

Ashton Coal: NEOC/woodland/grassland reference sites/SVCA01,02,03/**Ravensworth Woodland**20 x 20m Quadrat monitoring including full BAM (ex diversity/m²)Date: 13.5.25Site reference code: RUMEX01Surveyors Name: RM, AJ

Vegetation community:

NB: TEC PCT 1603 Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter

General Site Description: *Eucalypt open forest with Buloke over grassy/water mosaic, moss also common.*

Structural characteristics: 1m length every 2m situated along 20m transect

At ten, 1m lengths along 20m transect. Note: the ground components (litter, cryptogram, rock, bare ground and lower perennial foliage) should add to 100%. Calculate projected foliage cover of perennial vegetation to minimise seasonal variations.

Habitat Structure		Starting distance									
		0m	2m	4m	6m	8m	10m	12m	14m	16m	18m
% Dead litter < 5cm diameter		40	85	90	90	75	90	45	40	50	45
% Annual plants (live litter)						10	5				5
% Cryptogram (exclude on rocks or logs ≥ 5cm across)								15	10		10
% Rock ≥ 5cm across		18									
% Log ≥ 5cm across											
% Sand											
% Gravel/small rocks (< 5cm)											
% Bare ground								10			10
Foliage cover (native & introduced)	Perennial plants 0 - 0.5m	42	15	10	10	15	5	30	50	50	30
	Ground cover										
	= 100%										
	(total % of litter, crypt., rock, bare gr., log and foliage 0-0.5m should=100%)										
	0.5 - 2m	5	2						5	5	
	2 - 4m	5	10	10	20	10	5		5	20	
	4 - 6m		10	20	10	10		30	20	10	20
	> 6m		20	40	40	50					

Site Details:.....

Date: 13.5.25

Site reference code: RUMEX01

Surveyors Name: A + RAY

Waypoint No: E: <u>56316620</u> N: <u>6405897</u>	Waypoint No: E: <u>56316619</u> N: <u>6405904</u> Photo: Marker peg: <u>Y</u>	Waypoint No: E: <u>56316617</u> N: <u>6405911</u>
Waypoint No: E: <u>56316640</u> N: <u>6405899</u> Marker peg: <u>Y</u>	Waypoint No: E: <u>56316639</u> N: <u>6405909</u> Aspect: <u>250°</u> Photo: <u>Y</u> Marker peg: <u>Y</u>	Waypoint No: <u>RUMEX01</u> E: <u>56316638</u> N: <u>6405920</u> LFA Slope: <u>5°</u> Aspect: <u>160° S</u> Photo: Marker peg: <u>Y</u>

Take photo of
general site from
LFA start point



Take close up
photos



Soil analyses checklist

Soil samples taken



Photo #'s

1094

to

1106

Pasture height

1	<u>152</u>
2	<u>120</u>
3	<u>100</u>

Site Name:.....

[illegible][illegible]

LFA Soil Surface Assessment (SSA) Data SheetDate: 13/5/25Site Name: RUMEX01

Each mini-transect needs to have it's location on the LO transect (in metres from 0) and its patch or interpatch type identified in this row of cells.

SSA Indicators.	Woodland/Heath										Class Values of Surface Features									
	1-2	5-6	9-10	14-15	18-19															
Rainsplash Protection (1-5)	2	3	3	3	2															
Perennial vegetation cover (1-4)	4	3	3	3	2															
Litter cover, origin & incorporation (1-10)	3/5	3/10	5/15	4/15	3/15															
Cryptogam cover (1-4)	4	4	4	4	4															
Crust broken-ness (1-4)	4	4	4	4	4															
Erosion type & Severity (1-4)	4	4	4	4	4															
Deposited materials (1-4)	4	4	4	4	4															
Soil Surface Roughness (1-5)	3	3	3	3	3															
Surface resistance to disturbance (5-1)	4	4	4	4	4															
Slake test (1-4)	4	4	4	4	4															
Surface Texture (1-4)	2	2	2	2	2															

Overstorey density (>5 cm dbh) - 20m x 20m PLOT

Site Code: Rumay 01Date: 13, 15, 25

DBH Limb 1	Limb 2	Limb 3	Species ID	Decortic ating bark	Fire scar	Dieback	Mistletoe	Hollows	Dead /Alive	Flowers /fruit
12	9		<i>A. supran</i>			3				<i>Alone</i>
7			<i>Bellota</i>			1				
7			"			1				
8			"			1				
7			"			1				
6			"			1				
21	20		"			2				<i>put</i>
8			"			1				
28			<i>E. ebra</i>			2				
10			<i>Bellota</i>			2				
11	7		"			2				
7			"			2				
7			<i>E. ebra</i>			2				
13			<i>Bellota</i>			2				
7			"			1				
10			"			1				
9			<i>E. ebra</i>			1				
9			<i>Bellota</i>			1				
21			"			1				
8			"			2				
6			"			2				
17	16		"			2				
13			"			1				
7			"			1				
7			"			2				
6			"			2				

Understorey density - 20m x 20m plot

Site Code:

RUMEX01

Date:

13, 5, 25

Understorey shrubs <5 cm dbh (including tubestock, direct seeding and tree regeneration)

1 place 11.26

Species (dead and alive)	0-0.5m	0.5 - 1.0 m	1.0 - 1.5 m	1.5 - 2.0 m	>2.0 m	Total
~~Davallia~~ ~~A. uliginosa~~	###	###				
Bullock	### ###	### ###	### ###	###	### ###	
E. crebra.	### ###	### ###	##		1	
	### ###	1				
A. ambigua	###	### ###	###			
A. subcinn.	###					
Borhonn.		1				

Add Myrtom to RUMEX02 → 1 < 0.5m ✓

No. large trees (>50cm dbh) in 50 x 20m plot:Tally..... 211**Total length of fallen logs**

>10cm dbh and >0.5m long: 50 x 20m (within plot area only)

	Walking up plot (right hand side)		Walking down plot (left hand side)
10 x 50		20 x 50	4
10 x 40		20 x 40	
10 x 30		20 x 30	4
10 x 20		20 x 20	1
10 x 10		20 x 10	
	Total		Total
	Total 20 x 50 (m)	<u>9m</u>	

% Litter cover**5 x (1x1m) plots: Include all dead and detached < 10cm.**Site reference code: Rumex01Date: 13.5.25

Litter includes leaves, seeds, twigs, branchlets and branches (<10 cm in diameter). The assessor must include all plant material that is detached from a plant and forms part of the litter layer on the ground surface. Litter cover is the two-dimensional litter layer in contact with the ground surface, including litter under the canopies of erect plants. Plant material that is not detached should be assessed as growth form foliage cover, regardless of whether it appears alive or dead.

	5m	15m	25m	35m	45m	Average
Litter	90%	40%	90%	75%	75%	

50% crypt

3AM Full Floristics: 20 x 20m plotSite reference code: RUMEX01Date: 13.5.25

Percent foliage cover: Foliage cover is the percentage of the plot covered by a vertical projection of all attached plant material, regardless of whether it appears alive or dead, of all individuals of a species. This includes leaves, stems, twigs, branchlets and branches, from forb, grass and grass-like species, and any canopy overhanging the plot, even if the stem is outside the plot.

For species with cover >5% abundance estimates are not required

% Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ..., 100% foliage cover

Abundance: 1, 2, 3, ..., 10, 20, 30, ..., 100, 200, ..., 1000

0.63 x 0.63 = 0.1%	4 x 4 = 4%
1 x 1 = 0.25%	4 x 5 = 5%
1.4 x 1.4 = 0.5%	4 x 6 = 6%
2 x 2 = 1%	5 x 5 = 6.25%
2 x 4 = 2%	5 x 10 = 12.5%
3 x 3 = 2.25%	8 x 10 = 17.5%
3 x 4 = 3%	10 x 10 = 25%

	Species	N, E, HTW	% Cover	Abundance	Specimen taken
1x1	<i>Eucalyptus crebra</i>		6	1 tree	+ ~10 seedlings
	<i>Brouniella australis</i>		0.25	~200	
	<i>Cleistanthus sieberi</i>		0.25	~200	n=13
	<i>Sarcocolla madagascariensis</i>	HTW	0.1	~30	c=1
	<i>Chrysocarpum apiculatum</i>		0.1	~50	
	<i>Wahlenbergia</i> sp. (fine leaves, w. luteola, re flower)		0.01	1	(✓) extra w. flower outside plot.
	<i>Arctostaphylos</i> sp. 1. (fine) = vagans?		5	~200	(✓)
	<i>Glycine</i> sp. - tabacina		0.01	~20	(✓)
	<i>Dichondra repens</i>		5	~300	
	<i>Greenea varians</i>		0.25	~200	(✓) w. pods
	<i>Sporobolus creber</i>		0.05	~20	
	<i>Rytidosperme</i> sp. enanthum		0.05	~20	(✓)
	<i>Celestium citreum</i> (curled)		0.25	~50	
	<i>Carex inversa</i>		0.01	5	
1x2	<i>Cymbopogon refractus</i>		0.25	~100	n=17
	<i>Asperula conferta</i>		0.1	~70	c=1
	<i>Ataxia</i> sp. ? (pungent leaf) ^{Danisia genus? folia}		0.25	~10	(✓) Danisia genus?
	<i>Microlaena stipoides</i>		0.5	~400	
2x2	<i>Opuntia stricta</i>	HTW	0.25	~20	n=18
	<i>Calceolaria lappacea</i>		0.01	2	c=2

	Species	N, E, HTW	% Cover	Abundance	Specimen taken
5x5	<i>Mucanumia leucomia</i>		10	10/5	
	<i>Cyperus gracilis</i>		0.01	3	
	<i>Plantago lanceolata</i>	E	0.01	5	
	<i>Dichanthium sericeum</i>		0.01	1	
	<i>Veronica plebeia</i>		0.01	1	
	<i>Glossocardia bident</i>		0.01	10	
	<i>Eragrostis</i> sp. (like) = <i>leptostachya</i>		0.01	~5	✓
	<i>Vitellaria cuneata</i>		0.01	~10	✓
	<i>Lemanea multiflora</i>		0.02	~5	
	<i>Acacia umbellifera</i>		0.5	~20	
	<i>Acacia salicina</i> (seedlings)		0.5	1 tu + ~5 seedlings	
	<i>Gomphocarpus fruticosus</i>	E	0.01	1	
	<i>Richardia stellaris</i>	E	0.01	~20	
	<i>Bothriochloa deiphris</i>		0.02	~30	
5x10	<i>Euchiton sparsus</i> ? involucreatum		0.01	~20	✓
	<i>Anthriscus</i> sp. 2. (thicker) = <i>runosa</i> ?		4	~100	✓
	<i>Lemanea filiformis</i>		0.25	~50	
	<i>Hypericum gramineum</i>		0.01	~50	
	<i>Sida corymbosa</i>		0.01	5	
10x10	<i>Cenyzia baroniensis</i>	E	0.01	~10	
10x20	<i>Cryptandra cernua</i> ?		0.1	~10	✓
	<i>Eremophila debilis</i>		0.25	~20	
	<i>Lycium ferissimum</i>	HTW	0.95	1	
	<i>Bostrychia lateriflora</i> ? <i>spathulata</i>		0.01	~20	✓
	<i>Eragrostis brownii</i> ? <i>californensis</i> ?	HTW	0.01	2	✓
	<i>Megathyrsus maximus</i>	E	0.01	2	
20x20	<i>Wahlenbergia</i> sp. 2 (fine/branched) = <i>communis</i>		0.01	1	✓
	<i>Fimbristylis altissima</i>		0.01	1	
	<i>Hyparrhenia hirta</i>	HTW	0.02	1 clump	
	<i>Spergularia</i> / <i>Phyllanthus</i> sp. <i>p. virgatus</i>		0.01	1	✓
	<i>Dianella longistylis</i> (change Runt 02 to this)		0.01	2	✓
	<i>Oxalis peruviana</i>		0.01	2	
	<i>Verbena litoralis</i>	E	0.01	1	
	<i>Stachytarax</i> sp. ? <i>Danversia virgata</i> = <i>D. leptophylla</i>		0.01	1	✓

Solenogyne bellioles

20x20 ~~Brachyotoma~~ ^{Stomatopoda} sp. 2. toothed leaf tips 9.02 ~ 50 ^{ed.} NW ^{ed.} NW

Nahlenbergia ^{W. gracilis} sp. 3. rosettes w. ^{soft leaves} ~~leaves~~ to/h 0125 ~1000

quant's advantage HTW 0.01 1

Gamochaeta sp. ^{coarctatum} rosettes E 0.01 ~ 20

Sepanic sp. - s. pumila (pale/white hair) E 0101 1

Panicum affusum 0.01 1