

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: RUMEX02Surveyors Name: RM, 4J**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: *Immature E. cockra woodland with Buloke, groundcover mostly leaf litter with mossy patches.*

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		90	90	100	95	85	100	55	75	85	70
% Annual plants (live litter)											
% Cryptogram (exclude on rocks or logs ≥ 5cm across)											
% Rock ≥ 5cm across											
% Log ≥ 5cm across											
% Sand											
% Gravel/small rocks (< 5cm)											
% Bare ground		10	5					40	25		
Foliage cover (native & introduced)	Perennial plants 0 - 0.5m		5		5	15		5		15	30
	Ground cover										
	= 100%										
	(total % of litter, crypt., rock, bare gr., log and foliage 0-0.5m should = 100%)										
	0.5 - 2m			5		5		15		10	
	2 - 4m									5	
	4 - 6m <i>trunk</i>	-10			15		10	5			
	> 6m	20	30	30	20	30	40	40	40	20	

Site Details:

Date: 13/5/25

Site reference code: RUMEX 02

Surveyors Name: A + Ray

Waypoint No: E: 56 316 973 N: 640 5914	Waypoint No: E: 56 316 972 N: 640 5906 Photo: 7 Marker peg: 7	Waypoint No: E: 56 316 973 N: 640 5898
Waypoint No: E: 56 316 956 N: 640 5916 Marker peg: 7	Waypoint No: E: 56 316 955 N: 640 5908 Aspect: 90° Photo: 7 Marker peg: 7	Waypoint No: RUMEX 02 - LABEL E: 56 316 954 N: 640 5897 LFA Slope: 50° Aspect: 358° Photo: 7 Marker peg: 7

Take photo of general site from LFA start point ☒

Take close up photos ☒

Soil analyses checklist

Soil samples taken ☒

Photo #'s

1069

to

1081

Pasture height

1

2

3

Site Name: RUMFY02

[illegible][illegible]

LFA Soil Surface Assessment (SSA) Data Sheet

Date: 13/5/25

Site Name: Lawley 02

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 Patch										Class Values of Surface Features									
Rainsplash Protection (1-5)	0-1	4-5	9-10	14-15	18-19															
Perennial vegetation cover (1-4)	2	2	2	2	2															
Litter cover, origin & incorporation (1-10)	4	4	4	4	4															
Cryptogam cover (1-4)	5/5	5/5	5/5	6/5	3/5															
Crust broken-ness (1-4)	1	3	3	1	4															
Erosion type & Severity (1-4)	4	4	4	4	4															
Deposited materials (1-4)	2	3	2	1	3															
Soil Surface Roughness (1-5)	3	3	3	3	3															
Surface resistance to disturbance (5-1)	3	4	4	3	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:

LUNEY 02

Date:

13, 5, 25

DBH Limb 1	Limb 2	Limb 3	Species ID	Decortic ating bark	Fire scar	Dieback	Mistletoe	Hollows	Dead /Alive	Flowers /fruit
9	9		Ecceba			1				
18			"			2				
25			Bulloal			3				
11	9		Ecceba			3				
23	13		"			1				
5			Stag						0	
24			Ecceba			1				
14	6		"			2				
10			"			2				
6	3		"			3				
6	5		"			2				
10			"			2				
14	11		Bulloal			2				
13			"			2				
7			Ecceba			2				
6			"			2				
9			Bulloal			2				
13			Ecceba			1				Dead
11			"			2				
14	13		Bulloal			2				
13	13		Ecceba			2				
12	12	10	Bulloal			2				
11			"			2				
18			"			1				
13			Ecceba			2				
24			"			2				
11			"			2				
8			"			2				
11			"			3				
21			"			2				
9			Stag						0	
7			Stag						0	
22			Ecceba			2				
20	13		"			2				
15			"			1				
16			Stag						0	
16			Ecceba			2				
32			"			1				
13			Bulloal			2				
18			Ecceba			2				
11			"			2				
9			"			2				
14			"			2				
16			"			2				
20	17		Bulloal			2				
23			Ecceba			2				

Understorey density - 20m x 20m plot

Site Code:

LUMEX02

Date:

13, 5, 25

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

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
<i>Bullock</i>	 	 	 	 	 	
<i>E. crebra</i>		/	/	/		
<i>A. salicini</i>		/				
<i>A. ambigua</i>	1	1				
<i>Myoporum montanum</i>	1					

Tally.....2 (1 Stag + 1 Ewe) 50-70cm db.
 Stag 63cm

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

% Litter cover

5 x (1x1m) plots: Include all dead and detached < 10cm.

Site reference code: RUMEX 02

Date: 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	95	80	40	60	90	

AM Full Floristics: 20 x 20m plot

Site reference code: RUMEX02

Date: 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

$$0.63 \times 0.63 = 0.1\%$$

$$1 \times 1 = 0.25\%$$

$$1.4 \times 1.4 = 0.5\%$$

$$2 \times 2 = 1\%$$

$$2 \times 4 = 2\%$$

$$3 \times 3 = 2.25\%$$

$$3 \times 4 = 3\%$$

$$4 \times 4 = 4\%$$

$$4 \times 5 = 5\%$$

$$4 \times 6 = 6\%$$

$$5 \times 5 = 6.25\%$$

$$5 \times 10 = 12.5\%$$

$$8 \times 10 = 17.5\%$$

$$10 \times 10 = 25\%$$

	Species	N, E, HTW	% Cover	Abundance	Specimen taken
1x1	<i>Eucalyptus globulus</i>		20	lots	
	<i>Leontodon albertinus</i>		0.02	~50	n=3
	<i>Microlaena stipoides</i>		0.05	~100	
1x2	<i>Mecasuarina leuhmannii</i>		10	lots	n=4
	<i>Opuntia aurantiaca</i>	HTW	0.01	5	n=1
2x2	<i>Glycine tuberosa</i> ?		0.01	~20	n=5
5x5	<i>Hypochaeris radicata</i>	E	0.01	1	pod.
	<i>Chloris gayana</i>	HTW?	0.01	1	
	<i>Eriachna nutans</i>		0.05	4 clumps	A=11
	<i>Eriachna latata</i> ?		0.01	1	C=5
	<i>Opuntia stricta</i>	HTW	0.5	~30	
	<i>Aristida</i> sp. (tree) = <i>vagans</i> ?		0.25	~20	
	<i>Senecio madagascariensis</i>	HTW	0.02	~30	
	<i>Dichondra repens</i>		1	~300	
	<i>Cyperus gracilis</i>		0.01	5	
	<i>Eremophila debilis</i>		0.1	~10	
5x10	<i>Cymbopogon refractus</i>		0.02	~10	
	<i>Phyllanthus</i> ? (<i>Coburnia</i> leaves) (<i>woody</i>)		0.01	5	n=18
	<i>Solanum cinereum</i>		0.1	~10	C=8
	<i>Chenopodium sieberi</i>		0.01	~20	

	Species	N, E, HTW	% Cover	Abundance	Specimen taken
x10	Lomandra multiflora		0.05	3	
	Cyanthidium ciliatum	E	0.25	~100	
	Anastrophylla scabra		2	~200 baskets	
	Pleurotheca lanceolata	E	0.01	10	
	Conyza bonariensis	E	0.01	5	
	Chrysanthemum glandulosum		0.02	~20	
10x10	Brachycome ^{B. sp.} ~~latifolia~~ ^{sp. nov.}		0.01	2	✓
	Spergularia ^{phyllanthus} ~~virgatus~~		0.01	1	✓
	Dicellaea sp. micrantha		0.01	1	✓
	Hypochaeris albiflora	E	0.01	1	
	Verbena litorea	E	0.01	3	
	Rytidosperma ^{sp. nov.} richardsonii		0.01	3	✓
	Acacia salicina		0.02	5 seedlings	
	Dianella revoluta		0.01	2	
10x20	Bothriochloa decipiens		0.01	10	✓
	Dichanthium sericeum		0.01	2	✓
	Cleistanthus bidens		0.01	1	✓
	Megasthema maximum	E	0.05	5	
	Acacia w. ^{A. amblyophylla} spiny leaves		0.05	2	✓ w. pad.
	Wallenbergia sp. = luteola		0.01	2	✓
	Cissium vulgare	F	0.01	1	
	Bromeliella australis		0.01	5	
	Leptochloa sp. = L. virginicum	E	0.01	2	✓ (round silica)
	Eriophorum tomentosum		0.1	10	
	Croton varians		0.01	1	
	Myoporum laetum		0.1	1	
	Calceolaria citreus? (dried)		0.1	~30	
20x30	Sida corymbosa		0.01	1	
	Calceolaria laetifolia		0.01	3	
	Anthracanthus sp. (leaves emerging)		0.01	3	
	Anastrophylla verticillata		0.1	1 clump	
	Rytidosperma ^(small) = R. caespitosum		0.1	1	✓
	Outside plot Lycium ferocissimum, Osteospermum + Olea europaea, monanthum.				