OR3: Paralithic, Acidic, Sapric Organosol

General description of the soil

A very poorly drained Sapric Organosol in which the surface peaty organic materials overlie saprolite. The image is from a nearby location and differs slightly in profile morphology from the described profile.

Distribution:	Alpine and subalpine areas in New South Wales, Victoria, Tasmania and the Australia Capital Territory.
Typical land use:	Nature conservation, water harvesting, summer grazing and recreation.
Common variants:	Commonly found in a dried, drained state, known as humified peats (Costin 1954).
World Reference Base:	Ombric Histosol.
Other names:	Mossbeds, bogs and mosslands.

Environment and location of the example profile

Landform:	Hillsides below springs and seepages (raised bogs) and valley floors (valley bogs).
Parent material or substrate:	Organic matter, predominantly <i>Sphagnum cristatum</i> with partially weathered rock substrate.
Drainage class:	Very poorly drained.
Surface condition:	Very spongy.
Site disturbance:	Cattle grazing, road building and ski developments.
Native vegetation:	Sphagnum cristatum, Carex gaudichaudiana, Epacris paludosa, Richea continentis and Astelia species.
Microrelief:	Characteristic hummocks and hollows.

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Wellington Plains (near Mount Wellington), Victoria

Site location





Soil morphology

Horizon	Depth	Colour	Mottles	Texture	ire Structure Structure			Consistence	Coarse	Segregations	Boundary	
	(m)				Grade	Shape	Size		fragments			
P1	0.00-0.30	yellow (7.5Y 7/8)	-	fibric peat					-	-	gradual	
P21	0.30-0.60	dark yellowish brown (10YR 4/4)	-	hemic peat					-	-	gradual	
P22	0.60-1.05	very pale brown (10YR 7/3)	-	sapric peat					-	-		

Soil chemical and physical properties

Horizon	Sample Depth	рН Н ₂ О ^А	pH CaCl ₂	Elect. Cond.	CaCO ₃ %	Org. C % ^A	Extr. Tot. Tot. P P% ^D K%			Cation exchange properties ^I cmol(+)/kg							ESP %	Bulk dens.	Particle size %			
	(m)			dS/m ^A			mg/kg			Ca	Mg	К	Na	H+AI	CEC	ECEC		Mg/m³	CS	FS	Silt	Clay
P1	0.00-0.30	3.8		0.60		97	48	0.021	0.023									0.04				
P21	0.30-0.60	4.5		0.39		82	4	0.052	0.062									0.10				
P22	0.60-1.05	4.8		0.17		80		0.087										0.09				
Note: La	Note: Laboratory data from a similar soil																					

Organosols

Key profile properties









General qualities of the soil

Rapid.
Large.
High at the surface and low at depth.
Poor aeration at depth.
Severe if disturbed.
Low in nitrogen and phosphorus
Possible aluminium toxicity.



Raised bog near Club Lake, Kosciuszko National Park, New South Wales

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