond. dS/m	CaCO ₃ %	Org. C % ^A	Extr. P mg/kg	Tot. P %	Tot. K %	Cation exchange properties cmol(+)/kg							ESP %	Bulk dens. Mg/m ³	Particle size %				
										Ca	Mg	K	Na	H+Al	CEC	ECEC			CS	FS	Silt	Clay	
A1	0.00–0.12	4.4				0.3																	
A21e	0.12–0.30	4.2				0.1																	
A22e	0.30–1.60	4.0				0.1																	
B2h	1.60–1.70	3.8				0.2												1.4					
B2s	1.70 m+	3.9				0.1																	

Key profile properties



General qualities of the soil

Infiltration:	Rapid.
Available water store:	Moderate to large but rapidly drained.
Permeability:	High to very high.
Physical root limitations:	No apparent physical limitation to root growth.
Erosion hazard:	These soils are highly erodible by wind when cleared.
Nutrient availability:	Organic matter, phosphorus and nitrogen are low throughout the profile.
Toxicities:	None apparent.



This Aerice Podosol is associated with forested dunes on the cold and wet Tasmanian west coast.

Acknowledgements: Soil image, soil description and laboratory data: Forestry Tasmania. Profile 19.1 from Grant et al. (1995). Landscape image: Alan Moyle.