

RU1: Basic, Arenic Rudosol

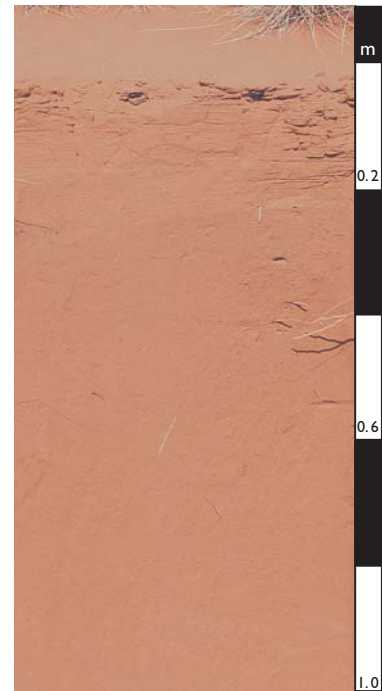
General description of the soil

This strongly red, deep sandy soil has little profile development – differences in particle size relate to deposition by wind.

Distribution:	A widespread soil in the deserts of Australia.
Typical land use:	Limited grazing and nature conservation.
Common variants:	Variations in redness are associated with different sand sources.
World Reference Base:	Aridic Arenosol.
Other names:	Siliceous Sands.

Environment and location of the example profile

Landform:	Gently undulating sandplain. Crest of low linear sand dune (average height ~12 m).
Parent material or substrate:	Aeolian sand.
Drainage class:	Well-drained.
Surface condition:	Loose surface with ripples.
Site disturbance:	No effective disturbance.
Native vegetation:	Open grassland of spinifex.

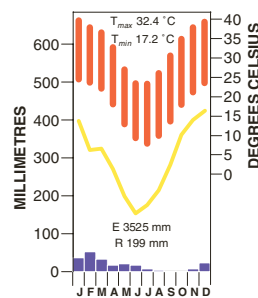


Rudall National Park, Western Australia

Site location



Site climate



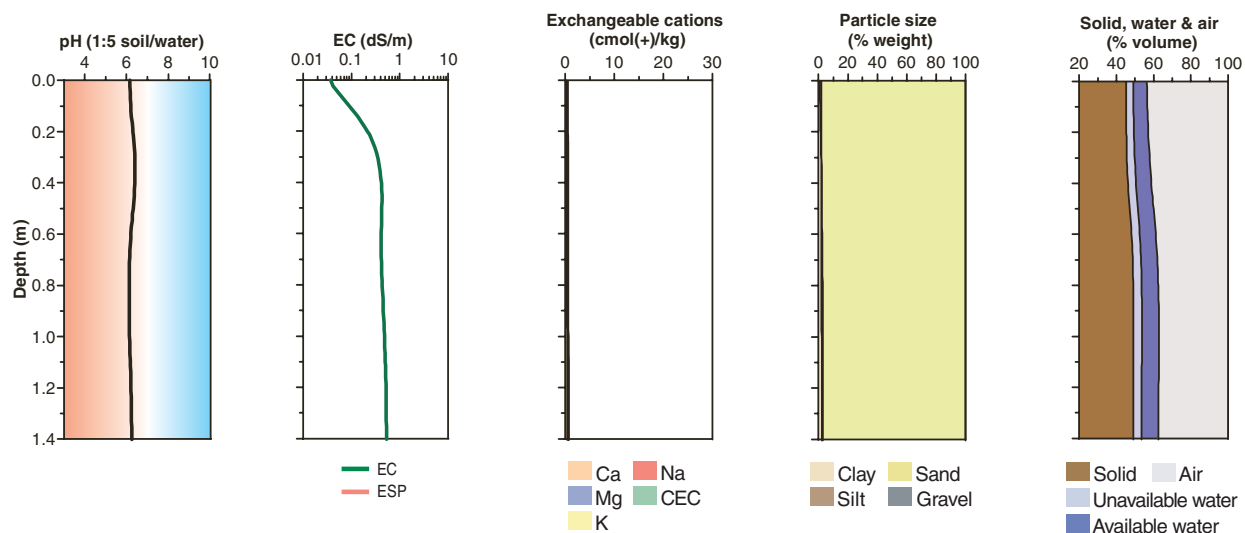
Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.20	Reddish brown (2.5YR4/6)	–	sand	single grain	–	–	loose drift with bedding	–	–	
C1	0.20–0.50	Reddish brown (2.5YR4/8)	–	sand	single grain	–	–	loose layer with no bedding	–	–	
C2	0.50–0.80	Reddish brown (2.5YR4/8)	–	sand	single grain	–	–		–	–	
C3	0.80–1.10	Reddish brown (2.5YR4/8)	–	sand	single grain	–	–		–	–	
C4	1.10–1.40	Reddish brown (2.5YR4/8)	–	sand	single grain	–	–		–	–	

Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H ₂ O ^A	pH CaCl ₂ ^B	Elect. Cond. dS/m ^A	CaCO ₃ %	Org. C % ^A	Extr. P mg/kg ^A	Tot. P %	Tot. K %	Cation exchange properties ¹ cmol(+)/kg						ESP %	Bulk dens. Mg/m ³	Particle size % ^B										
																		Ca	Mg	K	Na	H+Al	CEC	ECEC	CS	FS	Silt	Clay
A1	0.00–0.20	6.2	5.2	0.03		<0.1	<1			0.3	0.1	0.1	<0.1					69	29	1	1							
C1	0.20–0.50	6.5	5.1	0.47		<0.1	<1			0.3	0.2	0.1	<0.1					74	24	<1	2							
C2	0.50–0.80	6.1	5.2	0.39		<0.1	<1			0.3	0.2	0.1	0.1					65	32	1	2							
C3	0.80–1.10	6.1	5.3	0.47		<0.1	<1			0.3	0.2	0.1	<0.1					72	25	1	2							
C4	1.10–1.40	6.3	5.5	0.53		<0.1	1			0.4	0.2	0.1	<0.1					55	42	1	2							

Key profile properties



General qualities of the soil

Infiltration:	Rapid.
Available water store:	Moderate to large but rarely filled.
Permeability:	Very high.
Physical root limitations:	None.
Erosion hazard:	Wind erosion hazard is very high.
Nutrient availability:	Very low throughout.
Toxicities:	Highly saline below the A horizon.



Undulating sandplains support Arenic Rudolosols in one of the hottest and driest regions in Australia. Rudall National Park, Western Australia.

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