

## KU4: Bleached-Mottled, Dystrophic, Brown Kurosol

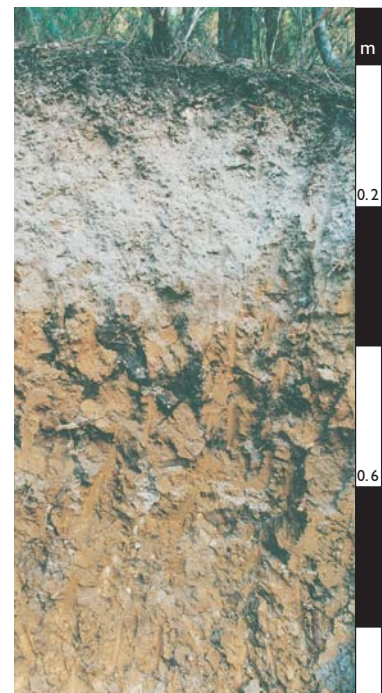
### General description of the soil

A strongly acid, texture-contrast soil with a low base status (i.e. Dystrophic) in the major part of the mottled brown clayey B2 horizon. A conspicuously bleached A2e horizon is present which may qualify as a densipan.

<b>Distribution:</b>	Dry forests with <1000 mm rainfall in northern Tasmania and also in similar subalpine areas of Victoria.
<b>Typical land use:</b>	Forestry and nature conservation.
<b>Common variants:</b>	B2 horizon colour may range to yellowish brown. A horizon thickness may also vary.
<b>World Reference Base:</b>	Abrupt Luvisol.
<b>Other names:</b>	Previously related to Yellow Podzolic soils.

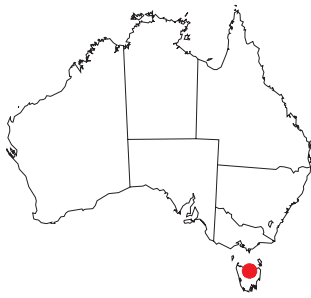
### Environment and location of the example profile

<b>Landform:</b>	Rolling hills.
<b>Parent material or substrate:</b>	Precambrian sandstone.
<b>Drainage class:</b>	Imperfectly drained.
<b>Surface condition:</b>	Soft.
<b>Site disturbance:</b>	Selective logging.
<b>Native vegetation:</b>	Dry sclerophyll forest dominated by Eucalyptus species.

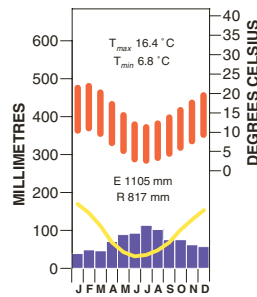


Devonport district, northern Tasmania

### Site location



### Site climate



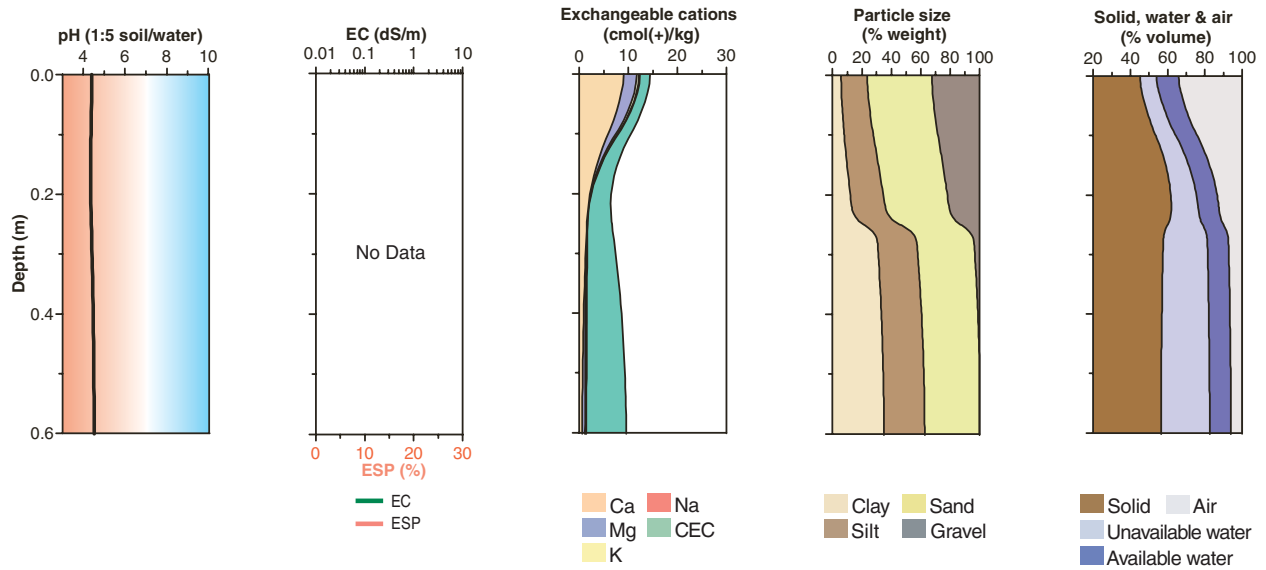
### Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.10	very dark grey (10YR 3/1)	–	sapric fine sandy loam	weak	granular	2–5 mm	weak (moderately moist)	10–20% angular quartz (6–20 mm)	–	clear
A2e	0.10–0.25	light grey (10YR 7/1)	20–50% grey (10YR 6/1) distinct (<5 mm)	fine sandy clay loam	uncemented massive discontinuous densipan	–	–	strong (moderately moist)	10–20% angular quartz (20–60 mm)	–	abrupt
B2t	0.25–0.60+	strong brown (7.5YR 4/6)	10–20% yellowish red (5YR 4/6) distinct (5–15 mm) and 2–10% pale brown (10YR 6/3) distinct (<5 mm)	medium clay	strong parting to moderate	angular blocky	20–50 mm parting to 10–20 mm	strong (moderately moist)		> 50% prominent humus coatings and 10–50% clay skins	

### Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H <sub>2</sub> O <sup>A</sup>	pH CaCl <sub>2</sub>	Elect. Cond. dS/m	CaCO <sub>3</sub> %	Org. C % <sup>A</sup>	Extr. P mg/kg	Tot. P %	Tot. K %	Cation exchange properties <sup>A</sup>						ESP %	Bulk dens. Mg/m <sup>3</sup>	Particle size % <sup>A</sup>			
										cmol(+)/kg								CS	FS	Silt	Clay
A1	0.00–0.10	4.4				7.9				8.8	2.1	0.5	0.2	2.0	14	–	1.0	35	30	27	9
A2e	0.10–0.25	4.3				0.6				1.2	0.8	0.1	0.1	3.6	6	–	1.5	31	27	29	13
B2t	0.25–0.60	4.5				0.5				0.7	0.5	0.1	0.1	7.4	9	–	1.5	22	16	28	34

Key profile properties



General qualities of the soil

Infiltration:	Rapid.
Available water store:	Small.
Permeability:	Moderate.
Physical root limitations:	Severe rooting limitations due to pans and massive clay subsoil.
Erosion hazard:	Moderate to severe depending on slope.
Nutrient availability:	Low phosphorus and nitrogen. Organic matter is high in the surface soil but low in the subsoil.
Toxicities:	None apparent.



Characteristic bracken understorey of dry eucalypt forests on strong texture-contrast soils in northern Tasmania

Acknowledgements: Soil image, soil description and laboratory data: Forestry Tasmania. Profile 4.1 from Grant et al. (1995). Landscape image: Alan Moyle.