

FIELD DATA SHEETS

(NYAMI - NYAMIB)

FOR HERITAGE BUSHLAND ON

MCBURNEY'S 'NYAMUTIN FARM'

EAST YORNANING LCDC - SHIRE OF CUBALLING

Prepared by the

Wildflower Society of Western Australia (Inc.)

as part of the

Bushland Plant Survey Project 1998/99

This field sheets accompany the following report:

Gunness, A.G. and Volunteers of the Bushland Plant Survey Project (1999). A survey of vegetation and flora of heritage bushland on the McBurney's property 'Nyamutin Farm' in the East Yornaning LCDC, Shire of Cuballing. (Wildflower Society of WA Inc., Nedlands.)

This project was supported by funding from the Bushcare Program under the Federal Government's Natural Heritage Trust (1997-98). Support was also provided by the Western Australian Department of Conservation and Land Management.

APPENDIX I: SITE VEGETATION DESCRIPTIONS AND CONDITION (by plant community)

Site NYAM 1

Rock She-oak (*Allocasuarina huegeliana*) Low Woodland with emergent Inland Wandoo (*Eucalyptus capillosa*) over *Calothamnus quadrifidus*, *Xanthorrhoea drummondii* Open Heath over *Glischrocaryon aureum*, *Dampiera lindleyi* Herbland over *Lepidosperma tuberculatum* Open Sedgeland and a Very Open Mixed Herbland

Condition Rating: excellent

Soil: grey gritty sand with laterite pebbles and some exposed granite

Drainage: good

Aspect: steep north-easterly slope

Number of species: 76 (71 natives, 5 weeds)

Site NYAM 2

Rock She-oak Open Forest over *Hibbertia commutata* Low Open Shrubland over a Very Open Mixed Herbland

Condition Rating: very good

Soil: brown sandy loam with gravel, some exposed laterite

Drainage: good

Aspect: gentle southerly slope

Number of species: 55 (45 natives, 10 weeds)

Site NYAM 3

Brown Mallet (*Eucalyptus astringens*) Open Forest on a laterite breakaway

Condition Rating: excellent (timber has been cut in the past)

Soil: brown gravelly clay

Drainage: good

Aspect: steep southerly slope

Number of species: 10 (9 natives, 1 weed)

Site NYAM 4

Jam (*Acacia acuminata*) Low Open Woodland over a Closed Mixed Herbland and Very Open *Neurachne alopecuroides* Grassland on an intermittent creek-line

Condition Rating: very good

Soil: grey brown gritty sandy clay, exposed granite nearby

Drainage: poor, seasonally waterlogged

Aspect: centre of gentle southerly sloping drainage line

Number of species: 63 (50 natives, 13 weeds)

Site NYAM 5

Rock She-oak (*Allocasuarina huegeliana*) and Jam (*Acacia acuminata*) Low Closed Forest over *Lepidosperma costale* Sedgeland, and an Open Mixed Herbland on an outcropping granite slope

Condition Rating: very good

Soil: dark brown sandy loam with gravel with granite outcrops

Drainage: good

Aspect: gentle south-east slope

Number of species: 54 (49 natives, 5 weeds)

Site NYAM 6

Brown Mallet (*Eucalyptus astringens*) Open Woodland over Mallee Wandoo (*Eucalyptus capillosa* subsp. *polyclada*) Open Tree Mallee over *Melaleuca uncinata* Shrubland over *Gahnia australis* Very Open Sedgeland on the slope of a laterite breakaway

Condition Rating: pristine

Soil: light brown gravelly clay with surface gravel

Drainage: good

Aspect: steep northerly slope

Number of species: 24 (23 natives, 1 weed)

Site NYAM 7

Rock She-oak (*Allocasuarina huegeliana*) Low Closed Forest over *Xanthorrhoea drummondii* Open Shrubland over *Glischrocaryon aureum* Very Open Herbland on the top of a laterite breakaway

Condition Rating: excellent

Soil: brown gravelly clay, laterite

Drainage: good

Aspect: flat summit of breakaway

Number of species: 38 (37 natives, 1 weed)

Site NYAM 8

Hakea lehmanniana Open Low Heath over *Dampiera lindleyi* Herbland with emergent Rock She-oak and *Xanthorrhoea drummondii*

Condition Rating: excellent

Soil: light brown sandy loam

Drainage: good

Aspect: gentle southerly slope

Number of species: 50 (49 natives, 1 weed)

Site NYAM 9

Drummond's Mallee (*Eucalyptus drummondii*) Open Shrub Mallee with emergent Rock She-oak, over *Xanthorrhoea drummondii*, *Calothamnus quadrifidus*, *Hakea lehmanniana*, *Nemcia obovata* Open Shrubland over *Dampiera lindleyi* Herbland

Condition Rating: pristine

Soil: brown sandy loam with surface laterite gravel

Drainage: good

Aspect: flat (ridgetop)

Number of species: 64 (61 natives, 3 weeds)

Site NYAM 10

Borya sphaerocephala, Daisy (Asteraceae) Mixed Herbland and Very Open Grassland on a granite flat

Condition Rating: very good (15% cover of annual weeds)

Soil: red brown gravelly loam, shallow amidst granite outcrop

Drainage: moderate

Aspect: small basin sloping very gently to the east

Number of species: 36 (30 natives, 6 weeds)

Site NYAM 11

Rock She-oak Low Closed Forest over a Mixed Herbland and *Lepidosperma brunonianum* Sedgeland amidst outcropping granite

Condition Rating: excellent

Soil: brown gritty sandy loam with exposed granite nearby

Drainage: good

Aspect: gentle easterly slope

Number of species: 45 (36 natives, 9 weeds)

Site NYAM 12

Inland Wandoo (*Eucalyptus capillosa*), Rock She-oak Low Woodland over *Hakea trifurcata*, *Xanthorrhoea drummondii* Shrubland over *Nemcia obovata* Low Shrubland over *Dampiera lindleyi* Herbland, *Gahnia australis* Open Sedgeland and *Neurachne alopecuroidea* Very Open Grassland

Condition Rating: excellent

Soil: pale brown grey coarse sandy clay over laterite

Drainage: good

Aspect: gentle northerly slope

Number of species: 46 (45 natives, 1 weed)

Site NYAM 13

Rock She-oak Low Open Woodland with Mallee Wandoo (*Eucalyptus capillosa* subsp. *polyclada*) over *Calothamnus quadrifidus*, *Billardiera bicolor*, *Allocasuarina humilis* Shrubland over *Dryandra nivea* Low Shrubland over a Very Open Mixed Herbland and *Gahnia australis* Very Open Sedgeland, on a laterite breakaway

Condition Rating: pristine (but a clearing for radio tower immediately above)

Soil: brown sandy clay amidst laterite

Drainage: good

Aspect: steep easterly slope

Number of species: 74 (68 natives, ⁶~~1~~ weed)

Site NYAM 14

Inland Wandoo Woodland over Rock She-oak Low Woodland over a Mixed Daisy (Asteraceae) Herbland and *Desmocladius asper* Open Sedgeland

Condition Rating: good – very good (20 % annual weed cover)

Soil: grey sand

Drainage: good

Aspect: gentle south-west slope

Number of species: 55 (44 natives, 11 weeds)

Site NYAM 15

← York Gum (*Eucalyptus loxophleba*), Rock She-oak Low Open Forest over an Open Mixed Herbland and Open Grassland

Condition Rating: very good (10 % annual weed cover)

Soil: dark brown sandy gravelly loam

Drainage: good

Aspect: gentle south-west slope

Number of species: 38 (24 natives, 14 weeds)

Site NYAM 16

Rock She-oak Low Open Forest over *Hakea petiolaris* Tall Open Shrubland over *Lepidosperma brunonianum* Sedgeland and *Stypandra glauca*, *Cheilanthes austrotenuifolia* Open Herbland/Fernland amongst granite outcrops

Condition Rating: excellent

Soil: dark brown coarse sandy loam with exposed granite

Drainage: good

Aspect: gentle south-west slope

Number of species: 20 (16 natives, 4 weeds)

NYMØ1

Revisit: -

76 species + adjacent
5 weeds

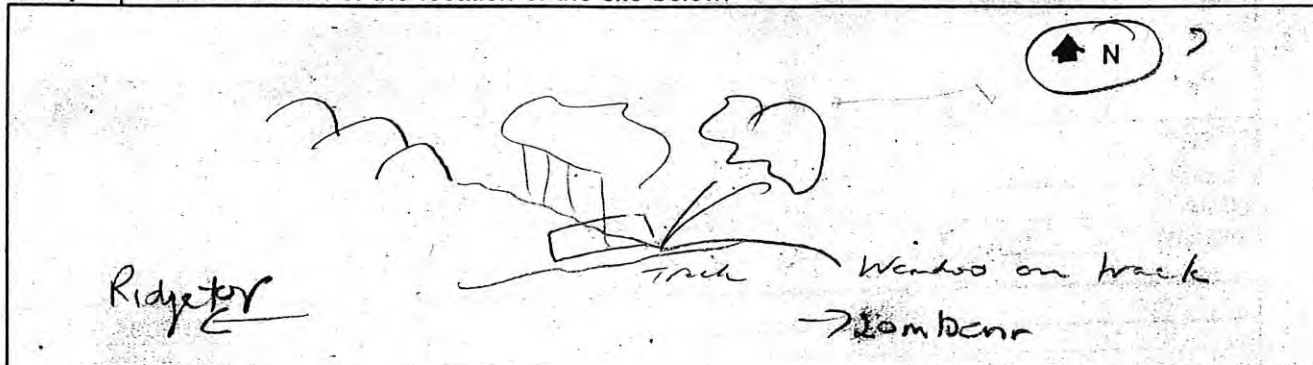
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA McBURNIE'S NYAMUTIN FARM SITE NUMBER NYM Ø1
 DATE TRIP 10/10/98 RECORDERS Betty, Maureen, Veronica, Ted
 DATE TRIP 5/11/98 RECORDERS (Robyn) Gagli, Neil G, Anna, Brian, M. Jenner
 DATE TRIP _____ RECORDERS _____
 BOTANIST Bonwan

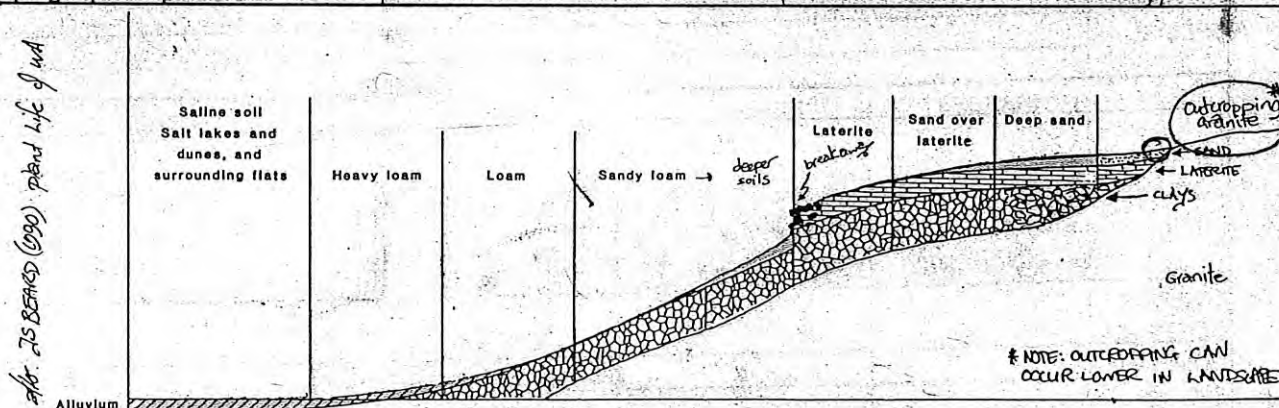
1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

Road Location Nyamutin Road.Geographic Location Latitude 32° 39' 05.5" S Longitude 117° 18' 52.4" E Altitude 878'Reference Map 32° 39' 03.3" 117° 18' 55.4" ± 181Photograph Photographer's Name BJK / RBM Photo No. _____

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NWSurface Soil gry sandy laterite Colour gryExposed rock type pebbles laterite % surfaceSub-surface Soil small granite below exposed 0.4 4m drum Colour

Rock type depth to rock

Drainage well mod poor depth water cm Wet all year winter/springLitter Depth 50 % cover 2cm Bare Ground < 20% % cover

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
LIFE FORM		20x20m 2-10% 	Patchy up to 70%  		30m 10m 
COVER CLASS (%)		<2%	2-100%		
DOMINANT SPECIES		Wandoo	Allocas lueg		
	SHRUBS		SHRUBS		
	over 2m	2m-1m	under 1m		
LIFE FORM	  	  	   		2m 1m
COVER CLASS (%)		30-70%	30-70%		
DOMINANT SPECIES		Col. quad.	Eriochloa aureum		5
		Xanth. drummondii	Dampiera lindleyi		6
	GRASSES	HERBS	SEDGES	OTHER	
LIFE FORM	 	  	  		
COVER CLASS (%)		2-10%	10-30		
DOMINANT SPECIES		Mixed	Lepidosperma (sp)		
			tuberculatum		

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees/Mallees	%	COMMENTS *Vis. anthem 3x1m through plot Area
Shrubs	%	
Grasses	<20%	
Herbs	<20%	
Sedges	%	

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No NYM 01

Date 10/10/98

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name.
- Column 2 plant number
- Column 3 flowering time- COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Eucalyptus capillosa</i> ssp <i>capillosa</i>	1		✓	<i>Acacia stenoptera</i> (x2)	34	✓		<i>Trachymene pilosa</i>	30	✓	✓
<i>Allocasuarina huegeliana</i>	2	✓	✓	<i>Hakea lissocarpa</i> (adj)	57			<i>Chamaexeros serra</i> (white furry edge)	32	✓	✓
				<i>Gompholobium marginatum</i>	65	✓		rough edged leaves <i>Lomandra</i> sp.	33		not enough material
<i>Briza max</i>	NIS	79	✓	<i>Leschanaultia biloba</i> (adj)	66	✓	✓	<i>A Lomandra (effusa)</i>	35	✓	✓
<i>Pterochaeta panic</i>	NIS	80	✓	<i>Synaphea sp. aff. interioris</i> (NYM 917)	68	✓		<i>Dichopogon capillipes</i>	36	✓	✓
MALLEES				<i>Tetralochea retroscia</i>	71	✓		<i>Podotheca angustifolia</i>	37	✓	✓
<i>Amphipogon</i> Prob = 85	81			<i>Billardiera bicolor</i> (adj)	73	✓		<i>Vellia cynopota</i>	38	✓	✓
<i>Schoenus armeria</i>	82	✓		<i>Acacia pulchella</i> var. <i>pulchella</i>	74	✓		<i>Erioglossis dilatata</i> undulata	39	✓	✓
<i>Stipa compressa</i>	NIS	83	✓	GRASSES				<i>Hydrocotyle callicarpa</i>	41	✓	✓
<i>Lomandra effusa</i>	NIS		✓	<i>Neurochne alopecuroides</i>	22	✓	✓	<i>Levenhookia pusilla</i> (also 5/11/98)	42	✓	✓
SHRUBS				<i>Aira caryophyllea</i>	40	✓		<i>Mitella tenuifolia</i> var. <i>tenuifolia</i>	43	✓	✓
<i>Colthamius quadrifidus</i>	3	R	✓	<i>Austrodanthonia acerosa</i>	53	✓		<i>Blennospora drummondii</i>	44	✓	✓
<i>Xanthorrhoea drummondii</i>	4	C	✓	<i>Oncocarpus vaginatus</i>	58	✓		<i>Quintaria urvillei</i>	45	✓	✓
<i>Glinchocoryon aureum</i>	5	Y	✓	<i>Austostipa compressa</i>				SEDGES			
<i>Dampiera lindleyi</i>	6	DM	✓	<i>Vulpia myuros</i>	79	✓	✓	<i>Lepidosperma tuberculatum</i>	7	✓	✓
<i>Lepidosperma erubescens</i>	8	W	✓	<i>Centrolepis pilosa</i> (tall furry)	76	✓	✓	<i>Schoenus nanus</i>	50	✓	✓
<i>Melaleuca tuberculata</i> var. <i>tuberculata</i>	9	A	✓	<i>Lepidosperma brunonianum</i>	69	✓	✓	<i>Aphelia brizula</i>	51	✓	✓
<i>Hakea petiolaris</i>	10		✓	<i>Centrolepis inconspicua</i> (low mat)	87	✓		<i>Lepidosperma leptostachyum</i>	61	✓	✓
<i>Petrophile squamata</i>	11	C	✓	HERBS				HERBS			
<i>Hibbertia commutata</i>	12	Y	✓	<i>Myrsine speciosa</i>	15	✓	✓	<i>Gnaphosia drummondii</i>	46	✓	✓
<i>Dryandra nivea</i> ssp <i>nivea</i>	13		✓	<i>Ursinia anthemoides</i>	16	Y	✓	<i>Wahlenbergia preissii</i>	47	✓	✓
<i>Hemigalia podalyria</i>	14	R	✓	<i>Chamaecilla</i> ? <i>terrestris</i>	17	✓		<i>Crassula elosiana</i>	48	✓	✓
<i>Nemica effusata</i>	18	Y	✓	<i>Trachymene (puffy) ornata</i>	19	✓	✓	<i>Crassula anserina</i>	49	✓	✓
<i>Dampiera laurandulacea</i>	31/18	✓		<i>Hypochaeris glabra</i>	20	✓		<i>A Stylidium repens</i>	52	✓	✓
<i>Dillwynia</i> (adj) Sp A P 14 Flora 79		✓		<i>Opsea macrantha</i>	21	✓	✓	<i>Phyllanthus procerus</i>	55	✓	✓
<i>Vellia cynopota</i>	39	✓	✓	<i>Stylidium calcareum</i>	23	✓	✓	<i>Caladenia flava</i> (adj)	56	✓	✓
				<i>Crachylis setigera</i>	24	Y	✓	<i>Silene multiflora</i> (adj)	58	✓	✓
				<i>Styphandra glauca</i>	25	✓	✓	<i>Fluctanthus brunonis</i> (adj)	59	✓	✓
				<i>Stachys monogyna</i>	26	C	✓	<i>Herposiphia paniculata</i> (adj)	60	✓	adj
				<i>Lawsonella rosea</i>	27	P	✓	<i>Poranthera microphylla</i> (adj)	62	✓	✓
				<i>Stylidium tenuicarpum</i> (P4)	28	✓	✓	<i>Prosera glanduligera</i> (adj) NIS	63	✓	✓
				<i>Pterostylis vittata</i>	29	✓	✓	<i>Caladenia integra</i> (hairy leaf) (adj)	64	✓	✓
<i>Austrostipa elegantissima</i>	70	✓						<i>Homaloscladium homalocarpum</i> 63K	67	NIS	✓
				GRASS <i>Austrostipa</i> (furry) - spec. missing	78	✓		<i>Villea trinervis</i>	72	✓	✓
				<i>Amphipogon caricinus</i>	85	✓					
				<i>Levenhookia pusilla</i>	84	✓					

NYM 01

NYM02

Project species: SS incl Weeds !
adjacents: 8

BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

NYAMUTIN FARM

BUSHLAND AREA EAST YORNBARRING

SITE NUMBER NYA2

DATE TRIP 10/10/98

RECORDERS Anne Bellman, Deane & Janet Logan

DATE TRIP 5-11-98

RECORDERS

DATE TRIP

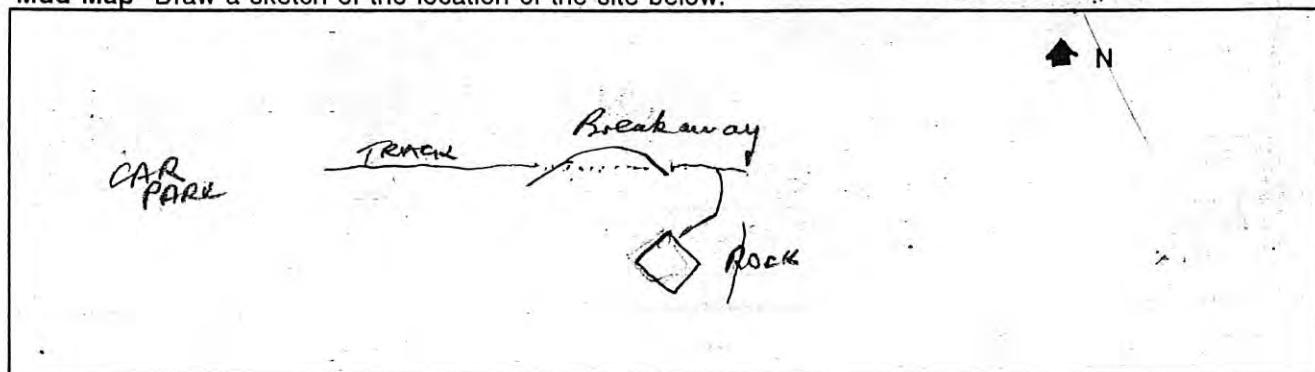
RECORDERS

BOTANIST

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



Road Location

Geographic Location Latitude

S Longitude

E Altitude

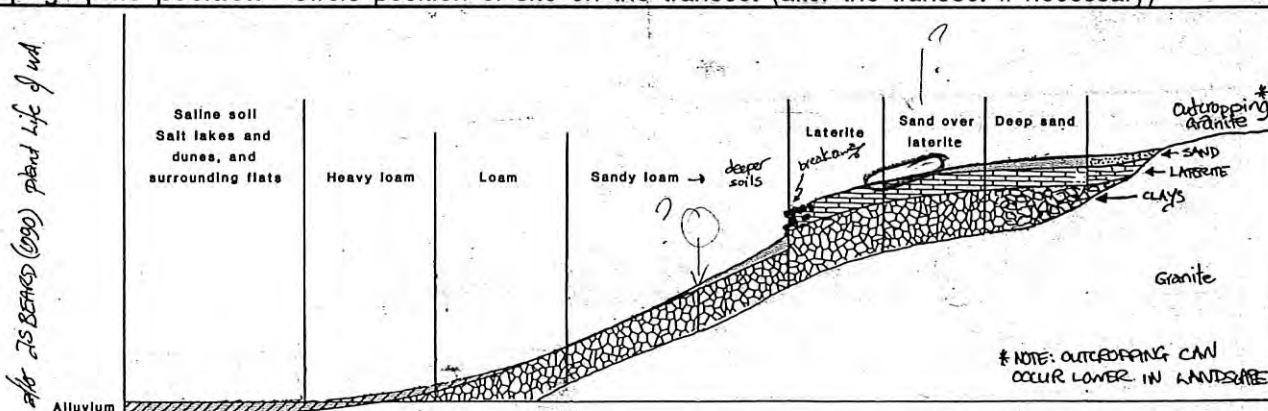
Reference Map

Photograph

Photographer's Name

Photo No

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW

Surface Soil LOAM / SAND / GRAVEL MIX Colour BROWN

Exposed rock NIL type % surface

Sub-surface Soil SAME Colour BROWN

Rock type depth to rock < METRE

Drainage well mod poor depth water cm Wet all year winter/spring

Litter over 70% % cover Bare Ground 2-10% % cover

Depth 3 cm under litter

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
LIFE FORM					
COVER CLASS (%)	—	30-70%	—	—	—
DOMINANT SPECIES		<i>ALOCASYRIA huegeliana</i>			

	SHRUBS		SHRUBS
	over 2m	2m-1m	under 1m
LIFE FORM			
COVER CLASS (%)	—	—	2-10%
DOMINANT SPECIES			<i>HIBBERTIA under 1m commutata</i>

	GRASSES	HERBS	SEDGES	OTHER
LIFE FORM				
COVER CLASS (%)	< 2%	2-10%	—	—
DOMINANT SPECIES				

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees/Mallees	—%	COMMENTS <i>Mostly Breyer</i>
Shrubs	—%	
Grasses	2-10%	
Herbs	< 2%	
Sedges	—%	

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS <i>Herb field in Casuarina</i>
2	EXCELLENT	
3	VERY GOOD ✓	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESENCE

SITE No **NYA 2**

Date **19/10/98**

5-11-98 54

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name.
- Column 2 plant number
- Column 3 flowering time- **COLOUR** if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Allocasuarina huegeliana</i>	1		✓	<i>Mimosa stipoides</i>	60	✓	✓	<i>Chamaecrista corymbosa</i>	22		✓
<i>Acacia acuminata</i>	2		✓	<i>Tricoryne elatior</i>	55	54	✓	* <i>THISTLE</i> <i>Sonchus oleraceus</i>	23		✓
				<i>Levenhookia pusilla</i> NIS	52		✓	<i>PODOLEPUS</i> <i>capitata</i>	27	Y	✓
				" <i>stipitata</i> NIS	56		✓	<i>Gonocarpus nodulosus</i>	28	P	✓
				<i>Stipa trichophylla</i>	54	✓	✓	<i>SIDER ORCHID</i> <i>Cal. integra</i>	29	✓	✓
				<i>Pardanthura microphylla</i>	57	✓	✓	<i>Blennospora drummondii</i>	30	✓	✓
MALLEES				<i>Podolepis lessonii</i>	58		✓	<i>DROSER</i> <i>Sell. laevis</i> sp. <i>maurandii</i>	31		✓
				* <i>Aira caryophyllea</i> NIS	61	✓	✓	<i>RHOCHITIS manglicola</i>	33	P	✓
				GRASSES				<i>Velleia cyanoptera</i>	35	✓	✓
				* <i>GUMFORD GRASS</i> <i>Romulea rosea</i>	6	P	✓	<i>Siloxerus multiflorus</i>	36	✓	✓
				* <i>BREZZA MAXIMA</i>	9	✓	✓	<i>Aphelia brizula</i>	37	G	✓
SHRUBS				<i>BREZZA MAXIMA</i> * <i>Ara caryophyllea</i>	19	✓	✓	* <i>PARIENTULICHA</i> <i>latifolia</i>	38	P	✓
<i>ACACIA PULCHRESCENS</i> <i>PULCHRELLA</i>	3		✓	OATS <i>AVENCISSA</i> <i>Barbata</i>	24	✓	✓	<i>Stylidium tenuicarpum</i>	40	✓	✓
<i>NISSERETIA</i> <i>commutata</i>	4	Y	✓	<i>Neurachne alopecuroides</i>	25	✓	✓	SEDGES			
<i>HIABERTIA</i> <i>commutata</i>	32		✓	<i>Austrostipa elegantissima</i>	26		✓	<i>Helmet</i> <i>A. setigera</i>	41		✓
<i>Bossia eriocarpa</i>	39		✓	<i>Centrolepis aristata</i>	34	✓	✓	42 <i>Helmet</i> <i>A. setigera</i>	42		X
				<i>Centrolepis drummondiana</i> (GBC)	53	G	✓	<i>Hydrocotyle ptilifera</i> var. <i>glabrata</i>	43	G	✓
				<i>Austrostipa trichophylla</i> NIS	54		?	<i>OREPER</i>			
				HERBS				<i>Thysanotus patersonii</i>	10		✓
				<i>STACKHOUSEI</i> <i>MONOLYNA</i>	5	W	✓	<i>White</i> <i>flower</i>	44	✓	✓
				<i>LAWRENCEA</i> <i>rosea</i>	7	P+W	✓	<i>Trachymene pilosa</i>	45	✓	✓
				<i>PODOLEPUS</i> (YELLOW BUTON) <i>LESSONII</i>	8	Y	✓	<i>CRASSULA</i> <i>clorigna</i>	52		✓
				<i>WARSINEA</i> <i>strobilacea</i> var. <i>anthemoides</i>	11	Y	✓	<i>HYPHALOSCU</i> <i>analocarum</i> NIS			✓
				<i>TRACHYMENE</i> <i>pilosa</i> (small)	12	W	✓	<i>Phalangium</i> <i>parolox</i> NIS			✓
				<i>STYLIDIUM</i> (small) <i>calcaratum</i>	13	W+P	✓	<i>Wahleub</i> <i>preissii</i>	59		✓
				* <i>PIMPERNEL</i> <i>ALAGANUS</i> <i>Anagallis arvensis</i>	14	B	✓	ADJ.			
				FLAT WEED - <i>Stypochloa</i> <i>glabra</i>	15		✓	<i>Hakea petiolaris</i>	46		✓
<i>Centrolepis aristata</i> NIS=34	61		✓	<i>CAPE WEED</i> <i>Arctotheca calendula</i>	16		✓	<i>Dillwynia</i> sp A <i>Perth Flora</i>	47	✓	✓
<i>Goodenia micrantha</i>	62	✓	✓	<i>DROSER</i> <i>slanduligera</i>	17	OR	✓	<i>Lepidosperma brunonianum</i>	48	✓	✓
<i>Podolepis canescens</i> NIS			✓	<i>GREEN HORN</i> <i>ORCHID</i> <i>Perostylis villata</i>	18		✓	<i>VERTICILLATA</i> <i>EROCERHALA</i>	49		✓
				<i>LAGENOPHORA</i> <i>huegelii</i>	20		✓	<i>Austrodanthonia caespitosa</i>	50		✓
				<i>STYPANDORA</i> <i>glauca</i>	21	B	✓	<i>Glysch</i> <i>aureum</i>	51		✓

9/11/98 Sheoak Woodland *Podolepis canescens* ✓ ✓

Lobelia rhombifolia ✓
* *Hesperanthus glabra*
= *Hesperanthus glabra*

63 ✓ ✓ *adj. Gastrolobium parviflorum*

34 ✓ ✓ *Calandrinia calyptota* 51A ✓

NYM2

NYM03

Total no = 10 incl 1 weed
+ 10 adjacent

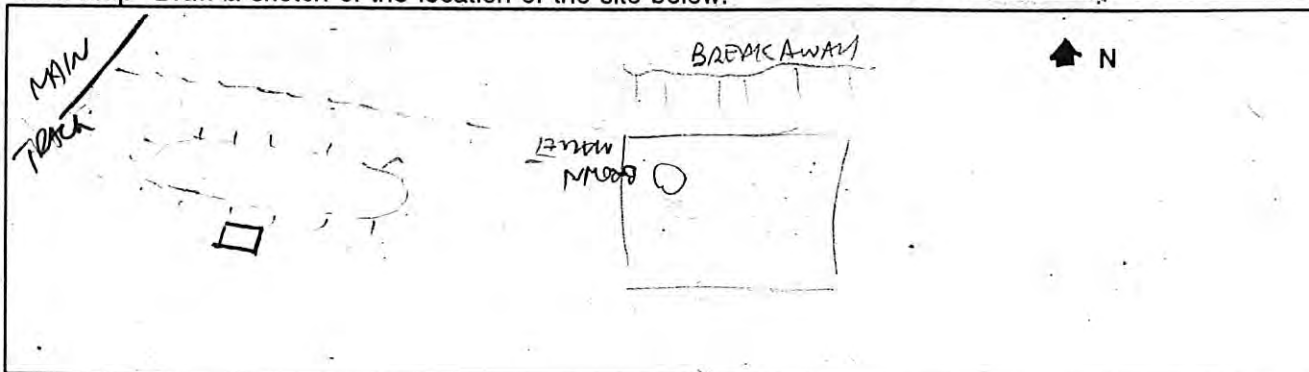
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYMUTIN FARM SITE NUMBER MY3
 DATE TRIP 10/10/98 RECORDERS Neil, Alice, Kate, Jennifer
 DATE TRIP 5.11.98 RECORDERS Mary, Jeff
 DATE TRIP _____ RECORDERS GK, Neil G, Anne, Brian, Miu, Jennifer
 BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

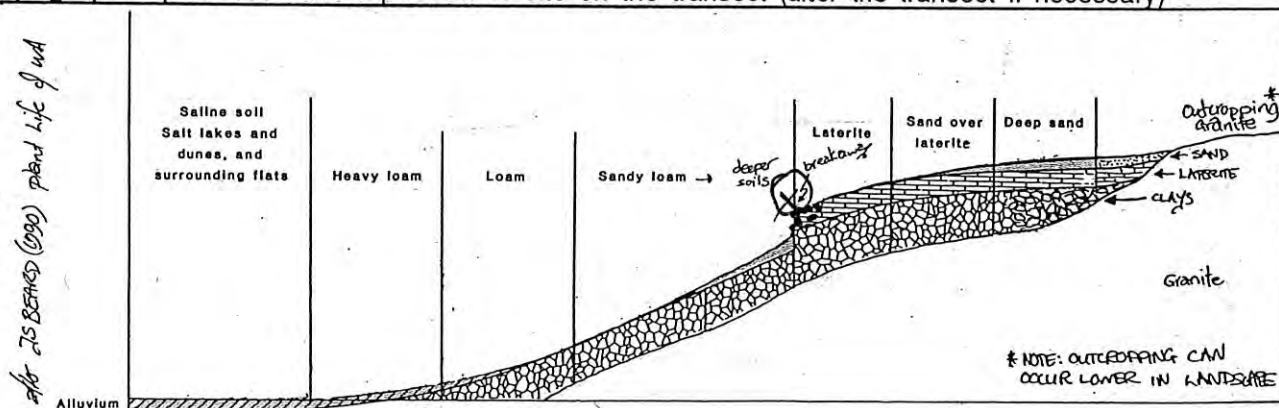


Road Location

Geographic Location Latitude _____ S Longitude _____ E Altitude _____
 Reference Map _____

Photograph Photographer's Name Neil Gibson Photo No 19

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	flat	gentle	<u>steep</u>	Aspect	N	NE	E	SE	<u>S</u>	SW	W	NW
Surface Soil	<u>GRAVELLY CLAY</u>							Colour	<u>BROWN</u>			
Exposed rock	type <u>LATERITE</u>							< 5 % surface				
Sub-surface Soil	<u>CLAY</u>							Colour	<u>BROWN</u>			
Rock	type <u>N/A</u>							depth to rock				
Drainage	<u>well</u>	mod	poor	depth water	cm	Wet all year		winter/spring				
Litter	Depth MAX <u>70</u> % cover							Bare Ground	< 5 % cover			
	cm											

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From '*Bushland Plant Survey*' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below), and dominant species in each layer.

Cover Class	2-10%	10-30%	30 - 70%	over 70%
-------------	-------	--------	----------	----------

TREES				MALLEES	
	over 30m	10 - 30m	under 10m	over 8m	under 8m
LIFE FORM			 		
COVER CLASS (%)		30-70%			
DOMINANT SPECIES		<i>E. astringens</i>			

SHRUBS		SHRUBS	
	over 2m	2m - 1m	under 1m
LIFE FORM			
COVER CLASS (%)			
DOMINANT SPECIES			

GRASSES		HERBS		SEDGES		OTHER	
LIFE FORM							
COVER CLASS (%)							
DOMINANT SPECIES							

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees/Maples	%	COMMENTS "Bugger all" (Neil)
Shrubs	%	
Grasses	%	
Herbs	%	
Sedges	%	
	%	

VEGETATION CONDITION SCALE		
		COMMENTS
1	'PRISTINE'	
2	EXCELLENT	✓ Sawn timber in some areas.
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

Label each plant with plants number, site code, date and plant's name or working name if required

SITE No N/43

Date 10-10-98

5.11.98

Record on Sheet

- Column 1 plant name
- Column 2 plant number
- Column 3 flowering time- ~~check~~ ^{colour} if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

[illegible]

P.T.O. ~~is~~
adjunct

2000

NYM04

63 species incl 13 weeds
+ 19 adjacents incl 4 weeds

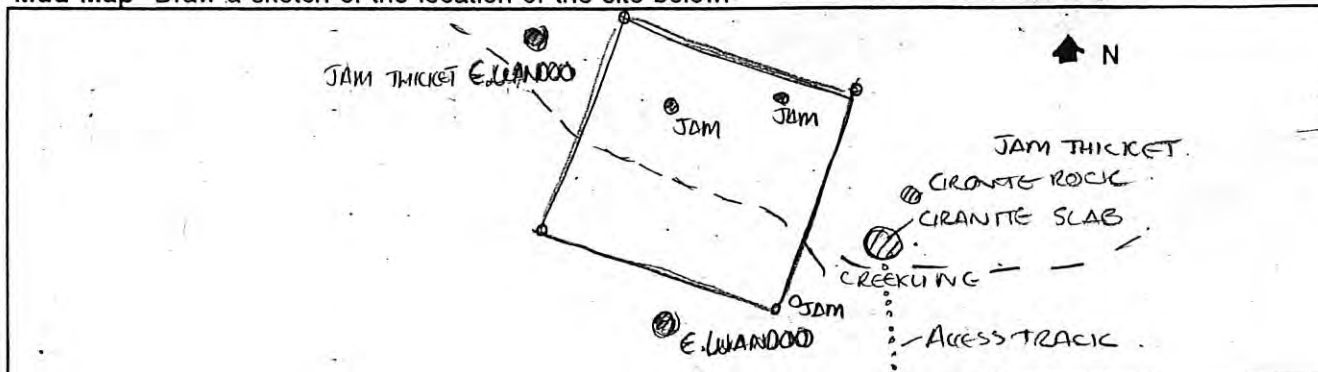
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER 4
 DATE TRIP 10/10/98 RECORDERS GREG ICELCHERY, MARC DRET
 DATE TRIP 5.11.98 RECORDERS RADEN CLARKE, MARK BRUNDETT
 DATE TRIP Amg etc RECORDERS JENNY SMITH, DAMIAN SMITH
 BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



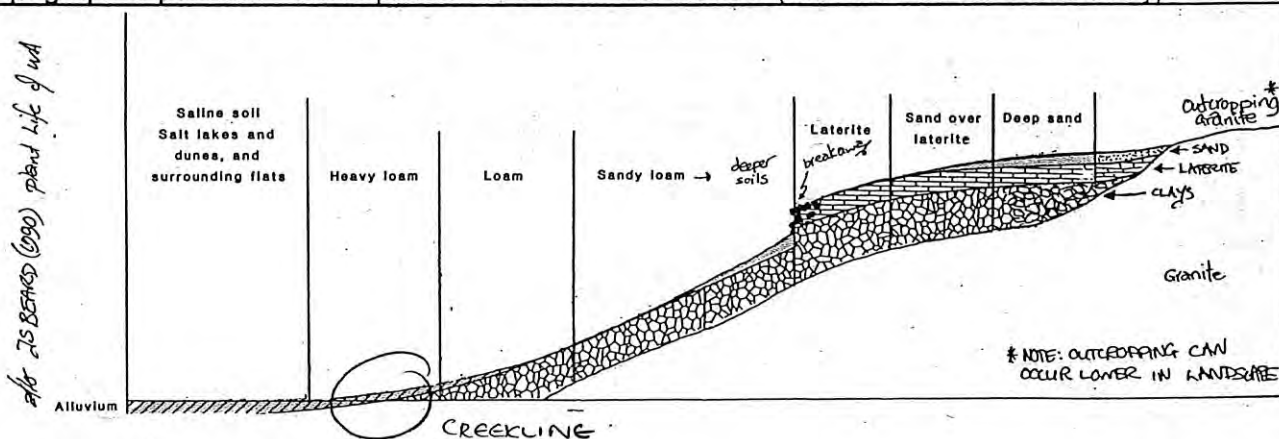
Road Location

Geographic Location Latitude 32°39'00 S Longitude 117°19'04 E Altitude _____

Reference Map 32° 39' 00" 117° 19' 02.4"

Photograph _____ Photographer's Name _____ Photo No _____

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW

Surface Soil GRITTY SANDY CLAY Colour GREY-BROWN

Exposed rock type GRANITE % surface _____

Sub-surface Soil _____ Colour _____

Rock type GRANITE depth to rock _____

Drainage well mod poor depth water _____ cm Wet all year winter/spring

Litter Depth 30 % cover _____ Bare Ground 10 % cover _____

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

TREES						MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m		
LIFE FORM			 			30m	10m
COVER CLASS (%)			2-10				
DOMINANT SPECIES		E. WANDOO (AOC.)	JAM.				

SHRUBS over 2m		2m - 1m	SHRUBS under 1m
LIFE FORM	  	  	   
COVER CLASS (%)			
DOMINANT SPECIES			

GRASSES	HERBS	SEDGES	OTHER	
LIFE FORM	 	   	  	
COVER CLASS (%)	2-10	>70%		
DOMINANT SPECIES	Neuradme.	MIXED.		

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees/Mallees	%	COMMENTS 2-10
Shrubs	%	
Grasses	%	
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No NY 4
Date 10/10/98
(Sheet 1)

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name
- Column 2 plant number COLOUR
- Column 3 flowering time- TICK if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Acacia acuminata</i>	1	✓	✓					* <i>Aira caryophyllaea</i>	15	✓	✓
OP <i>ACACIA MICROBOTRYA</i>	OPP	✓	✓					• <i>Gonocarpus nodulosus</i>	16	✓	✓
ADJ. <i>Acacia pulchella</i> var <i>pulchella</i>	ADJ	✓	✓	<i>Gnephosis drummondii</i>	70	NV	✓	• <i>Podotrocha angustifolia</i>	17	✓	✓
ADJ <i>Allocasuarina huegeliana</i>		✓	✓	<i>Gonocarpus nodulosus</i> NIS	72		✓	* <i>Ehrharta longiflora</i>	18	✓	✓
MALLEES				<i>Lebea rhombifolia</i>	73	✓	✓	• <i>Podolepis canescens</i>	19	✓	✓
								• <i>Microleuca stipoides</i>	20	✓	✓
				GRASSES				• <i>Ptilotus</i> sp <i>declinatus</i>	21	✓	✓
<i>Podolepis canescens</i> = 19				* <i>Austroanthus michelii</i>	67	✓	✓	• <i>Arthropodium capillipes</i>	22	✓	✓
" <i>Lessonii</i> = 44				<i>Austroanthus</i>				• <i>Thysanotus thyrsoideus</i>	23	✓	✓
SHRUBS				<i>Austroanthus setacea</i>	66	✓	✓	• <i>Blennospora drummondii</i>	24	✓	✓
				<i>Koeleria pectinata</i> 70	68	?	✓	• <i>Goodenia micrantha</i>	25	✓	✓
				* <i>Aira caryophyllaea</i>	15	✓	✓	• <i>Trachymene pilosa</i>	26	✓	✓
				<i>Microleuca stipoides</i>	20	✓	✓	* <i>Briza maxima</i>	27	✓	✓
								• <i>Schoenus scolopendria</i>	28	✓	✓
<i>Trachymene elatior</i> (adj)		✓	✓	<i>Microleuca stipoides</i>	71	✓	✓	• <i>Schoenus nanus</i> NIS	29		
<i>Wahlenbergia preissii</i> (adj)		✓	✓	HERBS				• <i>Brizula nutans</i> (Aphelia) NIS	30		✓
				<i>Tripterococcus</i> spp. NIS	2	✓	✓	• <i>Sclerolobus multiflorus</i>	31		✓
<i>Gastrolobium parviflorum</i> (adj)		✓	✓	<i>Trachymene pilosa</i>	3	✓	✓	• <i>Drosera glanduligera</i>	32	✓	✓
<i>Muehlenbeckia adpressa</i> (adj)		✓	✓	<i>Chamaecilla corymbosa</i> var. <i>corymbosa</i>	4	✓	✓	* <i>Cyperus tenellus</i>	33		✓
<i>Hibbertia commutata</i> (adj)		✓	✓	* <i>Ursinia anthemoides</i>	5	✓	✓	• <i>Rhodanthe manglesii</i>	34		✓
				<i>Leptocarpus menziesii</i>	6	✓	✓	* <i>Romulea rosea</i>	35		✓
				<i>Sowerbaea laxiflora</i>	7	✓	✓	• <i>Levenhookia pusilla</i>	36		✓
				<i>Lanternicella rosea</i>	8	✓	✓	• <i>Aphelia brizula</i>	37	✓	✓
Adj.				* <i>Romulea rosea</i> var. <i>australis</i>	9	✓	✓	• <i>Homaloscladium homalocarpum</i>	38	✓	✓
<i>Stylidium emarginatum</i>	✓	✓	✓	* <i>Arctotheca cledula</i>	10	✓	✓	• <i>Centrolepis cristata</i>	39	✓	✓
<i>Cheilanthes austrotenuifolia</i>	✓	✓	✓	* <i>Anagallis arvensis</i>	11	✓	✓	• <i>Cyperus tenellus</i>	40	✓	✓
				<i>Hypochaeris glabra</i> NIS	12	✓	✓	* <i>Gonocarpus nodulosus</i> = 16	41	✓	✓
				<i>Phyllanthus pradoxum</i> NIS	13	✓	✓	• <i>Hydrocotyle callicarpa</i>	42	✓	✓
				<i>Drosera menziesii</i>	14	✓	✓	* <i>Vulpia myuros</i>	43	✓	✓
								• <i>Podolepis lessonii</i>	44	✓	✓
								• <i>Bulbine semiberberis</i>	45	✓	✓
								• <i>Trachymene cyanopetalis</i>	46	✓	✓
								• <i>Parentucella latifolia</i> 23 b.		✓	✓

NO SPECIMEN

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No N94
Date 10/10/98
(Sheet 2)

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name-
- Column 2 plant number *colour*
- Column 3 flowering time- ~~time~~ if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
								<i>Crassula closiana</i>	59A		✓
								<i>Pogonthera microphylla</i>	60		✓
								<i>Gestrolobium parviflorum</i>	61	✓	
								<i>Crassula decumbens</i>	62	✓	✓
								Fringe lily - <i>Thysanotus</i> sp.	63	✓	
								<i>Thysanotus patersonii</i>	64		✓
MALLEES								<i>Centrolepis cristata</i>	65		✓
								<i>Hypochaeris demissa</i>	63B	✓	✓
				GRASSES				<i>crassula exserta</i> (ADI)			✓
				<i>Stipa compressa</i>	NIS	511	✓				
SHRUBS				<i>Austrostipa miclophylla</i>	57		✓	* <i>Cyperus tenuellus</i> (notag)			✓
nearly (cont)								* <i>Phyllanthium paradoxum</i>			✓
<i>Mitella tenuifolia</i> var. <i>tenuifolia</i>								<i>SEDGES Crassula exserta</i>			✓
								* <i>Agrostocnemum scabrum</i>			✓
								* <i>Stylidium emarginatum</i>			✓
								Adjacent in envelope			
				<i>Podolepis lessonae</i>			✓	<i>Tingiochin nanum</i>			✓
				HERBS				<i>Thysanotus patersonii</i> = 64?	NIS		✓ + 4
				<i>Ptilothus manglesii</i>	47	bud	✓	<i>Thysanotus thysanotus</i> = 63?			✓
				<i>Trifolium cernuum dubium</i>	48	✓	✓	<i>Biza minor</i> NIS			✓
				(both) <i>Podolepis canescens</i>	49	✓	✓	<i>Siloxerus multiflorus</i> x 2			✓
				<i>Stylidium crinitifolium</i>	50	Nor	✓	* <i>C. quadransularis</i>			✓
				* <i>Briza minor</i>	51	✓	✓	<i>Schuerensia saulphensis</i>			✓
				<i>Velleia cyanopota mica</i>	52	✓	✓	<i>Bulbine semibarbat</i>			✓
				? <i>Austrostipa trichophylla</i> (interhu)	53	✓	✓	? ? <i>Grassata Phyllanthium</i>			?
				<i>AUSTROSTIPA TRICHOPHYLLA</i>	54	✓	✓	<i>Sowerbaea laxiflora</i>			✓
				<i>Oxalis perennans</i>	55		✓	<i>Styracandra slauca</i>	51		✓
				<i>Hydrocotyle pilifera</i> var. <i>gibbrata</i>	56	A	✓	* <i>Juncus capitatus</i>			✓
				<i>Celandrina calyptrocha</i>	57		✓	* <i>Ehrharta longiflora</i>			✓
				<i>Rhinethia urvillei</i>	58		✓	* <i>Anagallis arvensis</i>			✓
				<i>Caesia ziffordii</i>	59	✓	✓	* <i>Avena barbata</i>			✓

no member

Gnephosis drummondii

511 Tricoryne elatior v2 ADJ

5/11 Adjacent Creekline

Tuncas bufohius

Donnerstag, 11.12.1941

= Parent cell lost folia

Desarrollados en sí.

NYM 05

54 species incl 5 weeds
+ 6 adjacent incl 2 weeds.

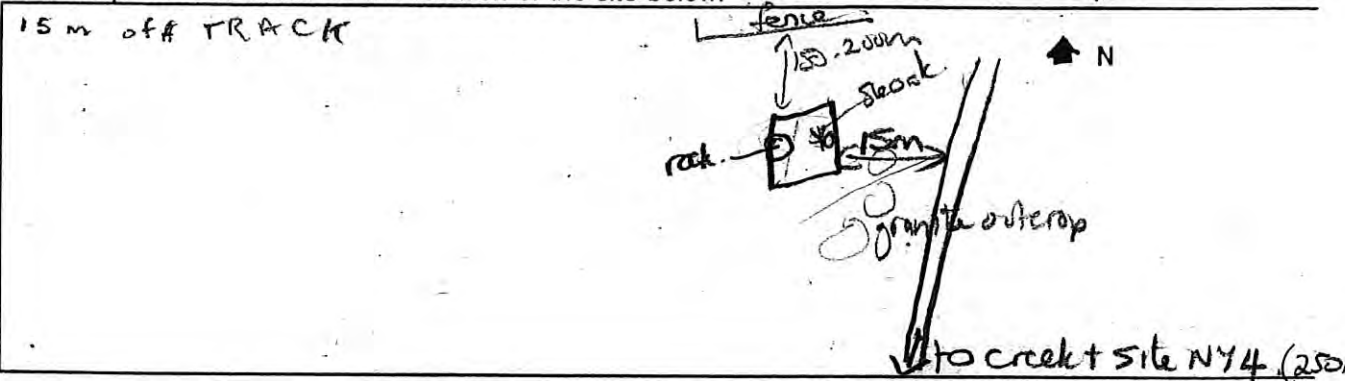
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NY 5
 DATE TRIP 10-10-98 RECORDERS ANN MARY sylvia DAVID
 DATE TRIP 5-11-98 RECORDERS GJK, Neil G, Ann G, Brian M. Alie, Jennifer.
 DATE TRIP _____ RECORDERS _____
 BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

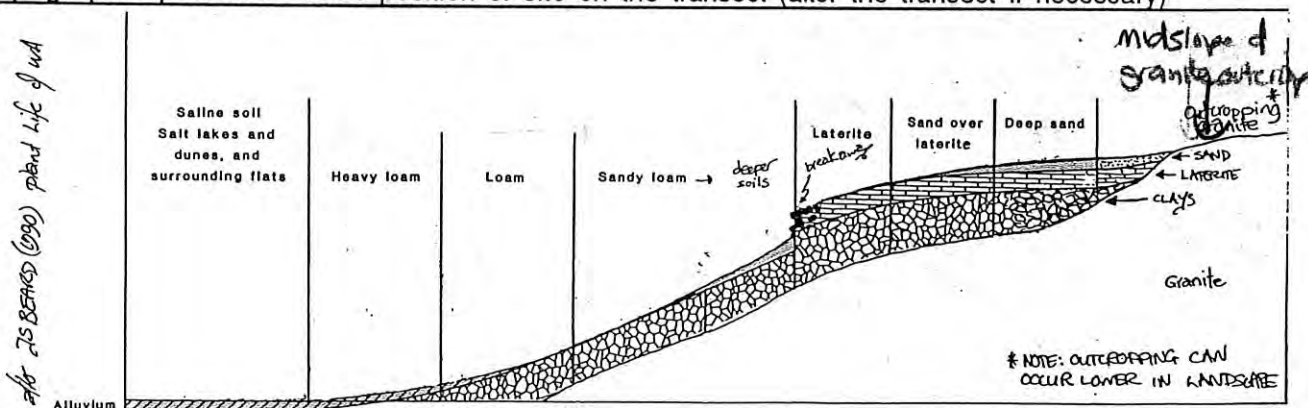


Road Location

Geographic Location Latitude 32° 38' 56.2" S Longitude 117° 19' 11.2" E Altitude 1433 ft ± 406
 Reference Map

Photograph Photographer's Name Photo No

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	flat	<u>gentle</u>	steep	Aspect	N	NE	E	<u>SE</u>	S	SW	W	NW
Surface Soil	<u>Sandy loam (E gravel)</u>							Colour	<u>Dark Brown.</u>			
Exposed rock	type <u>Granite</u>							% surface	<u>25%</u>			
Sub-surface Soil	type <u>Prob granite</u>							Colour				
Rock	depth to rock											
Drainage	<u>well</u>	mod	poor	depth water	cm	Wet all year		winter/spring				
Litter	Depth <u>~ 40</u>		% cover		Bare Ground		<u>< 2</u>		% cover			
	Depth <u>< 1</u>		cm									

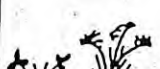
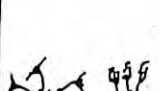
BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below), and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

LIFE FORM	TREES			MALLEES	
	over 30m	10 - 30m	under 10m	over 8m	under 8m
			~10m.  		
COVER CLASS (%)			770%		
DOMINANT SPECIES			<i>Alb. huegelii</i> <i>Ac. acuminata</i>		
LIFE FORM	SHRUBS		SHRUBS		
	over 2m	2m - 1m	under 1m		
	  	  	  		
COVER CLASS (%)	<2%				
DOMINANT SPECIES	<i>Phyllanthus ealyginus</i> <i>Hibbertia commutata</i>				
LIFE FORM	GRASSES	HERBS	SEDGES	OTHER	
					
COVER CLASS (%)	2-10%	10-30%	2-10%	10% (d+)	
DOMINANT SPECIES	<i>Braea mackin.</i> <i>Austrochloa</i>	<i>Lawrencea rosea</i> <i>Stachys monophylla</i> <i>Dioscorea maurandica</i>	<i>Lepidosperma</i> sp. Castale	<i>Cheilanthes australis</i>	

4. VEGETATION CONDITION

WEEDS - % COVER		
<10%		
Trees/Mallees	%	COMMENTS
Shrubs	%	
Grasses	5%	- Braea
Herbs	%	- Hypochaeris & Urtica
Sedges	%	

VEGETATION CONDITION SCALE		
		COMMENTS
1	'PRISTINE'	
2	EXCELLENT	✓ Weeds only down side
3	VERY GOOD	- more in surrounding areas
4	GOOD	
5	DEGRADED	long unburnt.

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESENCE

SITE No **NYS**Date **10.10.98****5.11.98**

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name.
- Column 2 plant number **code**
- Column 3 flowering time- ~~time~~ if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by
B. Keighery (1994) and published by the
Wildflower Society of WA (Inc.), PO Box
64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
~~Allocasuarina huegeliana~~	1		✓					~~Hydrocotyle callicarpa~~	18	✓	✓
~~Acacia acuminata~~	2	Y	✓					~~Ursinia antlemonides~~	19		✓
								~~Isotria medeoloides~~	20	Y	✓
								~~Phyllanthium paradoxum~~	21		✓
								~~Levenhookia stipitata~~	22		✓
								~~Glennora drummondii~~	23	W	✓
MALLEES				~~Amphipogon caricinus~~	55	✓		~~Chamaecrista corymbosa~~	24		✓
				~~Stipa eleg~~ N/S.	56	✓		~~Parentucella latifolia~~	25		✓
				GRASSES				~~Caladenia rostrata~~	26		✓
				~~Briza maxima~~	36	✓		~~Lagenophora huegelii~~	27		✓
				~~Neurachne alopecuroides~~	37	✓		~~Trachymene pilosa~~	28	N	✓
SHRUBS				~~Austrostipa trichophylla~~	38	✓		~~Thysanotus patersonii~~	29		✓
~~Phyllanthus calycinus~~	3	Y	✓	~~Austrodanthonia spp.~~	39	✓		SEDGES			
~~Hibbertia communata~~	4	Y	✓	~~Ara canophylla~~	40	✓		~~Lepidosperma costale~~	31		✓
								~~Centrolepis aristatis~~	32	✓	✓
				~~Stipa pycnostachya~~ N/S	52	?		~~Aphellic briardii~~	33	Y	✓
				~~" trichophylla~~	53	✓		~~Centrolepis pilosa~~	34		✓
HERBS (cont.)				~~Drosera menziesii~~	54	✓		~~Borja sphaerocarpa~~	35		✓
				HERBS				~~terns~~			
~~Podolepis lessonii~~	34		✓	~~Stachys monogyna~~	5	cr.	✓	~~Chelanthus australis~~	41		✓
~~Homalium homalocarpum~~	35	✓	✓	~~Drosera macrantha~~	7	✓		~~Linum marginale~~	57	✓	✓
~~Gnaphalium siloxeris multiflorus~~	42	cr.	✓	~~Glischrocaryon aureum~~	6	Y	✓				
~~Merostylis villosa~~	43		✓	~~Lawrencea rosea~~	8	P	✓	~~ADU~~			
~~Merostylis sp. (rosea) N/S~~	44		✓	~~Podolepis paniculata~~	9	✓		~~Austrostipa campylachne~~			✓
~~Petalogeton erodium cygnorum~~	45		✓	~~Synandra glauca~~	10	B	✓	~~Euc. wandoo capillata~~			
~~Achras sapida~~	46		✓	~~* Myrica glauca~~	11	Y	✓	~~* Briza minor~~			✓
~~Lobelia sp~~	47		✓	~~* Madragalis a. caerulea~~	12	B	✓	~~Hakea petiolaris~~			✓
~~Drosera glanduligera~~	48	cr.	✓	~~Goodenia baradiliana~~	13	Y	✓	~~Dodonaea viscosa~~			✓
~~Orchid sp. - Eriochilus dilatatus~~	49		✓	~~Paranthera microphylla~~	14	G	✓	~~Enrianta longiflora~~			✓
~~Helichrysum leucopsidum~~ N/S			✓	~~Caesia alfordii~~ (also 5/11)	15		✓	~~Neenby~~			✓
~~Leptocarpus pusilla~~ N/S			✓	~~Gonocarpus nodulosus~~	16		✓	~~Calandrinia elegans~~			✓
				~~Rhodanthe manleyi~~	17	P	✓	~~Acacia sp~~			

~~Austrostipa elegantissima~~
~~Bromus hordeaceus subsp. hordeaceus~~

5/11 Helichrysum leucopsidum ✓ ✓ PTO

5/11 Podolepis canescens

Nymp6

24 species incl. 1 weed
+ 10 adj.

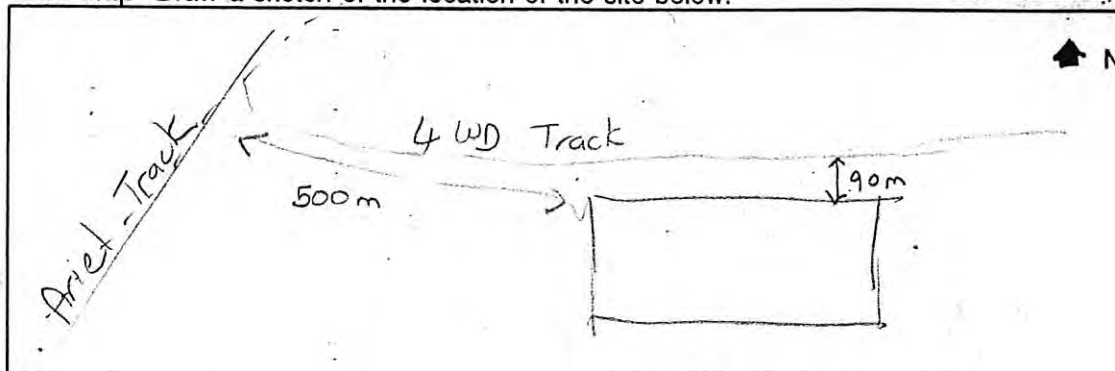
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA Nyngan Farm SITE NUMBER 26
 DATE TRIP 10/10/98 RECORDERS Kate, Neil, Jenifer, Alice, Mary, Jeff
 DATE TRIP 5.11.98 RECORDERS GOK, Neelg, AnneG, Brian, Mick, Jennifer
 DATE TRIP _____ RECORDERS _____
 BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

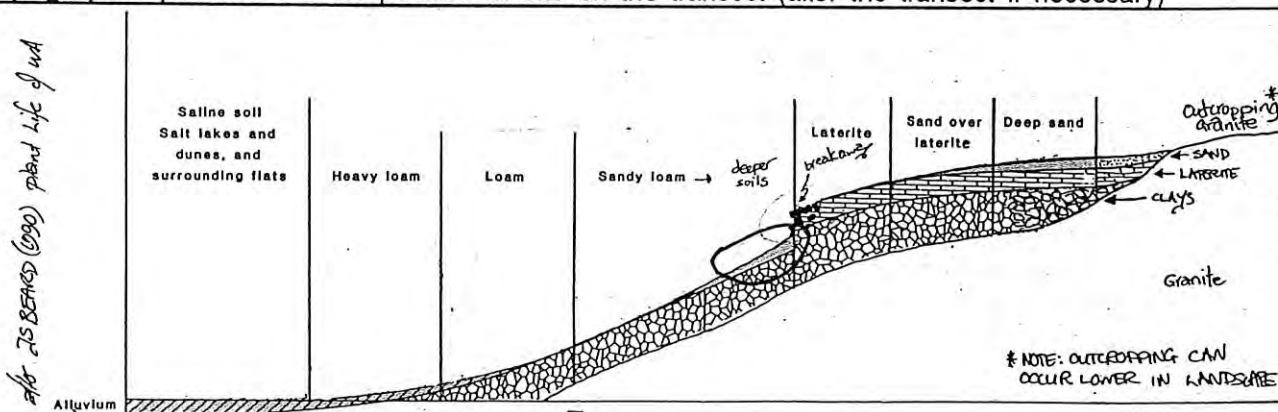


Road Location

Geographic Location Latitude 32 39.106 S Longitude 117 18.934 E Altitude 1008 ft
 Reference Map. 32° 39' 06.2" 117° 18' 56.0"

Photograph Photographer's Name B.M 12 (Brian Mayle) Photo No B.M.12

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	flat	gentle	<u>steep</u>	Aspect	<u>(N)</u>	NE	E	SE	S	SW	W	NW
Surface Soil	<u>Gravelly Clay with surface gravel</u>							Colour	<u>light brown</u>			
Exposed rock	<u>type</u>							% surface	<u>> 5%</u>			
Sub-surface Soil	<u>brown clay</u>							Colour	<u>brown</u>			
Rock	<u>N/A</u>							depth to rock				
Drainage	<u>(well)</u>	mod	poor	depth water	cm	Wet	all year	<u>winter/spring</u>				
Litter	% cover <u>> 70%</u>							Bare Ground	<u>25 %cover</u>			
	Depth <u>2, cm</u>											

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

LIFE FORM	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
		15m 	 	12m 	
COVER CLASS (%)		2-10%		10-30%	
DOMINANT SPECIES		<i>E. astirgans</i>		<i>E. capillosa</i>	
LIFE FORM	SHRUBS		SHRUBS		
	over 2m	2m-1m	under 1m		
	  	  	   		
COVER CLASS (%)		10-30%			
DOMINANT SPECIES		<i>Melaleuca uncinata</i>			
LIFE FORM	GRASSES	HERBS	SEDGES	OTHER	
	 	  	  		
COVER CLASS (%)			2-10%		
DOMINANT SPECIES			<i>Gahnia australis</i>		

4. VEGETATION CONDITION

WEEDS - % COVER

Trees/Mallees	%	COMMENTS no weeds
Shrubs	%	
Grasses	%	
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE

		COMMENTS no obvious weeds.
1	'PRISTINE'	
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No NY 96

Date 10/10/98

5/11/98 30 →

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name
- Column 2 plant number
- Column 3 flowering time- COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
Eucalyptus caplosa ^{sp. polyclada}	1	Bud	✓								
E. astingen (no spec)	2										
E. Alacrasseana huegilliana	3		✓								
Melaleuca uncinata	4		✓								
	5										
MALLEES											
GRASSES											
				Austroanthonia setacea	8	✓	✓				
				Austrostipe sp. (pos. elegantissima on plot but this spec not in)	9		?	Lobelia rhombifolia	29A	✓	✓
SHRUBS				Aleachne alopecuroides	10						
Gastrolobium (sp. pariflorum)	5		✓	Austrostipe trichophylla (col)	30		✓	SEDGES			
Comesperma volubile	9	✓		Austrostipe campylachne	31		✓	Gannia australis	16	✓	✓
Astragalus serratifolium var. plaidenii	12		✓								
(shrub = acc in Q3 (18))	15		✓	Neurachne alopecuroides	13A		✓				
Glycistracaryon aureum	27		✓								
HERBS											
Dillwynia sp. aff. cinerascens	15		✓	Trachymene pilosa	6	✓	✓				
SpA Perth flora				Lomandra elliptica	7		✓	ADI Adjacent			
				Helichrysum leucopsidum	11		✓	Lepidosperma tuberculatum	17	✓	✓
				Thysanotus patersonii	13	✓	✓	Billardiera bicolor	18	✓	✓
				Cassia parvi sp. alfordii	14		✓	Stylidium tenuicarpum	19	✓	✓
				Glystracaryon aureum	22	✓	✓	Dampiera lavandulaceae	20	✓	✓
				*Elat. Decid. Hypochaeris glabra	26		✓	Drosera macrantha (sp. form)	21	✓	✓
				Millotia tenuifolia var. tenuifolia	28		✓	Thelymitra macrophylla		✓	✓
				Lobelia sp. (sterile)	29		✓	Caladenia integrifolia		✓	✓
				Helichrysum leucopsidum	15		✓	Hibbertia commutata	23		✓
				Lomandra micrantha	15		✓	Billardiera bicolor (see 18)	24		✓
				Trachymene cyanopetala	15		✓	Nemcia aff. obovata	25		✓
								Sollya heterophylla	18A		✓

NYM 96

38 species incl 1 weed ✓

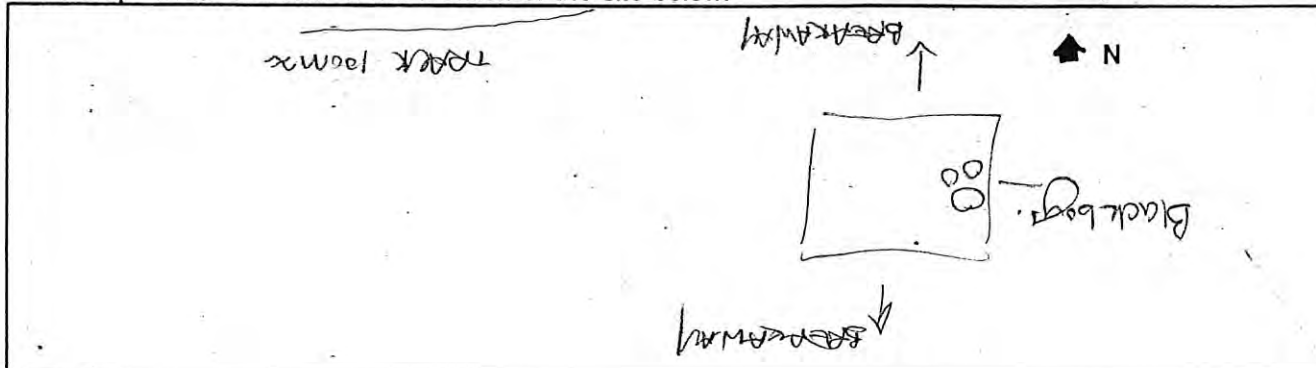
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYMUTIN FARM SITE NUMBER 7
 DATE TRIP 10-9-98 RECORDERS Neil, Kate, Alier, Jennifer
 DATE TRIP 5-11-98 RECORDERS Mary, Jeff
 DATE TRIP _____ RECORDERS Greg, Neil G, Ann G, Brian, Alice, Jennifer
 BOTANIST Neil

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

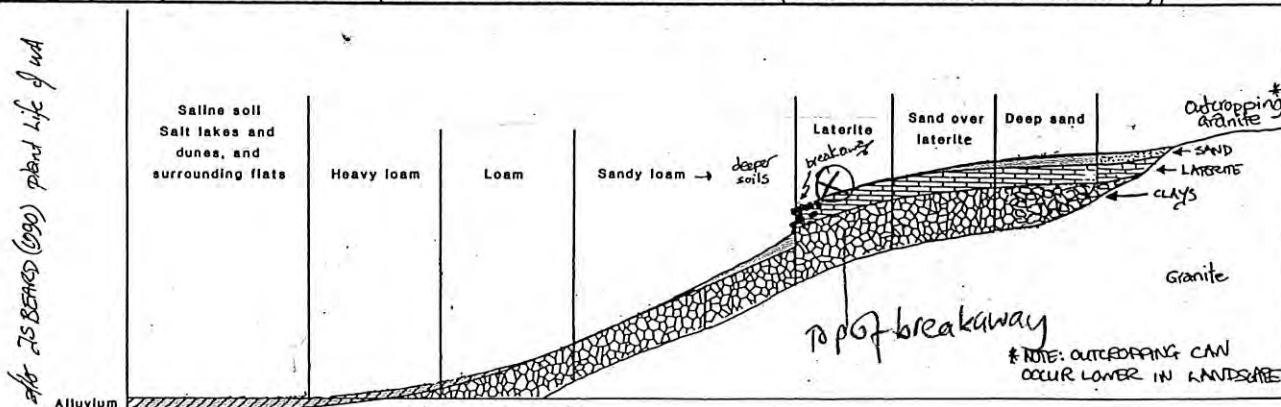


Road Location

Geographic Location Latitude 32° 39' 09.3" S Longitude 117° 18' 57.3" E Altitude 1559 ft + 154
 Reference Map 32° 39' 05.6" 117° 18' 57.3"

Photograph Photographer's Name BRIAN Photo No 14 + 15

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	<u>flat</u> <u>Top of hill</u> gentle steep	Aspect	N NE E SE <u>(S)</u> SW W NW
Surface Soil	<u>Gravelly Clay</u>	Colour	<u>Brown</u>
Exposed rock	type _____ % surface		
Sub-surface Soil	<u>Laterite</u>	Colour	<u>Brown</u>
Rock	type _____ depth to rock		
Drainage	<u>(well)</u> mod poor depth water	cm	Wet all year winter/spring
Litter	70 % cover	Bare Ground	<u>75%</u> %cover
	Depth max 2 cm		

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below), and dominant species in each layer.

Cover Class	2-10%	10-30%	30 - 70%	over 70%
-------------	-------	--------	----------	----------

TREES						MALLEES	
	over 30m	10 - 30m	under 10m	over 8m	under 8m		
LIFE FORM						30m	10m
COVER CLASS (%)			over 70%				
DOMINANT SPECIES			<i>Allocasuarina</i>				

SHRUBS			SHRUBS	
	over 2m	2m - 1m	under 1m	
LIFE FORM				2m
COVER CLASS (%)		2-10%	22	1m
DOMINANT SPECIES		<i>Xanthoxea drummondii</i> (<i>Melaleuca uncinata</i>) not dominant	<i>Libertia commutata</i>	

GRASSES		HERBS		SEDGES		OTHER	
LIFE FORM							1m
COVER CLASS (%)		2-10%					
DOMINANT SPECIES		<i>Phacelocarpus</i>					

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees / Mallards	%	COMMENTS Very few weeds. visible
Shrubs	%	
Grasses	%	
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No 7 Nymulim
Date 10.10.98
5.11.98. 347

Label each plant with plants number, site code, date and plant's name or working name if required
Record on Sheet

- Column 1 plant name.
- Column 2 plant number
- Column 3 flowering time- COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
Alloraspis hirtelliana	1		✓					Hypochaeris alabra	25	✓	✓
E. capillosa sp. capillosa	2		✓					Blechnum drummondii	26	✓	✓
								Chaenactis corymbosa	27		✓
								Hydrocotyle callicarpa	28	+	✓
								Mullotenia tenuifolia tenuifolia	29		✓
								Haemodorum sp.	30		✓
MALLEES								Phyllanthum psilodermum	31	✓	✓
								Orchid sp. Cyanicula deformis	32		✓
				GRASSES				Stylidium tenuicarpum	33a		✓
				Neurachne allepecculoides	15		✓				
				Austroanthonia setacea	39		✓				
SHRUBS											
Melaleuca sp. uncinata	3		✓	Amphipogon caricinus	34		✓				
Hibbertia sp. comutata	4	✓	✓	Lobelia grandiflora	35	✓	✓	SEDGES			
Xanthorrhoea drummondii	5		✓					Lepidobolus oreissiana	13	✓	✓
Gompholobium marginatum	6		✓					Lepidosperma sp. (infertile)	14		✓
Melaleuca tuberculata	18		✓					Gahnia australis	36		✓
Dampiera flavo-alutacea	19		✓					Leptandra effusa	NS.		✓
Acacia stenoptera	NS		✓	HERB Trichostema sp. Nymulim N/A	456		✓				
				Stylidium bipiliferum	7		✓				
				Glischrocaryon aureum	9		✓				
				Conostylis setigera	10		✓				
				Stylidium sp. spec. missing	11	Bud	-				
				Drosera macrantha	12	✓	✓				
				Thysanotus patersonii	13	Bud	✓				
				Gordonia sp. pulchella	17	✓	✓				
				Calceolaria sp. integra	20	✓	✓				
				Trachymene corymbosa	21	✓	✓				
				Trachymene pilosa	22	✓	✓				
				Lawrencea rosea	23	✓	✓				
				Podolepis angustifolia	24	✓	✓				

LOWAN

NYM08

50 species including 1 weed.
18 adjacent incl. 3 weeds.

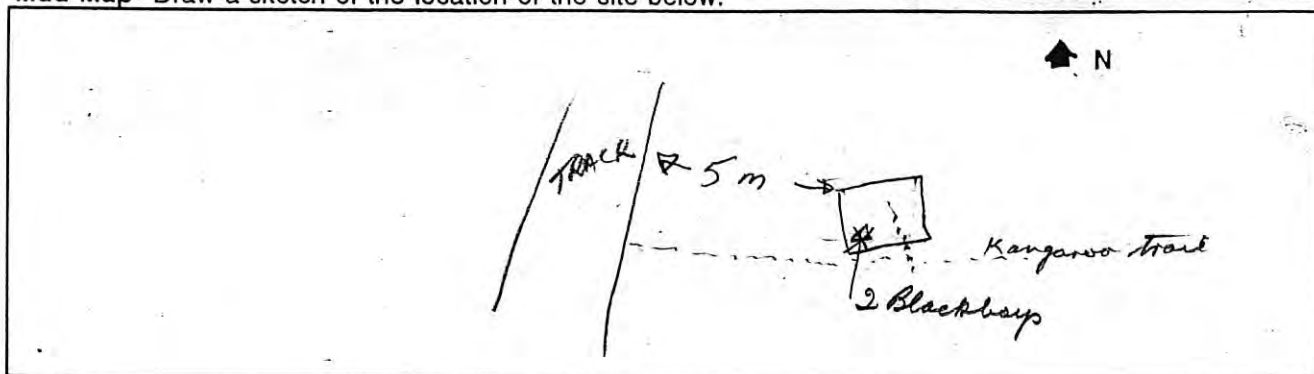
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER [NYA 22] = NYA8
 DATE TRIP 10/9/98 RECORDERS ANNE BELLMAN, DIAN + GARY + LOGA
 DATE TRIP 5/11/99 RECORDERS Gregg, Neil G, Anne, Brian, Alice, Jennifer
 DATE TRIP _____ RECORDERS _____
 BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



Road Location

Geographic Location Latitude 32-34.009 S Longitude 117-18.162 E Altitude 1522 ± 236

Reference Map

32° 39' 00.5"

117° 18' 09.7"

Photograph

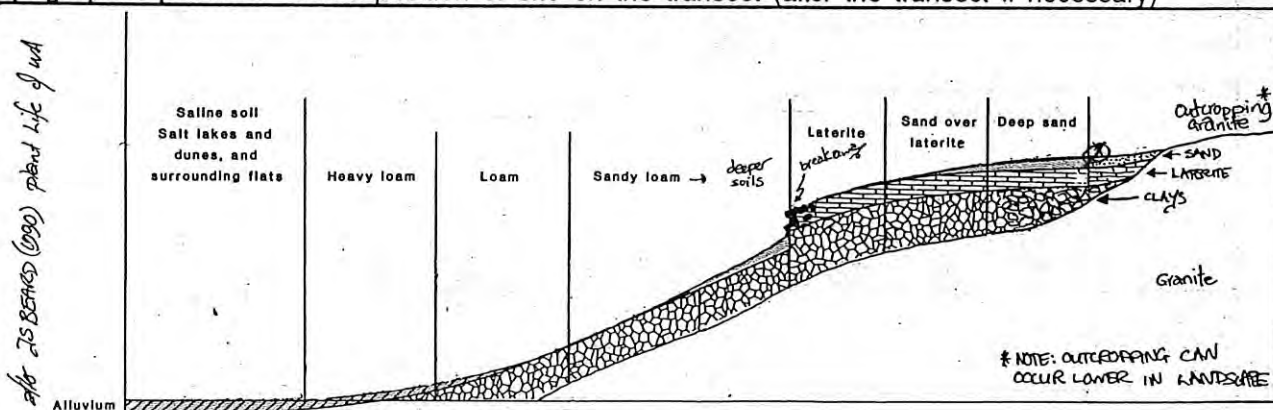
Photographer's Name

20 & 21

Brian

Photo No

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW

Surface Soil SANDY LOAM Colour LIGHT BROWN

Exposed rock type _____ % surface

Sub-surface Soil SANDY LOAM Colour LIGHTER BROWN

Rock type _____ depth to rock

Drainage wet mod poor depth water cm Wet all year winter/spring

Litter 30 - 70 % cover

Depth / cm

Bare Ground 10 % cover

1 Check for better description.

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

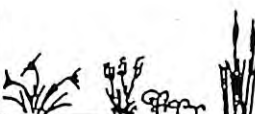
From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

LIFE FORM	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
					
COVER CLASS (%)					< 2%
DOMINANT SPECIES				moved	ALOCASUARINA huegeliana

LIFE FORM	SHRUBS		SHRUBS
	over 2m	2m-1m	under 1m
			
COVER CLASS (%)	< 2%	< 2%	30-70%
DOMINANT SPECIES	XANTHOERHOEA drummondii	DAVEISA longifolia ALOCASUARINA HUMILIS	HAKA sp 1-lehmanniana

LIFE FORM	GRASSES	HERBS	SEDGES	OTHER
				
COVER CLASS (%)	< 2%	> 5% - 2%	2-10%	
DOMINANT SPECIES		Dampiera sp lindleyi		

4. VEGETATION CONDITION

WEEDS - % COVER

Trees/Mallees	%	COMMENTS NONE
Shrubs	%	
Grasses	%	
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE

1	'PRISTINE'	COMMENTS KANGAROO TRAIL THROUGH QUADRAT
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

NYA8

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No NYA 22

Date 10-10-96

Siliva

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name
- Column 2 plant number
- Column 3 flowering time-COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>ALUCASUARINA huegeliana</i>	2		✓	<i>LYSINEMA ciliatum</i>	66	WHITE	✓	<i>GREEN HOOD ORCHID - Pterostylis (v. Hata) sp</i>	44		✓
<i>ALUCASUARINA HUMILIS</i>	3	✓	✓	<i>Jacksonia alata</i>	67		✓	<i>TINY PINK FLOWER Levenhookia pusilla</i>	46		✓
<i>MELALEUCA - Prob. tuberculata</i>	4	MOORE	✓	<i>Jacksonia restioides</i>	68		✓	<i>Millotia tenuifolia var. tenuifolia</i>	48		✓
<i>KUNZEA micromera</i> (71) SHRUBS	5	MOORE	✓	<i>Meibomia scabra = m. tuberculata</i>	69		✓	<i>Stylidium brevicaule</i> n/s	68		✓
<i>DAVESIA LONGIFOLIA</i>	6	Yellow	✓	<i>Isopogon tetrafolius</i>	70		✓	<i>Phacochaeta paniculata</i>	79		✓
MALLEES				<i>Saevia preissiana floribunda</i>	71		✓	<i>Levenhookia stipitata</i>	73		✓
				<i>Kunzea micromera</i> complex	72		✓	<i>Tricoryne tenella</i> (GZ)	74		✓
				<i>Persea quinqueveneris</i> (scab) 13			✓	<i>Caesia sp. (new) (in bud) n/s</i>	75		✓
				GRASSES				<i>- Caesia sp. nov. 'Nygamutin' (GZ) (key 1562)</i>			
				<i>NEURACHNE alopecuroides</i>	27	GREY	✓				
				<i>Amphipogon caricinus</i>	28		✓				
SHRUBS				<i>Amphipogon caricinus</i>	29		✓	SEDGES			
<i>HAKEA lehmanniana</i>	1	GREEN	✓	<i>Neurachne alopecuroides</i>	49A		✓	<i>AUSTRO Schoenus armeria</i>	29		✓
<i>CAOTHAMNUS PLANIFOLIUS</i>	7	RED	✓					<i>Schoenus armeria</i>	31		✓
<i>DRYANDRA nivea</i> ssp. <i>nivea</i>	8	WHITE	✓					<i>Schoenus sesquipediculus</i>	45		✓
<i>MYRTACEAE Baeckha preissiana</i> (floribunda)	9	PINK	✓					<i>Lepidosperma sp. aff. scabrum</i>	47		✓
<i>HIBBERTIA microphylla</i> complex	10	YELLOW	✓	HERBS							
<i>CALYTRIX leschenaultii</i>	11	PURPLE	✓	<i>OPERCULARIA vaginata</i> (semi-shrub)	24		✓	ADJ			
<i>LEUCOPOGON "Nygamutin Farm" (Ngazze/12)</i>	12	WHITE	✓	<i>DROSERIA macrantha</i> ssp. <i>macrantha</i>	25	WHITE	✓	<i>VERTICORDIA FOCI</i>	50		
<i>Persea quinqueveneris</i>	13		✓	<i>CONOSTYCHUS setigera</i>	26	YELLOW	✓	<i>SYMPHYTA sp. aff. INTERONS (NYA917)</i>	51	YELLOW	✓
<i>HIBBERTIA pungens</i>	14		✓	<i>STYLIDIUM sp. repens</i> (Nov.) 30	30		✓	<i>DAMPiera lavandulaceae</i>	52	BROWN	✓
<i>ACACIA stenopetala</i> (Nov) RE X2	15		✓	<i>ENAMEA ORCHID - Purple-Elythranthe</i>	32		✓	<i>HEMIGENIA podalyria</i>	53	MOORE	✓
<i>CAOTHAMNUS quadrifidus</i>	16		✓	<i>FLAT HEED + Hypochaeris glabra</i> (bromine)	34		✓	<i>ASTROZOMA serratifolium</i> var. <i>placidum</i>	54		✓
<i>Isopogon tetrafolius</i> var. <i>tetrafolius</i>	17	PINK	✓	<i>DROSERIA SPILLOS</i>	35	WHITE	✓	<i>COMESPERMA volubile</i>	55	BROWN	✓
<i>Melaleuca tuberculata</i> var. <i>tuberculata</i>	18		✓	<i>BIENNOSPORA drummondii</i>	36		✓	<i>VERTICORDIA hugeli</i> var. <i>stylosa</i>	56	YELLOW	✓
<i>Jacksonia restioides</i>	19	YELLOW	✓	<i>LEAF + OLD FLOWER STEM Dichopogon capillipes</i>	37		✓	<i>AVENA BARBATA</i>	57		✓
<i>Jacksonia sp. aff. alata</i>	20	YELLOW	✓	<i>PATERSONIA juncea</i>	38		✓	<i>GRASS Vulpia myuros</i>	58		✓
<i>DAMPiera lindleyi</i>	21	BROWN	✓	<i>DROSERIA macrantha</i>	41		✓	<i>STYANDORA glauca</i>	59	BROWN	✓
<i>LEPTOSPERMA erubescens</i>	22		✓	<i>CHAMERICARIA v. FRUIT conymbosa</i>	42		✓	<i>BANKSIA sphaerocarpa</i> var. <i>caesia</i>	60		✓
<i>VERTICORDIA hugeli</i> var. <i>stylosa</i>	23	RED	✓	<i>GLISCKIO caryon aureum</i>	43	YELLOW	✓	<i>Lepidosperma brunonianum</i>	61		✓
<i>Gompholobium marginatum</i>	33		✓					<i>WHITE DAISY Phacochaeta paniculata</i> 62 WHITE			
<i>XANTHORRHOEA drummondii</i>	39		✓					<i>HAKEA gilbertii</i> 63 WHITE-IDV			
<i>Stylidium scoparia</i>	76		✓					<i>Archibacca undulata</i> 64			
<i>Triperboecus brachylobus</i>	77	?						<i>Hydrocotyle chlorantha</i> 65			
<i>?? Ruicoma - small - Fabaceae</i>											

Blue green shrubs

NYM8

NYM 9

64 species incl 3 weeds
+ 13 adjacent

lots of Proteaceae

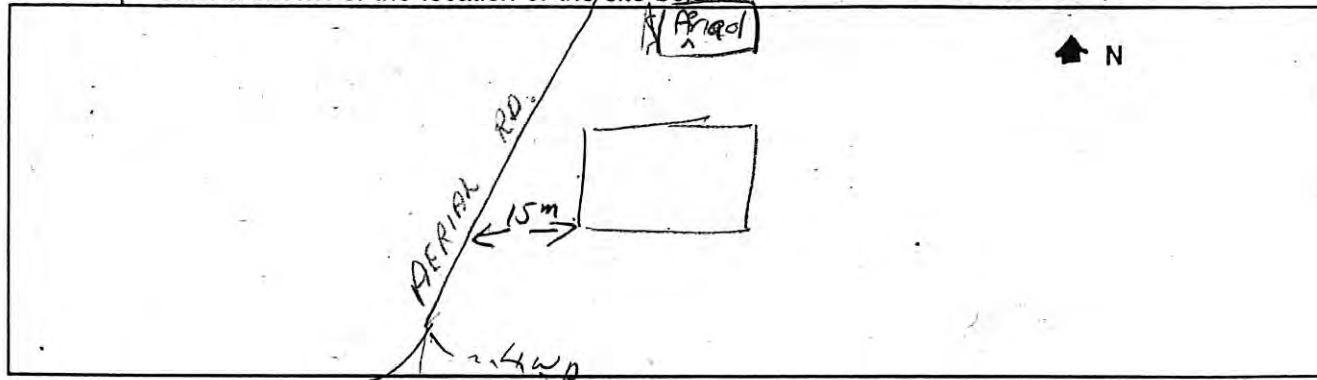
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

FARM
BUSHLAND AREA Nyngurin Q 9 SITE NUMBER NYM 9
DATE TRIP 10/10/98 RECORDERS Kate, Neil, Jennifer, Alice, Bruce
DATE TRIP 6/11/99 RECORDERS Gregg, Neil, G, Anna, Brian, Alice, Jennifer
DATE TRIP _____ RECORDERS _____
BOTANIST _____

1. LOCATION of the QUADRAT

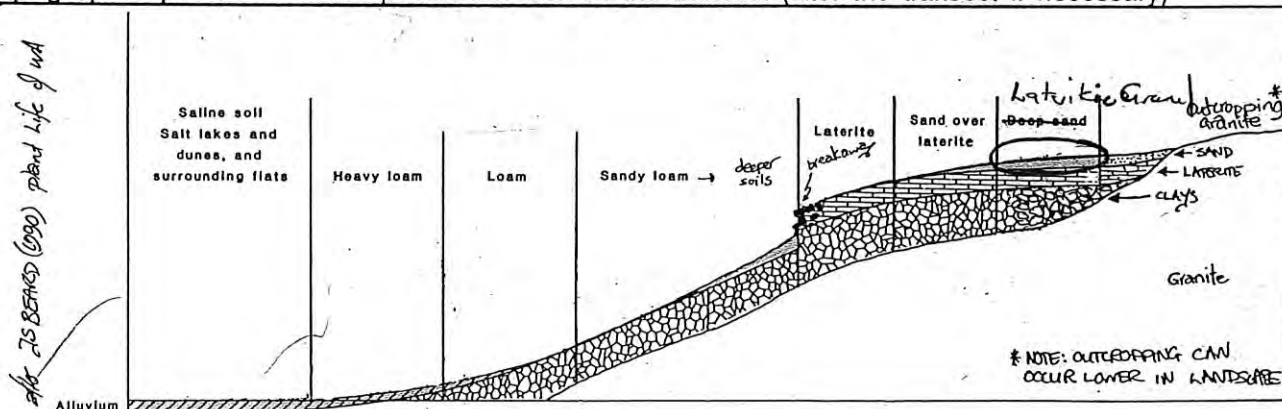
From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below



Road Location Aerial Rd
Geographic Location Latitude 32 38 986 Longitude 117 18 879 Altitude 1173 ft
Reference Map 32° 38' 59.2" 117° 18' 52.7"
Photograph Photographer's Name B. M Photo No 22 23

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW
Surface Soil Brown sandy loam with surface crumb Colour Brown
Exposed rock type _____ % surface _____
Sub-surface Soil Laterite at 15cm Colour _____
Rock type _____ depth to rock _____
Drainage well mod poor depth water cm Wet all year winter/spring
Litter Depth 10-15 % cover cm Bare Ground 25 % cover

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
LIFE FORM			5m 		
COVER CLASS (%)			2-10%		10-30%
DOMINANT SPECIES			<i>Allocasuarina hughesii</i>		<i>Eucalyptus dominant</i>
	SHRUBS		SHRUBS		
	over 2m	2m-1m	under 1m		
LIFE FORM					2m 1m
COVER CLASS (%)	2-10%	2-10%	~~10-30%~~ 30-70%		
DOMINANT SPECIES		<i>Calothamnus quadrifidus</i> <i>Xanthorrhoea</i>	<i>Hakea</i> sp. <i>lehmansiana</i> <i>Nerica</i> sp. <i>obovata</i>		
	GRASSES	HERBS	SEDGES	OTHER	
LIFE FORM					
COVER CLASS (%)		30-70%			
DOMINANT SPECIES		<i>Dampiera bursifolia</i>			

4. VEGETATION CONDITION

WEEDS - % COVER

Trees/Mallees	%	COMMENTS
Shrubs	%	No Weeds
Grasses	%	
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE

	COMMENTS
1 'PRISTINE'	
2 EXCELLENT	
3 VERY GOOD	
4 GOOD	
5 DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

Label each plant with plants number, site code, date and plant's name or working name if required

SITE No Nym 9
Date 10/10/98
5/11/98

Record on Sheet

- Column 1 plant name.
- Column 2 plant number colour
- Column 3 flowering time- ~~tick~~ if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES				SHRUBS (cont.)				HERBS (cont.)			
No	FI	ID		No	FI	ID		No	FI	ID	
Allocasuarina huegeliana	1	✓	✓	STACKHOUSIA scoparia	27	✓	✓	Whalenbergia preissii	37	✓	✓
				STACKHOUSIA scoparia = 27	65			Lauevankia striatata pusilla	38	✓	✓
				Stylidium brevicaepum	66	✓	✓	Helichrysum leucopsidium	39	✓	✓
				Stylidium tenuicaepum	70	✓		Stylidium piliferum	40	✓	✓
				Portanthera microphylla N/S	74			Stackhousia monogyna	41	✓	✓
				Trachymene pilosa N/S	76			Crucula plosiana	42	✓	✓
				Stylidium repens ND	77			Ceratophya obanoides	44	✓	✓
MALLEES				GRASSES				Shoenia nana			
Eucalyptus drummondii	2	✓	✓	Austrostipa elegantissima	29	✓	✓	Whalenbergia sp preissii	46	✓	✓
Euc. wandoo mallee o/H	64			Nesochloa alopecuroides	30	✓	✓	Chamaexerod Serra	47	✓	✓
= Euc. capillare subsp polyclada				Aira coryphyllea	43	✓	✓	Flat weed Hypochaeris glabra	48	✓	✓
SHRUBS				Austrorhamnus setacea	49	✓	✓	Trachymene pilosa	49A	✓	✓
Melaleuca tuberculata var tuberculata	3	✓	✓	Austrostipa pycnostachya	68	✓	✓	Portanthera microphylla	50	✓	✓
Calothamnus squadrifidus	4	✓	✓	Eurharta longiflora	79			SEDGES			
Leucopogon sp "Nymanii" (Nym)	5	✓	✓					Schoenus sesquispiculus	28	✓	✓
Halea lehmanniana	6	✓	✓					Tetraria capillaris	51	✓	✓
Synaphea sp. aff. interons (Nym)	7	✓	✓					Arlepidospermum sp. aff. scabrum	71	✓	✓
Hibertia pungens	8	✓	✓	HERBS							
Billaudia bicolor	9	✓	✓	Comosperma volubile	22	✓	✓	*Hypochaeris glabra			✓
Nemcia obovata	10	✓	✓	Pterostylis recurva	23	✓	✓				
Astroloma "Tutaining"	11	✓	✓	Opercularia sp. vaginata	24	✓	✓				
Hibbertia commutata	12	✓	✓	Dracera micrantha ssp. macrantha	25	✓	✓				
Aegon pulchella var. pulchella	13	✓	✓	Conostylis setigera	26	✓	✓				
Tetradlea confertifolia	14	✓	✓	Thelymitra sp. (blue) macrophylla	21	✓	✓				
Hemigenia podalyria	15	✓	✓	Trachymene ornata	52	✓	✓				
Cryptandra arbutiflora var. integrifolia	16	✓	✓	Lauitencella lauevankia rosea	33	✓	✓				
Dampiera lavandulaceae	17	✓	✓	Millottia tenuifolia var. tenuifolia	34	✓	✓				
Acacia pulchella var. pulchella	19	✓	✓	Dracera pulchella (ant. Dampiera)	35	✓	✓				
Hakea lissocarpa	18	✓	✓	Stylidium brevicaepum = 66	36	✓	✓				
Dampiera lindleyi	20	✓	✓	Ant. Pterostylis recurva	37	✓	✓				
Xanthorrhoea drummondii	21	✓	✓								
Petrophile striata	75	✓	✓								
			</								

Also *Drosera leucoblasta*

35

PTO →
more to go

Nym

36 species incl 6 weeds
+ 3 adjacent

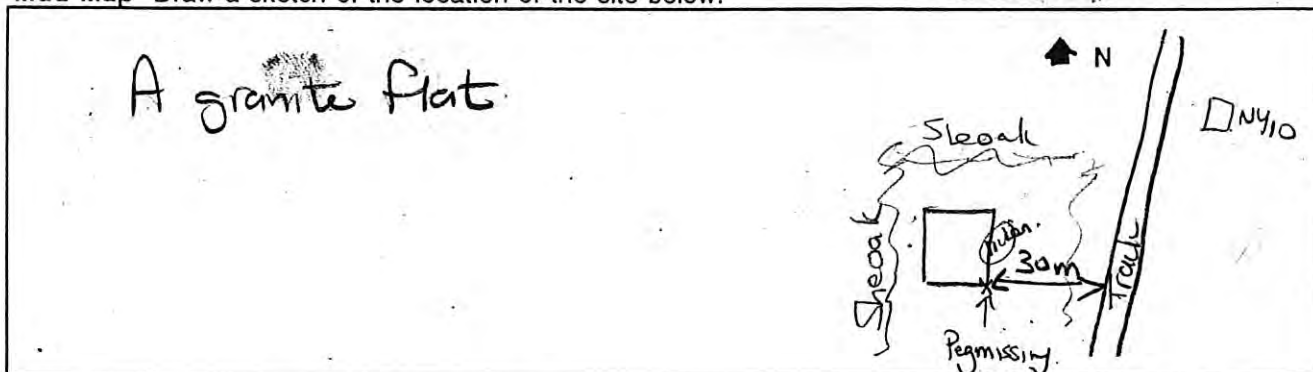
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NY 10
DATE TRIP 10-10-98 RECORDERS Sylvia David Ann Mary
DATE TRIP 6-11-99 RECORDERS Greg K, Neil G, Ann G, Brian, Alice, Jennifer
DATE TRIP _____ RECORDERS _____
BOTANIST ANN Gunness

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

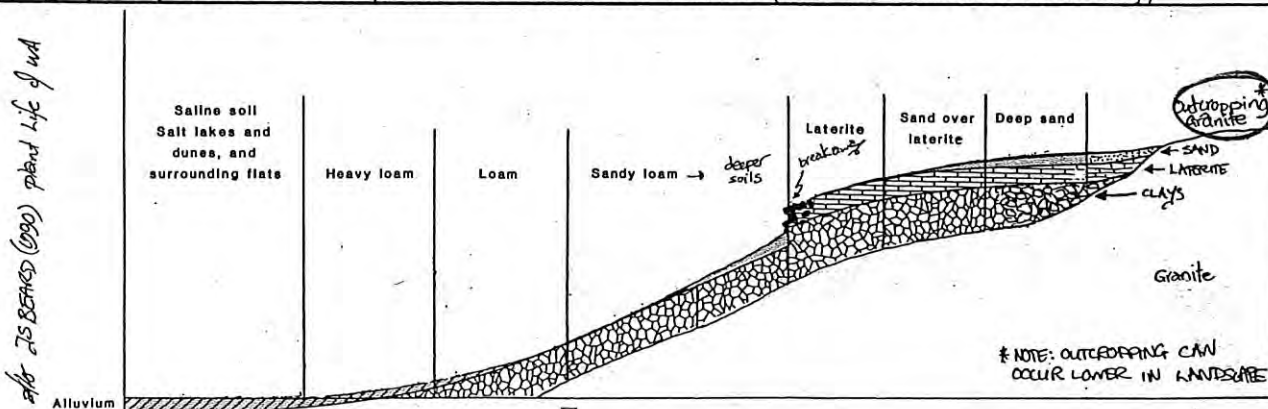


Road Location Neamutin Rd

Geographic Location Latitude 32° 38' 49.8" S Longitude 117° 18' 8.57" E Altitude 1790 ± 27
Reference Map 588 32° 38' 53.3" 117° 18' 51.4"

Photograph Photographer's Name Brian Mayle Photo No 24

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	<u>flat</u>	gentle	steep	Aspect	N	NE	<u>E</u>	SE	S	SW	W	NW
Surface Soil	<u>Gravelly loam</u>											
Exposed rock	<u>Granite</u>											
Sub-surface Soil	<u>Gravelly loam</u>											
Rock	<u>Granite</u>											
Drainage	well	<u>mod</u>	poor	depth water	cm	Wet	all year	winter/spring				
Litter	<u>2-10</u>											
Bare Ground	<u>5%</u>											

2

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Cover Class	2-10%	10-30%	30-70%	over 70%
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4. VEGETATION CONDITION **Hypochoeris glabra.*

WEEDS — % COVER		
	15%	
Trees / Mallee	%	COMMENTS
Shrubs	%	
Grasses	5-10%	
Herbs	NID %	
Sedges	%	

1	'PRISTINE'	COMMENTS
2	EXCELLENT	
3	VERY GOOD ✓	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

SITE No NY 10
Date 10-10-98
5.11.98 → 40

Label each plant with plants number, site code, date and plant's name or working name if required

- Column 1 plant name-
- Column 2 plant number ~~color~~
- Column 3 flowering time- ~~tick~~ if species flowering
- Column 4 identification check

From '*Bushland Plant Survey*' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
								* <i>Gnaphosia gnaphosoides drummondii</i>	16	✓	✓
								* <i>Stylidium calceatum</i> (Nov)	17	BT	✓
								<i>Dioscorea subhirtella ssp. subhirtella</i>	18	Y	✓
								<i>Brachyscome parpusilla</i> var. <i>parpusilla</i>	19	✓	✓
								* <i>Gonolobus nodulosus</i>	20		✓
MALLEES								* <i>Pentstemon latifolia</i>	21		✓
								<i>Goodenia barandiana</i>	22	✓	✓
								<i>Blennospora drummondii</i>	23	✓	✓
				GRASSES				<i>Crassula plosiana</i>	24		✓
				* <i>Aira cannyphyllea</i> (not tagged)	2	✓		<i>Centrolepis pilosa</i>	25		✓
				<i>Austrodanthonia caespitosa</i>	25	✓		<i>Wahlenbergia</i> (small native) <i>preisii</i>	27		✓
SHRUBS				<i>Amphipogon caricinus</i>	29	✓		"Smiles" <i>Helleborus cygnorum</i>	28		✓
* <i>Tymalium ledifolium</i>	1	G	✓	* <i>Vulpia myuros</i> Label found	30	✓		<i>Podolepis lessonii</i> (tiny)	31	Y	✓
var. <i>rosmanifolium</i>				<i>Austrorhiza trichophylla</i>	42	✓		SEDGES			
								* <i>Ursinia anthemoides</i>			✓
								<i>Centrolepis aristata</i>	36	✓	✓
Herbs (cont.)				HERBS							
* <i>Bonyasphaerocephala</i> = 39	32	✓		<i>Bonyasphaerocephala</i> = 39	3	✓	✓				
* <i>Nepenthes sp. stipitata</i>	33	✓		<i>Podolepis lessonii</i>	4		✓				
<i>Lobelia</i> sp. (white & purple) (Nov)	34	✓		<i>Lawrencea rosea</i>	5	✓	✓	ADJ			
<i>Trachymene cynopetala</i>	35	✓		* <i>Hypochaeris glabra</i>	6		✓	<i>Neurachne alopecuroides</i>		✓	✓
<i>Bonyasphaerocephala</i>	39	✓		* <i>Prasophyllum gracile</i>	7			* <i>Austrorhiza sp. trichophylla</i>			✓
<i>Prasophyllum macrostachyum</i> (=?)	40	✓		* <i>Ursinia anthemoides</i>	8		✓	<i>Prieta maxima</i>			✓
<i>Podolepis canescens</i> = 40 II.				<i>Trachymene ornata</i>	9	fr	✓	<i>Gnaphosis - tenuissima</i>		Y	✓
<i>Crassula colorata</i>	37	✓		* <i>Arctotheca calendula</i> NLS.	10		✓	<i>Achyrocline satureioides</i> on edge of Casuarina			✓
inserta	38	✓		<i>Podolepis canescens</i>	11	✓	✓	<i>Podolepis angustifolia</i>			✓
				<i>Diocleophora capillipes</i>	12		✓	<i>Lobelia</i> sp. (red)			✓
				<i>Dioscorea glanduligera</i>	13	Or.	✓	<i>Phyllangium paradoxum</i> ADJ			✓
				<i>Sclerophaea multiflora</i>	14		✓				
				<i>Hyalopterna demissa</i>	15		✓				

Gnephosis drummondii (Nou) =

NY: MIO

45 species incl. 9 weeds
plus 8 adjacent

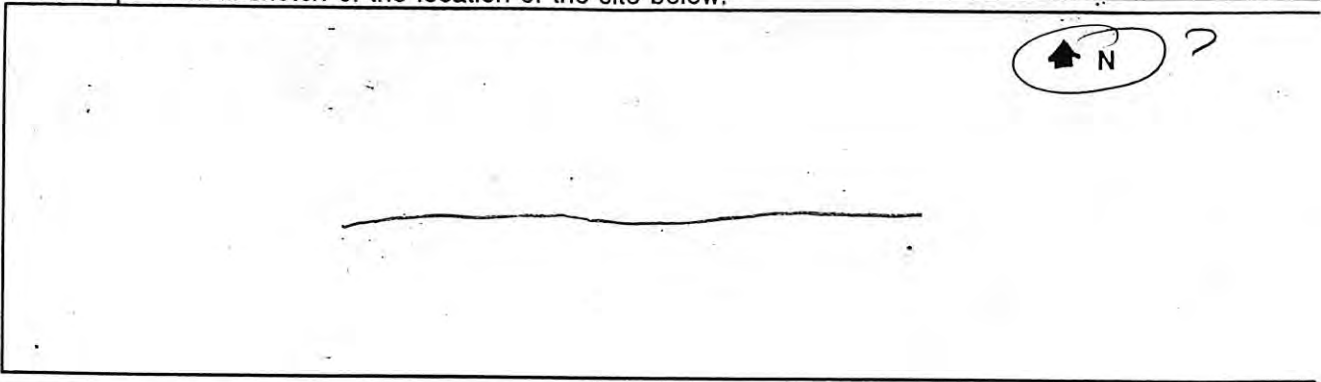
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NYM 11
 DATE TRIP 10/10/98 RECORDERS Mawer, Robyn, Ted, Veronica
 DATE TRIP 6/11/99 RECORDERS Gregg, Neill, Anne, Brian, Alice, Jennifer
 DATE TRIP _____ RECORDERS _____
 BOTANIST Borwen

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



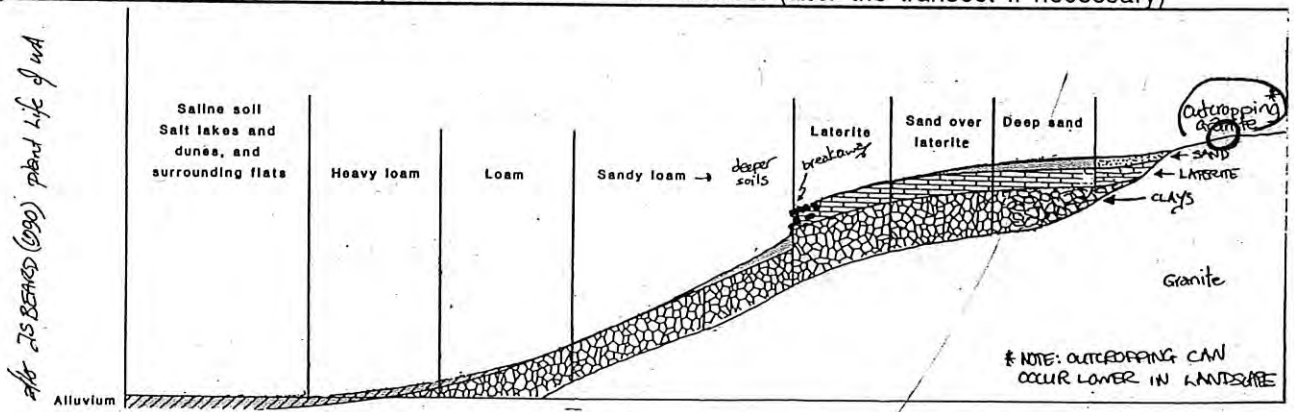
Road Location

Geographic Location Latitude 32° 38' 933" S Longitude 117° 16' 81" E Altitude 1378'

Reference Map 32° 38' 55.9" 117° 18' 53.5" ±294'

Photograph Photographer's Name BM Photo No 25, 26

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	flat	<u>gentle</u>	steep	Aspect	N	NE	<u>E</u>	SE	S	SW	W	NW
Surface Soil	<u>gnitty sandy loam</u>							Colour <u>brown</u>				
Exposed rock	type _____ % surface _____											
Sub-surface Soil	<u>exposed granite in spots outside + slabs (= Anna's place)</u>							Colour _____				
Rock	type <u>granite</u> depth to rock <u>50mm</u>											
Drainage	<u>well</u>	mod	poor	depth water	cm	Wet	all year	winter/spring				
Litter	Depth <u>100</u> % cover <u>0.5</u> cm			Bare Ground <u>~ 2</u> % cover								

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

	TREES			MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m
LIFE FORM					
COVER CLASS (%)			> 70%		
DOMINANT SPECIES			<i>Allocas. hueg.</i>		

	SHRUBS		SHRUBS
	over 2m	2m-1m	under 1m
LIFE FORM			
COVER CLASS (%)			
DOMINANT SPECIES			

	GRASSES	HERBS	SEDGES	OTHER
LIFE FORM				
COVER CLASS (%)		30-70%	30-70%	
DOMINANT SPECIES		Mixed	<i>Lepidosperma sp.</i> <i>brunonianum</i>	

4. VEGETATION CONDITION

WEEDS - % COVER		
Trees/Mallees	%	COMMENTS
Shrubs	%	Occ * <i>Ursi</i> and
Grasses	%	<i>Sec. herb</i>
Herbs	%	* <i>Aira</i>
Sedges	%	* <i>Hypochaeris</i>

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESENCE

SITE No NYM 11

Date 10/10/98

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name.
- Column 2 plant number
- Column 3 flowering time-COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Allocas. hueg</i> (no spec)	1			<i>Goodenia berardiana</i> (?=6)	49			<i>Stypandra glauca</i>	4	B	
				<i>Isotoma hypocrateriformis</i>	50			<i>Lawrencella rosea</i>	5		
				<i>Stylidium (=38) tenuicarpum</i>	51	Cr		<i>Goodenia berardiana</i>	6	Y	
				<i>Isotoma hypocrateriformis</i>	52			<i>Cheilanthes austrotenuifolia</i>	7		
				<i>Rhodanthe laevis</i>	53	Cr		<i>Lodolepis lessor</i>	8	Y	
MALLEES				<i>*Anacallis arvensis var caerulea</i>	54			<i>Blennospora drummondii</i>	10	B	
				<i>Perostylis calicata</i>	55			<i>Hypochaeris glabra</i> *	11	Y	
								<i>Orosera sp. (infestula)</i>	12		
				GRASSES				<i>*Parentucellia latifolia</i>	13	P	
				<i>Aira *Calyophylla</i>	9			<i>*Anacallis arvensis</i>	14	B	
SHRUBS				<i>*Briza mexicana</i>	17			<i>Coleodonia teleota integra</i>	15	G	
<i>Trymalium ledifolium var</i>	3			<i>Austrostipa trichophylla</i>	26			<i>(Arctostaphylos) capillipes</i>	16		
<i>rosmarinifolium</i>				<i>Austrostipa sp. (very hairy)</i>	33			<i>Vellia cynopotea</i>	18	M	
				<i>*Valpa myrae</i>	46			SEDGES			
				<i>Austrostipa campylachne</i>	47			<i>Lepidosperma brunonianum</i> NYM 11	2		
				<i>Austrodanthonia caespitosa</i>	48			<i>Centrolepis aristata</i>	25		
				<i>Austrostipa trichophylla</i>	56			<i>Centrolepis inconspicua</i>	30		
HERBS				<i>*Briza minor</i>	57			<i>Schoenus naru</i>	39		
<i>Chamaecilla conybose</i>	35			HERBS				ADJACENT			
<i>Stachys monogyna</i>	36	C		<i>Trachymene ornata (puffy)</i>	19	W		<i>Goodenia drummondii</i> ssp. integrifolia			
<i>Siloxerus m. (dubious)</i>	37	C		<i>Gonocarpus nodulosus</i> X2	20			<i>Perostylis vittata</i>	42		
<i>Stylidium tenuicarpum</i>	38	A		<i>Levenhookia pusilla</i>	21	P		<i>Baerheia crispiflora</i>			
<i>Thymelaea macrophylla</i>	40	B		<i>Drosera glauca ligera</i>	22			<i>Dodonea viscosa</i> ssp.			
<i>*Urtica artemioides</i>	41	Y		<i>*Goodenia berardiana</i> = 6	23	Y		<i>angustissima</i>			
<i>*Arctotheca calendula (no spec)</i>	43	Y		<i>Porcathura microphylla</i>	24	W		<i>Nicotiana glauca</i>			
<i>Hydrocotyle callicarpa</i>	44	H		<i>Boraginaceae sphaerocephala</i>	27	W		<i>Phlox humilis</i>			
<i>*Brachyscome parvifolia var</i>	45			<i>Trachymene pilosa (barked)</i>	28	W		<i>Thelymitra antenifera</i>	7		
<i>parvifolia</i>				<i>Phyllanthus paradoxus</i>	29	W		<i>Schoenus armeria</i>			
				<i>Rhynchospora rhodantha laevis</i>	31	Y		<i>Nearby</i>			
				<i>Stylidium calcaratum</i>	32	P		<i>Stylidium petiolare</i>			
				<i>Lobelia sp.</i>	34			<i>Calandrinia calyptrata</i>			

Adrian to have

NYM 11

BOTANIST

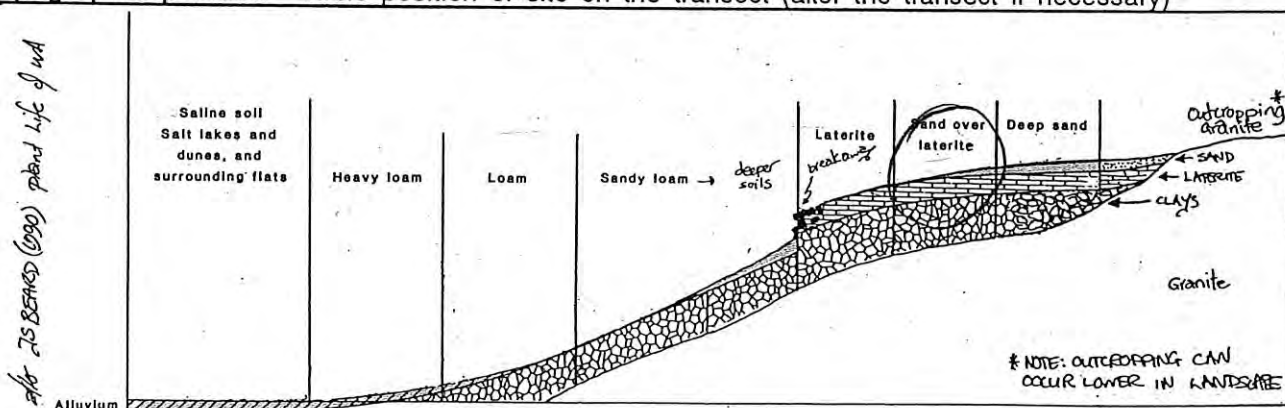
From '*Bushland Plant Survey*' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Hand-drawn sketch map of a study site. The map is a diamond-shaped area with several points marked inside. Labels include "Euc drummondii" at the top and bottom, "Shedding" on the right, "Euc drummondii" on the left, and "2 Wards" at the bottom. A scale bar at the top right indicates "100m from". A north arrow points up. A scale bar at the bottom left indicates "Track 10m" and "Flat 20m".

Reference Map

Photo No

Topographic position Circle position of site on the transect (alter the transect if necessary)



%cover

Depth

2 cm

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

TREES						MALLEES	
	over 30m	10-30m	under 10m	over 8m	under 8m		
LIFE FORM						30m	10m
COVER CLASS (%)	0	0	10-30%	0	0		
DOMINANT SPECIES			Mandoo Allocasuarina bougelliana				
SHRUBS				SHRUBS			
	over 2m	2m-1m		under 1m			
LIFE FORM						2m	1m
COVER CLASS (%)	0	10-30%		10-30%			
DOMINANT SPECIES		Hakea laurata Xanthorea drummondii		Nemisia sp. 7 obovata			
GRASSES		HERBS		SEDGES		OTHER	
LIFE FORM							1m
COVER CLASS (%)	2-10%	30-70%	10-30%				
DOMINANT SPECIES	Neurachne sp.	Dampiera alata lindleyi	Ghania australis				

4. VEGETATION CONDITION

WEEDS - % COVER

Trees/Mallees	%	COMMENTS
Shrubs	%	negl. g. b. b.
Grasses	%	~ 0%
Herbs	%	
Sedges	%	

VEGETATION CONDITION SCALE

		COMMENTS
1	'PRISTINE'	
2	EXCELLENT	✓
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

S. SPECIES PRESCENCE

SITE No NY 12

Date 10-10-98

5-11-98

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name
- Column 2 plant number colour
- Column 3 flowering time- tick if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Eucalyptus capillosa</i> ssp. <i>capillosa</i>	1		✓	<i>Stylidium breviscapum</i>	47	✓	✓	<i>Dieris</i> sp. <i>Caesia alfordii</i>	27		✓
<i>Allocasuarina haagelliana</i>	2		✓	<i>Pterochaeta paniculata</i>	48	Cr	✓	<i>Helichrysum leucopsidum</i>	28		✓
				<i>Cassytha racemosa</i>	49		✓	<i>Chamaecilla corymbosa</i>	29		✓
				<i>Stylidium spathulatum</i> (nonumber)			✓	<i>Thysanotus patersonii</i>	30		✓
								<i>Lebenhookia pusilla</i>	31		✓
								<i>Trachymene ornata</i>	32A		✓
MALLEES								<i>Trachymene pilosa</i>	33A		✓
								<i>Booklet stylidium calcaratum</i>	35	✓	✓
				GRASSES				<i>Podotrocha angustifolia</i>	37		✓
				<i>Neurachne alopecuroides</i>	21A	✓	✓	<i>Blennospora hummordii</i>	36	✓	✓
				<i>Austrodanthonia setacea</i>	41		✓	<i>Peranthera microphylla</i>	38		✓
SHRUBS				<i>Austrodanthonia setacea</i>	42		✓	<i>Lechenanthea biloba</i>	39	✓	✓
<i>Billardiera bicolor</i>	3		✓	<i>Austrostyphoe elegantissima</i> NIS	45		✓	<i>Lomandra micrantha</i>	40		✓
<i>Allocasuarina humilis</i> (female)	4		✓	<i>Austrodanthonia setacea</i>	50		✓	SEDGES			
<i>Hibbertia pumila</i>	5		✓					<i>Ghania australis</i>	24		✓
<i>Allocasuarina humilis</i> male	6		✓					<i>Shoenus nanus</i>	34		✓
+ <i>Dorobol</i>								<i>Shoenus armeria</i>	43		✓
<i>Nemisia obovata</i>	7		✓					<i>Lepidosperma</i> sp. aff. <i>scabrum</i>	44		✓
<i>Hakea trifurcata</i>	8		✓	HERBS							
<i>Hakea lissocarpa</i> ?	9		✓	<i>Dampiera lindleyi</i>	13	✓	✓				
<i>Maleleuca tuberculata</i> var. <i>tuberculata</i>	10		✓	<i>Stylidium stenocephalum</i>	14	✓	✓				
<i>Hibbertia commutata</i>	11		✓	<i>Glisocoryon aureum</i>	15		✓				
<i>Hemigenia podalyria</i>	12		✓	<i>Commispermia volubile</i>	16		✓	ADJ			
<i>Dampiera lavandulaceae</i> No. No			✓	<i>Drosera</i> sp. (infertile)	17		✓	<i>Lepidosperma</i> sp. aff. <i>scabrum</i>			✓
<i>Xanthorrhoea drummondii</i>	51			<i>Lomandra effusa</i>	18		✓	<i>Isaackea crispiflora</i> (nearby)			✓
				<i>Stylidium breviscapum</i>	19		✓	<i>Drosera sp.</i>			✓
				<i>Colesia sp.</i> (NY 12/20)	20	Nov	✓				
				<i>Dampiera lavandulaceae</i>	21	✓	✓	<i>Millotia tenuifolia</i> var. <i>tenuifolia</i>			✓
				<i>Drosera malacantha</i>	22		✓	<i>Podotrocha angustifolia</i>			✓
				<i>Stylidium</i>	23		✓	<i>Pterochaeta paniculata</i>			✓
				<i>Goodenia caerulea</i>	25		✓	<i>Stylidium leptophyllum</i> (app)		Nov	✓
				<i>Opercularia vaginata</i>	26	✓	✓	<i>Shoenus nanus</i>			✓
				<i>Hypochaeris glabra</i>	45		✓	<i>Beaufortia bracteata</i>			✓
				<i>Stylidium</i> (not sp.)			✓	Coll. Steph. Mc Birney 20/11/98			✓
				<i>Halosperma demissum</i>							

P.T.O.

ADJ only

NY 12

74 species incl 6 weeds
+ 6 adjacent

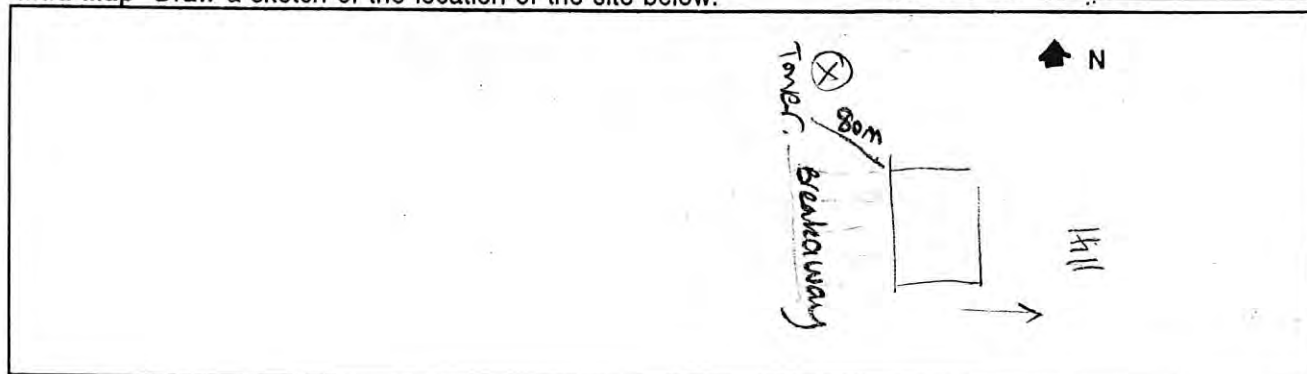
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NY13
 DATE TRIP 11-10-98 RECORDERS Neil, Jenifer, Alice, Mary,
 DATE TRIP _____ RECORDERS Brian, Mary,
 DATE TRIP _____ RECORDERS _____
 BOTANIST Neil

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



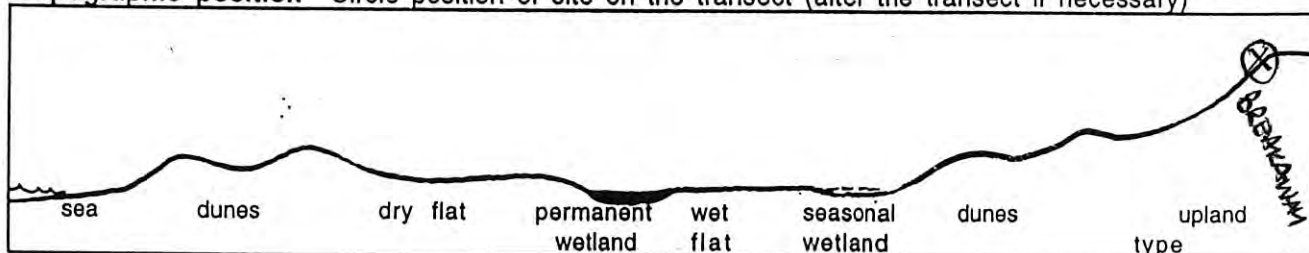
Road Location

Geographic Location Latitude 32° 38' 52.0" S Longitude 117° 18' 58.3" E Altitude 1583 ft + 145

Reference Map

Photograph Photographer's Name Neil Gibson Photo No 24

Topographic position Circle position of site on the transect (alter the transect if necessary) BRIAN 32



2. SITE DATA Circle the correct response.

Slope flat gentle (steep) Aspect N NE (E) SE S SW W NW

Surface Soil SANDY CLAY Colour BROWN
 Exposed rock type LATERITE 20 % surface

Sub-surface Soil SANDY CLAY Colour BROWN
 Rock type LATERITE depth to rock to 30cm

Drainage (well) mod poor depth water cm Wet all year winter/spring

Litter 25 % cover
 Depth max 5 cm Bare Ground less than 10% % cover

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class	2-10%	10-30%	30 - 70%	over 70%
-------------	-------	--------	----------	----------

TREES						MALLEES	
	over 30m	10 - 30m	under 10m	over 8m	under 8m		
LIFE FORM						30m	10m
COVER CLASS (%)			2-10%				
DOMINANT SPECIES			<i>Allocasuarina hugliana</i>				
			<i>Eucalyptus</i>				
SHRUBS				SHRUBS			
	over 2m	2m - 1m	under 1m				
LIFE FORM						2m	1m
COVER CLASS (%)		Ca 10-30%	10-30%				
DOMINANT SPECIES		<i>Calotranus quadrifidus</i>	<i>Dryandra nivea</i>				
		<i>Pharbitis</i>					
		<i>Allocaena humilis</i>					
GRASSES		HERBS		SEDGES		OTHER	
LIFE FORM							1m
COVER CLASS (%)		2-10%	2-10%				
DOMINANT SPECIES		<i>Dampiera</i>	<i>Gahnia australis</i>				
		<i>Clypeocarpus</i>					

4. VEGETATION CONDITION

VEGETATION CONDITION		COMMENTS
1	'PRISTINE'	
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

Really good condition

% WEED COVER
"Bigger all"
As quoted by Neil

5. SPECIES PRESCENCE

Date 11-10-98

5.11.98. → 74 on.

Record on Sheet

- Column 1 plant name
- Column 2 plant number
- Column 3 flowering time
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES				No	FI	ID	Herb SHRUBS (cont.)				No	FI	ID	HERBS (cont.)				No	FI	ID
<i>Allocasuarina huegeliana</i>	1		✓	<i>Rhodanthe laevis</i>	61	✓		<i>Lawrencella rosea</i>	33	✓	✓									
<i>Eucalyptus eremophila</i>	2		✓	<i>Lepidosperma costale</i>	63	✓	✓	<i>Tachypnea pilosa</i>	34		✓									
<i>Eucalyptus capillosa phaeophyllata</i>	3		✓	<i>Pterostalis vitata</i>	65	✓	✓	<i>Phyllanthum pardoxa</i>	35											
				<i>Helichrysum leucopsidium</i> (Gill) G.	68	✓	✓	<i>Hydrocotyle callicarpa</i>	36	A	✓									
								<i>Paranthesia microphylla</i>	37		✓									
MALLEES								<i>Drosera</i> sp. clunensis (intense)	38		✓									
				<i>*Hordeum leptorhizon</i>	80	✓	✓	<i>Spartularia vaginata</i>	39	-	✓									
				GRASSES				<i>Ursinia antiochoides</i> *	40	✓	✓									
				<i>Newmannia alopecuroides</i>	46	✓	✓	<i>Drosera rosette</i>	41											
				<i>Aira campophylla</i>	48		✓	<i>Podochilus angustifolia</i>	42	✓	✓									
SHRUBS				<i>Austrodanthonia setacea</i>	51	✓	✓	<i>Caladenia elegans falcata</i>	43	✓	✓									
<i>Colmaninus quadrifidus</i>	4	✓	✓	<i>Austrostipa campylachne</i>	52	✓	✓	<i>Walterbergia</i> sp. 2 preissii	44		✓									
<i>Hakea trifurcata</i>	5		✓	<i>Austrodanthonia caespitosa</i>	58	✓	✓	<i>SEDGES</i>	45	✓	✓									
<i>Tetratheca confertifolia</i>	6	✓	✓	<i>Poa drummondiana</i>	64	✓	✓	<i>Diuris corymbosa</i>	47		✓									
<i>Allocasuarina humilis</i>	7		✓	<i>Austrostipa elegantissima</i> NIS	74			<i>Conardia spicrantha</i>	49		✓									
<i>Bittardiera breclaus</i>	8		✓	<i>Vulpia myuros</i> NIS	75			<i>Anagallis Avenis</i> blue	50	+	✓									
<i>Leucopogon</i> "Nyamolin Farm Nyazir"	9	✓	✓	<i>Austrostipa campylachne</i>	77		✓	<i>Lagenophora hugelii</i>	51		✓									
<i>Nannia obovata</i> orange	10	✓	✓	HERBS				<i>Stenoserpa drummondii</i>	55	✓	✓									
<i>Dryandra nivea</i> subs. <i>nivea</i>	11	✓	✓	<i>Glistocarpum aureum</i> yellow	19	✓	✓	<i>Millotia tenuifolia</i> var. <i>tenuifolia</i>	57	✓	✓									
<i>Hakea lissocarpha</i>	12		✓	<i>Crostylis setigera</i> yellow	20	✓	✓	<i>Crassula colorata</i>	59	✓	✓									
<i>Hakea comutata</i> yellow	13	✓	✓	<i>Podochilus carosensis</i>	22		✓	<i>Chamaexeros setra</i>	60	A	✓									
<i>Bibertia pungens</i>	14		✓	<i>Tachypnea ornata</i>	23	Pt	✓	SEDGE												
<i>Asplenium serratifolium</i> var. <i>placidum</i>	15		✓	<i>Drosera macrantha</i> glab. m. aurantha	24	✓	✓	<i>Gahnia australis</i>	52		✓									
<i>Dampiera lavenderacea</i>	16		✓	<i>Dampiera lindleyi</i> blue	25	✓	✓	<i>Tetraria capitata</i>	53		✓									
<i>Acacia chryscephala</i>	17		✓	<i>Caesia</i> sp. alfordii	26		✓	<i>Lepidosperma</i> sp. aff. <i>scabrum</i>	62	✓	✓									
<i>Hovea trispinea</i>	18		✓	<i>Shradium tenacissimum</i> (Pty)	27	✓	✓	<i>Lepidosperma leptostachyum</i>	79		✓									
<i>Allua pulchella</i> var. <i>purpurella</i>	21	✓	✓	<i>Chamaescilla corymbosa</i>	28		✓													
<i>Gompholobium marginatum</i>	52	✓	✓	<i>Shradium schizoides</i>	29	✓	✓	ADJACENT												
<i>Hemiandra podalyria</i>	62	✓	✓	<i>Shradium repens</i> gray	30		✓	<i>Leptospermum rubescens</i>	66	✓	✓									
<i>Isotropis drummondii</i>	70	✓	✓	<i>Shradium repens</i> pusilla	31		✓	<i>Echianthus biloba</i>	67	✓	✓									
<i>Pronaya fraseri</i>	84	✓	✓	<i>Walterbergia</i> sp. Preissii	32		✓	<i>Xanthosia</i> aff. <i>atkinsoniana</i>	68	Quil										

two specs tagged together

Tetrahena retrorsa 69 ✓✓

NYM13

55 species incl 11 weeds.

plus 1 adj.

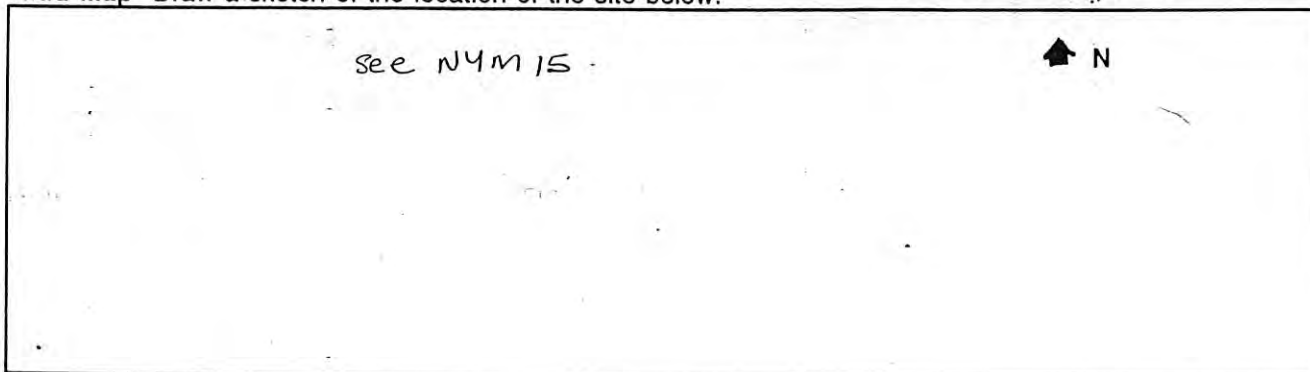
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYA 14, NYAMUTIN SITE NUMBER NYA14
 DATE TRIP 11-10-98 RECORDERS Anne Bellman
 DATE TRIP _____ RECORDERS Diane & Gary Matthews
 DATE TRIP _____ RECORDERS Rosemary Graham
 BOTANIST Logan Anderson

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

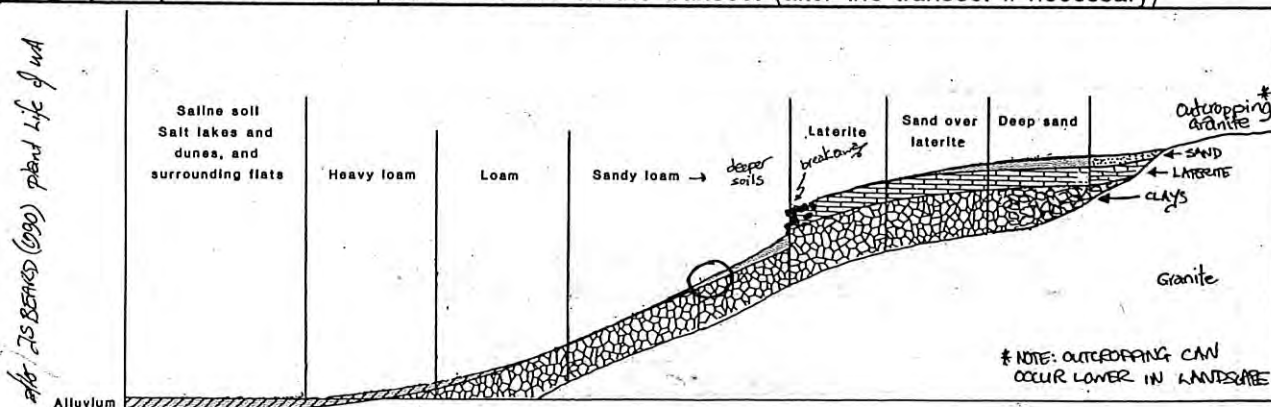


Road Location

Geographic Location Latitude 32° 38' 80.2" S Longitude 117° 18' 68.0" E Altitude 1212'
 Reference Map 32° 38' 48.1" 117° 18' 40.8"

Photograph 33 Photographer's Name Brian Moyle Photo No 33

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW
 Surface Soil Sand Colour grey
 Exposed rock type granite < 1 % surface
 Sub-surface Soil Colour
 Rock type depth to rock
 Drainage well mod poor depth water cm Wet all year winter/spring
 Litter > 70 % cover Bare Ground < 2 % cover
 Thick under wandoo Depth cm

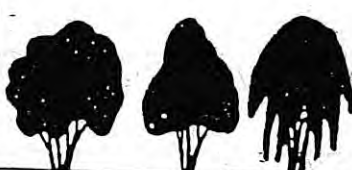
BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below), and dominant species in each layer.

Cover Class	2-10%	10-30%	30 - 70%	over 70%
-------------	-------	--------	----------	----------

TREES						MALLEES		
	over 30m	10 - 30m	under 10m	over 8m	under 8m			
LIFE FORM						30m	10m	
COVER CLASS (%)		10-30	10-30		< 2%			
DOMINANT SPECIES		<i>E. wandoo</i> <i>capillata</i>	<i>Allocasuarina</i> <i>huegeliana</i>		<i>Acacia</i>			
SHRUBS								
	over 2m	2m - 1m	SHRUBS under 1m					
LIFE FORM					2m	1m		
COVER CLASS (%)			< 2%					
DOMINANT SPECIES			<i>Hakea</i>					
GRASSES								
	GRASSES	HERBS	SEDGES	OTHER				
LIFE FORM								1m
COVER CLASS (%)	2-10	30-70	10-30					
DOMINANT SPECIES	<i>Briza</i> <i>maxima</i>	<i>Asteraceae</i>	<i>Loxycarya</i> <i>Desmodium asper</i>					

4. VEGETATION CONDITION

WEEDS - % COVER

Trees / Mallards	%	COMMENTS
Shrubs	%	
Grosses 10	~~10~~ %	
Herbs 10	%	
Sedges	%	

VEGETATION CONDITION SCALE

VEGETATION CONDITION SCALE		COMMENTS
1	'PRISTINE'	
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	✓
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESCENCE

SITE No Ny9 14
Date 11-10-98
5.11.98.

Label each plant with plants number, site code, date and plant's name or working name if required
Record on Sheet

- Column 1 plant name.
- Column 2 plant number
- Column 3 flowering time- COLOUR if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES				SHRUBS (cont.)				HERBS (cont.)			
No	FI	ID		No	FI	ID		No	FI	ID	
1		✓	<i>Eucalyptus capillosa</i> ssp. <i>capillosa</i>	54	✓	✓	<i>Phyllostachys declinata</i> = 18?	22	✓	✓	<i>* Ursinia anthemoides</i>
2		✓	Mistletoe (in wandoo)	55	✓	✓	<i>Hyaloparrha damisium</i>	23	✓	✓	<i>Oxalis coreanensis</i>
3		✓	<i>Acacia</i> sp. - <i>A. microbotrys</i>	56		✓	<i>Trichodina (not in table - var)</i>	24	✓	✓	<i>Lagotis huagelii</i>
4		✓	<i>ALLOCASUARINA huegeliana</i>				T. sp. 'Nyamutin' (NYM14) 56	25	✓	✓	<i>Helichrysum leucopsideum</i>
			<i>Amymma muvelli</i> ;	58		✓	<i>Trachymene cyanopetala</i> n.s.	26	✓	✓	<i>Boraginaceae sphaerocephala</i>
			MALLEES	59		✓	<i>Isotoma hypochrysantha</i> n.s.	27	✓	✓	<i>Blennospora drummondii</i>
							<i>Arthropodium capillipes</i>	28	✓	✓	<i>Drosera maculata</i>
				57	✓	✓	<i>Bromus diandrus</i>	29	✓	✓	<i>Centrolepis pilosa</i>
							GRASSES	30	✓	✓	<i>Grassula closiana</i>
				10	✓	✓	<i>Neurachne alopecuroides</i>	32	or	✓	<i>Drosera standishiana</i>
				16	✓	✓	<i>* Briza major maxima</i>	33	✓	✓	<i>Isotoma reynoldsii</i>
			SHRUBS	37	✓	✓	<i>Sedum A. r. canaphyllea</i>	34	✓	✓	<i>Siloxerus multiflorus</i>
			<i>Haakea tessellata</i> 5	36	✓	✓	tiny grass <i>Vulpia myuros</i>	38	✓	✓	<i>Levenhookia pusilla</i>
				39	✓	✓	<i>Avena barbata</i>				SEDGES
				42	✓	✓	<i>Austrostipa sp. trichophylla</i> (n.s.)	12	✓	✓	<i>Desmodium asper</i>
				45	✓	✓	<i>Austrostipa elegantissima</i>	31	✓	✓	<i>Centrolepis drummondiana</i>
				52	✓	✓	<i>Vulpia myuros</i> n.s.	35	✓	✓	<i>Aphelia brizula</i>
				53	✓	✓	<i>Austrodanthonia acerosa</i>	43	✓	✓	<i>Lomandra s.r. sedge</i>
							HERBS	50	✓	✓	<i>Trachymene cyanopetala</i>
				6	✓	✓	<i>Sowerbaea laxiflora</i>	56	✓	✓	<i>Homaloscladum homalocarpum</i>
				7	✓	✓	<i>Stachys laniflora</i>				
				8	✓	✓	<i>Blue Litsea (in bud)</i>	63	✓	✓	<i>Lepidosperma costale</i>
				9	✓	✓	<i>Caladenia falcata</i> (fringed)				
				11	✓	✓	<i>Parentocella latifolia</i>				
				13	✓	✓	<i>Podolepis lessonii</i> (n.s.)				
				14	✓	✓	<i>Lamproloma rosea</i>	49	✓	✓	<i>Ophioglossum lusitanicum</i>
				15	✓	✓	<i>Siloxerus multiflorus</i>	48	✓	✓	<i>Levenhookia stipitata</i>
				17	✓	✓	<i>Chamaecrista (fruit)</i>	47	✓	✓	<i>Thysanotus patersonii</i> Purple fl.
				18	✓	✓	<i>Isotoma hypochrysantha</i>	46	✓	✓	<i>Sporidium calcareatum</i>
				19	✓	✓	<i>Drosera sp. n. s. r. lla</i>	44	✓	✓	<i>* Romulea (budding)</i>
				20	✓	✓	<i>Anagallis grisea</i>	41	✓	✓	<i>Spider orchid (unfringed)</i>
				21	✓	✓	<i>Greenhood</i>	40	✓	✓	<i>Hypochaeris (bud)</i>
							<i>(Pterostylis vittata)</i>				glabra

NYM14

389ppm. 14 weeds,
+ 12 adjacent

BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NY 15

DATE TRIP 11-10-98 RECORDERS A.G. S.G. D.G. V.N. J.K.

DATE TRIP _____ RECORDERS _____

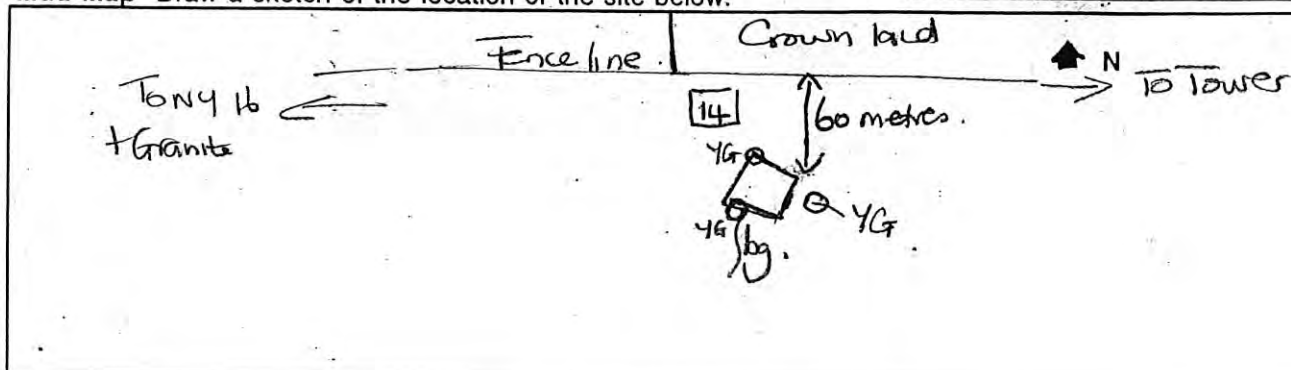
DATE TRIP _____ RECORDERS _____

BOTANIST _____

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.



Road Location

Geographic Location Latitude 32° 38' 798 S Longitude 117° 18' 723 E Altitude 1263.140

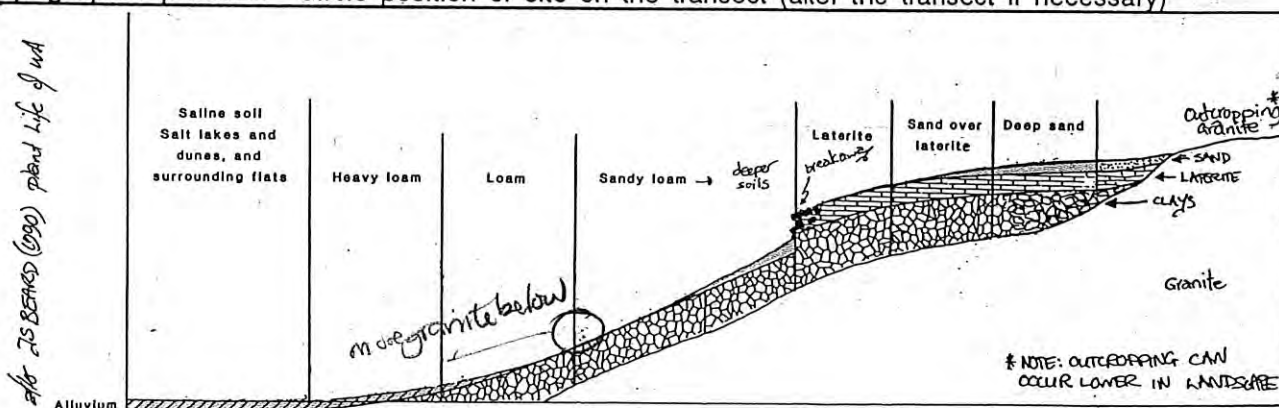
Reference Map

32° 38' 47.9"
117° 18' 43.4"

Photograph Photographer's Name

Photo No 34

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope flat gentle steep Aspect N NE E SE S SW W NW

Surface Soil Sandy / gravelly / loam Colour Dark brown

Exposed rock type Granite Surrounding % surface

Sub-surface Soil Colour

Rock type depth to rock

Drainage well mod poor depth water cm Wet all year winter/spring

Litter 60%T % cover Depth 1 cm Bare Ground <10% % cover

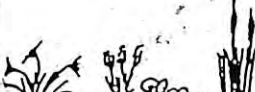
BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

TREES					
	over 30m	10-30m	under 10m	MALLEES over 8m	under 8m
LIFE FORM					
COVER CLASS (%)			(40-50) 30-70		
DOMINANT SPECIES			Eucalyptus Allocasuarina	rough barked crown.	
SHRUBS					
	over 2m	2m-1m	SHRUBS under 1m		
LIFE FORM					
COVER CLASS (%)		< 2%	< 2%		
DOMINANT SPECIES		Acacia pulchella.	Grevillea		
GRASSES HERBS SEDGES OTHER					
LIFE FORM					
COVER CLASS (%)	> 10% (10-18%)	15%	< 2%		
DOMINANT SPECIES	Arra camp.	Podobasis Aragallus artemis	Desmodium flexuosus.		

4. VEGETATION CONDITION

WEEDS - % COVER		
	% COVER	
Trees/Mallees	%	COMMENTS Arra - Aragallus, Urtica
Shrubs	%	
Grasses	near 10%	
Herbs	2%	
Sedges	%	

VEGETATION CONDITION SCALE		
1	'PRISTINE'	COMMENTS (Ann) my crew
2	EXCELLENT	
3	VERY GOOD ✓	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

SITE No	N415
Date	11/10/98
	6/11/98

Record on Sheet

- Column 1 plant name
- Column 2 plant number
- Column 3 flowering time- *colour* ☒ if species flowering
- Column 4 identification check

From '*Bushland Plant Survey*' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No.	FI	ID	SHRUBS (cont.)	No.	FI	ID	HERBS (cont.)	No.	FI	ID
Eucalyptophleba ssp loxophtela	1		✓					Dioscorea uivillei	23		✓
Allorodanthe hugeliana	2		✓	*Bomus diandrus	42	-	✓	Glenospora drummondii	24	✓	✓
MALLEES				*Brumia rubens	40		✓	Calandrinia calyptrata	26		✓
				*Briza minor	39		✓	Wahlenbergia preissii	24		✓
				GRASSES				Microtis Prasophyllum gracile	35		✓
				*Ara carpophylla	27		✓	Tinytimber MISSING	37		-
				Neritochloa oligacuminodes	28		✓	Oreocladus	41		
SHRUBS				Austrostylis sp variabilis	29		✓	Trichoclinae Nymphaea (NYA 14-15)	43		✓
Acacia pulchella var pulchella	3	✓	✓	*Vulpia (Label found) V. rugulos	30		✓	In folium canicentris	44		✓
Hakea lasiocarpa	4		✓	Briza maxima	31		✓	Gossardie x puchella	45		✓
Hibbertia commutata	5		✓	*Einhartia longifolia	32		✓	SEDGES			
Acacia microbotrys	6		✓	Austrastyle elegantissima	33		✓	Desmodiadus asper	8		✓
Hakea prostrata	7		✓	Australanthonia caespitosa	36		✓	*Isoplepis marginate	25		✓
Gastrolobium (Hoik Rd) parviflorum(GOTC)	11		✓	Australanthonia spp.	38		✓				
Aralia serratifolia ? (seedling) n/s			✓	HERBS							
				Peltandra lewisii ~~serratifolia?~~	9	Pink		+ADJ Austrostylis trachophylla			✓
				Podolepis lessonii	10		✓	Calystix leschenaultii			✓
				Stalkhausia monogyna	12		✓	Gastrolobium spinosum var spinosum			✓
				*Urtica nemoralis	13		✓	ADJ			
				Lagenaria huggeli	14		✓	Thysanotus (granulifer thysander)	Ru		✓
				*Anagallis arvensis	15		✓	Tricholine sp Nymphaea (NYA 14-15)			✓
				*Hypochoeris glabra	16		✓	Galadania integrifolia n.s.			
				Thysanotus patersonii	17		✓	Velleia trinervis	x		✓
				Deltopogon capillipes	18		✓	Frosera subnervosa ssp subnervosa	y		✓
				*Parentucellia latiloba	19		✓	Lawrencella rosea	p		✓
				Oxalis perennans	20		✓	Sowerbaea oxipora	Ru		✓
				*Arctostaphylos calendula	21		✓	Caesia alfordii			✓
				Velleia + Trinervis	22	y	✓				

Stylidium colorata
Stylidium calcaratum ad? ✓
Gould's Grass
= Gould's grass.

NYM15

20 species incl 4 weeds
plus 10 adjacent (incl 1 weed)

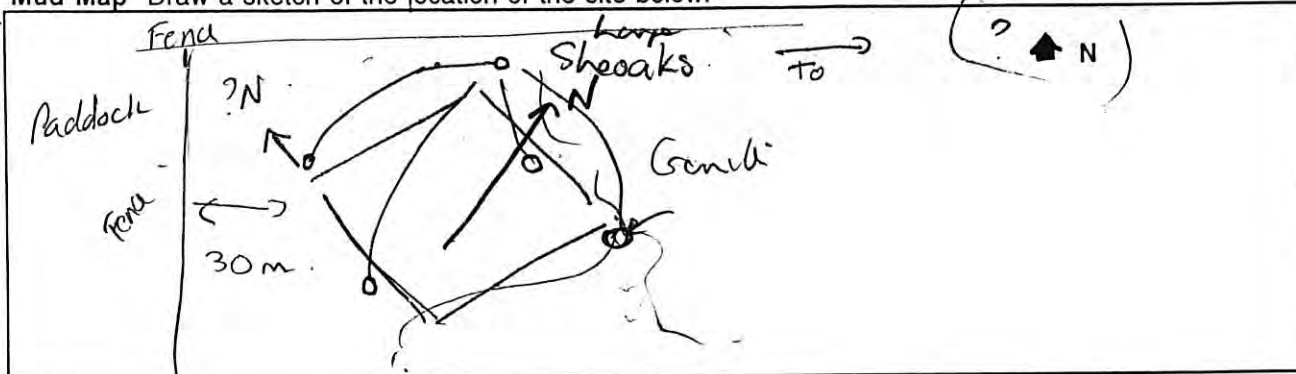
BUSHLAND PLANT SURVEY RECORDING SHEET 1- use pencil only

BUSHLAND AREA NYAMUTIN FARM SITE NUMBER NY 16
DATE TRIP 11/10/98 RECORDERS Mark Brundrett Karen Clarke
DATE TRIP 11/10/98 RECORDERS Maureen Atken Margaret Collins
DATE TRIP 11/10/98 RECORDERS + Ted
BOTANIST

1. LOCATION of the QUADRAT

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

Mud Map Draw a sketch of the location of the site below.

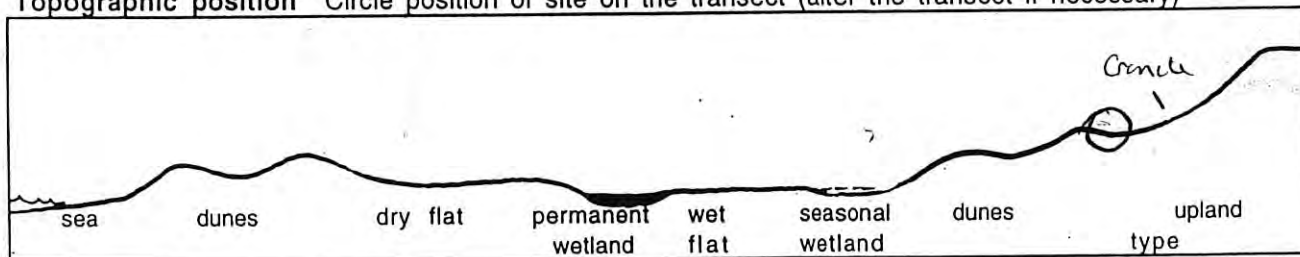


Road Location ?

Geographic Location Latitude 32° 38' 784 S Longitude 117° 18' 557 E Altitude 1311 ± 196
Reference Map 32° 38' 47" S 117° 18' 33.4" E

Photograph Photographer's Name Brian Mayhew Photo No 35

Topographic position Circle position of site on the transect (alter the transect if necessary)



2. SITE DATA Circle the correct response.

Slope	flat	<u>gentle</u>	steep	Aspect	N	NE	E	SE	S	SW	W	NW
Surface Soil	<u>Coarse Sandy loam</u>			Colour	<u>Dark Brown</u>							
Exposed rock	<u>type Gravel</u>			% surface	<u>20-30%</u>							
Sub-surface Soil	<u>Coarse Sandy loam</u>			Colour	<u>light grey</u>							
Rock	<u>type Gravel</u>			depth to rock	<u>0-30cm</u>							
Drainage	<u>well</u>	mod	poor	depth water	cm	Wet		all year		winter/spring		
Litter	<u>98%</u>			% cover								
Depth	<u>2-5</u>			cm								
Bare Ground	<u>< 2</u>			% cover								

BUSHLAND PLANT SURVEY RECORDING SHEET 2 - use pencil only

3. VEGETATION STRUCTURE AND COVER

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

For each layer record - appropriate life form, cover class (see below) and dominant species in each layer.

Cover Class 2-10% 10-30% 30-70% over 70%

		TREES			MALLEES	
		over 30m	10-30m	under 10m	over 8m	under 8m
LIFE FORM						
COVER CLASS (%)		—	30-70	2-10%	—	—
DOMINANT SPECIES			<i>Allocasuarina</i>	<i>Allocasuarina</i> saplings		
		SHRUBS		SHRUBS		
		over 2m	2m-1m	under 1m		
LIFE FORM						
COVER CLASS (%)		2-10%	—	—		
DOMINANT SPECIES		<i>Hakea petiolaris</i> (lots dead) <i>Dodonea viscosa</i> ssp. ang.				
		GRASSES	HERBS	SEDGES	OTHER	
LIFE FORM						
COVER CLASS (%)		2-10%	2-10%	30-70	—	
DOMINANT SPECIES		Specimen taken <i>Austrostipa elephas</i>	<i>Stypandra</i> Ferns Orchids	1 dominant sp. Specimen taken		

4. VEGETATION CONDITION

1	'PRISTINE'	COMMENTS % WEED COVER 0%
2	EXCELLENT	
3	VERY GOOD	
4	GOOD	
5	DEGRADED	

BUSHLAND PLANT SURVEY RECORDING SHEET 3 - use pencil only

5. SPECIES PRESENCE

SITE No NY16

Date 11/10/98

5.11.98

Label each plant with plants number, site code, date and plant's name or working name if required

Record on Sheet

- Column 1 plant name-
- Column 2 plant number
- Column 3 flowering time- ~~YES~~ if species flowering
- Column 4 identification check

From 'Bushland Plant Survey' written by B. Keighery (1994) and published by the Wildflower Society of WA (Inc.), PO Box 64 Nedlands WA 6008.

TREES	No	FI	ID	SHRUBS (cont.)	No	FI	ID	HERBS (cont.)	No	FI	ID
<i>Allocasuarina</i> spp	1							* <i>Trifolium</i> sp. (infr)	21		✓
<i>huegeliana</i>			✓					* <i>Trifolium subterraneum</i>	22		✓
								<i>Calandrinia calyptata</i>	23		✓
								<i>Crassula decumbens</i>	24		✓
								Small grass <i>Vulpia myuros</i>	25		✓
								Green Rattle herb	26		
								<i>Dianella</i> (not collected)	27		
MALLEES				GRASSES				<i>Pterostylis vittata</i> NIS =			
				Grass (dominant)				<i>Caladenia flava</i> NIS = 17			
				= <i>Austrostipa elegantissima</i>	7		✓				
SHRUBS				<i>Araucophyllea</i>							
<i>Hakea petiolaris</i>	2		✓								
<i>Dodonea viscosa</i> ssp <i>angustissima</i>	3		✓					SEDGES			
<i>Acacia linearis</i>	4	✓	✓					<i>Lepidosperma brunnianum</i>	6		✓
								<i>Lepidosperma costale</i>	8		✓
<i>Crassula exserta</i> (ADJ)			✓	HERBS							
				<i>Styphandra</i> spp <i>glauca</i>	5	✓	✓	* <i>Thelymitra antennifera</i>			✓
				<i>Caladenia integra</i> NIS =	10		✓	opp <i>Pterostylis vittata</i>			✓
				Fern spp <i>Chellanthus austroferus</i>	9		✓	<i>Sowbacia laxiflora</i>		✓	✓
				<i>Thysanotus</i> spp <i>patersonii</i> ssp	11		✓	<i>Bulbine semibarbata</i>			✓
				<i>Drosera maculata</i> (finished flwing)	12		✓	Adjacent / Opp see bad			
				<i>Dianella revoluta</i>	13		✓	<i>Xanthorrhoea</i> (collected)			
				* <i>Hypochaeris glabra</i>	14	✓	✓	<i>Nicotiana rotundifolia</i>	Gr/4		✓
				<i>Pterostylis</i> spp <i>vittata</i>	15		✓	<i>Melaleuca radula</i>			✓
				Round leaf orchid <i>Pterostylis</i> sp	16		✓	* <i>Hypochaeris glabra</i>			✓
				Thin leaf orchid <i>Caladenia flava</i>	17		✓	* <i>Briza maxima</i>			✓
				Red <i>Calandrinia calyptata</i>	18		✓	<i>Dodonea viscosa</i> ssp (adj)			✓
				<i>Trachymene pilosa</i>	19	Wh	✓	<i>angustissima</i>			
				<i>Quinella</i> ?	20			<i>Araucophyllea</i>			✓
								<i>Drosera bulbosa</i>			✓

**Vulpia myuros*

Caladenia flava ssp *flava*

= *Prasophyllum gracile*

ADJ *Isoplexis marginata*

NYM16