

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0003 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	20/11/95	Elevation:	1113 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6038435 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	610309 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Tb	Substrate Material:	Basalt

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	35 %	Aspect:	135 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
No Available Class Eutrophic Red Dermosol Medium Gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	Gn4.11
ASC Confidence:	Great Soil Group:	Chocolate soil
All necessary analytical data are available.		

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 10-20%, coarse gravelly, 20-60mm, subangular tabular, Basalt

Profile Morphology

A1	0 - 0.14 m	Dark reddish brown (5YR2.5/2-Moist); ; Clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded tabular, Basalt, coarse fragments; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.14 - 0.3 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR2.52, 2-10% , Distinct; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, subrounded tabular, Basalt, coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Diffuse, Irregular change to -
B22	0.3 - 0.7 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR2.52, 2-10% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, angular tabular, Basalt, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots;
B22	0.7 - 1.2 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Angular blocky; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, subrounded tabular, Basalt, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual change to -
B3	1.2 - 1.6 m	Dark reddish brown (5YR3/4-Moist); Substrate influence, 7.5YR32, 10-20% , Faint; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; Field pH 5 (Raupach);

Morphological Notes

B22	Gravel content increases form layer above.
B3	Auger stopped by gravel. Horizon has faint grey mottling and stronger structure than layers above.

Observation Notes

A lot of surface disturbance by lyrebirds. High gravel content limited auger so lower depth unknown. Snig track occurs just above plot.

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0003 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Notes

COMP 116H, 11106-1,176DEG FR 002,380M

Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.14	5.18C		13.54H	2.67	1.88	0.1	0.38J 0K		18.57E	
0.14 - 0.3	5.28C		6.47H	2.64	1.91	0.08	0.2J 0K		11.3E	
0.3 - 0.7	5.2C		4.15H	1.74	1.47	0.08	0.27J 0K		7.71E	
0.7 - 1.2	5.21C		4.52H	2.62	1.44	0.08	0.16J 0K		8.82E	
1.2 - 1.6	5.08C		4.99H	3	1.48	0.06	0.18J 0.32K		10.02E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.14		6.77B		4234.2B	0.24A		0.68	24.04				
0.14 - 0.3		2.33B		2693.6B	0.11A		0.80	14.56				
0.3 - 0.7		1.86B		2979.2B	0.07A		0.92	3.05				
0.7 - 1.2		1.06B		2385.3B	0.02A		0.82	3.12				
1.2 - 1.6		0.75B		2148.9B	0.01A			38.46				

[illegible]

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0003 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_H	Exchangeable H - by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
2A1	Air-dry moisture content
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_GRAV	Gravel (%)
P3A1	Bulk density - g/cm3